APPENDIX B

MINING REPORT

GEOLOGICAL REPORT

The Coal Authority

Issued by:
The Coal Authority, Property Search Services, 200 Lichfield Lane, Berry Hill, Mansfield, Nottinghamshire, NG18 4RG
Website: www.groundstability.com Phone: 0845 762 6848 DX 716176 MANSFIELD 5

HAIGH HUDDLESTON & ASSOCIATES
99-101 LEEDS ROAD
DEWSBURY
WEST YORKSHIRE
WF12 7BU

Our reference:	**51000479169001**
Your reference:	**6049 riseholm**
Date of your enquiry:	**06 March 2014**
Date we received your enquiry:	**06 March 2014**
Date of issue:	**06 March 2014**

This report is for the property described in the address below and the attached plan.

Non-Residential Coal Authority Mining Report

WOMBWELL LANE, ALDHAM, BARNSLEY, SOUTH YORKSHIRE,

This report is based on and limited to the records held by, the Coal Authority, and the Cheshire Brine Subsidence Compensation Board's records, at the time we answer the search.

Coal mining	See comments below
Brine Compensation District	No

Information from the Coal Authority

Underground coal mining

Past

The property is in the likely zone of influence from workings in 7 seams of coal at 100m to 600m depth, and last worked in 1985.

Any ground movement from these coal workings should have stopped by now.

Present

The property is not in the likely zone of influence of any present underground coal workings.

Future

The property is not in an area for which the Coal Authority is determining whether to grant a licence to remove coal using underground methods.

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

The property is not in an area that is likely to be affected at the surface from any planned future workings.

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

No notice of the risk of the land being affected by subsidence has been given under section 46 of the Coal Mining Subsidence Act 1991.

All rights reserved. You must not reproduce, store or transmit any part of this document unless you have our written permission.
© The Coal Authority

Mine entries

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

Coal mining geology

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

Opencast coal mining

Past

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

Present

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

Future

The property is not within 800 metres of the boundary of an opencast site for which the Coal Authority is determining whether to grant a licence to remove coal by opencast methods.

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.

Coal mining subsidence

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

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

The 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

There is no record of a mine gas emission requiring action by the Coal Authority within the boundary of the property.

Hazards related to coal mining

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

Withdrawal of support

The property is in an area for which notices of entitlement to withdraw support were published in 1946, 1983.

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

Working facilities orders

The property is not in an area for which 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.

Payments to owners of former copyhold land

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

© The Coal Authority

Information from the Cheshire Brine Subsidence Compensation Board

The property lies outside the Cheshire Brine Compensation District.

Additional Remarks

This report is prepared in accordance with the Law Society's Guidance Notes 2006, the User Guide 2006 and the Coal Authority and Cheshire Brine Board's Terms and Conditions 2006.

The Coal Authority owns the copyright in this report. The information we have used to write this report is protected by our database right. All rights are reserved and unauthorised use is prohibited. If we provide a report for you, this does not mean that copyright and any other rights will pass to you. However, you can use the report for your own purposes.

Issued by:	The Coal Authority, 200 Lichfield Lane, Mansfield, Nottinghamshire, NG18 4RG
Tax Point Date:	06 March 2014
Issued to:	HAIGH HUDDLESTON & ASSOCIATES 99-101 LEEDS ROAD DEWSBURY WEST YORKSHIRE WF12 7BU
Property Search for:	WOMBWELL LANE, ALDHAM, BARNSLEY, SOUTH YORKSHIRE,
Reference Number:	51000479169001
Date of Issue:	06 March 2014
Cost:	£59.00
VAT @ 20%:	£11.80
Total Received:	£70.80
VAT Registration	598 5850 68

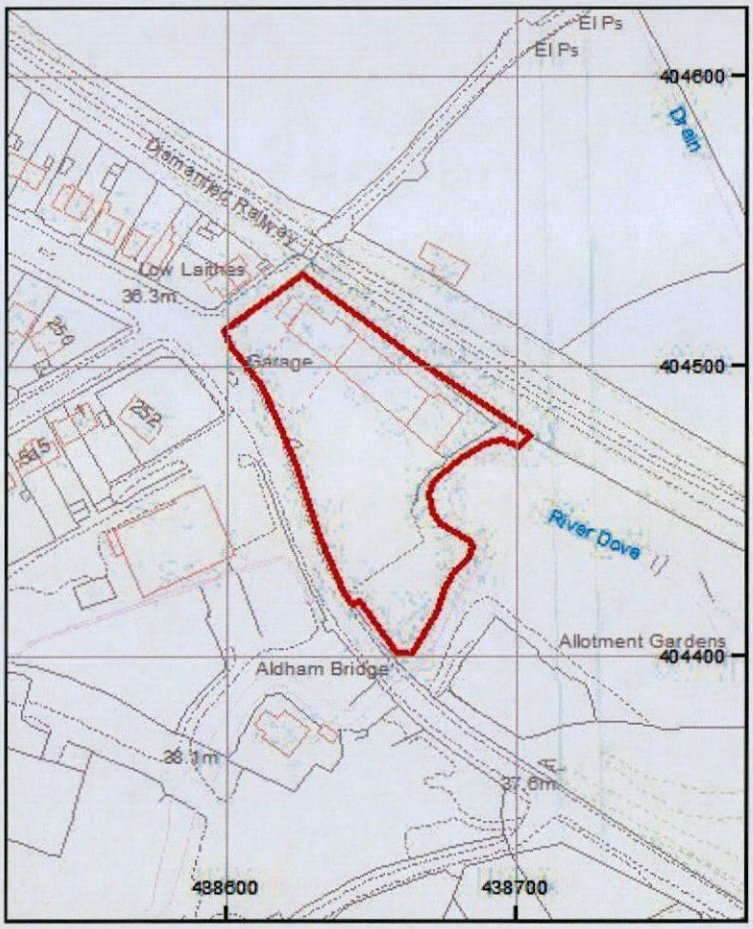
Location map

Approximate position of property



Enquiry boundary

Reproduced by permission of Ordnance Survey on behalf of HMSO. © Crown copyright and database right 2014. All rights reserved. Ordnance Survey Licence number: 100020315



Key

Approximate position of enquiry boundary shown

Mapping sourced from Ordnance Survey

Haigh Huddleston & Associates

99-101, LEEDS ROAD,
DEWSBURY , WF12 7BU

GroundSure Reference:	GS-1327070
Your Reference:	6049
Report Date	6 Mar 2014
Report Delivery Method:	Email - pdf

GroundSure Geoinsight

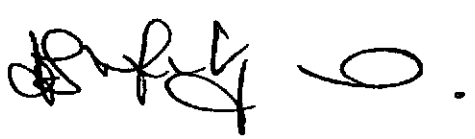
Address: WOMBWELL LANE,WOMBWELL,BARNSLEY, S73 8EQ

Dear Sir/ Madam,

Thank you for placing your order with GroundSure. Please find enclosed the **GroundSure GeoInsight** as requested.

If you need any further assistance, please do not hesitate to contact our helpline on 08444 159000 quoting the above GroundSure reference number.

Yours faithfully,



Managing Director
Groundsure Limited

Enc.
GroundSure GeoInsight

GroundSure GeoInsight

Address:	**WOMBWELL LANE,WOMBWELL,BARNSLEY, S73 8EQ**
Date:	**6 Mar 2014**
Reference:	**GS-1327070**
Client:	**Haigh Huddleston & Associates**

NW N NE



W E

SW S SE

Aerial Photograph Capture date:	11-Sep-2009
Grid Reference:	438653,404468
Site Size:	0.60ha

Contents Page

Contents Page 3
Overview of Findings 4
1 Geology 6
1.1 Artificial Ground Map 6
1.1 Artificial Ground 7
1.1.1Artificial/ Made Ground 7
1.1.2 Permeability of Artificial Ground 7
1.2 Superficial Deposits and Landslips Map 8
1.2 Superficial Deposits and Landslips 9
1.2.1 Superficial Deposits/ Drift Geology 9
1.2.2 Permeability of Superficial Ground 9
1.2.3 Landslip 9
1.2.4 Landslip Permeability 9
1.3 Bedrock and Faults Map 10
1.3 Bedrock, Solid Geology & Faults 11
1.3.1 Bedrock/ Solid Geology 11
1.3.2 Permeability of Bedrock Ground 11
1.3.3 Faults 11
1.4 Radon Data 13
1.4.1 Radon Affected Areas 13
1.4.2 Radon Protection 13
2 Ground Workings Map 14
2 Ground Workings 15
2.1 Historical Surface Ground Working Features derived from Historical Mapping 15
2.2 Historical Underground Working Features derived from Historical Mapping 16
2.3 Current Ground Workings 16
3 Mining, Extraction & Natural Cavities Map 18
3 Mining, Extraction & Natural Cavities 19
3.1 Historical Mining 19
3.2 Coal Mining 19
3.3 Johnson Poole and Bloomer 20
3.4 Non-Coal Mining 20
3.5 Non-Coal Mining Cavities 21
3.6 Natural Cavities 21
3.7 Brine Extraction 21
3.8 Gypsum Extraction 21
3.9 Tin Mining 21
3.10 Clay Mining 22
4 Natural Ground Subsidence 23
4.1 Shrink-Swell Clay Map 23
4.2 Landslides Map 24
4.3 Ground Dissolution Soluble Rocks Map 25
4.4 Compressible Deposits Map 26
4.5 Collapsible Deposits Map 27
4.6 Running Sand Map 28
4 Natural Ground Subsidence 29
4.1 Shrink-Swell Clays 29
4.2 Landslides 29
4.3 Ground Dissolution of Soluble Rocks 30
4.4 Compressible Deposits 30
4.5 Collapsible Deposits 30
4.6 Running Sands 31
5 Borehole Records Map 32
5 Borehole Records 33
6 Estimated Background Soil Chemistry 34

Overview of Findings

The GroundSure GeoInsight provides high quality geo-environmental information that allows geo-environmental professionals and their clients to make informed decisions and be forewarned of potential ground instability problems that may affect the ground investigation, foundation design and possibly remediation options that could lead to possible additional costs.

The report is based on the BGS 1:50,000 Digital Geological Map of Great Britain, BGS Geosure data; BRITPITS database; Shallow Mining data and Borehole Records, Coal Authority data including brine extraction areas, PBA non-coal mining and natural cavities database, Johnson Poole and Bloomer mining data and GroundSure's unique database including historical surface ground and underground workings.

For further details on each dataset, please refer to each individual section in the report as listed. Where the database has been searched a numerical result will be recorded. Where the database has not been searched '-' will be recorded.

Section 1:Geology		
1.1 Artificial Ground	1.1.1 Is there any Artificial Ground/ Made Ground present beneath the study site?	No
	1.1.2 Are there any records relating to permeability of artificial ground within the study site* boundary?	No
1.2 Superficial Geology and Landslips	1.2.1 Is there any Superficial Ground/Drift Geology present beneath the study site?	Yes
	1.2.2 Are there any records relating to permeability of superficial geology within the study site boundary?	Yes
	1.2.3 Are there any records of landslip within 500m of the study site boundary?	No
	1.2.4 Are there any records relating to permeability of landslips within the study site boundary?	No
1.3 Bedrock, Solid Geology & Faults	1.3.1 For records of Bedrock and Solid Geology beneath the study site* see the detailed findings section.	
	1.3.2 Are there any records relating to permeability of bedrock within the study site boundary?	Yes
	1.3.3 Are there any records of faults within 500m of the study site boundary?	Yes
1.4 Radon data	1.4.1 Is the property in a Radon Affected Area as defined by the Health Protection Agency (HPA) and if so what percentage of homes are above the Action Level?	The property is in a Radon Affected Area, as between 1 and 3% of properties are above the Action Level
	1.4.2 Is the property in an area where Radon Protection Measures are required for new properties or extensions to existing ones as described in publication BR211 by the Building Research Establishment?	No radon protective measures are necessary

Section 2:Ground Workings	On-site	0-50m	51-250	251-500	501-1000
2.1 Historical Surface Ground Working Features from Small Scale Mapping	0	5	10	Not Searched	Not Searched
2.2 Historical Underground Workings from Small Scale Mapping	0	0	3	2	4
2.3 Current Ground Workings	0	0	0	0	4

Section 3:Mining, Extraction & Natural Cavities	On-site	0-50m	51-250	251-500	501-1000
3.1 Historical Mining	0	0	3	2	4
3.2 Coal Mining	1	0	0	0	0
3.3 Johnson Poole and Bloomer Mining Area	0	0	0	0	0
3.4 Non-Coal Mining	1	0	2	3	5
3.5 Non-Coal Mining Cavities	0	0	0	0	1
3.6 Natural Cavities	0	0	0	0	0
3.7 Brine Extraction	0	0	0	0	0
3.8 Gypsum Extraction	0	0	0	0	0
3.9 Tin Mining	0	0	0	0	0
3.10 Clay Mining	0	0	0	0	0

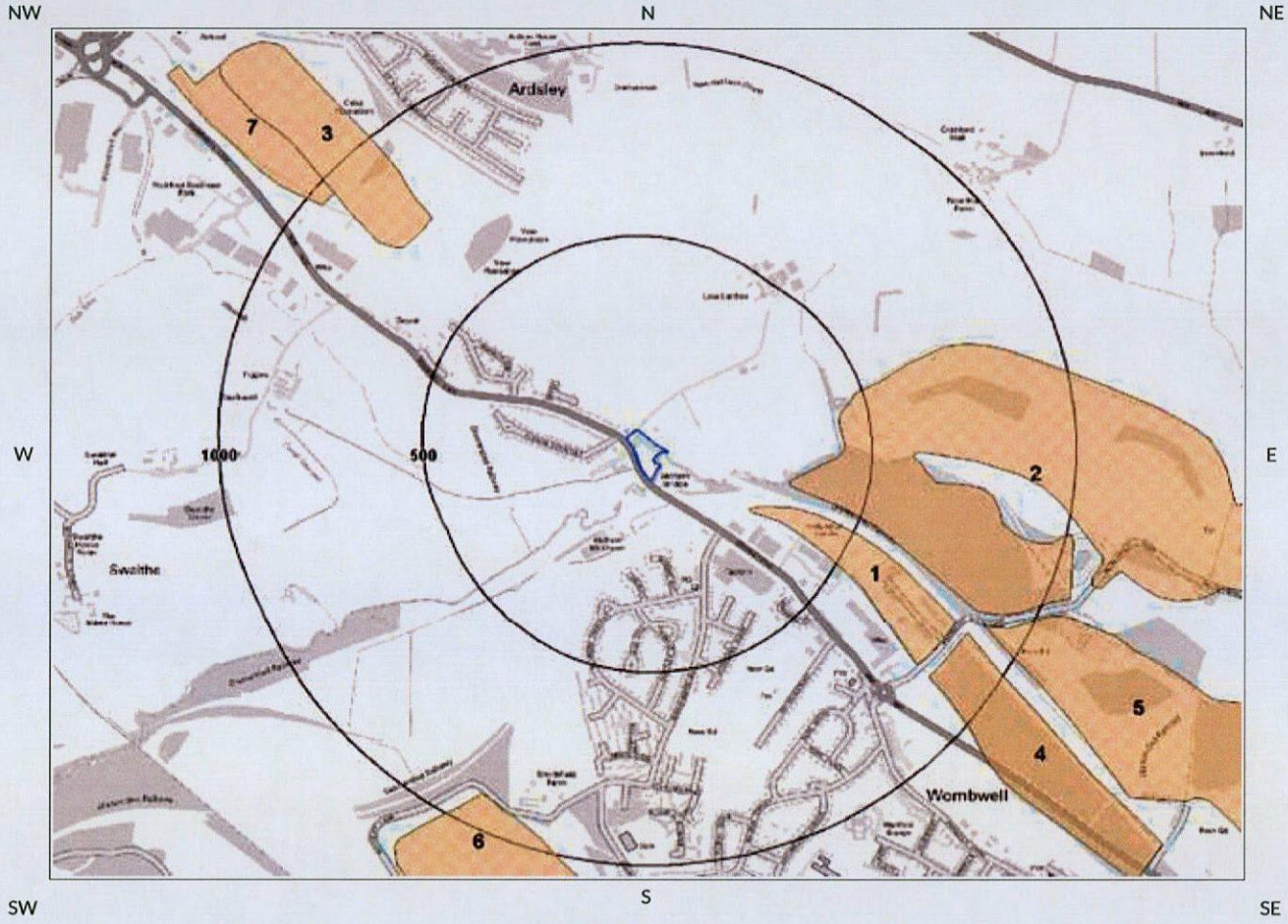
Section 4:Natural Ground Subsidence	On-site
4.1 Shrink Swell Clay	Low
4.2 Landslides	Low
4.3 Ground Dissolution of Soluble Rocks	Null
4.4 Compressible Deposits	Moderate
4.5 Collapsible Deposits	Very Low
4.6 Running Sand	Low

Section 5:Borehole Records	On-site	0-50m	51-250
5 BGS Recorded Boreholes	0	0	1

Section 6:Estimated Background Soil Chemistry	On-site	0-50m	51-250
6 Records of Background Soil Chemistry	2	0	3

1 Geology

1.1 Artificial Ground Map



Artificial Ground Legend

Mapping sourced from Ordnance Survey®

© Crown copyright and database rights 2013.
Ordnance Survey license 100035207.

Site Outline

500
1000
Search Buffers (m)

Made Ground (undivided)

Disturbed Ground (undivided)

Worked Ground (undivided)

Landscaped Ground (undivided)

Infilled Ground

Reclaimed Ground



1 Geology

1.1 Artificial Ground

1.1.1Artificial/ Made Ground

The following geological information represented on the mapping is derived from 1:50,000 scale BGS Geological mapping, Sheet No:087

Are there any records of Artificial/Made Ground within 500m of the study site boundary? Yes

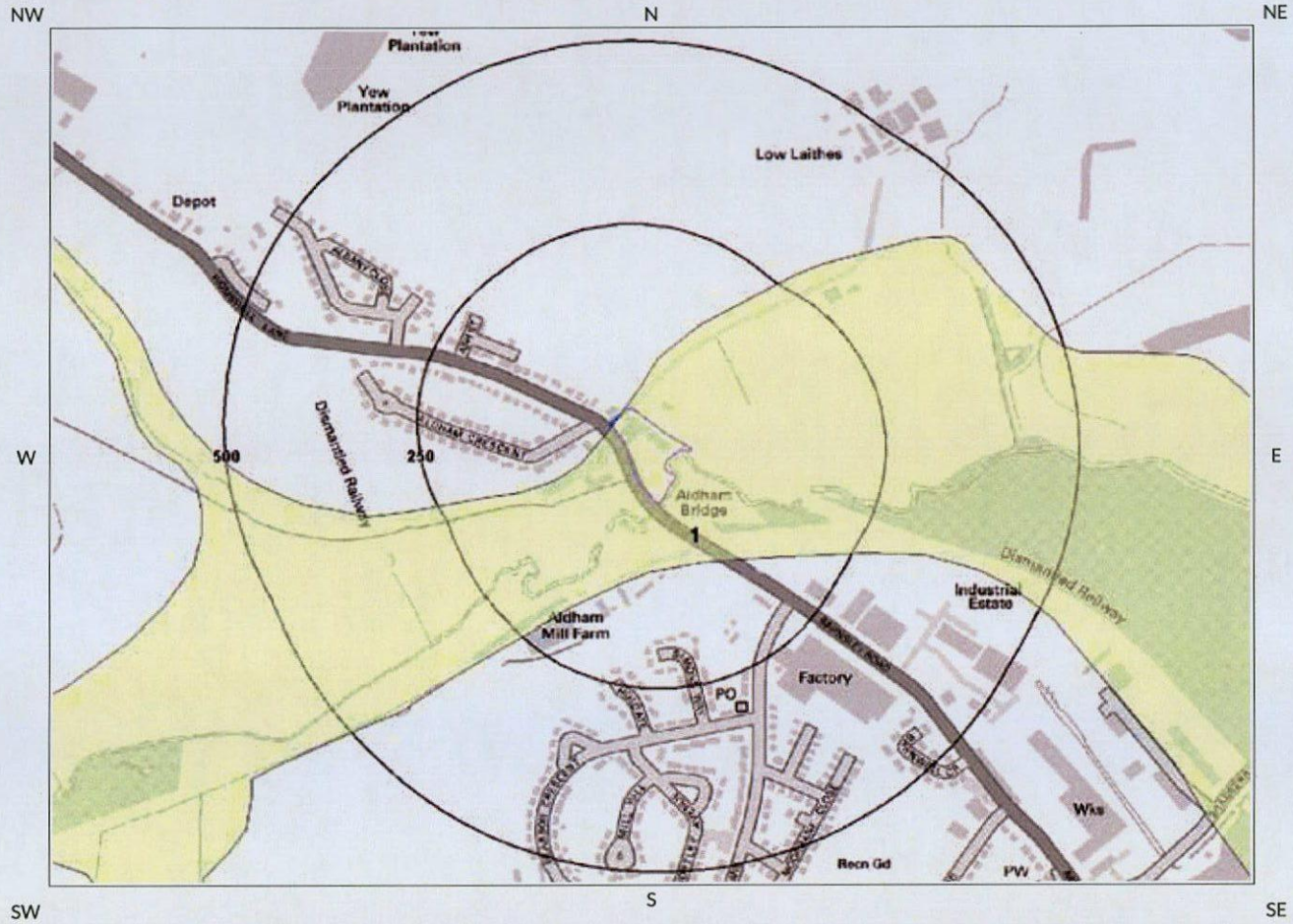
ID	Distance (m)	Direction	LEX Code	Description	Rock Description
1	246.0	SE	MGR-MGRD	MADE GROUND (UNDIVIDED)	ARTIFICIAL DEPOSIT
2	307.0	E	MGR-MGRD	MADE GROUND (UNDIVIDED)	ARTIFICIAL DEPOSIT

1.1.2 Permeability of Artificial Ground

Are there any records relating to permeability of artificial ground within the study site boundary? No

Database searched and no data found.

1.2 Superficial Deposits and Landslips Map



Superficial Deposits and Landslips Legend

Mapping sourced from Ordnance Survey

© Crown copyright and database rights 2013. Ordnance Survey license 100035207.

Site Outline

500
1000
Search Buffers (m)

1.2 Superficial Deposits and Landslips

1.2.1 Superficial Deposits/ Drift Geology

Are there any records of Superficial Deposits/ Drift Geology within 500m of the study site boundary? Yes

ID	Distance (m)	Direction	LEX Code	Description	Rock Description
1	0.0	On Site	ALV-CLSI	ALLUVIUM	CLAY AND SILT

1.2.2 Permeability of Superficial Ground

Are there any records relating to permeability of superficial ground within the study site boundary? Yes

Distance (m)	Direction	Flow Type	Maximum Permeability	Minimum Permeability
0.0	On Site	Intergranular	Low	Very Low

1.2.3 Landslip

Are there any records of Landslip within 500m of the study site boundary? No

Database searched and no data found.

This Geology shows the main components as discrete layers, these are: Artificial / Made Ground, Superficial / Drift Geology and Landslips. These are all displayed with the BGS Lexicon code for the rock unit and BGS sheet number. Not all of the main geological components have nationwide coverage.

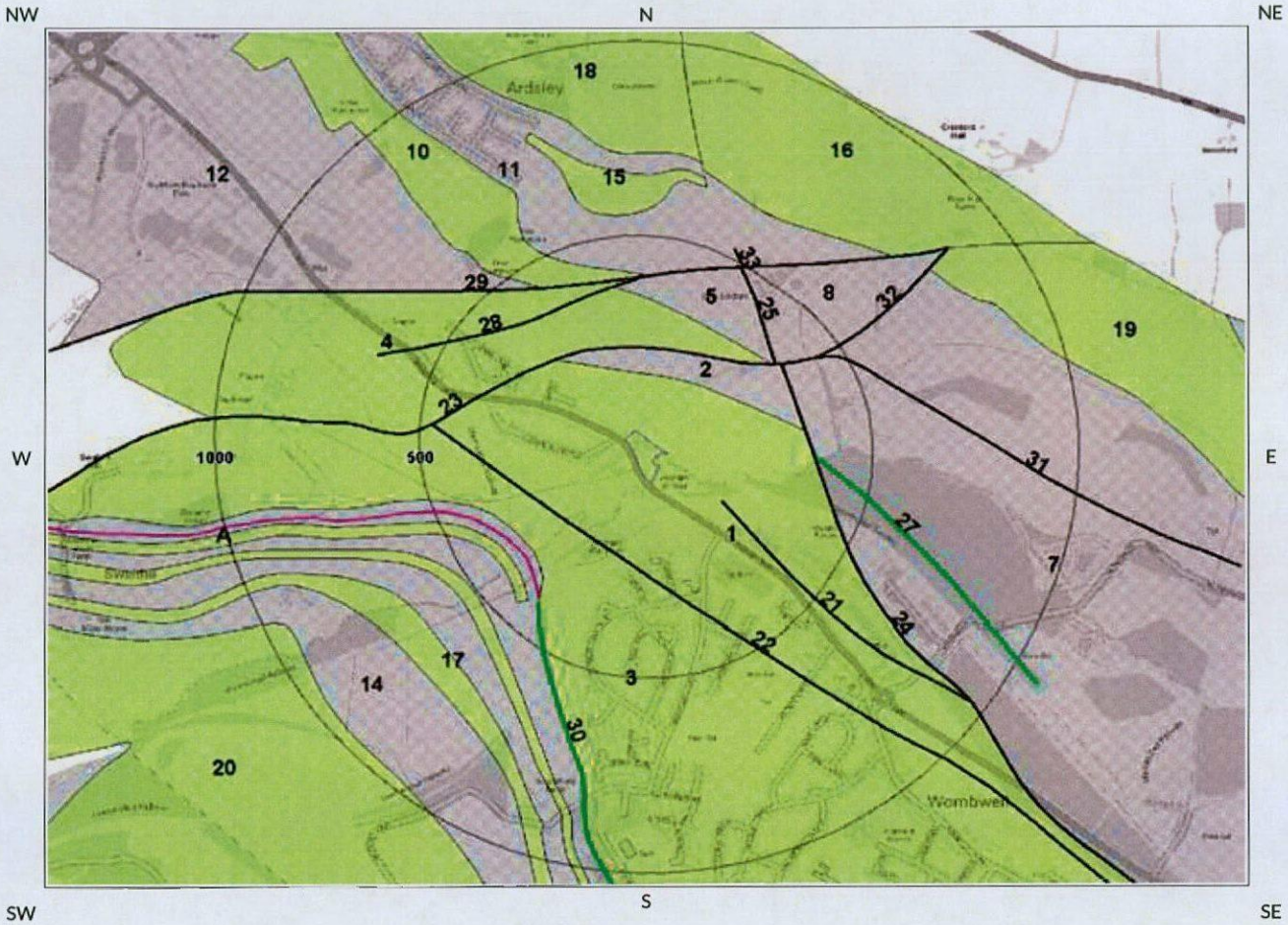
1.2.4 Landslip Permeability

Are there any records relating to permeability of landslips within the study site* boundary? No

Database searched and no data found.

* This includes an automatically generated 50m buffer zone around the site

1.3 Bedrock and Faults Map



Bedrock and Faults Legend

Mapping sourced from Ordnance Survey®

© Crown copyright and database rights 2013.
Ordnance Survey license 100035207.

Site Outline

500
1000
Search Buffers (m)

1.3 Bedrock, Solid Geology & Faults

The following geological information represented on the mapping is derived from 1:50,000 scale BGS Geological mapping, Sheet No:087

1.3.1 Bedrock/ Solid Geology

Records of Bedrock/ Solid Geology within 500m of the study site boundary:

ID	Distance (m)	Direction	LEX Code	Description	Rock Age
1	0.0	On Site	OR-SDST	Oaks Rock - Sandstone	Duckmantian (westphalian B)
2	147.0	N	PMCM-MDSS	Pennine Middle Coal Measures Formation - Mudstone, Siltstone And Sandstone	Bolsovian (westphalian C) / Duckmantian (westphalian B)
3	198.0	SW	OR-SDST	Oaks Rock - Sandstone	Duckmantian (westphalian B)
4	215.0	N	OR-SDST	Oaks Rock - Sandstone	Duckmantian (westphalian B)
5	317.0	NE	PMCM-MDSS	Pennine Middle Coal Measures Formation - Mudstone, Siltstone And Sandstone	Bolsovian (westphalian C) / Duckmantian (westphalian B)
6	329.0	SW	PMCM-MDSS	Pennine Middle Coal Measures Formation - Mudstone, Siltstone And Sandstone	Bolsovian (westphalian C) / Duckmantian (westphalian B)
7	337.0	E	PMCM-MDSS	Pennine Middle Coal Measures Formation - Mudstone, Siltstone And Sandstone	Bolsovian (westphalian C) / Duckmantian (westphalian B)
8	347.0	NE	PMCM-MDSS	Pennine Middle Coal Measures Formation - Mudstone, Siltstone And Sandstone	Bolsovian (westphalian C) / Duckmantian (westphalian B)
9A	384.0	SW	PMCM-SDST	Pennine Middle Coal Measures Formation - Sandstone	Bolsovian (westphalian C) / Duckmantian (westphalian B)
10	389.0	N	ACR-SDST	Ackton Rock - Sandstone	Bolsovian (westphalian C)
11	400.0	N	PMCM-MDSS	Pennine Middle Coal Measures Formation - Mudstone, Siltstone And Sandstone	Bolsovian (westphalian C) / Duckmantian (westphalian B)
12	427.0	NW	PMCM-MDSS	Pennine Middle Coal Measures Formation - Mudstone, Siltstone And Sandstone	Bolsovian (westphalian C) / Duckmantian (westphalian B)

1.3.2 Permeability of Bedrock Ground

Are there any records relating to permeability of bedrock ground within the study site* boundary? Yes

Distance (m)	Direction	Flow Type	Maximum Permeability	Minimum Permeability
0.0	On Site	Fracture	High	Moderate

1.3.3 Faults

Are there any records of Faults within 500m of the study site boundary? Yes

ID	Distance (m)	Direction	Category Description	Feature Description
21	176.0	SE	FAULT	Normal fault, inferred
22	198.0	SW	FAULT	Normal fault, inferred
23	215.0	N	FAULT	Normal fault, inferred

* This includes an automatically generated 50m buffer zone around the site

ID	Distance (m)	Direction	Category Description	Feature Description
24	337.0	E	FAULT	Normal fault, inferred
25	347.0	NE	FAULT	Normal fault, inferred
26A	352.0	SW	FOSSIL_HORIZON	Fossil horizon, marine band
27	359.0	E	ROCK	Coal seam, inferred
28	363.0	NW	FAULT	Normal fault, inferred
29	389.0	N	FAULT	Normal fault, inferred
30	405.0	SW	ROCK	Coal seam, inferred
31	430.0	NE	FAULT	Normal fault, inferred
32	430.0	NE	FAULT	Normal fault, inferred
33	496.0	NE	FAULT	Normal fault, inferred

The geology map for the site and surrounding area are extracted from the BGS Digital Geological Map of Great Britain at 1:50,000 scale.

This Geology shows the main components as discrete layers, these are: Bedrock/ Solid Geology and linear features such as Faults. These are all displayed with the BGS Lexicon code for the rock unit and BGS sheet number. Not all of the main geological components have nationwide coverage.

1.4 Radon Data

1.4.1 Radon Affected Areas

Is the property in a Radon Affected Area as defined by the Health Protection Agency (HPA) and if so what percentage of homes are above the Action Level? The property is in a Radon Affected Area, as between 1 and 3% of properties are above the Action Level

---

1.4.2 Radon Protection

Is the property in an area where Radon Protection are required for new properties or extensions to existing ones as described in publication BR211 by the Building Research Establishment? No radon protective measures are necessary

---