

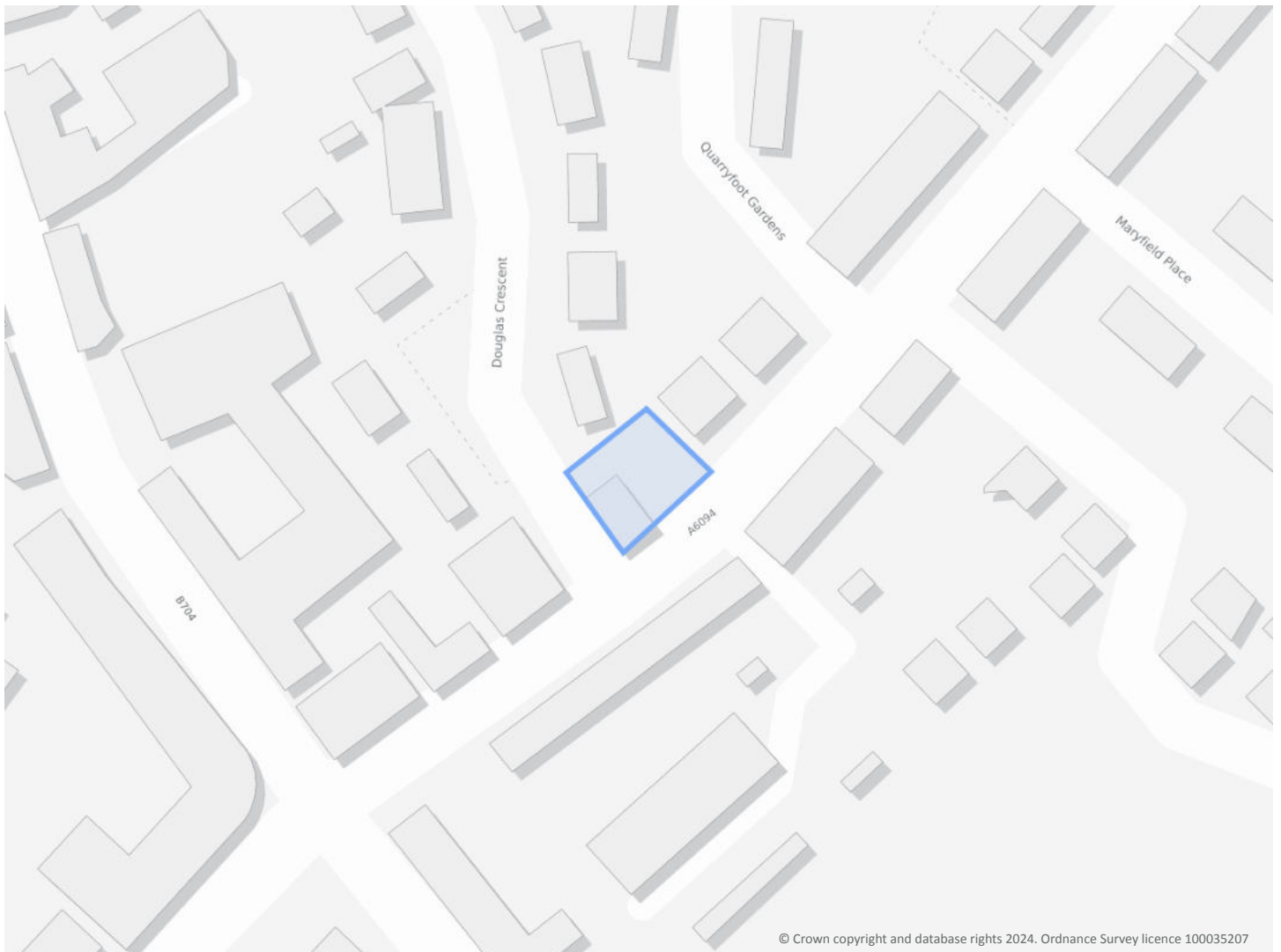
1, DOUGLAS CRESCENT, BONNYRIGG, EH19 2DF

Order Details

Date: 14/02/2024
Your ref: A5838_Bonnyrigg
Our Ref: GS-C3V-GFX-JAY-UUE

Site Details

Location: 330987 665259
Area: 0.05 ha
Authority: [Midlothian Council](#) ↗



[Summary of findings](#)

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[Aerial image](#)

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[OS MasterMap site plan](#)

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Contact us with any questions at:

info@groundsure.com ↗

01273 257 755

Summary of findings

Page	Section	Geology 1:10,000 scale >	On site	0-50m	50-250m	250-500m	500-2000m
11 >	1.1 >	10k Availability >	Identified (within 500m)				
12	1.2	Artificial and made ground (10k)	0	0	0	0	-
13	1.3	Superficial geology (10k)	0	0	0	0	-
13	1.4	Landslip (10k)	0	0	0	0	-
14	1.5	Bedrock geology (10k)	0	0	0	0	-
14	1.6	Bedrock faults and other linear features (10k)	0	0	0	0	-
Page	Section	Geology 1:50,000 scale >	On site	0-50m	50-250m	250-500m	500-2000m
15 >	2.1 >	50k Availability >	Identified (within 500m)				
16 >	2.2 >	Artificial and made ground (50k) >	0	0	0	5	-
17	2.3	Artificial ground permeability (50k)	0	0	-	-	-
18 >	2.4 >	Superficial geology (50k) >	1	0	0	1	-
19 >	2.5 >	Superficial permeability (50k) >	Identified (within 50m)				
19	2.6	Landslip (50k)	0	0	0	0	-
19	2.7	Landslip permeability (50k)	None (within 50m)				
20 >	2.8 >	Bedrock geology (50k) >	1	0	0	1	-
21 >	2.9 >	Bedrock permeability (50k) >	Identified (within 50m)				
21 >	2.10 >	Bedrock faults and other linear features (50k) >	0	1	4	2	-
Page	Section	Boreholes >	On site	0-50m	50-250m	250-500m	500-2000m
22 >	3.1 >	BGS Boreholes >	0	0	17	-	-
Page	Section	Natural ground subsidence >					
24 >	4.1 >	Shrink swell clays >	Very low (within 50m)				
25 >	4.2 >	Running sands >	Very low (within 50m)				
26 >	4.3 >	Compressible deposits >	Negligible (within 50m)				
27 >	4.4 >	Collapsible deposits >	Very low (within 50m)				
28 >	4.5 >	Landslides >	Very low (within 50m)				
29 >	4.6 >	Ground dissolution of soluble rocks >	Negligible (within 50m)				



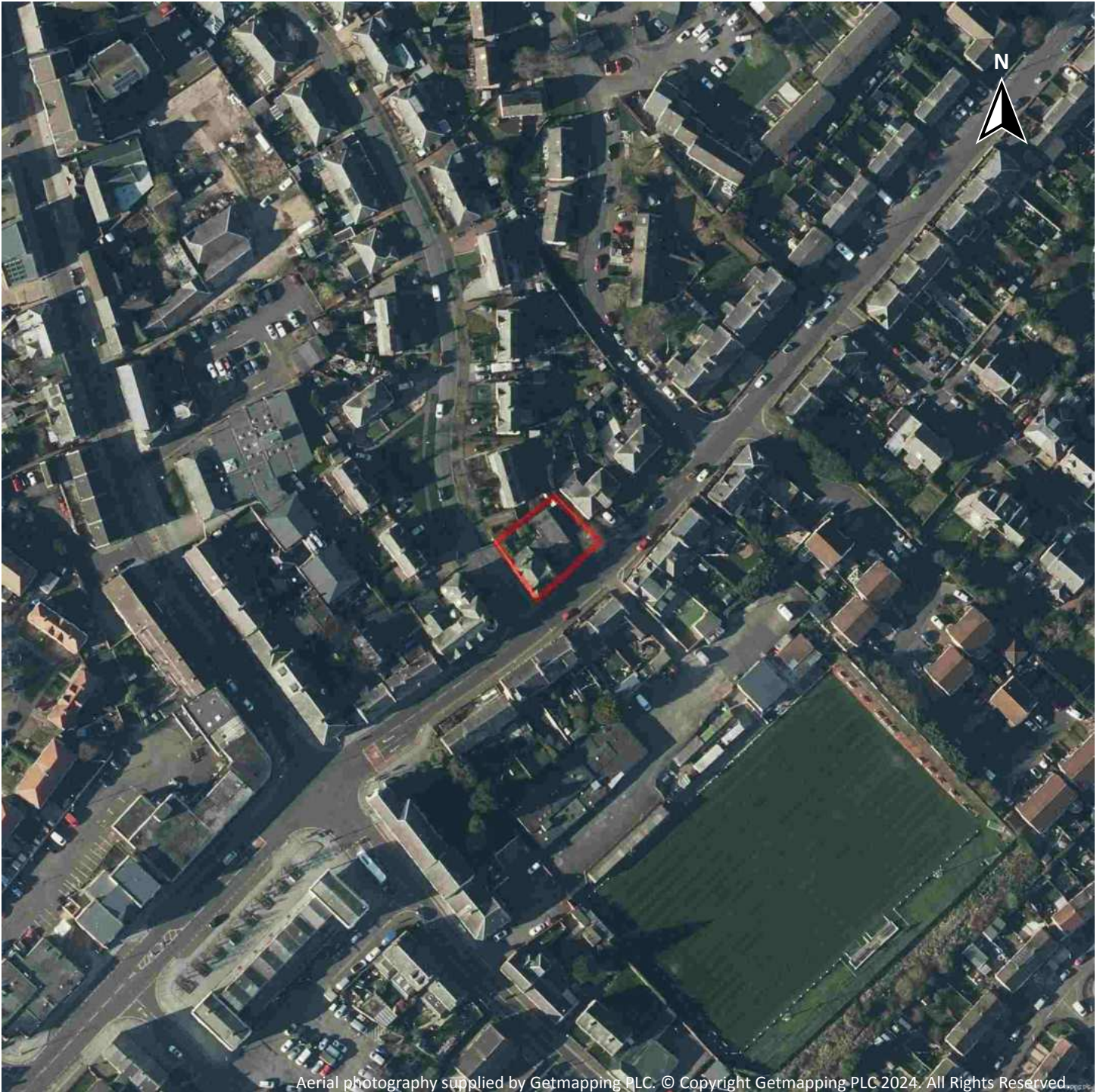
Page	Section	Mining and ground workings >	On site	0-50m	50-250m	250-500m	500-2000m	
31 >	5.1 >	BritPits >	0	1	4	9	-	
34 >	5.2 >	Surface ground workings >	0	0	2	-	-	
35 >	5.3 >	Underground workings >	0	0	5	5	23	
36	5.4	Underground mining extents	0	0	0	0	-	
36	5.5	Historical Mineral Planning Areas	0	0	0	0	-	
37 >	5.6 >	Non-coal mining >	0	0	0	1	2	
37	5.7	JPB mining areas	None (within 0m)					
37	5.8	The Coal Authority non-coal mining	0	0	0	0	-	
38	5.9	Researched mining	0	0	0	0	-	
38	5.10	Mining record office plans	0	0	0	0	-	
38	5.11	BGS mine plans	0	0	0	0	-	
38 >	5.12 >	Coal mining >	Identified (within 0m)					
39	5.13	Brine areas	None (within 0m)					
39	5.14	Gypsum areas	None (within 0m)					
39	5.15	Tin mining	None (within 0m)					
39	5.16	Clay mining	None (within 0m)					
Page	Section	Ground cavities and sinkholes	On site	0-50m	50-250m	250-500m	500-2000m	
40	6.1	Natural cavities	0	0	0	0	-	
40	6.2	Mining cavities	0	0	0	0	0	
40	6.3	Reported recent incidents	0	0	0	0	-	
40	6.4	Historical incidents	0	0	0	0	-	
41	6.5	National karst database	0	0	0	0	-	
Page	Section	Radon >						
42 >	7.1 >	Radon >	Less than 1% (within 0m)					
Page	Section	Soil chemistry >	On site	0-50m	50-250m	250-500m	500-2000m	
44 >	8.1 >	BGS Estimated Background Soil Chemistry >	2	0	-	-	-	
44	8.2	BGS Estimated Urban Soil Chemistry	0	0	-	-	-	
44	8.3	BGS Measured Urban Soil Chemistry	0	0	-	-	-	



Page	Section	Railway infrastructure and projects	On site	0-50m	50-250m	250-500m	500-2000m
45	9.1	Underground railways (London)	0	0	0	-	-
45	9.2	Underground railways (Non-London)	0	0	0	-	-
45	9.3	Railway tunnels	0	0	0	-	-
45	9.4	Historical railway and tunnel features	0	0	0	-	-
45	9.5	Royal Mail tunnels	0	0	0	-	-
46	9.6	Historical railways	0	0	0	-	-
46	9.7	Railways	0	0	0	-	-
46	9.8	Crossrail 1	0	0	0	0	-
46	9.9	Crossrail 2	0	0	0	0	-
46	9.10	HS2	0	0	0	0	-



Recent aerial photograph



Capture Date: 03/04/2021

Site Area: 0.05ha



Recent site history - 2018 aerial photograph



Capture Date: 01/07/2018

Site Area: 0.05ha



Recent site history - 2015 aerial photograph



Aerial photography supplied by Getmapping PLC. © Copyright Getmapping PLC 2024. All Rights Reserved.

Capture Date: 11/06/2015

Site Area: 0.05ha



Recent site history - 2009 aerial photograph



Capture Date: 16/10/2009

Site Area: 0.05ha



Recent site history - 2001 aerial photograph



Capture Date: 13/05/2001

Site Area: 0.05ha



OS MasterMap site plan



Site Area: 0.05ha



1 Geology 1:10,000 scale - Availability



— Site Outline
Search buffers in metres (m)

- Full coverage
- Partial coverage
- No coverage

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1.1 10k Availability

Records within 500m

1

An indication on the coverage of 1:10,000 scale geology data for the site, the most detailed dataset provided by the British Geological Survey. Either 'Full', 'Partial' or 'No coverage' for each geological theme.

Features are displayed on the Geology 1:10,000 scale - Availability map on [page 11](#) >

ID	Location	Artificial	Superficial	Bedrock	Mass movement	Sheet No.
1	On site	No coverage	No coverage	No coverage	No coverage	NoCov

This data is sourced from the British Geological Survey.



Geology 1:10,000 scale - Artificial and made ground

1.2 Artificial and made ground (10k)

Records within 500m

0

Details of made, worked, infilled, disturbed and landscaped ground at 1:10,000 scale. Artificial ground can be associated with potentially contaminated material, unpredictable engineering conditions and instability.

This data is sourced from the British Geological Survey.



Geology 1:10,000 scale - Superficial

1.3 Superficial geology (10k)

Records within 500m

0

Superficial geological deposits at 1:10,000 scale. Also known as 'drift', these are the youngest geological deposits, formed during the Quaternary. They rest on older deposits or rocks referred to as bedrock.

This data is sourced from the British Geological Survey.

1.4 Landslip (10k)

Records within 500m

0

Mass movement deposits on BGS geological maps at 1:10,000 scale. Primarily superficial deposits that have moved down slope under gravity to form landslips. These affect bedrock, other superficial deposits and artificial ground.

This data is sourced from the British Geological Survey.



Geology 1:10,000 scale - Bedrock

1.5 Bedrock geology (10k)

Records within 500m

0

Bedrock geology at 1:10,000 scale. The main mass of rocks forming the Earth and present everywhere, whether exposed at the surface in outcrops or concealed beneath superficial deposits or water.

This data is sourced from the British Geological Survey.

1.6 Bedrock faults and other linear features (10k)

Records within 500m

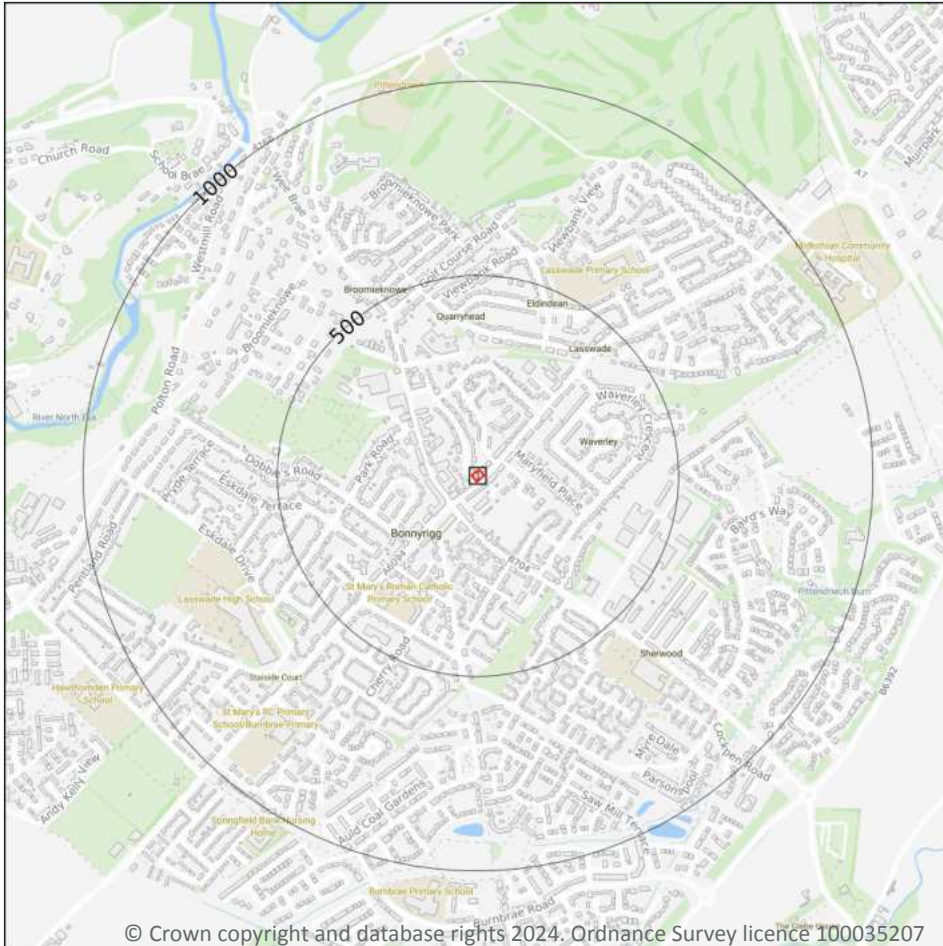
0

Linear features at the ground or bedrock surface at 1:10,000 scale of six main types; rock, fault, fold axis, mineral vein, alteration area or landform. Features are either observed or inferred, and relate primarily to bedrock.

This data is sourced from the British Geological Survey.



2 Geology 1:50,000 scale - Availability



— Site Outline
 Search buffers in metres (m)

Geological map tile

2.1 50k Availability

Records within 500m

1

An indication on the coverage of 1:50,000 scale geology data for the site. Either 'Full' or 'No coverage' for each geological theme.

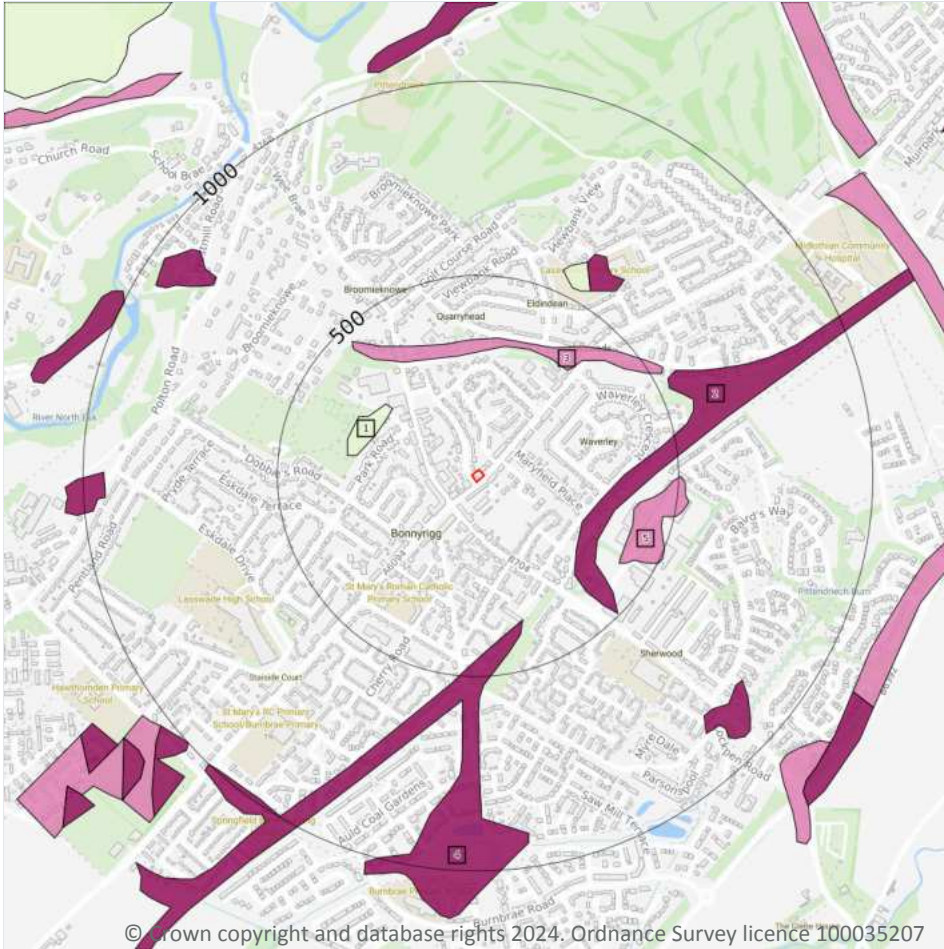
Features are displayed on the Geology 1:50,000 scale - Availability map on [page 15](#) >

ID	Location	Artificial	Superficial	Bedrock	Mass movement	Sheet No.
1	On site	Full	Full	Full	Full	SC032e_Edinburgh_v4

This data is sourced from the British Geological Survey.



Geology 1:50,000 scale - Artificial and made ground



2.2 Artificial and made ground (50k)

Records within 500m

5

Details of made, worked, infilled, disturbed and landscaped ground at 1:50,000 scale. Artificial ground can be associated with potentially contaminated material, unpredictable engineering conditions and instability.

Features are displayed on the Geology 1:50,000 scale - Artificial and made ground map on [page 16](#) >

ID	Location	LEX Code	Description	Rock description
1	262m NW	WMGR-ARTDP	INFILLED GROUND	ARTIFICIAL DEPOSIT
2	279m SE	MGR-ARTDP	MADE GROUND (UNDIVIDED)	ARTIFICIAL DEPOSIT
3	298m N	WGR-VOID	WORKED GROUND (UNDIVIDED)	VOID
4	374m S	MGR-ARTDP	MADE GROUND (UNDIVIDED)	ARTIFICIAL DEPOSIT

ID	Location	LEX Code	Description	Rock description
5	395m E	WGR-VOID	WORKED GROUND (UNDIVIDED)	VOID

This data is sourced from the British Geological Survey.

2.3 Artificial ground permeability (50k)

Records within 50m

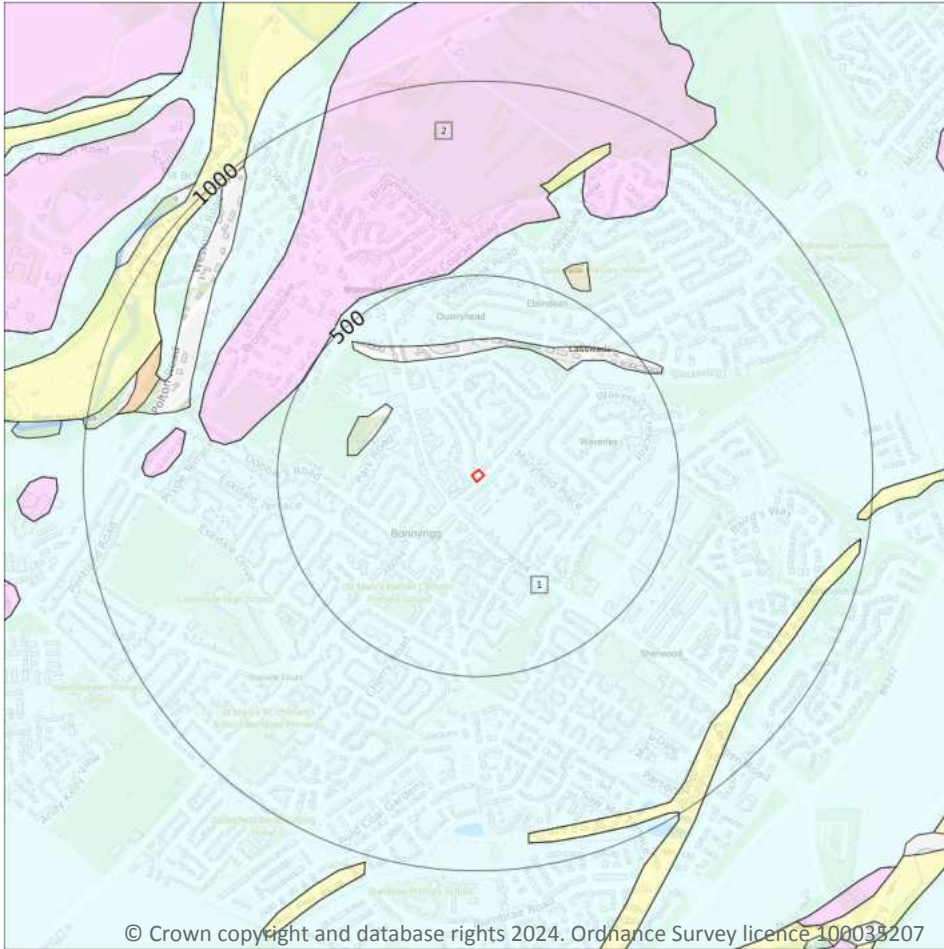
0


A qualitative classification of estimated rates of vertical movement of water from the ground surface through the unsaturated zone of any artificial deposits (the zone between the land surface and the water table).

This data is sourced from the British Geological Survey.



Geology 1:50,000 scale - Superficial



- Site Outline
- Search buffers in metres (m)
-  Landslip (50k)
- Superficial geology (50k)
Please see table for more details.

2.4 Superficial geology (50k)

Records within 500m

2

Superficial geological deposits at 1:50,000 scale. Also known as 'drift', these are the youngest geological deposits, formed during the Quaternary. They rest on older deposits or rocks referred to as bedrock.

Features are displayed on the Geology 1:50,000 scale - Superficial map on [page 18 >](#)

ID	Location	LEX Code	Description	Rock description
1	On site	TILLD-DMTN	TILL, DEVANSIAN	DIAMICTON
2	496m NW	GFSD-XSV	GLACIOFLUVIAL SHEET DEPOSITS	SAND AND GRAVEL

This data is sourced from the British Geological Survey.



2.5 Superficial permeability (50k)

Records within 50m **1**

A qualitative classification of estimated rates of vertical movement of water from the ground surface through the unsaturated zone of any superficial deposits (the zone between the land surface and the water table).

Location	Flow type	Maximum permeability	Minimum permeability
On site	Mixed	High	Low

This data is sourced from the British Geological Survey.

2.6 Landslip (50k)

Records within 500m **0**

Mass movement deposits on BGS geological maps at 1:50,000 scale. Primarily superficial deposits that have moved down slope under gravity to form landslips. These affect bedrock, other superficial deposits and artificial ground.

This data is sourced from the British Geological Survey.

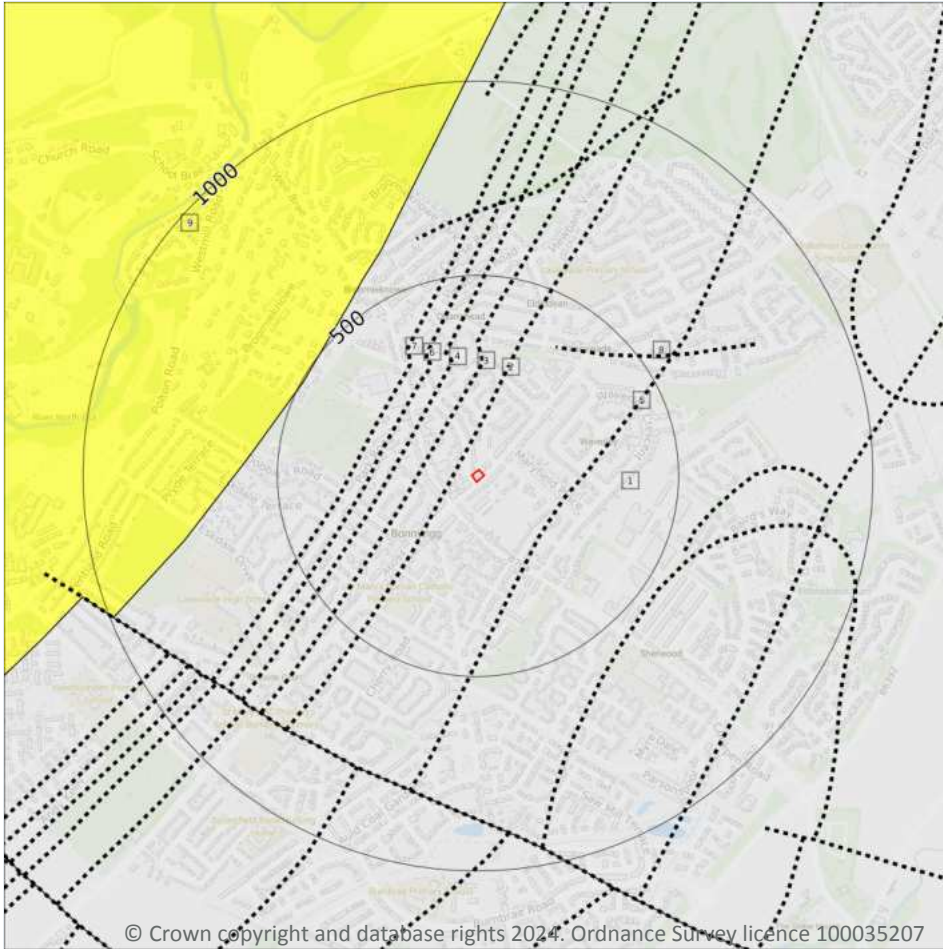
2.7 Landslip permeability (50k)

Records within 50m **0**

A qualitative classification of estimated rates of vertical movement of water from the ground surface through the unsaturated zone of any landslip deposits (the zone between the land surface and the water table).

This data is sourced from the British Geological Survey.

Geology 1:50,000 scale - Bedrock



- Site Outline
- Search buffers in metres (m)
- Bedrock faults and other linear features (50k)
- Bedrock geology (50k)
Please see table for more details.

2.8 Bedrock geology (50k)

Records within 500m

2

Bedrock geology at 1:50,000 scale. The main mass of rocks forming the Earth and present everywhere, whether exposed at the surface in outcrops or concealed beneath superficial deposits or water.

Features are displayed on the Geology 1:50,000 scale - Bedrock map on [page 20](#) >

ID	Location	LEX Code	Description	Rock age
1	On site	LCMS-CYCCM	SCOTTISH LOWER COAL MEASURES FORMATION - SEDIMENTARY ROCK CYCLES, COAL MEASURE TYPE	WESTPHALIAN
9	495m NW	PGP-CYCC	PASSAGE FORMATION - SEDIMENTARY ROCK CYCLES, CLACKMANNAN GROUP TYPE	NAMURIAN

This data is sourced from the British Geological Survey.



2.9 Bedrock permeability (50k)

Records within 50m

1

A qualitative classification of estimated rates of vertical movement of water from the ground surface through the unsaturated zone of bedrock (the zone between the land surface and the water table).

Location	Flow type	Maximum permeability	Minimum permeability
On site	Fracture	High	Low

This data is sourced from the British Geological Survey.

2.10 Bedrock faults and other linear features (50k)

Records within 500m

7

Linear features at the ground or bedrock surface at 1:50,000 scale of six main types; rock, fault, fold axis, mineral vein, alteration area or landform. Features are either observed or inferred, and relate primarily to bedrock.

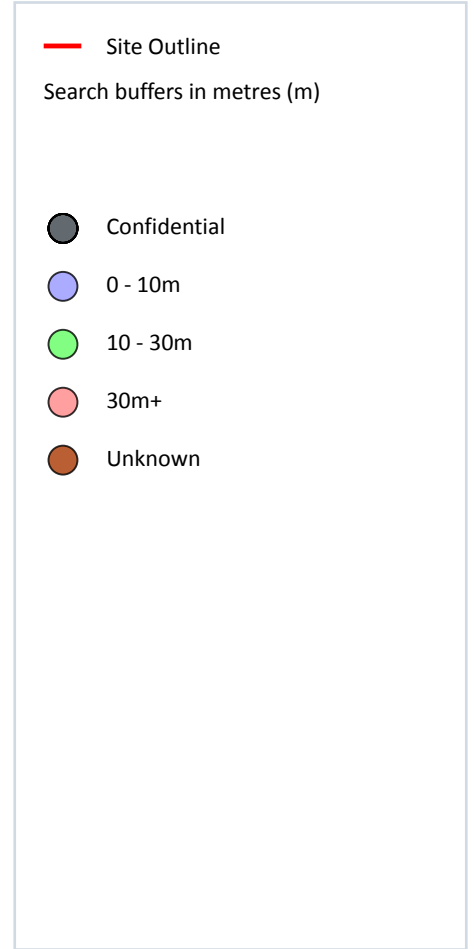
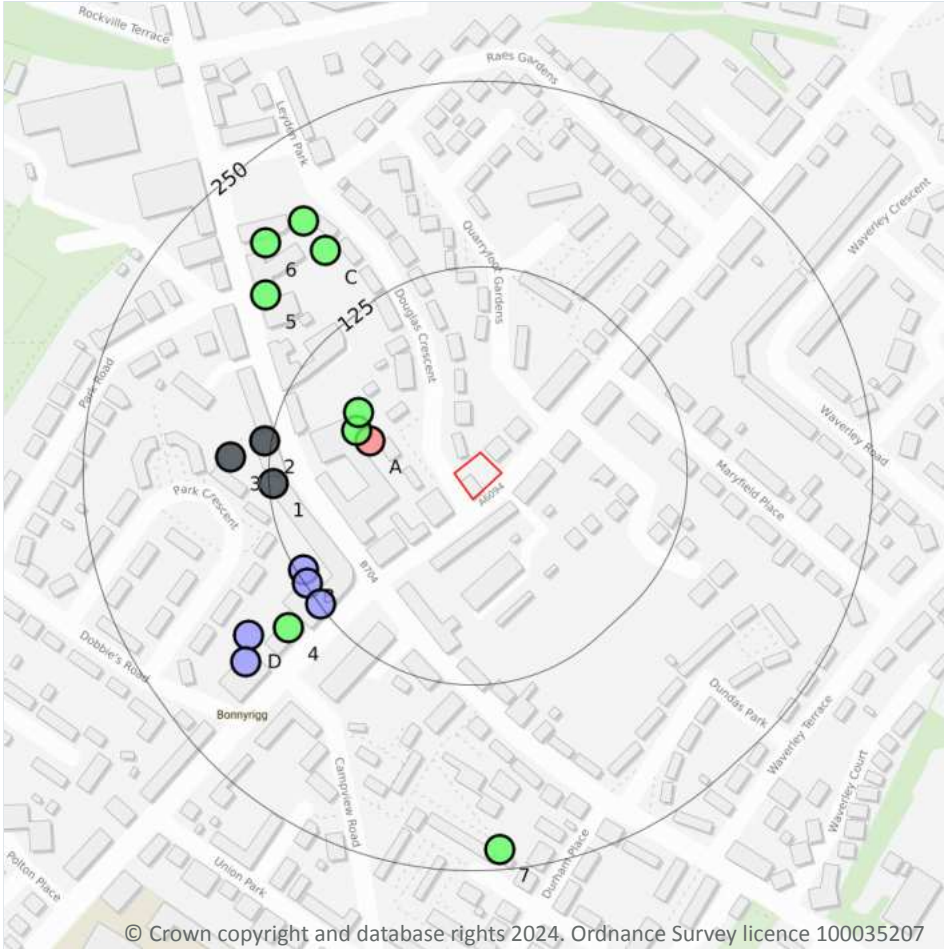
Features are displayed on the Geology 1:50,000 scale - Bedrock map on [page 20 >](#)

ID	Location	Category	Description
2	42m W	ROCK	Coal seam, inferred
3	121m NW	ROCK	Coal seam, inferred
4	183m NW	ROCK	Coal seam, inferred
5	205m SE	ROCK	Coal seam, inferred
6	233m NW	ROCK	Coal seam, inferred
7	279m NW	ROCK	Coal seam, inferred
8	373m NE	LANDFORM	Glacial meltwater channel centre line, undifferentiated

This data is sourced from the British Geological Survey.



3 Boreholes



3.1 BGS Boreholes

Records within 250m

17

The Single Onshore Boreholes Index (SOBI); an index of over one million records of boreholes, shafts and wells from all forms of drilling and site investigation work held by the British Geological Survey. Covering onshore and nearshore boreholes dating back to at least 1790 and ranging from one to several thousand metres deep.

Features are displayed on the Boreholes map on [page 22](#) >

ID	Location	Grid reference	Name	Length	Confidential	Web link
A	61m W	330915 665282	BONNYRIGG HEALTH CENTRE 1	31.0	N	951945 ↗
A	72m W	330906 665289	BONNYRIGG HEALTH CENTRE 2	29.0	N	20039893 ↗

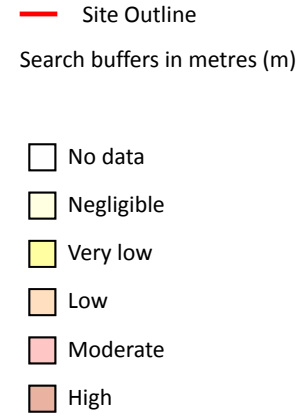
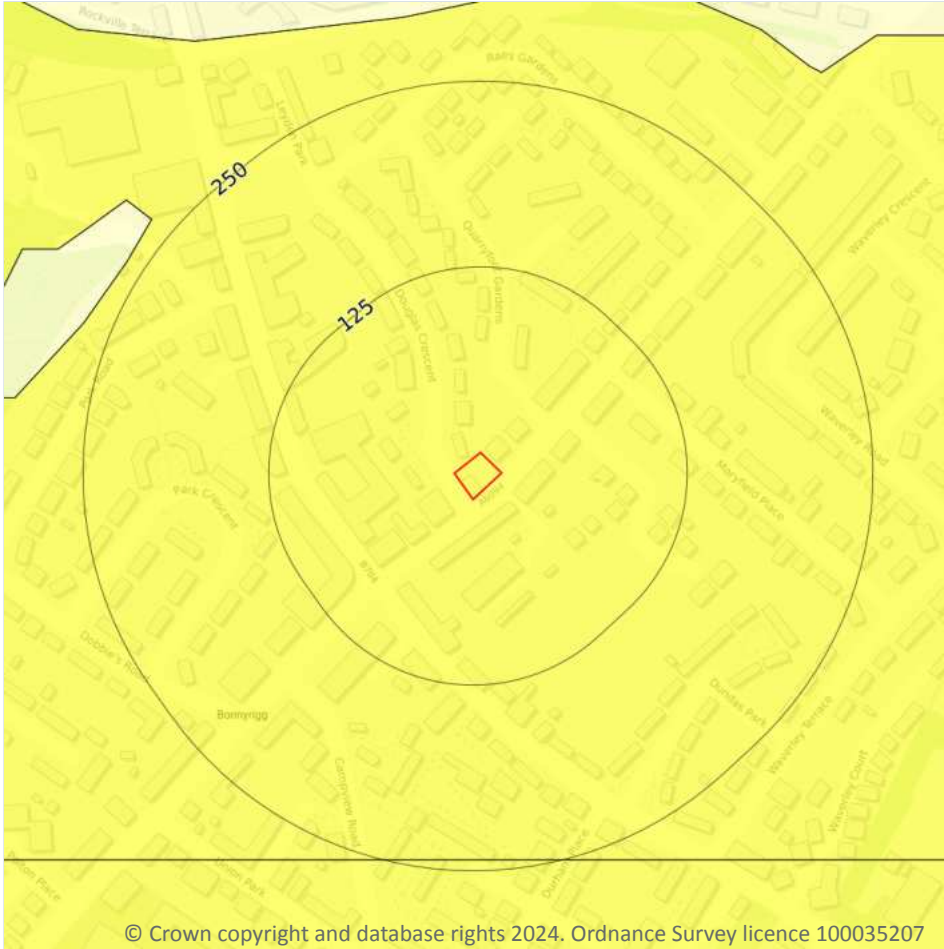


ID	Location	Grid reference	Name	Length	Confidential	Web link
A	77m NW	330907 665301	BONNYRIGG HEALTH CENTRE 3	22.0	N	20039894 ↗
B	121m SW	330870 665195	BONNYRIGG SHOPPING CENTRE C	5.18	N	951694 ↗
1	122m W	330850 665253	BONNYRIGG HIGH ST 3	-	Y	N/A
B	123m SW	330873 665186	BONNYRIGG SHOPPING CENTRE F	3.96	N	951697 ↗
B	124m SW	330882 665172	BONNYRIGG SHOPPING CENTRE E	5.48	N	951696 ↗
2	130m W	330844 665282	BONNYRIGG HIGH ST 2	-	Y	N/A
3	151m W	330821 665271	BONNYRIGG HIGH ST 1	-	Y	N/A
4	151m SW	330860 665156	BONNYRIGG SHOPPING CENTRE A	10.66	N	951692 ↗
C	171m NW	330885 665410	BONNYRIGG HIGH STREET, 3	25.0	N	951642 ↗
5	175m NW	330845 665380	BONNYRIGG HIGH STREET, 4	19.0	N	951643 ↗
D	176m SW	330833 665151	BONNYRIGG SHOPPING CENTRE D	8.68	N	951695 ↗
D	188m SW	330831 665133	BONNYRIGG SHOPPING CENTRE B	5.79	N	951693 ↗
C	196m NW	330870 665430	BONNYRIGG HIGH STREET, 2	25.0	N	951641 ↗
6	200m NW	330845 665415	BONNYRIGG HIGH STREET, 1	25.0	N	951640 ↗
7	236m S	331002 665007	BONNYRIGG WAVERLEY COURT 1	29.39	N	18799983 ↗

This data is sourced from the British Geological Survey.



4 Natural ground subsidence - Shrink swell clays



4.1 Shrink swell clays

Records within 50m

1

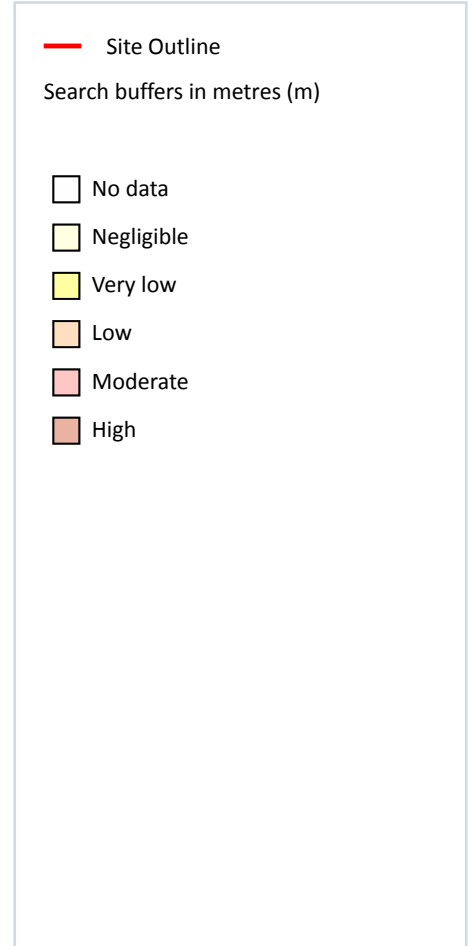
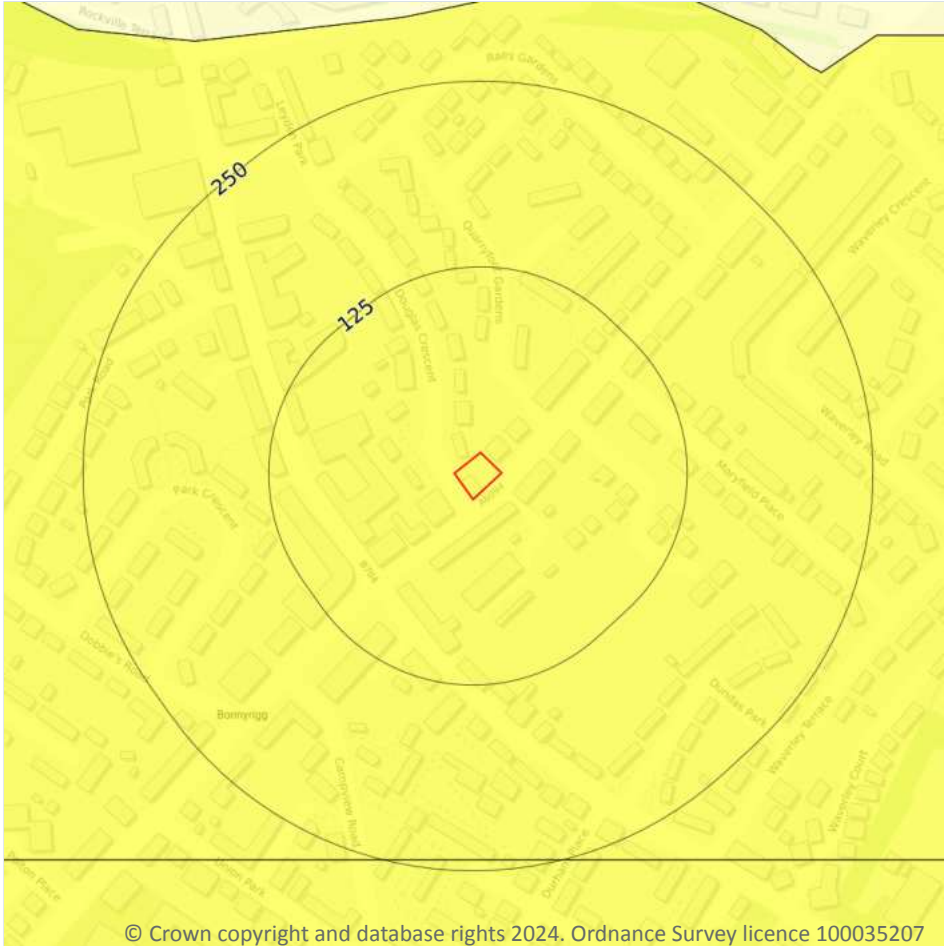
The potential hazard presented by soils that absorb water when wet (making them swell), and lose water as they dry (making them shrink). This shrink-swell behaviour is controlled by the type and amount of clay in the soil, and by seasonal changes in the soil moisture content (related to rainfall and local drainage).

Features are displayed on the Natural ground subsidence - Shrink swell clays map on [page 24 >](#)

Location	Hazard rating	Details
On site	Very low	Ground conditions predominantly low plasticity.

This data is sourced from the British Geological Survey.

Natural ground subsidence - Running sands



4.2 Running sands

Records within 50m

1

The potential hazard presented by rocks that can contain loosely-packed sandy layers that can become fluidised by water flowing through them. Such sands can 'run', removing support from overlying buildings and causing potential damage.

Features are displayed on the Natural ground subsidence - Running sands map on [page 25 >](#)

Location	Hazard rating	Details
On site	Very low	Running sand conditions are unlikely. No identified constraints on land use due to running conditions unless water table rises rapidly.

This data is sourced from the British Geological Survey.

Natural ground subsidence - Compressible deposits



4.3 Compressible deposits

Records within 50m

1

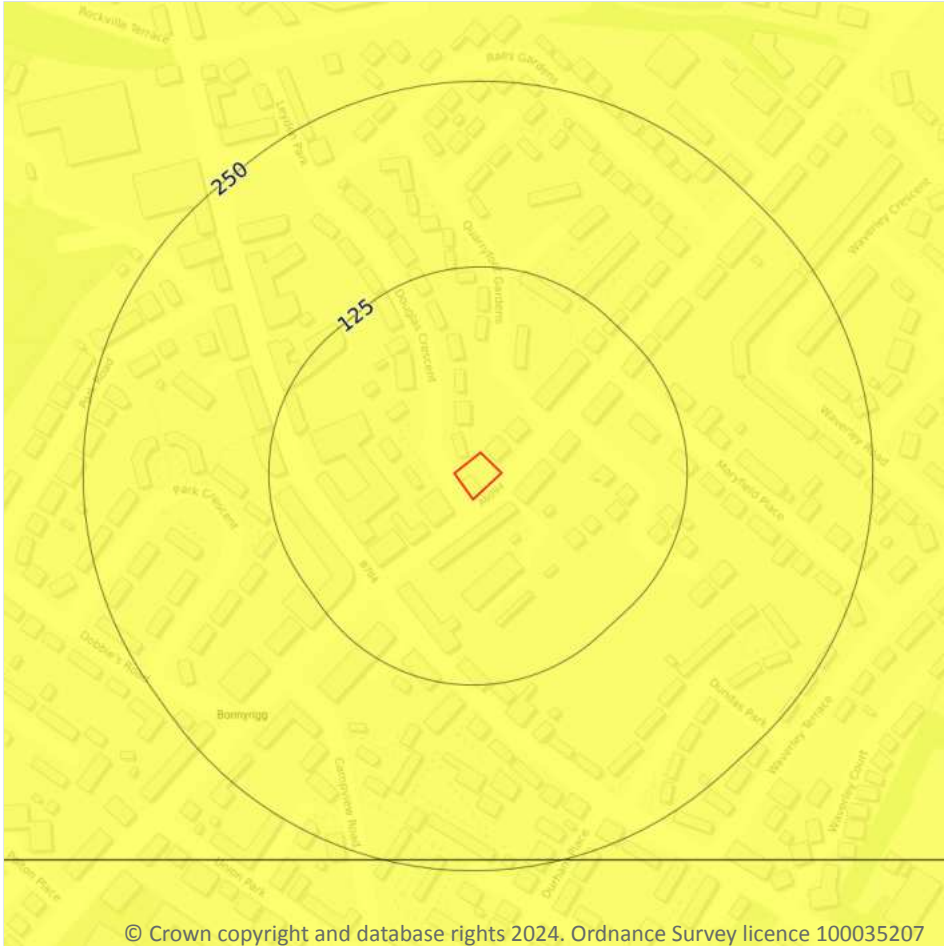
The potential hazard presented by types of ground that may contain layers of very soft materials like clay or peat and may compress if loaded by overlying structures, or if the groundwater level changes, potentially resulting in depression of the ground and disturbance of foundations.

Features are displayed on the Natural ground subsidence - Compressible deposits map on [page 26 >](#)

Location	Hazard rating	Details
On site	Negligible	Compressible strata are not thought to occur.

This data is sourced from the British Geological Survey.

Natural ground subsidence - Collapsible deposits



— Site Outline

Search buffers in metres (m)

- No data
- Negligible
- Very low
- Low
- Moderate
- High

4.4 Collapsible deposits

Records within 50m

1

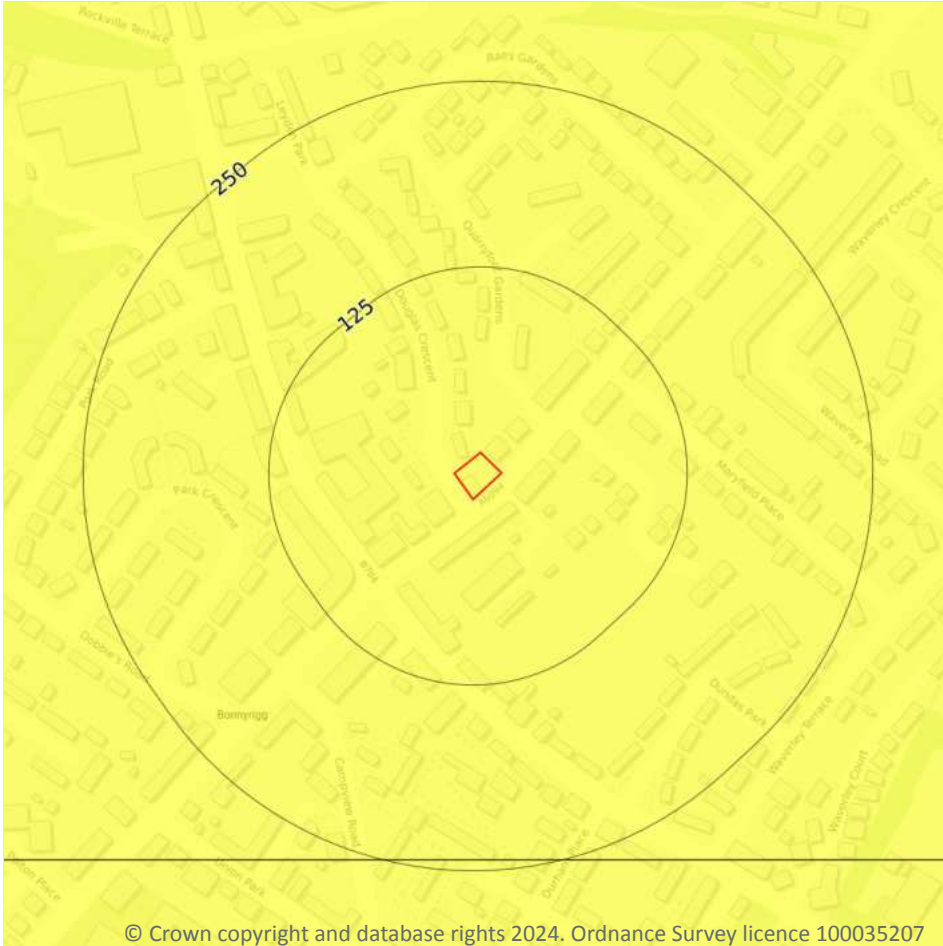
The potential hazard presented by natural deposits that could collapse when a load (such as a building) is placed on them or they become saturated with water.

Features are displayed on the Natural ground subsidence - Collapsible deposits map on [page 27 >](#)

Location	Hazard rating	Details
On site	Very low	Deposits with potential to collapse when loaded and saturated are unlikely to be present.

This data is sourced from the British Geological Survey.

Natural ground subsidence - Landslides



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- Site Outline
- Search buffers in metres (m)
- No data
- Negligible
- Very low
- Low
- Moderate
- High

4.5 Landslides

Records within 50m

1

The potential for landsliding (slope instability) to be a hazard assessed using 1:50,000 scale digital maps of superficial and bedrock deposits, combined with information from the BGS National Landslide Database and scientific and engineering reports.

Features are displayed on the Natural ground subsidence - Landslides map on [page 28 >](#)

Location	Hazard rating	Details
On site	Very low	Slope instability problems are not likely to occur but consideration to potential problems of adjacent areas impacting on the site should always be considered.

This data is sourced from the British Geological Survey.



Natural ground subsidence - Ground dissolution of soluble rocks



4.6 Ground dissolution of soluble rocks

Records within 50m

1

The potential hazard presented by ground dissolution, which occurs when water passing through soluble rocks produces underground cavities and cave systems. These cavities reduce support to the ground above and can cause localised collapse of the overlying rocks and deposits.

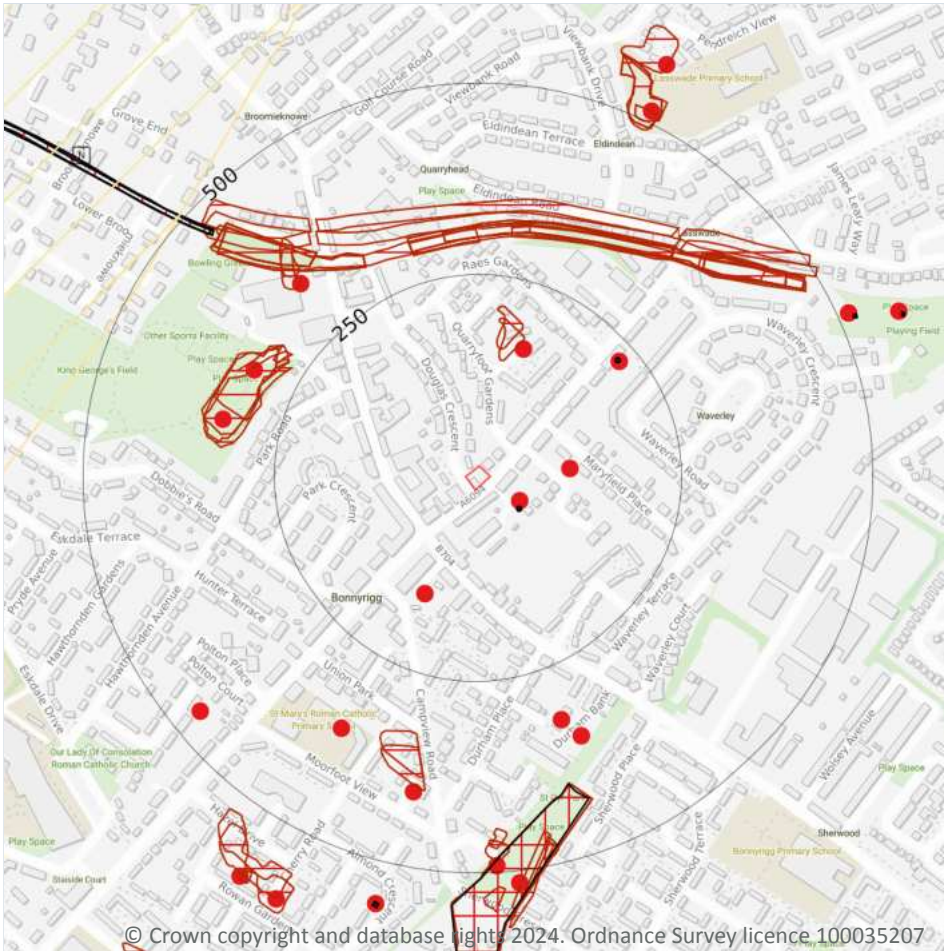
Features are displayed on the Natural ground subsidence - Ground dissolution of soluble rocks map on [page 29](#)

Location	Hazard rating	Details
On site	Negligible	Soluble rocks are either not thought to be present within the ground, or not prone to dissolution. Dissolution features are unlikely to be present.

This data is sourced from the British Geological Survey.



5 Mining and ground workings



- Site Outline
- Search buffers in metres (m)
- BritPits
- Surface ground workings
- Underground workings
- Underground mining extents
- Historical mineral planning areas
- TCA non-coal mining
- Non Coal Mining
- Sporadic underground mining of restricted extent possible
- Localised small scale underground mining possible
- Small scale mining possible
- Underground mining known or likely within or in close proximity
- Underground mining known within or in very close proximity

5.1 BritPits

Records within 500m

14

BritPits (an abbreviation of British Pits) is a database maintained by the British Geological Survey of currently active and closed surface and underground mineral workings. Details of major mineral handling sites, such as wharfs and rail depots are also held in the database.

Features are displayed on the Mining and ground workings map on [page 31](#) >

ID	Location	Details	Description
A	49m SE	Name: Molehall Shaft Address: BONNYRIGG, Midlothian Commodity: Coal, Deep Status: Ceased	Type: Working is wholly underground, access by shaft, adit or drift. Working may be termed Colliery, Mine, Drift Mine, Slant, Level, Adit or Ingoing Eye (Ingaun Ee - Scots) Status description: Site which, at date of entry, has ceased to extract minerals. May be considered as Closed by operator. May be considered to have Active, Dormant or Expired planning permissions by Mineral Planning Authority
1	105m E	Name: Molehall Shaft Address: BONNYRIGG, Midlothian Commodity: Coal, Deep Status: Ceased	Type: Working is wholly underground, access by shaft, adit or drift. Working may be termed Colliery, Mine, Drift Mine, Slant, Level, Adit or Ingoing Eye (Ingaun Ee - Scots) Status description: Site which, at date of entry, has ceased to extract minerals. May be considered as Closed by operator. May be considered to have Active, Dormant or Expired planning permissions by Mineral Planning Authority
2	150m SW	Name: Bonnyrigg Shaft Address: BONNYRIGG, Midlothian Commodity: Coal, Deep Status: Ceased	Type: Working is wholly underground, access by shaft, adit or drift. Working may be termed Colliery, Mine, Drift Mine, Slant, Level, Adit or Ingoing Eye (Ingaun Ee - Scots) Status description: Site which, at date of entry, has ceased to extract minerals. May be considered as Closed by operator. May be considered to have Active, Dormant or Expired planning permissions by Mineral Planning Authority
B	163m N	Name: Whinnyrow Address: BONNYRIGG, Midlothian Commodity: Sandstone Status: Ceased	Type: A surface mineral working. It may be termed Quarry, Sand Pit, Clay Pit or Opencast Coal Site Status description: Site which, at date of entry, has ceased to extract minerals. May be considered as Closed by operator. May be considered to have Active, Dormant or Expired planning permissions by Mineral Planning Authority
C	225m NE	Name: Whinnyrow Shaft Address: BONNYRIGG, Midlothian Commodity: Coal, Deep Status: Ceased	Type: Working is wholly underground, access by shaft, adit or drift. Working may be termed Colliery, Mine, Drift Mine, Slant, Level, Adit or Ingoing Eye (Ingaun Ee - Scots) Status description: Site which, at date of entry, has ceased to extract minerals. May be considered as Closed by operator. May be considered to have Active, Dormant or Expired planning permissions by Mineral Planning Authority



ID	Location	Details	Description
D	310m NW	Name: Quarryfoot Quarry Address: Quarryhead, BONNYRIGG, Midlothian Commodity: Sandstone Status: Ceased	Type: A surface mineral working. It may be termed Quarry, Sand Pit, Clay Pit or Opencast Coal Site Status description: Site which, at date of entry, has ceased to extract minerals. May be considered as Closed by operator. May be considered to have Active, Dormant or Expired planning permissions by Mineral Planning Authority
I	320m S	Name: Polton Pit Address: Polton, BONNYRIGG, Midlothian Commodity: Coal, Deep Status: Ceased	Type: Working is wholly underground, access by shaft, adit or drift. Working may be termed Colliery, Mine, Drift Mine, Slant, Level, Adit or Ingoing Eye (Ingaun Ee - Scots) Status description: Site which, at date of entry, has ceased to extract minerals. May be considered as Closed by operator. May be considered to have Active, Dormant or Expired planning permissions by Mineral Planning Authority
D	325m W	Name: Quarryfoot Quarry Address: Quarryhead, BONNYRIGG, Midlothian Commodity: Sandstone Status: Ceased	Type: A surface mineral working. It may be termed Quarry, Sand Pit, Clay Pit or Opencast Coal Site Status description: Site which, at date of entry, has ceased to extract minerals. May be considered as Closed by operator. May be considered to have Active, Dormant or Expired planning permissions by Mineral Planning Authority
H	331m NW	Name: Hillhead Address: Quarryhead, BONNYRIGG, Midlothian Commodity: Sandstone Status: Ceased	Type: A surface mineral working. It may be termed Quarry, Sand Pit, Clay Pit or Opencast Coal Site Status description: Site which, at date of entry, has ceased to extract minerals. May be considered as Closed by operator. May be considered to have Active, Dormant or Expired planning permissions by Mineral Planning Authority
I	348m S	Name: Polton Gin Pit Address: Polton, BONNYRIGG, Midlothian Commodity: Coal, Deep Status: Ceased	Type: Working is wholly underground, access by shaft, adit or drift. Working may be termed Colliery, Mine, Drift Mine, Slant, Level, Adit or Ingoing Eye (Ingaun Ee - Scots) Status description: Site which, at date of entry, has ceased to extract minerals. May be considered as Closed by operator. May be considered to have Active, Dormant or Expired planning permissions by Mineral Planning Authority



ID	Location	Details	Description
4	356m SW	Name: Red Row Pit Address: Polton, BONNYRIGG, Midlothian Commodity: Coal, Deep Status: Ceased	Type: Working is wholly underground, access by shaft, adit or drift. Working may be termed Colliery, Mine, Drift Mine, Slant, Level, Adit or Ingoing Eye (Ingaun Ee - Scots) Status description: Site which, at date of entry, has ceased to extract minerals. May be considered as Closed by operator. May be considered to have Active, Dormant or Expired planning permissions by Mineral Planning Authority
J	401m S	Name: Red Row Pit Address: Polton, BONNYRIGG, Midlothian Commodity: Coal, Deep Status: Ceased	Type: Working is wholly underground, access by shaft, adit or drift. Working may be termed Colliery, Mine, Drift Mine, Slant, Level, Adit or Ingoing Eye (Ingaun Ee - Scots) Status description: Site which, at date of entry, has ceased to extract minerals. May be considered as Closed by operator. May be considered to have Active, Dormant or Expired planning permissions by Mineral Planning Authority
5	460m SW	Name: Red Row Shaft Address: Polton, BONNYRIGG, Midlothian Commodity: Coal, Deep Status: Ceased	Type: Working is wholly underground, access by shaft, adit or drift. Working may be termed Colliery, Mine, Drift Mine, Slant, Level, Adit or Ingoing Eye (Ingaun Ee - Scots) Status description: Site which, at date of entry, has ceased to extract minerals. May be considered as Closed by operator. May be considered to have Active, Dormant or Expired planning permissions by Mineral Planning Authority
M	491m S	Name: Polton Colliery, No. 3 Shaft Address: Polton, BONNYRIGG, Midlothian Commodity: Coal, Deep Status: Ceased	Type: Working is wholly underground, access by shaft, adit or drift. Working may be termed Colliery, Mine, Drift Mine, Slant, Level, Adit or Ingoing Eye (Ingaun Ee - Scots) Status description: Site which, at date of entry, has ceased to extract minerals. May be considered as Closed by operator. May be considered to have Active, Dormant or Expired planning permissions by Mineral Planning Authority

This data is sourced from the British Geological Survey.

5.2 Surface ground workings

Records within 250m

2

Historical land uses identified from Ordnance Survey mapping that involved ground excavation at the surface. These features may or may not have been subsequently backfilled.

Features are displayed on the Mining and ground workings map on [page 31](#) >



ID	Location	Land Use	Year of mapping	Mapping scale
B	141m N	Sandstone Quarry	1852	1:10560
B	155m N	Sandstone Quarry	1854	1:10560

This data is sourced from Ordnance Survey/Groundsure.

5.3 Underground workings

Records within 1000m	33
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Historical land uses identified from Ordnance Survey mapping that indicate the presence of underground workings e.g. mine shafts.

Features are displayed on the Mining and ground workings map on [page 31 >](#)

ID	Location	Land Use	Year of mapping	Mapping scale
A	54m SE	Unspecified Old Shaft	1938	1:10560
A	54m SE	Unspecified Old Shaft	1906	1:10560
A	54m SE	Unspecified Old Shaft	1893	1:10560
C	223m NE	Unspecified Old Shaft	1906	1:10560
C	223m NE	Unspecified Old Shaft	1893	1:10560
L	402m S	Unspecified Mine	1954	1:10560
N	457m NW	Tunnel	1938	1:10560
N	457m NW	Tunnel	1906	1:10560
N	462m NW	Tunnel	1958	1:10560
N	462m NW	Tunnel	1968	1:10560
P	518m NE	Unspecified Old Shafts	1938	1:10560
P	518m NE	Unspecified Old Shafts	1906	1:10560
R	554m S	Unspecified Old Shaft	1938	1:10560
R	554m S	Unspecified Old Shaft	1906	1:10560
R	554m S	Unspecified Old Shaft	1893	1:10560
T	577m E	Unspecified Old Shafts	1938	1:10560
T	577m E	Unspecified Old Shafts	1906	1:10560
-	613m W	Unspecified Shaft	1938	1:10560



ID	Location	Land Use	Year of mapping	Mapping scale
-	613m W	Unspecified Shaft	1906	1:10560
-	613m W	Unspecified Old Shaft	1893	1:10560
-	706m W	Unspecified Shaft	1938	1:10560
-	706m W	Unspecified Shaft	1906	1:10560
-	746m S	Unspecified Old Shaft	1938	1:10560
-	746m S	Unspecified Old Shaft	1906	1:10560
-	746m S	Unspecified Old Shafts	1893	1:10560
-	780m S	Unspecified Disused Mine	1976	1:10000
-	780m S	Unspecified Mine	1967	1:10560
-	793m SW	Unspecified Old Shaft	1938	1:10560
-	793m SW	Unspecified Old Shaft	1906	1:10560
-	793m SW	Unspecified Old Shafts	1893	1:10560
-	800m S	Colliery	1906	1:10560
-	841m S	Colliery	1893	1:10560
-	844m S	Colliery	1938	1:10560

This is data is sourced from Ordnance Survey/Groundsure.

5.4 Underground mining extents

Records within 500m

0

This data identifies underground mine workings that could present a potential risk, including adits and seam workings. These features have been identified from BGS Geological mapping and mine plans sourced from the BGS and various collections and sources.

This data is sourced from Groundsure.

5.5 Historical Mineral Planning Areas

Records within 500m

0

Boundaries of mineral planning permissions for England and Wales. This data was collated between the 1940s (and retrospectively to the 1930s) and the mid 1980s. The data includes permitted, withdrawn and refused permissions.

This data is sourced from the British Geological Survey.



5.6 Non-coal mining

Records within 1000m

3

The potential for historical non-coal mining to have affected an area. The assessment is drawn from expert knowledge and literature in addition to the digital geological map of Britain. Mineral commodities may be divided into seven general categories - vein minerals, chalk, oil shale, building stone, bedded ores, evaporites and 'other' commodities (including ball clay, jet, black marble, graphite and chert).

Features are displayed on the Mining and ground workings map on [page 31](#) >

ID	Location	Name	Commodity	Class	Likelihood
6	495m NW	Not available	Vein Mineral	A	Underground mine workings are uncommon, although the geology is similar to that worked elsewhere. Potential for difficult ground conditions are unlikely and are at a level where they need not be considered.
-	864m W	Not available	Vein Mineral	A	Underground mine workings are uncommon, although the geology is similar to that worked elsewhere. Potential for difficult ground conditions are unlikely and are at a level where they need not be considered.
-	972m W	Not available	Vein Mineral	A	Underground mine workings are uncommon, although the geology is similar to that worked elsewhere. Potential for difficult ground conditions are unlikely and are at a level where they need not be considered.

This data is sourced from the British Geological Survey.

5.7 JPB mining areas

Records on site

0

Areas which could be affected by former coal and other mining. This data includes some mine plans unavailable to the Coal Authority.

This data is sourced from Johnson Poole and Bloomer.

5.8 The Coal Authority non-coal mining

Records within 500m

0

This data provides an indication of the potential zone of influence of recorded underground non-coal mining workings. Any and all analysis and interpretation of Coal Authority Data in this report is made by Groundsure, and is in no way supported, endorsed or authorised by the Coal Authority. The use of the data is restricted to the terms and provisions contained in this report. Data reproduced in this report may be the copyright of the Coal Authority and permission should be sought from Groundsure prior to any re-use.

This data is sourced from The Coal Authority.



5.9 Researched mining

Records within 500m

0

This data indicates areas of potential mining identified from alternative or archival sources, including; BGS Geological paper maps, Lidar data, aerial photographs (from World War II onwards), archaeological data services, websites, Tithe maps, and various text/plans from collected books and reports. Some of this data is approximate and Groundsure have interpreted the resultant risk area and, where possible, specific areas of risk have been captured.

This data is sourced from Groundsure.

5.10 Mining record office plans

Records within 500m

0

This dataset is representative of Mining Record Office and/or plan extents held by Groundsure and should be considered approximate. Where possible, plans have been located and any specific areas of risk they depict have been captured.

This data is sourced from Groundsure.

5.11 BGS mine plans

Records within 500m

0

This dataset is representative of BGS mine plans held by Groundsure and should be considered approximate. Where possible, plans have been located and any specific areas of risk they depict have been captured.

This data is sourced from Groundsure.

5.12 Coal mining

Records on site

1

Areas which could be affected by past, current or future coal mining.

Location	Details
On site	The site is located within a coal mining area as defined by the Coal Authority. A Consultants Coal Mining Report is recommended to further assess coal mining issues at the site. This can be ordered directly through Groundsure or your preferred search provider.

This data is sourced from the Coal Authority.

5.13 Brine areas

Records on site	0
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The Cheshire Brine Compensation District indicates areas that may be affected by salt and brine extraction in Cheshire and where compensation would be available where damage from this mining has occurred. Damage from salt and brine mining can still occur outside this district, but no compensation will be available.

This data is sourced from the Cheshire Brine Subsidence Compensation Board.

5.14 Gypsum areas

Records on site	0
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Generalised areas that may be affected by gypsum extraction.

This data is sourced from British Gypsum.

5.15 Tin mining

Records on site	0
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Generalised areas that may be affected by historical tin mining.

This data is sourced from Groundsure.

5.16 Clay mining

Records on site	0
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Generalised areas that may be affected by kaolin and ball clay extraction.

This data is sourced from the Kaolin and Ball Clay Association (UK).

6 Ground cavities and sinkholes

6.1 Natural cavities

Records within 500m

0

Industry recognised national database of natural cavities. Sinkholes and caves are formed by the dissolution of soluble rock, such as chalk and limestone, gulls and fissures by cambering. Ground instability can result from movement of loose material contained within these cavities, often triggered by water.

This data is sourced from Stantec UK Ltd.

6.2 Mining cavities

Records within 1000m

0

Industry recognised national database of mining cavities. Degraded mines may result in hazardous subsidence (crown holes). Climatic conditions and water escape can also trigger subsidence over mine entrances and workings.

This data is sourced from Stantec UK Ltd.

6.3 Reported recent incidents

Records within 500m

0

This data identifies sinkhole information gathered from media reports and Groundsure's own records. This data goes back to 2014 and includes relative accuracy ratings for each event and links to the original data sources. The data is updated on a regular basis and should not be considered a comprehensive catalogue of all sinkhole events. The absence of data in this database does not mean a sinkhole definitely has not occurred during this time.

This data is sourced from Groundsure.

6.4 Historical incidents

Records within 500m

0

This dataset comprises an extract of 1:10,560, 1:10,000, 1:2,500 and 1:1,250 scale historical Ordnance Survey maps held by Groundsure, dating back to the 1840s. It shows shakeholes, deneholes and other 'holes' as noted on these maps. Dene holes are medieval chalk extraction pits, usually comprising a narrow shaft with a number of chambers at the base of the shaft. Shakeholes are an alternative name for suffusion sinkholes, most commonly found in the limestone landscapes of North Yorkshire but also extensively noted around the Brecon Beacons National Park.

Not all 'holes' noted on Ordnance Survey mapping will necessarily be present within this dataset.



This data is sourced from Groundsure.

6.5 National karst database

Records within 500m

0

This is a comprehensive database of national karst information gathered from a wide range of sources. BGS have collected data on five main types of karst feature: Sinkholes, stream links, caves, springs, and incidences of associated damage to buildings, roads, bridges and other engineered works.

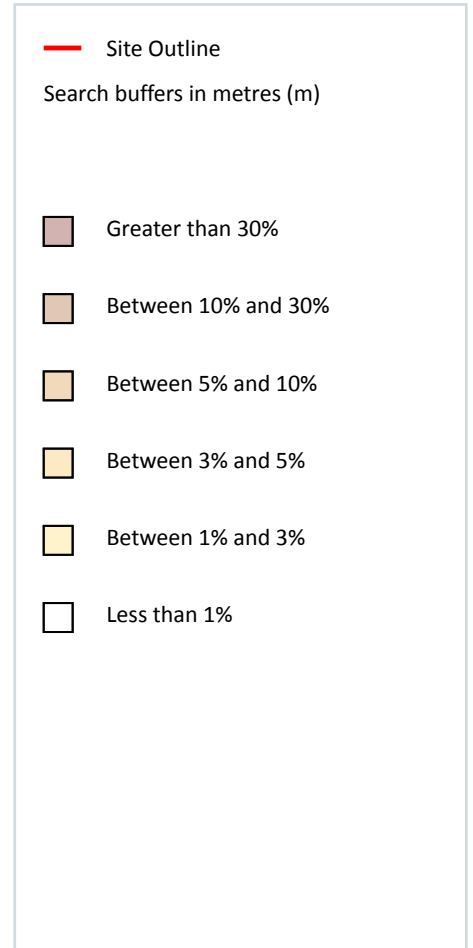
Since the database was set up in 2002 data covering most of the evaporite karst areas of the UK have now been added, along with data covering about 60% of the Chalk, and 35% of the Carboniferous Limestone outcrops. Many of the classic upland karst areas have yet to be included. Recorded so far are: Over 800 caves, 1300 stream sinks, 5600 springs, 10,000 sinkholes.

The database is not yet complete, and not all records have been verified. The absence of data does not mean that karst features are not present at a site. A reliability rating is included with each record.

This data is sourced from the British Geological Survey.



7 Radon



7.1 Radon

Records on site

1

The Radon Potential data classifies areas based on their likelihood of a property having a radon level at or above the Action Level in Great Britain. The dataset is intended for use at 1:50,000 scale and was derived from both geological assessments and indoor radon measurements (more than 560,000 records). A minimum 50m buffer should be considered when searching the maps, as the smallest detectable feature at this scale is 50m. The findings of this section should supersede any estimations derived from the Indicative Atlas of Radon in Great Britain (1:100,000 scale).

Features are displayed on the Radon map on [page 42 >](#)

Location	Estimated properties affected	Radon Protection Measures required
On site	Less than 1%	None

This data is sourced from the British Geological Survey and UK Health Security Agency.



8 Soil chemistry

8.1 BGS Estimated Background Soil Chemistry

Records within 50m

2

The estimated values provide the likely background concentration of the potentially harmful elements Arsenic, Cadmium, Chromium, Lead and Nickel in topsoil. The values are estimated primarily from rural topsoil data collected at a sample density of approximately 1 per 2 km². In areas where rural soil samples are not available, estimation is based on stream sediment data collected from small streams at a sampling density of 1 per 2.5 km²; this is the case for most of Scotland, Wales and southern England. The stream sediment data are converted to soil-equivalent concentrations prior to the estimation.

Location	Arsenic	Bioaccessible Arsenic	Lead	Bioaccessible Lead	Cadmium	Chromium	Nickel
On site	15 mg/kg	-	100 mg/kg	60 mg/kg	1.8 mg/kg	120 - 180 mg/kg	15 - 30 mg/kg
On site	15 mg/kg	-	100 mg/kg	60 mg/kg	1.8 mg/kg	120 - 180 mg/kg	15 - 30 mg/kg

This data is sourced from the British Geological Survey.

8.2 BGS Estimated Urban Soil Chemistry

Records within 50m

0

Estimated topsoil chemistry of Arsenic, Cadmium, Chromium, Copper, Nickel, Lead, Tin and Zinc and bioaccessible Arsenic and Lead in 23 urban centres across Great Britain. These estimates are derived from interpolation of the measured urban topsoil data referred to above and provide information across each city between the measured sample locations (4 per km²).

This data is sourced from the British Geological Survey.

8.3 BGS Measured Urban Soil Chemistry

Records within 50m

0

The locations and measured total concentrations (mg/kg) of Arsenic, Cadmium, Chromium, Copper, Nickel, Lead, Tin and Zinc in urban topsoil samples from 23 urban centres across Great Britain. These are collected at a sample density of 4 per km².

This data is sourced from the British Geological Survey.



9 Railway infrastructure and projects

9.1 Underground railways (London)

Records within 250m

0

Details of all active London Underground lines, including approximate tunnel roof depth and operational hours.

This data is sourced from publicly available information by Groundsure.

9.2 Underground railways (Non-London)

Records within 250m

0

Details of the Merseyrail system, the Tyne and Wear Metro and the Glasgow Subway. Not all parts of all systems are located underground. The data contains location information only and does not include a depth assessment.

This data is sourced from publicly available information by Groundsure.

9.3 Railway tunnels

Records within 250m

0

Railway tunnels taken from contemporary Ordnance Survey mapping.

This data is sourced from the Ordnance Survey.

9.4 Historical railway and tunnel features

Records within 250m

0

Railways and tunnels digitised from historical Ordnance Survey mapping as scales of 1:1,250, 1:2,500, 1:10,000 and 1:10,560.

This data is sourced from Ordnance Survey/Groundsure.

9.5 Royal Mail tunnels

Records within 250m

0

The Post Office Railway, otherwise known as the Mail Rail, is an underground railway running through Central London from Paddington Head District Sorting Office to Whitechapel Eastern Head Sorting Office. The line is 10.5km long. The data includes details of the full extent of the tunnels, the depth of the tunnel, and the depth to track level.



This data is sourced from Groundsure/the Postal Museum.

9.6 Historical railways

Records within 250m

0

Former railway lines, including dismantled lines, abandoned lines, disused lines, historic railways and razed lines.

This data is sourced from OpenStreetMap.

9.7 Railways

Records within 250m

0

Currently existing railway lines, including standard railways, narrow gauge, funicular, trams and light railways.

This data is sourced from Ordnance Survey and OpenStreetMap.

9.8 Crossrail 1

Records within 500m

0

The Crossrail railway project links 41 stations over 100 kilometres from Reading and Heathrow in the west, through underground sections in central London, to Shenfield and Abbey Wood in the east.

This data is sourced from publicly available information by Groundsure.

9.9 Crossrail 2

Records within 500m

0

Crossrail 2 is a proposed railway linking the national rail networks in Surrey and Hertfordshire via an underground tunnel through London.

This data is sourced from publicly available information by Groundsure.

9.10 HS2

Records within 500m

0

HS2 is a proposed high speed rail network running from London to Manchester and Leeds via Birmingham. Main civils construction on Phase 1 (London to Birmingham) of the project began in 2019, and it is currently anticipated that this phase will be fully operational by 2026. Construction on Phase 2a (Birmingham to Crewe) is anticipated to commence in 2021, with the service fully operational by 2027. Construction on Phase 2b (Crewe to Manchester and Birmingham to Leeds) is scheduled to begin in 2023 and be operational by 2033.

This data is sourced from HS2 Ltd.



Data providers

Groundsure works with respected data providers to bring you the most relevant and accurate information. To find out who they are and their areas of expertise see <https://www.groundsure.com/sources-reference> ↗.

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