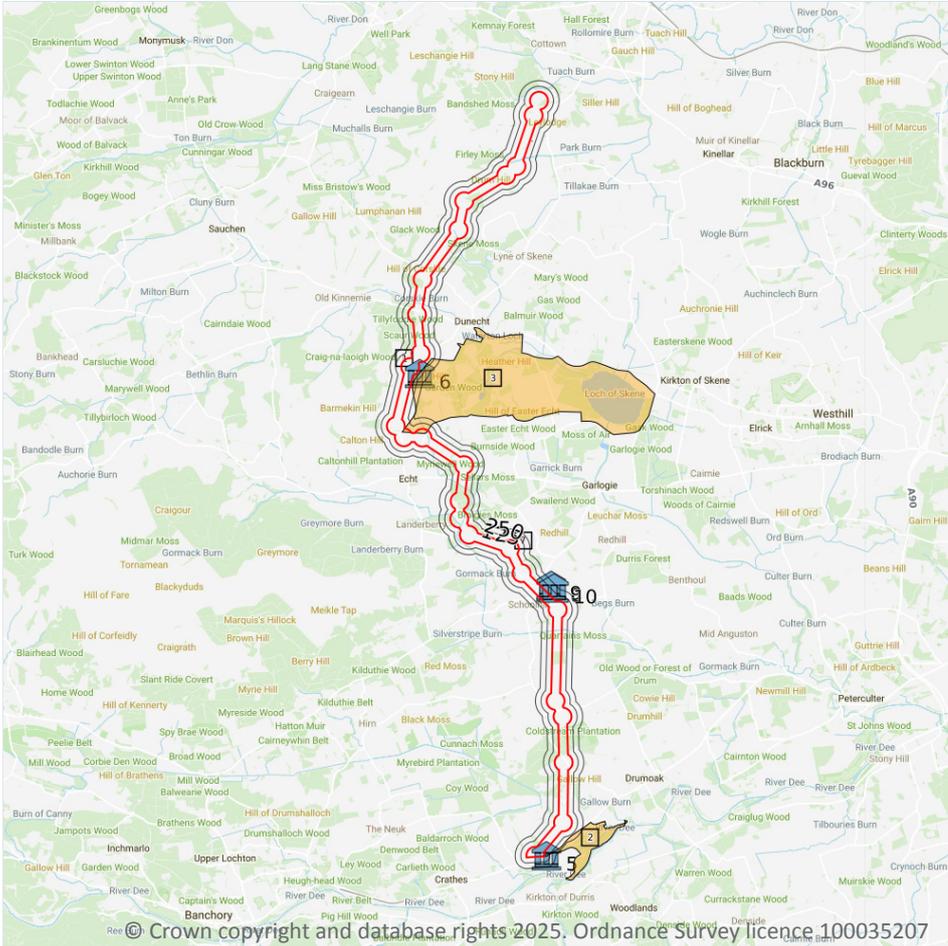


## 12 Visual and cultural designations



**Site Outline**

Search buffers in metres (m)

-  Listed buildings
-  Conservation areas
-  Conservation areas - no data
-  National Parks
-  Areas of Outstanding Natural Beauty
-  Registered parks and gardens
-  Scheduled Monuments
-  World Heritage Sites

### 12.1 World Heritage Sites

Records within 250m

0

Sites designated for their globally important cultural or natural interest requiring appropriate management and protection measures. World Heritage Sites are designated to meet the UK's commitments under the World Heritage Convention.

*This data is sourced from Historic England, Cadw and Historic Environment Scotland.*

## 12.2 Area of Outstanding Natural Beauty

Records within 250m

0

Areas of Outstanding Natural Beauty (AONB) are conservation areas, chosen because they represent 18% of the finest countryside. Each AONB has been designated for special attention because of the quality of their flora, fauna, historical and cultural associations, and/or scenic views. The National Parks and Access to the Countryside Act of 1949 created AONBs and the Countryside and Rights of Way Act, 2000 added further regulation and protection. There are likely to be restrictions to some developments within these areas.

*This data is sourced from Natural England, Natural Resources Wales and Scottish Natural Heritage.*

## 12.3 National Parks

Records within 250m

0

In England and Wales, the purpose of National Parks is to conserve and enhance landscapes within the countryside whilst promoting public enjoyment of them and having regard for the social and economic well-being of those living within them. In Scotland National Parks have the additional purpose of promoting the sustainable use of the natural resources of the area and the sustainable social and economic development of its communities. The National Parks and Access to the Countryside Act 1949 established the National Park designation in England and Wales, and The National Parks (Scotland) Act 2000 in Scotland.

*This data is sourced from Natural England, Natural Resources Wales and the Scottish Government.*

## 12.4 Listed Buildings

Records within 250m

5

Buildings listed for their special architectural or historical interest. Building control in the form of 'listed building consent' is required in order to make any changes to that building which might affect its special interest. Listed buildings are graded to indicate their relative importance, however building controls apply to all buildings equally, irrespective of their grade, and apply to the interior and exterior of the building in its entirety, together with any curtilage structures.

Features are displayed on the Visual and cultural designations map on [page 79 >](#)

ID	Location	Name	Grade	Reference Number	Listed date
5	56m E	West Lodge, Park House, Aberdeenshire	B	334093	25/11/1980
6	61m SE	West Lodges, Dunecht House, Aberdeenshire	B	334171	16/04/1971
8	155m NE	Templefold, Aberdeenshire	C	334153	11/09/1984
9	179m NE	Templefold, Aberdeenshire	C	334155	11/09/1984
10	180m NE	Threshing Mill, Templefold, Aberdeenshire	C	334154	11/09/1984

*This data is sourced from Historic England, Cadw and Historic Environment Scotland.*



## 12.5 Conservation Areas

Records within 250m

0

Local planning authorities are obliged to designate as conservation areas any parts of their own area that are of special architectural or historic interest, the character and appearance of which it is desirable to preserve or enhance. Designation of a conservation area gives broader protection than the listing of individual buildings. All the features within the area, listed or otherwise, are recognised as part of its character. Conservation area designation is the means of recognising the importance of all factors and of ensuring that planning decisions address the quality of the landscape in its broadest sense.

*This data is sourced from Historic England, Cadw and Historic Environment Scotland.*

## 12.6 Scheduled Ancient Monuments

Records within 250m

3

A scheduled monument is an historic building or site that is included in the Schedule of Monuments kept by the Secretary of State for Digital, Culture, Media and Sport. The regime is set out in the Ancient Monuments and Archaeological Areas Act 1979. The Schedule of Monuments has c.20,000 entries and includes sites such as Roman remains, burial mounds, castles, bridges, earthworks, the remains of deserted villages and industrial sites. Monuments are not graded, but all are, by definition, considered to be of national importance.

Features are displayed on the Visual and cultural designations map on [page 79 >](#)

ID	Location	Ancient monument name	Reference number
1	On site	New Wester Echt, stone circle 170m SW of	-
4	40m E	South Leylodge Steading, stone circle 110m W of	-
7	113m NE	East Finnercy, cairn 330m WNW of	-

*This data is sourced from Historic England, Cadw and Historic Environment Scotland.*

## 12.7 Registered Parks and Gardens

Records within 250m

2

Parks and gardens assessed to be of particular interest and of special historic interest. The emphasis being on 'designed' landscapes, rather than on planting or botanical importance. Registration is a 'material consideration' in the planning process, meaning that planning authorities must consider the impact of any proposed development on the special character of the landscape.

Features are displayed on the Visual and cultural designations map on [page 79 >](#)

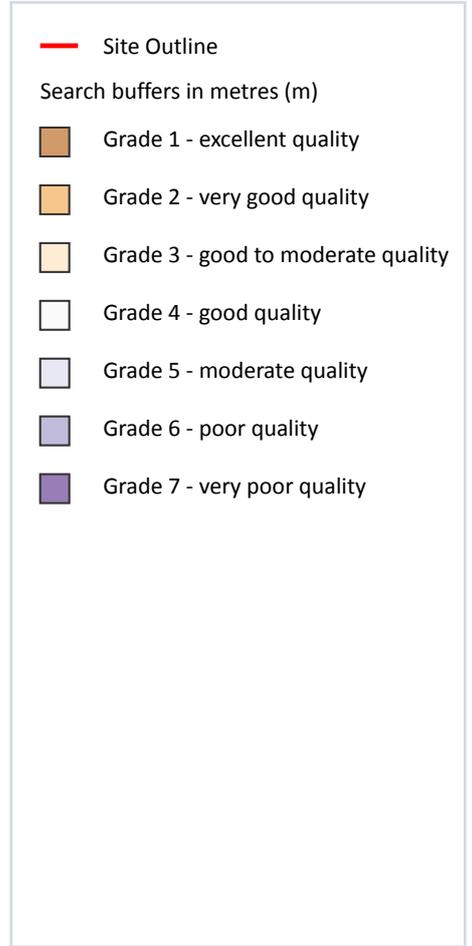
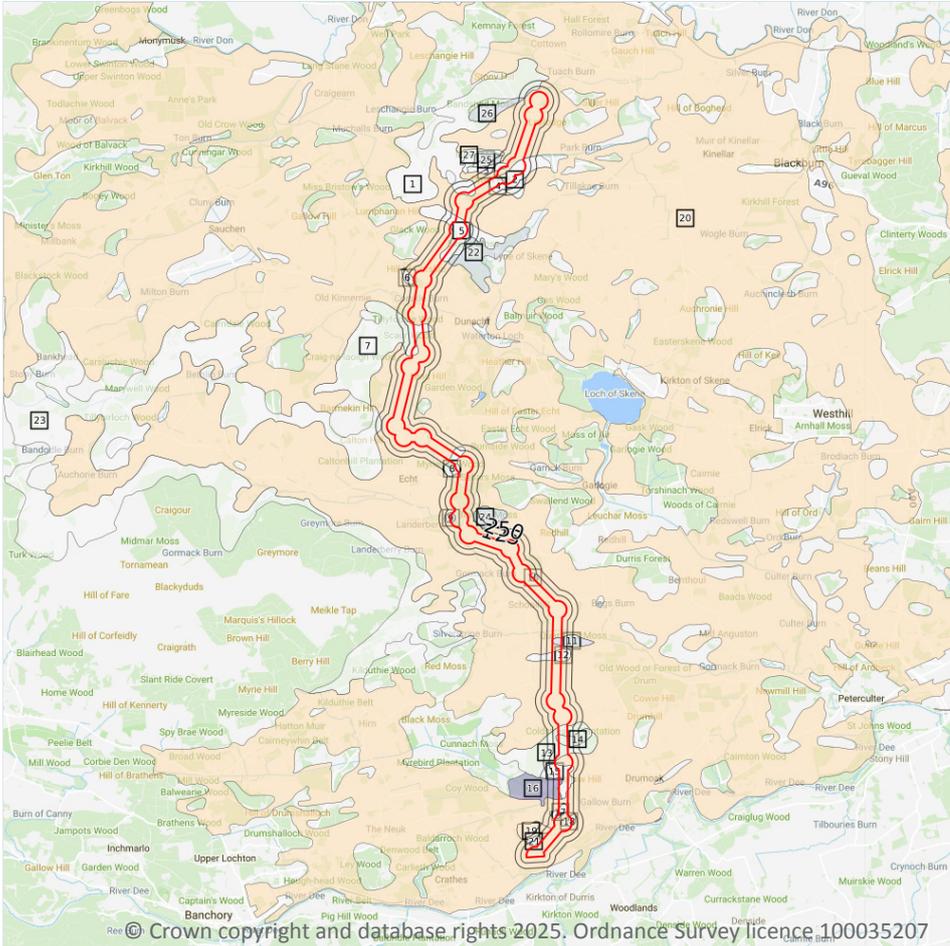


ID	Location	Name	Grade
2	On site	Park House	-
3	On site	Dunecht House	-

*This data is sourced from Historic England, Cadw and Historic Environment Scotland.*



## 13 Agricultural designations



### 13.1 Agricultural Land Classification

Records within 250m

27

Classification of the quality of agricultural land taking into consideration multiple factors including climate, physical geography and soil properties. It should be noted that the categories for the grading of agricultural land are not consistent across England, Wales and Scotland.

Features are displayed on the Agricultural designations map on [page 83](#) >

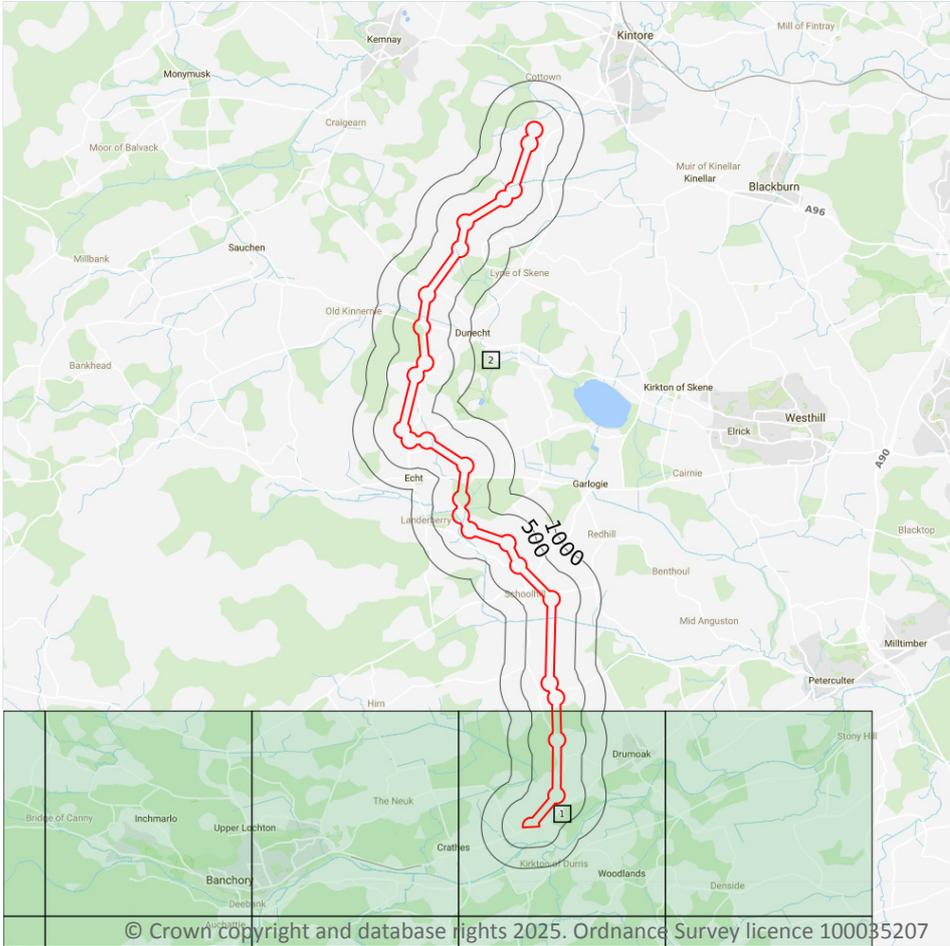
ID	Location	Classification	Description
1	On site	Grade 4.1	Land Suited to Arable Cropping
2	On site	Grade 4.1	Land Suited to Arable Cropping
3	On site	Grade 4.1	Land Suited to Arable Cropping

ID	Location	Classification	Description
4	On site	Grade 4.2	Land Suited to Arable Cropping
5	On site	Grade 4.2	Land Suited to Arable Cropping
6	On site	Grade 4.2	Land Suited to Arable Cropping
7	On site	Grade 4.2	Land Suited to Arable Cropping
8	On site	Grade 4.1	Land Suited to Arable Cropping
9	On site	Grade 5.3	Land Suited only to Improved Grassland and Rough Grazings
10	On site	Grade 5.3	Land Suited only to Improved Grassland and Rough Grazings
11	On site	Grade 5.3	Land Suited only to Improved Grassland and Rough Grazings
12	On site	Grade 4.2	Land Suited to Arable Cropping
13	On site	Grade 4.1	Land Suited to Arable Cropping
14	On site	Grade 4.2	Land Suited to Arable Cropping
15	On site	Grade 4.2	Land Suited to Arable Cropping
16	On site	Grade 6.2	Land Suited only to Improved Grassland and Rough Grazings
17	On site	Grade 4.1	Land Suited to Arable Cropping
18	On site	Grade 3.1	Land Suited to Arable Cropping
19	On site	Grade 3.1	Land Suited to Arable Cropping
20	On site	Grade 3.2	Land Suited to Arable Cropping
21	21m NW	Grade 4.1	Land Suited to Arable Cropping
22	72m SE	Grade 5.3	Land Suited only to Improved Grassland and Rough Grazings
23	99m W	Grade 4.2	Land Suited to Arable Cropping
24	109m NE	Grade 5.3	Land Suited only to Improved Grassland and Rough Grazings
25	113m NW	Grade 5.3	Land Suited only to Improved Grassland and Rough Grazings
26	126m W	Grade 5.3	Land Suited only to Improved Grassland and Rough Grazings
27	180m NW	Grade 4.2	Land Suited to Arable Cropping

*This data is sourced from the James Hutton Institute.*



## 14 Geology 1:10,000 scale - Availability



**Site Outline**

Search buffers in metres (m)

- Full coverage
- Partial coverage
- No coverage

### 14.1 10k Availability

**Records within 500m**

**2**

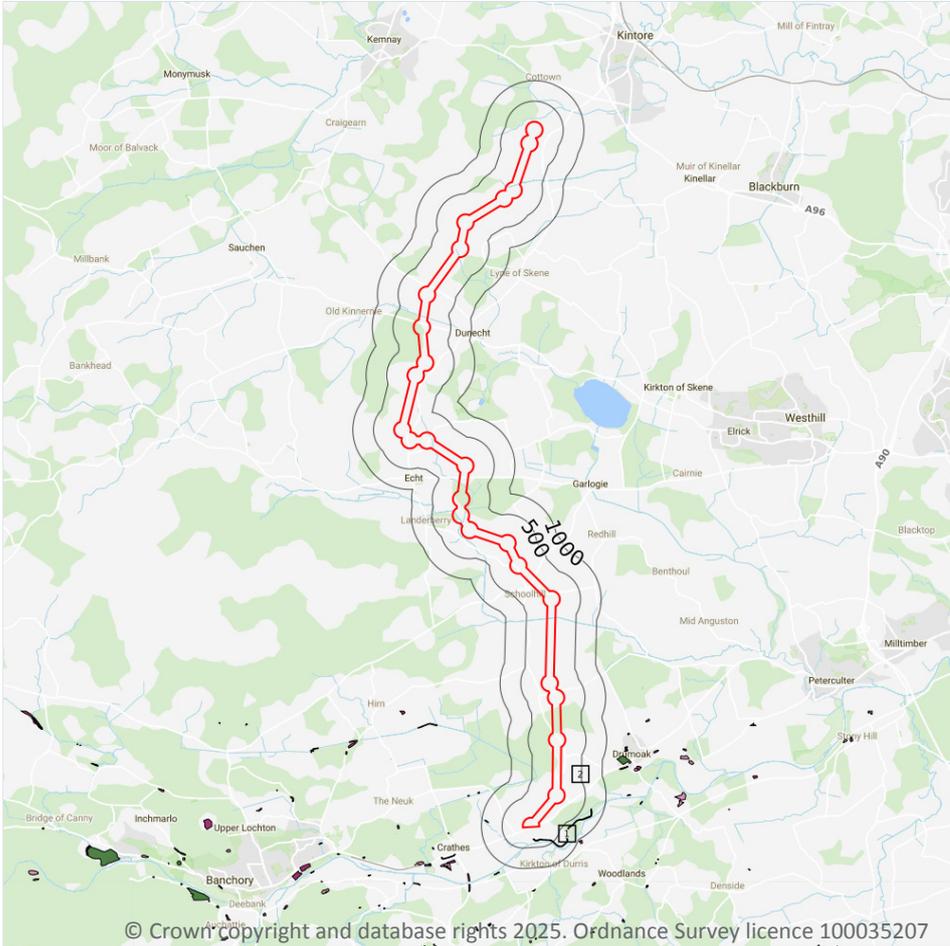
An indication on the coverage of 1:10,000 scale geology data for the site, the most detailed dataset provided by the British Geological Survey. Either 'Full', 'Partial' or 'No coverage' for each geological theme. Features are displayed on the Geology 1:10,000 scale - Availability map on [page 85](#) >

ID	Location	Artificial	Superficial	Bedrock	Mass movement	Sheet No.
1	On site	Full	Full	Full	No coverage	NO79NE
2	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



### 14.2 Artificial and made ground (10k)

Records within 500m

2

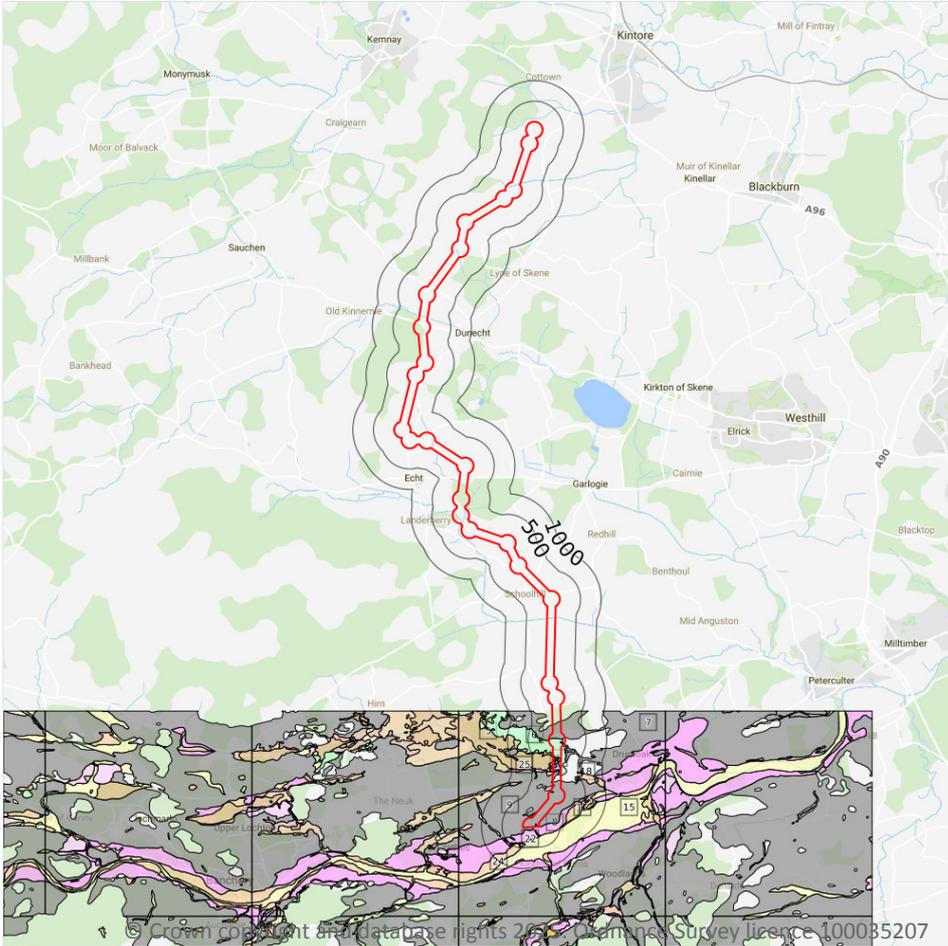
Details of made, worked, infilled, disturbed and landscaped ground at 1:10,000 scale. Artificial ground can be associated with potentially contaminated material, unpredictable engineering conditions and instability.

Features are displayed on the Geology 1:10,000 scale - Artificial and made ground map on [page 86](#) >

ID	Location	LEX Code	Description	Rock description
1	292m S	MGR-ARTDP	Made Ground (Undivided)	Artificial Deposit
2	456m E	WGR-VOID	Worked Ground (Undivided)	Void

*This data is sourced from the British Geological Survey.*

## Geology 1:10,000 scale - Superficial



- Site Outline
- Search buffers in metres (m)
- Landslip (10k)
- Superficial geology (10k)  
Please see table for more details.

### 14.3 Superficial geology (10k)

Records within 500m

27

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.

Features are displayed on the Geology 1:10,000 scale - Superficial map on [page 87](#) >

ID	Location	LEX Code	Description	Rock description
1	On site	GFSD-XVSZ	Glaciofluvial Sheet Deposits - Gravel, Sand And Silt	Gravel, Sand And Silt
2	On site	LDE-XCZS	Lacustrine Deposits - Clay, Silt And Sand	Clay, Silt And Sand
3	On site	LDE-XCZS	Lacustrine Deposits - Clay, Silt And Sand	Clay, Silt And Sand
4	On site	LDE-XCZS	Lacustrine Deposits - Clay, Silt And Sand	Clay, Silt And Sand



ID	Location	LEX Code	Description	Rock description
5	On site	PEAT-P	Peat - Peat	Peat
6	On site	HMGD-XDSV	Hummocky (moundy) Glacial Deposits - Diamicton, Sand And Gravel	Diamicton, Sand And Gravel [unlithified Deposits Coding Scheme - Extended]
7	On site	EGD-DMTN	East Grampian Glacigenic Subgroup - Diamicton	Diamicton
8	On site	GFSD-XVSZ	Glaciofluvial Sheet Deposits - Gravel, Sand And Silt	Gravel, Sand And Silt
9	On site	EGD-DMTN	East Grampian Glacigenic Subgroup - Diamicton	Diamicton
10	On site	GFSD-XVSZ	Glaciofluvial Sheet Deposits - Gravel, Sand And Silt	Gravel, Sand And Silt
11	On site	EGD-DMTN	East Grampian Glacigenic Subgroup - Diamicton	Diamicton
12	86m S	EGD-DMTN	East Grampian Glacigenic Subgroup - Diamicton	Diamicton
13	131m W	GFSD-XVSZ	Glaciofluvial Sheet Deposits - Gravel, Sand And Silt	Gravel, Sand And Silt
14	179m W	PEAT-P	Peat - Peat	Peat
15	221m S	ALV-XCZSV	Alluvium - Clay, Silt, Sand And Gravel	Clay, Silt, Sand And Gravel
16	266m SE	RTDU-XSV	River Terrace Deposits (undifferentiated) - Sand And Gravel	Sand And Gravel
17	278m W	PEAT-P	Peat - Peat	Peat
18	340m E	EGD-DMTN	East Grampian Glacigenic Subgroup - Diamicton	Diamicton
19	341m E	EGD-DMTN	East Grampian Glacigenic Subgroup - Diamicton	Diamicton
20	344m E	LDE-XCZS	Lacustrine Deposits - Clay, Silt And Sand	Clay, Silt And Sand
21	382m W	ALV-XCZSV	Alluvium - Clay, Silt, Sand And Gravel	Clay, Silt, Sand And Gravel
22	387m S	RTDU-XSV	River Terrace Deposits (undifferentiated) - Sand And Gravel	Sand And Gravel
23	390m E	EGD-DMTN	East Grampian Glacigenic Subgroup - Diamicton	Diamicton
24	407m S	RTDU-XSV	River Terrace Deposits (undifferentiated) - Sand And Gravel	Sand And Gravel
25	426m W	GFSD-XVSZ	Glaciofluvial Sheet Deposits - Gravel, Sand And Silt	Gravel, Sand And Silt
26	445m E	ALV-XCZSV	Alluvium - Clay, Silt, Sand And Gravel	Clay, Silt, Sand And Gravel
27	489m SE	RTDU-XSV	River Terrace Deposits (undifferentiated) - Sand And Gravel	Sand And Gravel

*This data is sourced from the British Geological Survey.*



## 14.4 Landslip (10k)

Records within 500m

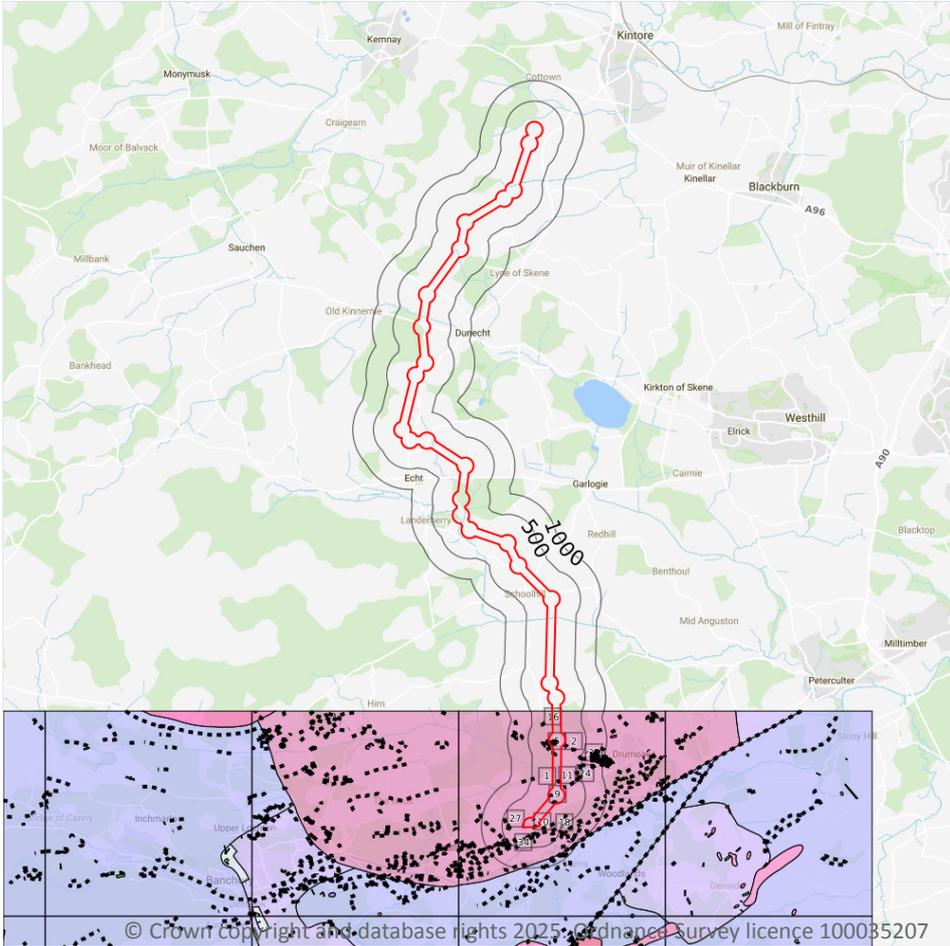
0

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



- Site Outline
- Search buffers in metres (m)
- ..... Bedrock faults and other linear features (10k)
- Bedrock geology (10k)  
Please see table for more details.

### 14.5 Bedrock geology (10k)

Records within 500m

1

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.

Features are displayed on the Geology 1:10,000 scale - Bedrock map on [page 90](#) >

ID	Location	LEX Code	Description	Rock age
1	On site	CRAT-GD	Crathes Pluton - Grandiorite	Early Devonian Epoch - Silurian Period

*This data is sourced from the British Geological Survey.*



## 14.6 Bedrock faults and other linear features (10k)

Records within 500m

37

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.

Features are displayed on the Geology 1:10,000 scale - Bedrock map on [page 90](#) >

ID	Location	Category	Description
2	On site	LANDFORM	Glacial overflow channel centre line
3	On site	LANDFORM	Glacial overflow channel centre line
4	On site	LANDFORM	Glacial overflow channel centre line
5	On site	LANDFORM	Glacial overflow channel centre line
6	On site	LANDFORM	Drumlin, form-line at base of mound
7	On site	LANDFORM	Crestline of elongate mound
8	On site	LANDFORM	Drumlin, form-line at base of mound
9	On site	LANDFORM	Glacial overflow channel centre line
10	On site	LANDFORM	Glacial overflow channel centre line
11	On site	LANDFORM	Glacial overflow channel centre line
12	1m SW	LANDFORM	Crestline of elongate mound
13	12m SW	LANDFORM	Drumlin, form-line at base of mound
14	44m S	LANDFORM	Small fluted deposit, aligned in direction of ice-movement
15	56m NE	LANDFORM	Glacial overflow channel centre line
16	116m W	LANDFORM	Glacial overflow channel centre line
17	122m SW	LANDFORM	Drumlin, form-line at base of mound
18	163m S	LANDFORM	Small fluted deposit, aligned in direction of ice-movement
19	168m S	LANDFORM	Glacial overflow channel centre line
20	186m S	LANDFORM	Drumlin, form-line at base of mound
21	215m S	LANDFORM	Crestline of elongate mound
22	248m S	LANDFORM	Glacial overflow channel centre line
23	271m S	LANDFORM	Drumlin, form-line at base of mound
24	281m E	LANDFORM	Glacial overflow channel centre line

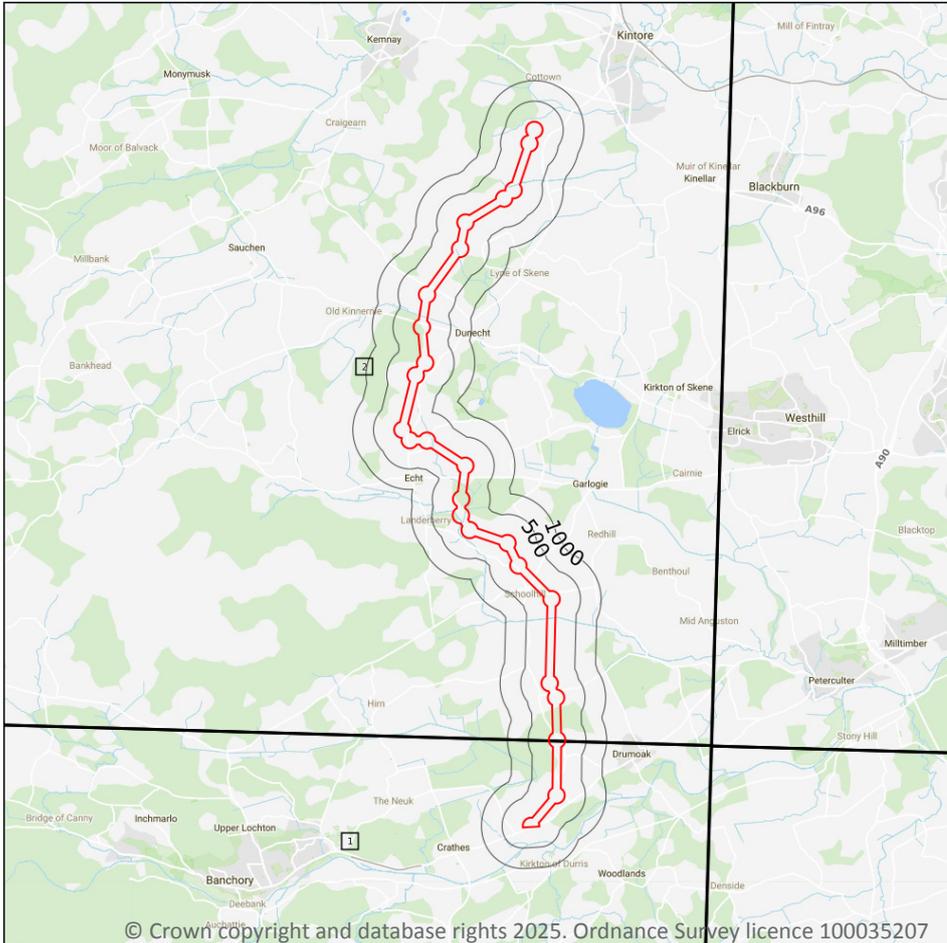


ID	Location	Category	Description
25	281m S	LANDFORM	Crestline of elongate mound
26	292m E	LANDFORM	Glacial overflow channel centre line
27	294m W	LANDFORM	Glacial overflow channel centre line
28	306m E	LANDFORM	Glacial overflow channel centre line
29	311m SE	LANDFORM	Backfeature of terrace margin, arrowheads denote uphill side
30	325m W	LANDFORM	Glacial overflow channel centre line branch
31	337m E	LANDFORM	Glacial overflow channel centre line
32	349m S	LANDFORM	Backfeature of terrace margin, arrowheads denote uphill side
33	359m SW	LANDFORM	Glacial overflow channel centre line
34	424m S	LANDFORM	Backfeature of terrace margin, arrowheads denote uphill side
35	431m SE	LANDFORM	Backfeature of terrace margin, arrowheads denote uphill side
36	435m W	LANDFORM	Glacial overflow channel centre line
37	498m E	LANDFORM	Glacial overflow channel centre line
38	500m E	LANDFORM	Glacial overflow channel centre line

*This data is sourced from the British Geological Survey.*



## 15 Geology 1:50,000 scale - Availability



**— Site Outline**

Search buffers in metres (m)

---

**□ Geological map tile**

### 15.1 50k Availability

**Records within 500m**

**2**

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

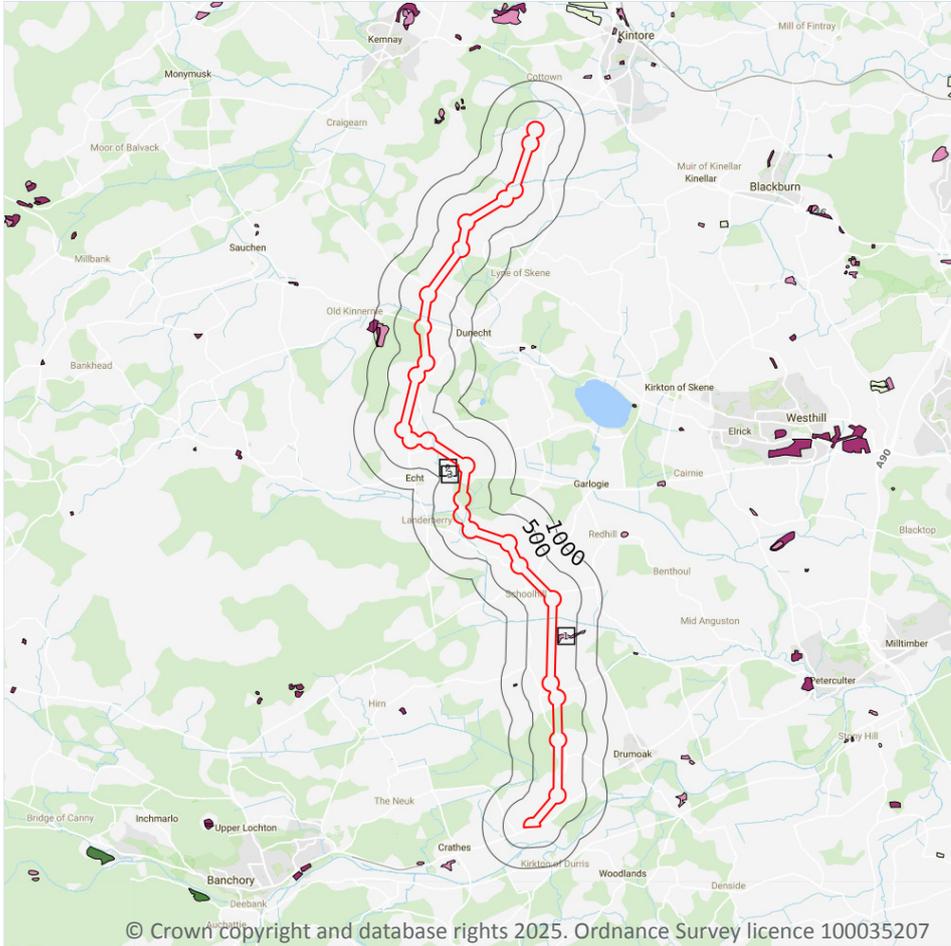
Features are displayed on the Geology 1:50,000 scale - Availability map on [page 93 >](#)

ID	Location	Artificial	Superficial	Bedrock	Mass movement	Sheet No.
1	On site	Full	Full	Full	Full	SC066e_Banchory_v4
2	On site	Full	Full	Full	Full	SC076e_Inverurie_v4

*This data is sourced from the British Geological Survey.*



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



### 15.2 Artificial and made ground (50k)

Records within 500m

3

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 94 >](#)

ID	Location	LEX Code	Description	Rock description
1	54m E	WGR-VOID	WORKED GROUND (UNDIVIDED)	VOID
2	150m SW	WGR-VOID	WORKED GROUND (UNDIVIDED)	VOID
3	187m SW	WMGR-ARTDP	INFILLED GROUND	ARTIFICIAL DEPOSIT

*This data is sourced from the British Geological Survey.*



Contact us with any questions at:

[info@groundsure.com](mailto:info@groundsure.com)

01273 257 755

Date: 4 September 2025

### 15.3 Artificial ground permeability (50k)

Records within 50m

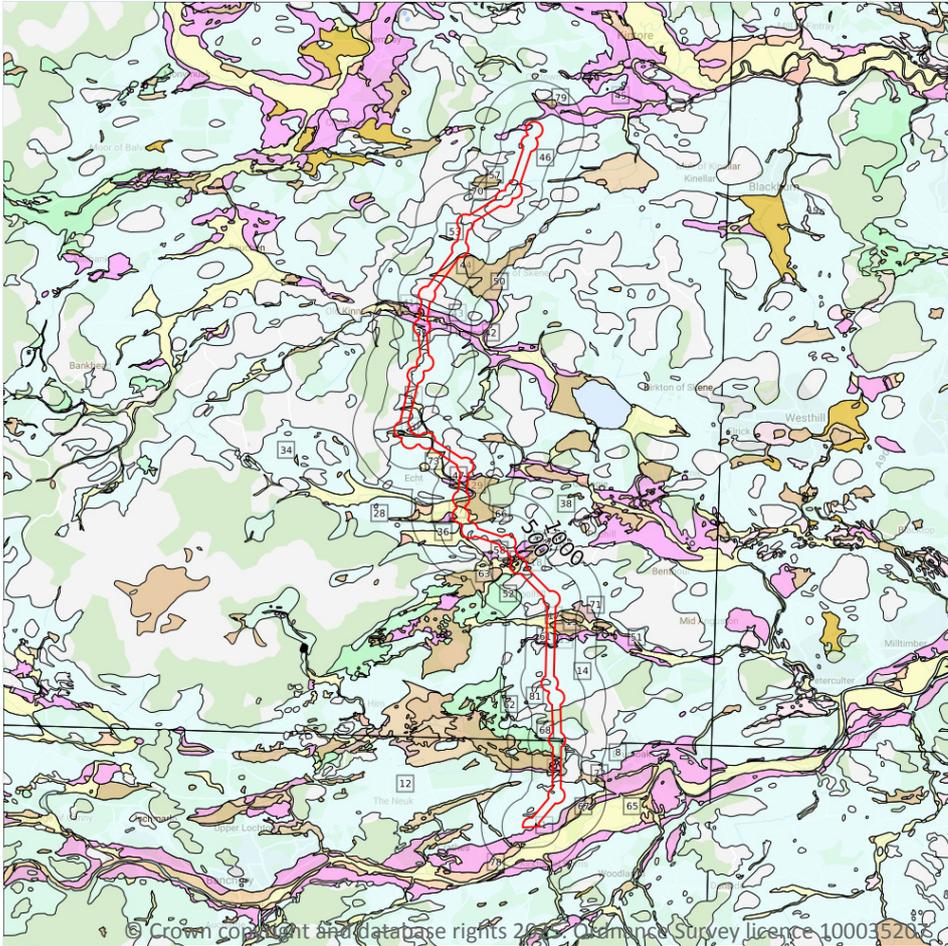
0

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.

### 15.4 Superficial geology (50k)

Records within 500m

81

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 96](#) >

ID	Location	LEX Code	Description	Rock description
1	On site	LOSG-XSV	LOCHTON SAND AND GRAVEL FORMATION	SAND AND GRAVEL
2	On site	LDE-XCZS	LACUSTRINE DEPOSITS	CLAY, SILT AND SAND
3	On site	LOSG-XSV	LOCHTON SAND AND GRAVEL FORMATION	SAND AND GRAVEL
4	On site	LDE-XCZS	LACUSTRINE DEPOSITS	CLAY, SILT AND SAND



ID	Location	LEX Code	Description	Rock description
5	On site	LOSG-XSV	LOCHTON SAND AND GRAVEL FORMATION	SAND AND GRAVEL
6	On site	BATI-DMTN	BANCHORY TILL FORMATION	DIAMICTON
7	On site	LDE-XCZS	LACUSTRINE DEPOSITS	CLAY, SILT AND SAND
8	On site	BATI-DMTN	BANCHORY TILL FORMATION	DIAMICTON
9	On site	HMGD-XDSV	HUMMOCKY (MOUNDY) GLACIAL DEPOSITS	DIAMICTON, SAND AND GRAVEL
10	On site	PEAT-P	PEAT	PEAT
11	On site	HMGD-XDSV	HUMMOCKY (MOUNDY) GLACIAL DEPOSITS	DIAMICTON, SAND AND GRAVEL
12	On site	BATI-DMTN	BANCHORY TILL FORMATION	DIAMICTON
13	On site	GFSD-XVSZ	GLACIOFLUVIAL SHEET DEPOSITS	GRAVEL, SAND AND SILT
14	On site	BATI-DMTN	BANCHORY TILL FORMATION	DIAMICTON
15	On site	PEAT-P	PEAT	PEAT
16	On site	PEAT-P	PEAT	PEAT
17	On site	ALV-XCZSV	ALLUVIUM	CLAY, SILT, SAND AND GRAVEL
18	On site	PEAT-P	PEAT	PEAT
19	On site	PEAT-P	PEAT	PEAT
20	On site	GFSD-XVSZ	GLACIOFLUVIAL SHEET DEPOSITS	GRAVEL, SAND AND SILT
21	On site	PEAT-P	PEAT	PEAT
22	On site	GFSD-XVSZ	GLACIOFLUVIAL SHEET DEPOSITS	GRAVEL, SAND AND SILT
23	On site	PEAT-P	PEAT	PEAT
24	On site	GFSD-XVSZ	GLACIOFLUVIAL SHEET DEPOSITS	GRAVEL, SAND AND SILT
25	On site	PEAT-P	PEAT	PEAT
26	On site	GFSD-XVSZ	GLACIOFLUVIAL SHEET DEPOSITS	GRAVEL, SAND AND SILT
27	On site	GFSD-XVSZ	GLACIOFLUVIAL SHEET DEPOSITS	GRAVEL, SAND AND SILT
28	On site	BATI-DMTN	BANCHORY TILL FORMATION	DIAMICTON
29	On site	GFSD-XVSZ	GLACIOFLUVIAL SHEET DEPOSITS	GRAVEL, SAND AND SILT
30	On site	BATI-DMTN	BANCHORY TILL FORMATION	DIAMICTON
31	On site	PEAT-P	PEAT	PEAT



ID	Location	LEX Code	Description	Rock description
32	On site	GFSD-XVSZ	GLACIOFLUVIAL SHEET DEPOSITS	GRAVEL, SAND AND SILT
33	On site	BATI-DMTN	BANCHORY TILL FORMATION	DIAMICTON
34	On site	BATI-DMTN	BANCHORY TILL FORMATION	DIAMICTON
35	On site	BATI-DMTN	BANCHORY TILL FORMATION	DIAMICTON
36	On site	ALV-XCZSV	ALLUVIUM	CLAY, SILT, SAND AND GRAVEL
37	On site	BATI-DMTN	BANCHORY TILL FORMATION	DIAMICTON
38	On site	BATI-DMTN	BANCHORY TILL FORMATION	DIAMICTON
39	On site	BATI-DMTN	BANCHORY TILL FORMATION	DIAMICTON
40	On site	GFSD-XVSZ	GLACIOFLUVIAL SHEET DEPOSITS	GRAVEL, SAND AND SILT
41	On site	PEAT-P	PEAT	PEAT
42	On site	ALV-XCZSV	ALLUVIUM	CLAY, SILT, SAND AND GRAVEL
43	On site	GFSD-XVSZ	GLACIOFLUVIAL SHEET DEPOSITS	GRAVEL, SAND AND SILT
44	On site	LDE-XCZS	LACUSTRINE DEPOSITS	CLAY, SILT AND SAND
45	On site	GFSD-XVSZ	GLACIOFLUVIAL SHEET DEPOSITS	GRAVEL, SAND AND SILT
46	On site	BATI-DMTN	BANCHORY TILL FORMATION	DIAMICTON
47	16m W	GFSD-XVSZ	GLACIOFLUVIAL SHEET DEPOSITS	GRAVEL, SAND AND SILT
48	17m NW	GFSD-XVSZ	GLACIOFLUVIAL SHEET DEPOSITS	GRAVEL, SAND AND SILT
49	40m NE	PEAT-P	PEAT	PEAT
50	42m SE	PEAT-P	PEAT	PEAT
51	54m E	GFSD-XVSZ	GLACIOFLUVIAL SHEET DEPOSITS	GRAVEL, SAND AND SILT
52	97m SW	HMGD-XDSV	HUMMOCKY (MOUNDY) GLACIAL DEPOSITS	DIAMICTON, SAND AND GRAVEL
53	102m NW	PEAT-P	PEAT	PEAT
54	121m SW	BATI-DMTN	BANCHORY TILL FORMATION	DIAMICTON
55	129m W	LOSG-XSV	LOCHTON SAND AND GRAVEL FORMATION	SAND AND GRAVEL
56	136m W	GFSD-XVSZ	GLACIOFLUVIAL SHEET DEPOSITS	GRAVEL, SAND AND SILT
57	163m NW	PEAT-P	PEAT	PEAT
58	172m SW	GFSD-XVSZ	GLACIOFLUVIAL SHEET DEPOSITS	GRAVEL, SAND AND SILT
59	178m W	PEAT-P	PEAT	PEAT



ID	Location	LEX Code	Description	Rock description
60	204m W	GFSD-XVSZ	GLACIOFLUVIAL SHEET DEPOSITS	GRAVEL, SAND AND SILT
61	210m W	GFSD-XVSZ	GLACIOFLUVIAL SHEET DEPOSITS	GRAVEL, SAND AND SILT
62	211m W	HMGD-XDSV	HUMMOCKY (MOUNDY) GLACIAL DEPOSITS	DIAMICTON, SAND AND GRAVEL
63	216m W	PEAT-P	PEAT	PEAT
64	218m S	PEAT-P	PEAT	PEAT
65	219m S	ALV-XCZSV	ALLUVIUM	CLAY, SILT, SAND AND GRAVEL
66	252m N	ALF-XVSZC	ALLUVIAL FAN DEPOSITS	GRAVEL, SAND, SILT AND CLAY
67	269m SE	RTDU-XVSZ	RIVER TERRACE DEPOSITS (UNDIFFERENTIATED)	GRAVEL, SAND AND SILT
68	276m W	PEAT-P	PEAT	PEAT
69	280m W	ALV-XCZSV	ALLUVIUM	CLAY, SILT, SAND AND GRAVEL
70	311m NW	BATI-DMTN	BANCHORY TILL FORMATION	DIAMICTON
71	320m E	HEAD-XVSZC	HEAD	GRAVEL, SAND, SILT AND CLAY
72	341m E	LDE-XCZS	LACUSTRINE DEPOSITS	CLAY, SILT AND SAND
73	347m S	ALV-XCZSV	ALLUVIUM	CLAY, SILT, SAND AND GRAVEL
74	374m NE	GFSD-XVSZ	GLACIOFLUVIAL SHEET DEPOSITS	GRAVEL, SAND AND SILT
75	379m E	PEAT-P	PEAT	PEAT
76	398m S	RTDU-XVSZ	RIVER TERRACE DEPOSITS (UNDIFFERENTIATED)	GRAVEL, SAND AND SILT
77	403m SW	GFSD-XVSZ	GLACIOFLUVIAL SHEET DEPOSITS	GRAVEL, SAND AND SILT
78	415m S	RTDU-XVSZ	RIVER TERRACE DEPOSITS (UNDIFFERENTIATED)	GRAVEL, SAND AND SILT
79	458m NE	PEAT-P	PEAT	PEAT
80	487m W	ALV-XCZSV	ALLUVIUM	CLAY, SILT, SAND AND GRAVEL
81	497m W	PEAT-P	PEAT	PEAT

*This data is sourced from the British Geological Survey.*



## 15.5 Superficial permeability (50k)

<b>Records within 50m</b>	<b>42</b>
---------------------------	-----------

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	Intergranular	High	Very Low
On site	Intergranular	High	Very Low
On site	Intergranular	High	Very Low
On site	Intergranular	High	Very Low
On site	Intergranular	Very High	High
On site	Mixed	High	Low
On site	Intergranular	Moderate	Very Low
On site	Intergranular	Moderate	Very Low
On site	Intergranular	Moderate	Very Low
On site	Mixed	High	Low
On site	Mixed	High	Low
On site	Mixed	High	Low
On site	Mixed	High	Low
On site	Mixed	High	Low
On site	Mixed	High	Low
On site	Mixed	High	Low
On site	Mixed	High	Low
On site	Mixed	High	Low
On site	Mixed	High	Low
On site	Mixed	High	Low
On site	Mixed	High	Low
On site	Mixed	High	Low
On site	Mixed	High	Low
On site	Mixed	Low	Very Low



Location	Flow type	Maximum permeability	Minimum permeability
On site	Mixed	Low	Very Low
On site	Mixed	Low	Very Low
On site	Mixed	Low	Very Low
On site	Mixed	Low	Very Low
On site	Mixed	Low	Very Low
On site	Intergranular	Very High	Moderate
On site	Intergranular	Very High	Moderate
On site	Intergranular	Very High	Moderate
On site	Intergranular	Very High	Moderate
On site	Intergranular	Very High	Moderate
On site	Intergranular	Very High	Moderate
On site	Intergranular	Very High	Moderate
On site	Intergranular	Very High	Moderate
16m W	Intergranular	Very High	Moderate
17m NW	Intergranular	Very High	Moderate
18m W	Intergranular	Very High	Moderate
40m NE	Mixed	Low	Very Low
42m SE	Mixed	Low	Very Low
43m W	Mixed	High	Low

*This data is sourced from the British Geological Survey.*

## 15.6 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.*



## 15.7 Landslip permeability (50k)

Records within 50m

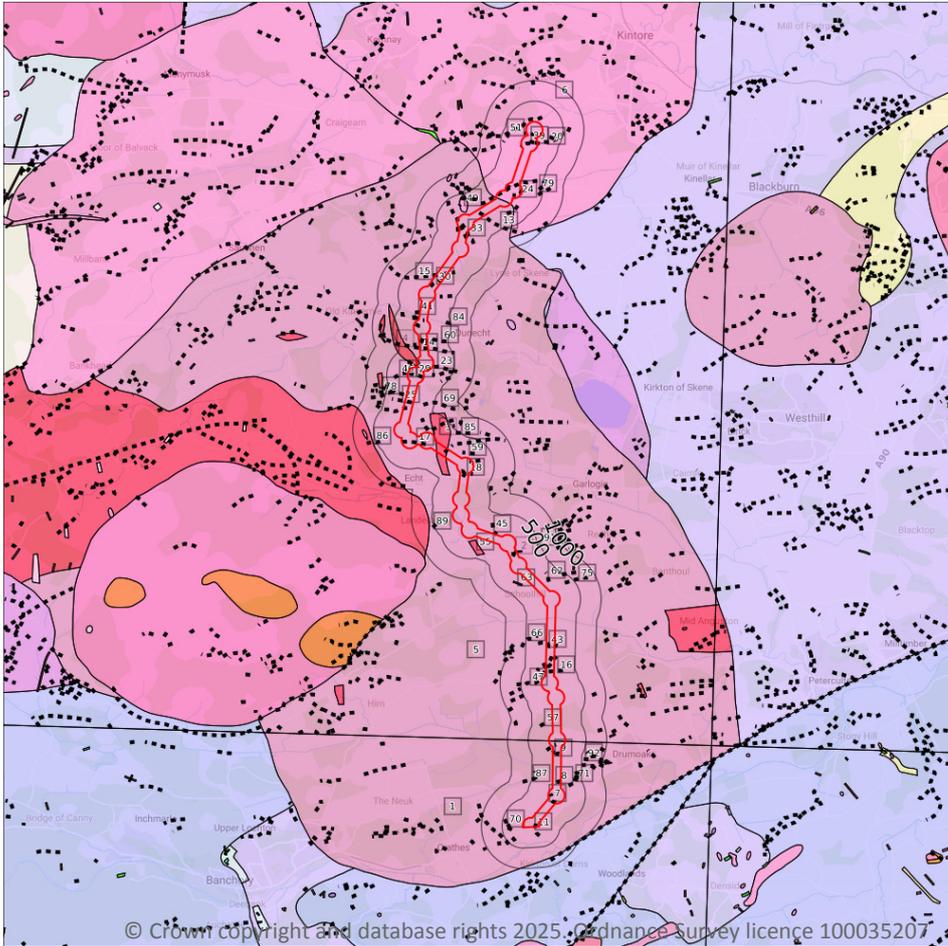
0

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.

### 15.8 Bedrock geology (50k)

Records within 500m

9

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 103](#) >

ID	Location	LEX Code	Description	Rock age
1	On site	CRAT-GD	CRATHES PLUTON - GRANODIORITE	-
2	On site	SDCAD-FELS	NORTH BRITAIN SILURO-DEVONIAN CALC-ALKALINE DYKE SUITE - FELSITE	-
3	On site	BBLR-MCGD	BALBLAIR INTRUSION - MICROGRANODIORITE	-



ID	Location	LEX Code	Description	Rock age
4	On site	BBLR-MCGD	BALBLAIR INTRUSION - MICROGRANODIORITE	-
5	On site	CRAT-GD	CRATHES PLUTON - GRANODIORITE	-
6	On site	KEMN-GNMBF	KEMNAY PLUTON - GRANITE, FOLIATED-MUSCOVITE-BIOTITE	-
49	51m N	KEMN-GNMBF	KEMNAY PLUTON - GRANITE, FOLIATED-MUSCOVITE-BIOTITE	-
55	70m S	BBLR-MCGD	BALBLAIR INTRUSION - MICROGRANODIORITE	-
63	158m SW	SDCAD-FELSP	NORTH BRITAIN SILURO-DEVONIAN CALC-ALKALINE DYKE SUITE - FELSITE, PORPHYRITIC	-

This data is sourced from the British Geological Survey.

## 15.9 Bedrock permeability (50k)

<b>Records within 50m</b>	<b>5</b>
---------------------------	----------

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	Low	Low
On site	Fracture	Low	Low
On site	Fracture	Low	Low
On site	Fracture	Low	Low
On site	Fracture	Low	Low

This data is sourced from the British Geological Survey.

## 15.10 Bedrock faults and other linear features (50k)

<b>Records within 500m</b>	<b>83</b>
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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 103 >](#)

ID	Location	Category	Description
7	On site	LANDFORM	Glacial meltwater channel centre line, undifferentiated
8	On site	LANDFORM	Glacial meltwater channel centre line, undifferentiated
9	On site	LANDFORM	Glacial meltwater channel centre line, undifferentiated
10	On site	LANDFORM	Glacial meltwater channel centre line, undifferentiated
11	On site	LANDFORM	Glacial meltwater channel centre line, undifferentiated
12	On site	LANDFORM	Glacial meltwater channel centre line, undifferentiated
13	On site	LANDFORM	Axis of large-scale glacial furrow, generally associated with drumlins
14	On site	LANDFORM	Axis of large-scale glacial furrow, generally associated with drumlins
15	On site	LANDFORM	Axis of large-scale glacial furrow, generally associated with drumlins
16	On site	LANDFORM	Axis of large-scale glacial flute
17	On site	LANDFORM	Axis of large-scale glacial flute
18	On site	LANDFORM	Glacial meltwater channel centre line, undifferentiated
19	On site	LANDFORM	Glacial meltwater channel centre line, undifferentiated
20	On site	LANDFORM	Glacial meltwater channel centre line, undifferentiated
21	On site	LANDFORM	Glacial meltwater channel centre line, undifferentiated
22	On site	LANDFORM	Glacial meltwater channel centre line, undifferentiated
23	On site	LANDFORM	Glacial meltwater channel centre line, undifferentiated
24	On site	LANDFORM	Glacial meltwater channel centre line, undifferentiated
25	On site	LANDFORM	Glacial meltwater channel centre line, undifferentiated
26	On site	LANDFORM	Glacial meltwater channel centre line, undifferentiated
27	On site	LANDFORM	Glacial meltwater channel centre line, undifferentiated
28	On site	LANDFORM	Glacial meltwater channel centre line, undifferentiated
29	On site	LANDFORM	Glacial meltwater channel centre line, undifferentiated
30	On site	LANDFORM	Glacial meltwater channel centre line, undifferentiated
31	On site	LANDFORM	Glacial meltwater channel centre line, undifferentiated
32	On site	LANDFORM	Glacial meltwater channel centre line, undifferentiated
33	On site	LANDFORM	Glacial meltwater channel centre line, undifferentiated
34	On site	LANDFORM	Glacial meltwater channel centre line, undifferentiated



ID	Location	Category	Description
35	On site	LANDFORM	Glacial meltwater channel centre line, undifferentiated
36	On site	LANDFORM	Glacial meltwater channel centre line (head)
37	On site	LANDFORM	Glacial meltwater channel centre line (head)
38	On site	LANDFORM	Glacial meltwater channel centre line (tail)
39	On site	LANDFORM	Glacial meltwater channel centre line (tail)
40	On site	LANDFORM	Glacial meltwater channel centre line (tail)
41	On site	LANDFORM	Esker crestline
42	On site	LANDFORM	Esker crestline
43	On site	LANDFORM	Esker crestline
44	On site	LANDFORM	Esker crestline
45	12m N	LANDFORM	Glacial meltwater channel centre line, undifferentiated
46	12m W	LANDFORM	Axis of large-scale glacial furrow, generally associated with drumlins
47	40m NW	LANDFORM	Glacial meltwater channel centre line (head)
48	42m NW	LANDFORM	Esker crestline
50	56m N	LANDFORM	Glacial meltwater channel centre line, undifferentiated
51	60m N	LANDFORM	Glacial meltwater channel centre line, undifferentiated
52	62m NE	LANDFORM	Glacial meltwater channel centre line, undifferentiated
53	64m W	LANDFORM	Axis of large-scale glacial furrow, generally associated with drumlins
54	67m W	LANDFORM	Glacial meltwater channel centre line, undifferentiated
56	91m N	LANDFORM	Axis of large-scale glacial furrow, generally associated with drumlins
57	107m W	LANDFORM	Glacial meltwater channel centre line, undifferentiated
58	112m E	LANDFORM	Axis of large-scale glacial furrow, generally associated with drumlins
59	119m N	LANDFORM	Axis of large-scale glacial furrow, generally associated with drumlins
60	128m E	LANDFORM	Axis of large-scale glacial flute
61	135m SE	LANDFORM	Glacial meltwater channel centre line, undifferentiated
62	151m NE	LANDFORM	Glacial meltwater channel centre line, undifferentiated
64	167m SE	LANDFORM	Axis of large-scale glacial furrow, generally associated with drumlins
65	197m NW	LANDFORM	Axis of large-scale glacial furrow, generally associated with drumlins

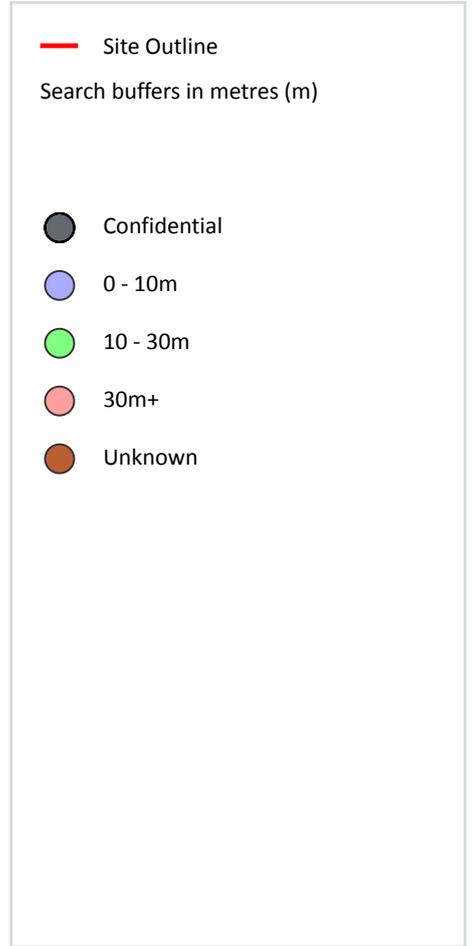
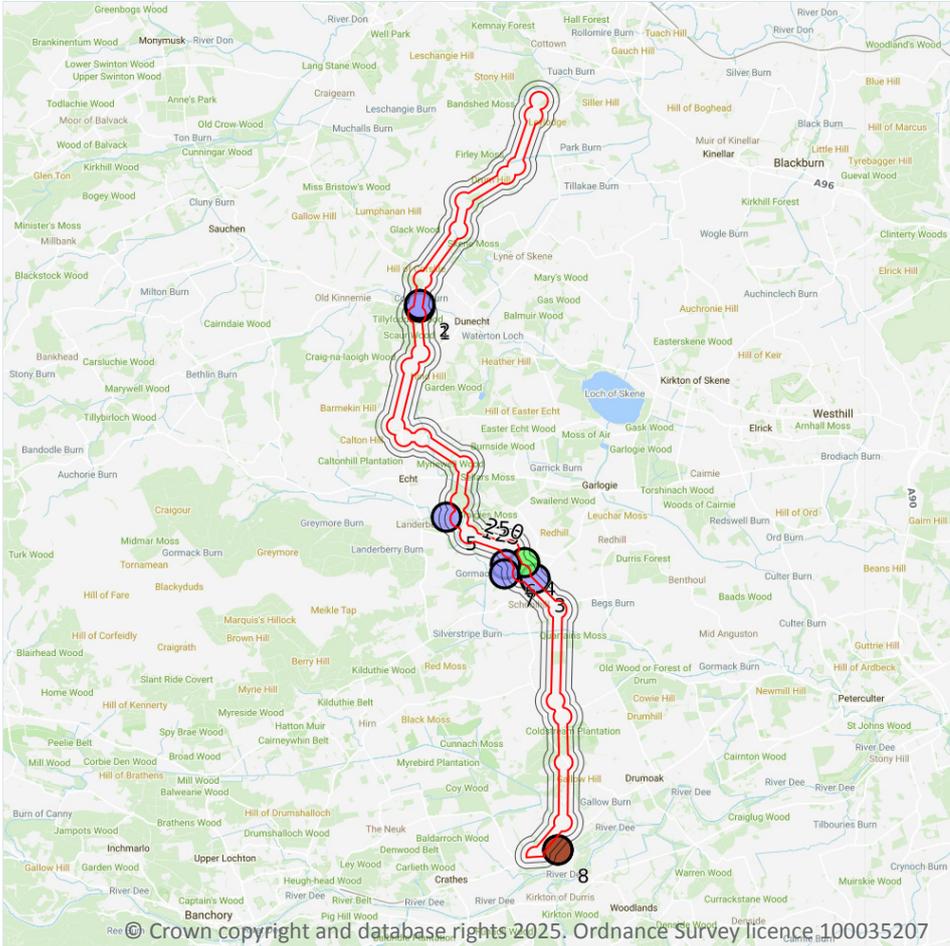


ID	Location	Category	Description
66	213m W	LANDFORM	Esker crestline
67	233m N	LANDFORM	Glacial meltwater channel centre line, undifferentiated
68	237m NE	LANDFORM	Axis of large-scale glacial furrow, generally associated with drumlins
69	249m E	LANDFORM	Axis of large-scale glacial furrow, generally associated with drumlins
70	273m W	LANDFORM	Glacial meltwater channel centre line, undifferentiated
71	284m E	LANDFORM	Glacial meltwater channel centre line, undifferentiated
72	290m E	LANDFORM	Glacial meltwater channel centre line, undifferentiated
73	305m NW	LANDFORM	Esker crestline
74	310m E	LANDFORM	Glacial meltwater channel centre line, undifferentiated
75	311m NE	LANDFORM	Axis of large-scale glacial flute
76	327m W	LANDFORM	Glacial meltwater channel centre line (tail)
77	331m W	LANDFORM	Glacial meltwater channel centre line (tail)
78	344m W	LANDFORM	Glacial meltwater channel centre line (tail)
79	346m E	LANDFORM	Glacial meltwater channel centre line, undifferentiated
80	357m SW	LANDFORM	Glacial meltwater channel centre line, undifferentiated
81	361m W	LANDFORM	Glacial meltwater channel centre line (tail)
82	382m E	LANDFORM	Glacial meltwater channel centre line, undifferentiated
83	394m SE	LANDFORM	Glacial meltwater channel centre line, undifferentiated
84	395m E	LANDFORM	Esker crestline
85	398m NE	LANDFORM	Axis of large-scale glacial flute
86	404m SW	LANDFORM	Glacial meltwater channel centre line, undifferentiated
87	407m W	LANDFORM	Glacial meltwater channel centre line, undifferentiated
88	435m SW	LANDFORM	Axis of large-scale glacial flute
89	438m W	LANDFORM	Glacial meltwater channel centre line, undifferentiated
90	445m N	LANDFORM	Axis of large-scale glacial flute
91	462m NE	LANDFORM	Glacial meltwater channel centre line, undifferentiated
92	492m E	LANDFORM	Glacial meltwater channel centre line, undifferentiated

*This data is sourced from the British Geological Survey.*



## 16 Boreholes



### 16.1 BGS Boreholes

Records within 250m

8

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 108](#) >

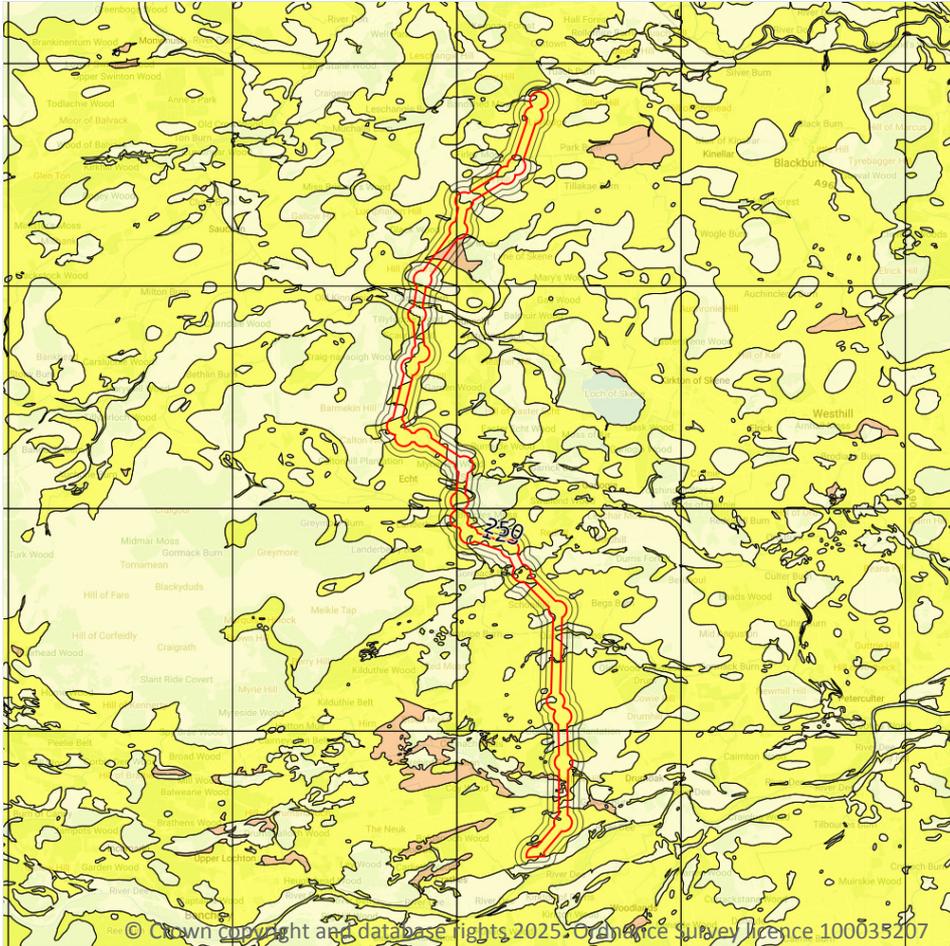
ID	Location	Grid reference	Name	Length	Confidential	Web link
1	On site	374170 809530	TILLY BRIG, ECHT	4.3	N	<a href="#">607101</a> ↗
2	On site	374170 809590	TILLY BRIG, ECHT	3.5	N	<a href="#">607102</a> ↗

ID	Location	Grid reference	Name	Length	Confidential	Web link
3	19m NE	376740 803420	WEST CULLERLEY, ECHT	3.2	N	<a href="#">620554</a> ↗
4	43m N	376520 803780	WEST CULLERLEY, ECHT	13.0	N	<a href="#">620552</a> ↗
5	97m W	374760 804810	PHEASANTRY, MARKETMUIR WOOD, EC	7.7	N	<a href="#">616359</a> ↗
6	139m SW	376090 803740	LITTLE FINNERCY, ECHT	1.7	N	<a href="#">620551</a> ↗
7	187m W	376060 803530	LITTLE FINNERCY, ECHT	5.0	N	<a href="#">620553</a> ↗
8	204m SE	377260 797340	NETHER PARK DRUMOAK	-1.0	N	<a href="#">628057</a> ↗

*This data is sourced from the British Geological Survey.*



## 17 Natural ground subsidence - Shrink swell clays



— Site Outline  
Search buffers in metres (m)

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

### 17.1 Shrink swell clays

Records within 50m

6

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 110 >](#)

Location	Hazard rating	Details
On site	Negligible	Ground conditions predominantly non-plastic.
On site	Very low	Ground conditions predominantly low plasticity.
On site	Low	Ground conditions predominantly medium plasticity.

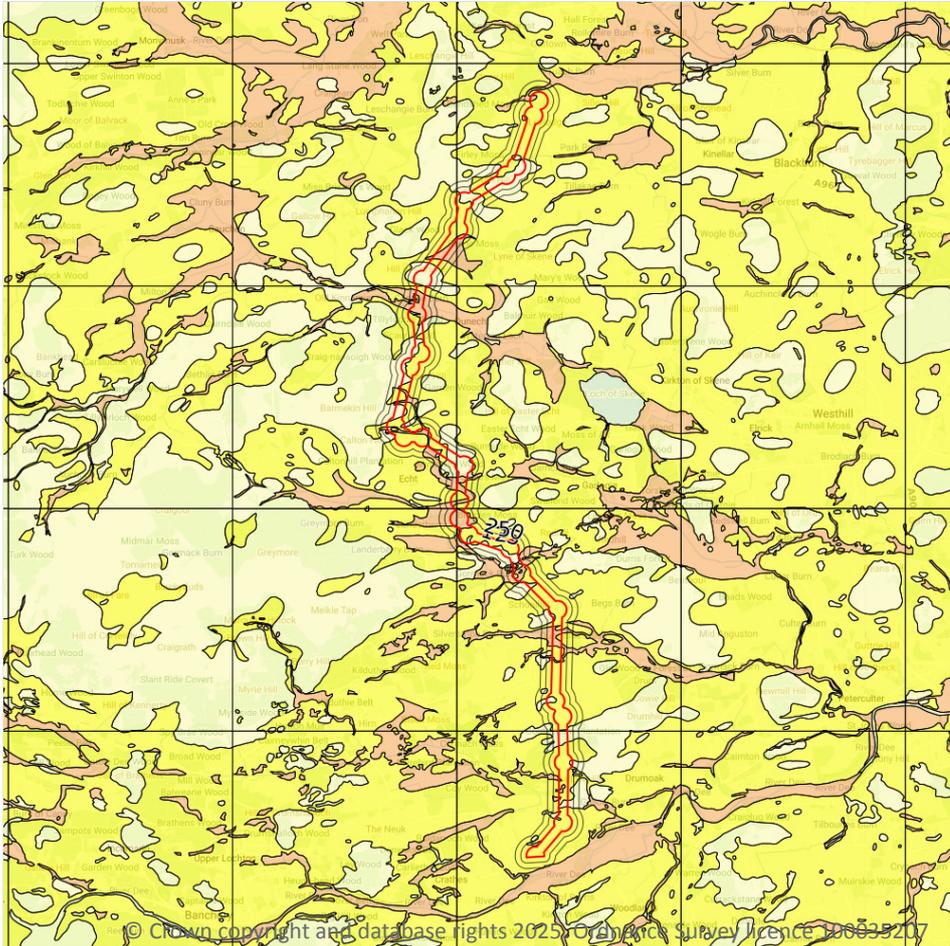


Location	Hazard rating	Details
16m W	Negligible	Ground conditions predominantly non-plastic.
42m SE	Negligible	Ground conditions predominantly non-plastic.
47m SE	Negligible	Ground conditions predominantly non-plastic.

*This data is sourced from the British Geological Survey.*



## Natural ground subsidence - Running sands



— Site Outline  
Search buffers in metres (m)

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

### 17.2 Running sands

Records within 50m

6

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 112](#) >

Location	Hazard rating	Details
On site	Negligible	Running sand conditions are not thought to occur whatever the position of the water table. No identified constraints on lands use due to running conditions.

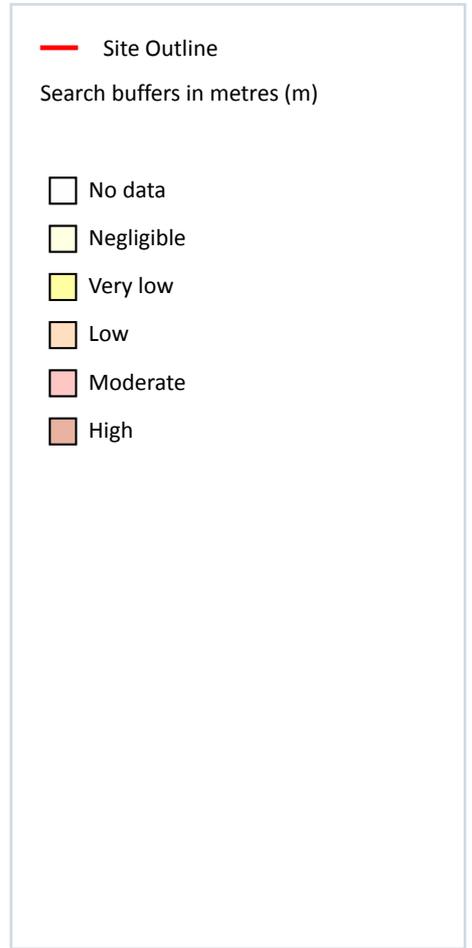
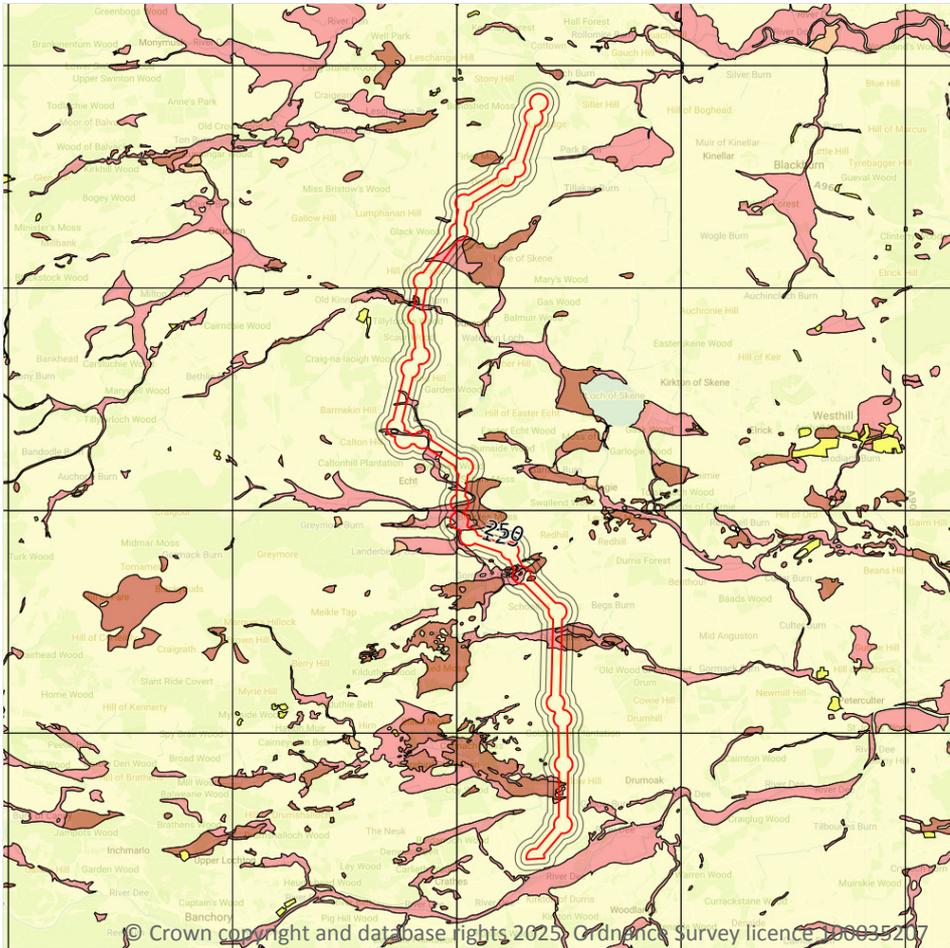


Location	Hazard rating	Details
On site	Very low	Running sand conditions are unlikely. No identified constraints on land use due to running conditions unless water table rises rapidly.
On site	Low	Running sand conditions may be present. Constraints may apply to land uses involving excavation or the addition or removal of water.
17m NW	Low	Running sand conditions may be present. Constraints may apply to land uses involving excavation or the addition or removal of water.
40m NE	Very low	Running sand conditions are unlikely. No identified constraints on land use due to running conditions unless water table rises rapidly.
47m SE	Negligible	Running sand conditions are not thought to occur whatever the position of the water table. No identified constraints on lands use due to running conditions.

*This data is sourced from the British Geological Survey.*



## Natural ground subsidence - Compressible deposits



### 17.3 Compressible deposits

Records within 50m

6

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 114](#) >

Location	Hazard rating	Details
On site	Negligible	Compressible strata are not thought to occur.
On site	Moderate	Compressibility and uneven settlement hazards are probably present. Land use should consider specifically the compressibility and variability of the site.

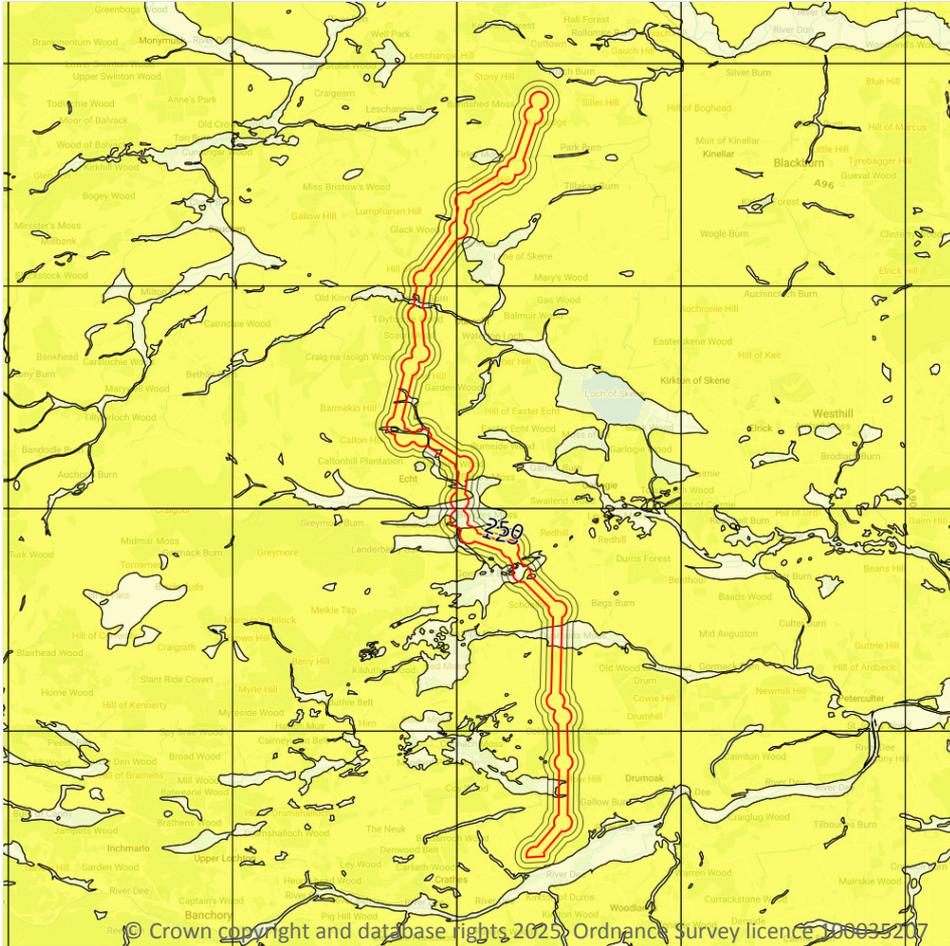


Location	Hazard rating	Details
<b>On site</b>	<b>High</b>	<b>Highly compressible strata present. Significant constraint on land use depending on thickness.</b>
17m NW	Negligible	Compressible strata are not thought to occur.
40m NE	High	Highly compressible strata present. Significant constraint on land use depending on thickness.
42m SE	High	Highly compressible strata present. Significant constraint on land use depending on thickness.

*This data is sourced from the British Geological Survey.*



## Natural ground subsidence - Collapsible deposits



### 17.4 Collapsible deposits

Records within 50m

5

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 116 >](#)

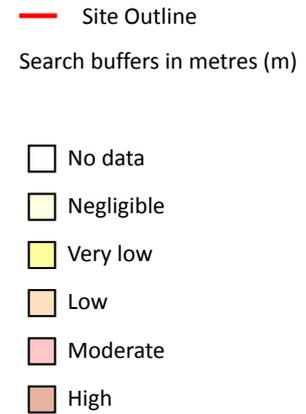
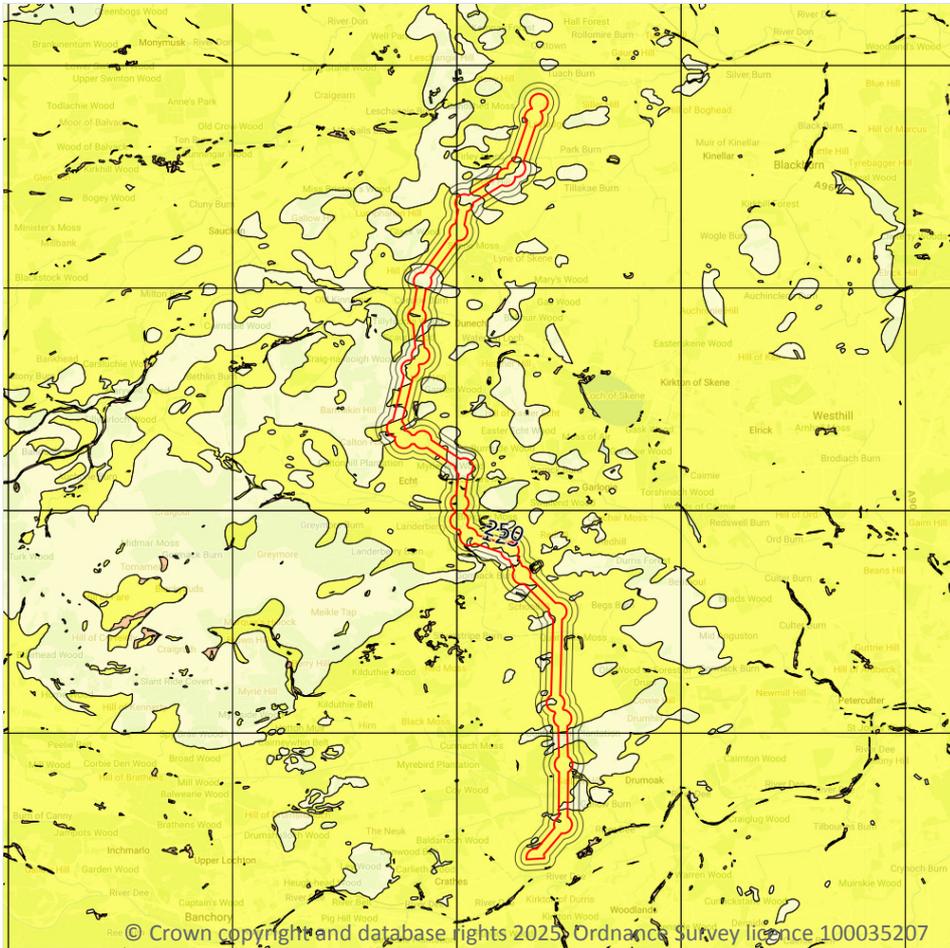
Location	Hazard rating	Details
On site	Negligible	Deposits with potential to collapse when loaded and saturated are believed not to be present.
On site	Very low	Deposits with potential to collapse when loaded and saturated are unlikely to be present.
17m NW	Very low	Deposits with potential to collapse when loaded and saturated are unlikely to be present.

Location	Hazard rating	Details
40m NE	Negligible	Deposits with potential to collapse when loaded and saturated are believed not to be present.
42m SE	Negligible	Deposits with potential to collapse when loaded and saturated are believed not to be present.

*This data is sourced from the British Geological Survey.*



## Natural ground subsidence - Landslides



### 17.5 Landslides

Records within 50m

7

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 118](#) >

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

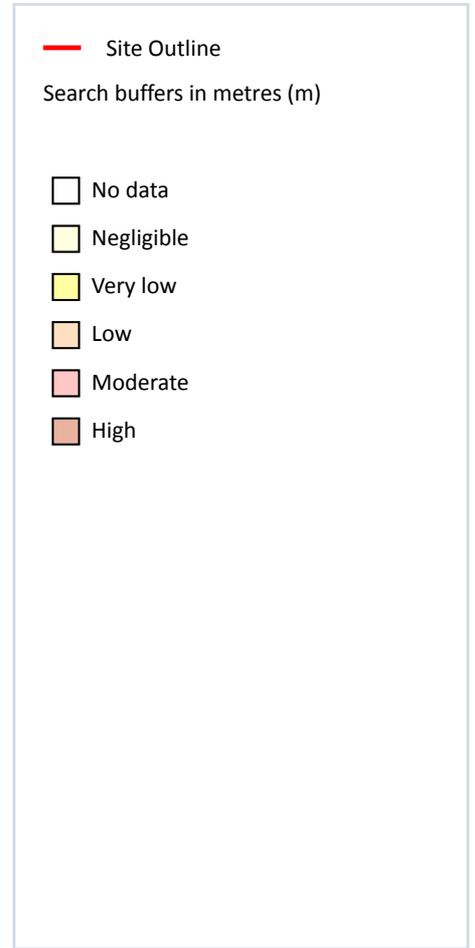
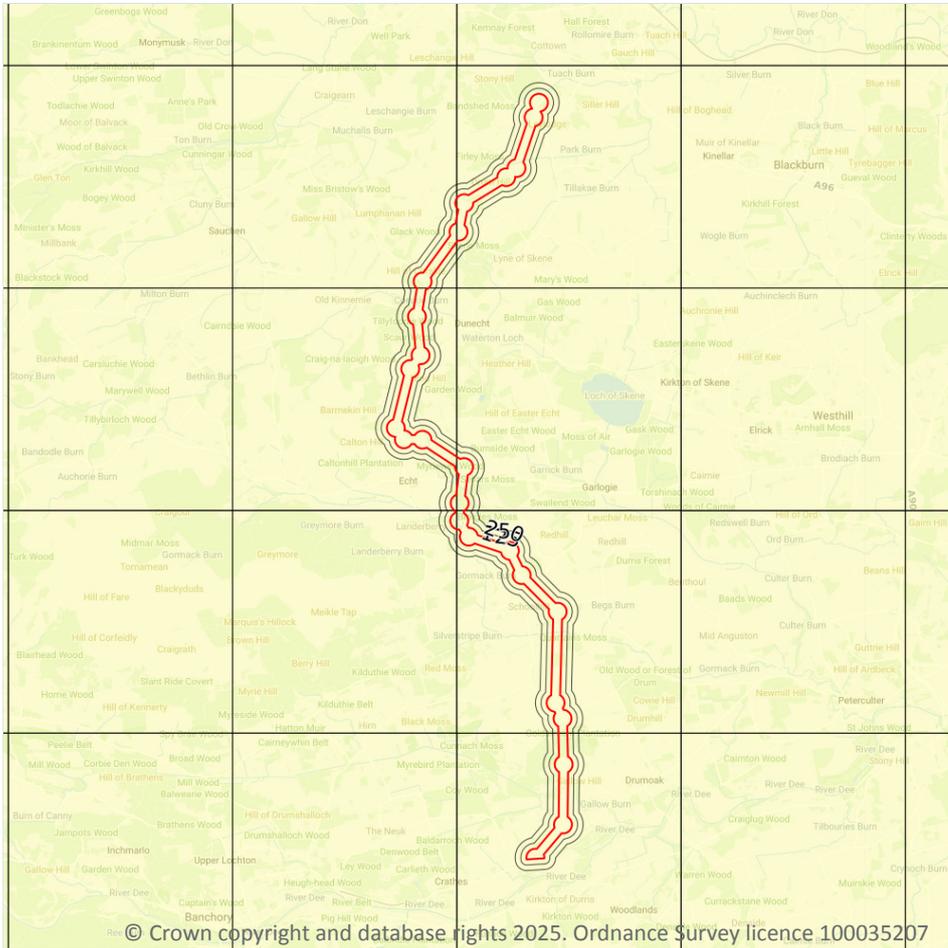


Location	Hazard rating	Details
On site	Very low	<b>Slope instability problems are not likely to occur but consideration to potential problems of adjacent areas impacting on the site should always be considered.</b>
On site	Low	<b>Slope instability problems may be present or anticipated. Site investigation should consider specifically the slope stability of the site.</b>
14m SW	Low	Slope instability problems may be present or anticipated. Site investigation should consider specifically the slope stability of the site.
26m W	Low	Slope instability problems may be present or anticipated. Site investigation should consider specifically the slope stability of the site.
34m NE	Low	Slope instability problems may be present or anticipated. Site investigation should consider specifically the slope stability of the site.
47m SE	Negligible	Slope instability problems are not thought 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



### 17.6 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 120 >](#)

Location	Hazard rating	Details
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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.
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*This data is sourced from the British Geological Survey.*



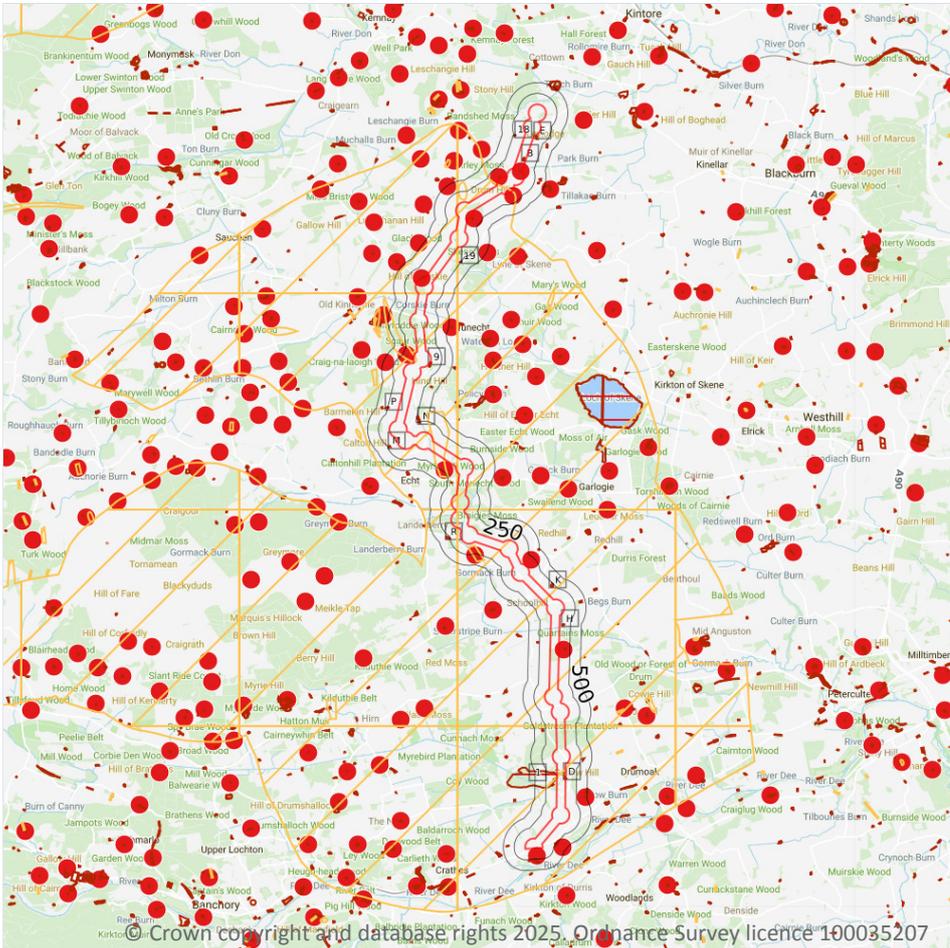
Contact us with any questions at:

[info@groundsure.com](mailto:info@groundsure.com) ↗

01273 257 755

Date: 4 September 2025

## 18 Mining and ground workings



### 18.1 BritPits

Records within 500m

20

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 122](#) >

ID	Location	Details	Description
A	On site	<b>Name: Drum Hill Sand Pit</b> <b>Address: Wardes, Leylodge, KINTORE, Aberdeenshire</b> <b>Commodity: Sand</b> <b>Status: Ceased</b>	<b>Type: A surface mineral working. It may be termed Quarry, Delf, Delph, Gravel Pit, Sand Pit, Sand and Gravel Pit, Clay Pit, Pit, Opencast Coal Site or Surface Mine. It may be mapped as Worked Ground or Worked and Made Ground on BGS mapping.</b> <b>Status description: Site which has ceased to extract minerals. May be considered as 'Closed' by operator. May be considered to have 'Active', 'Dormant' or 'Expired' planning permissions by the Mineral Planning Authority.</b>
C	11m N	Name: Upper Corskie Gravel Pit Address: Upper Corskie, Dunecht, SKENE, Aberdeenshire Commodity: Sand & Gravel Status: Ceased	Type: A surface mineral working. It may be termed Quarry, Delf, Delph, Gravel Pit, Sand Pit, Sand and Gravel Pit, Clay Pit, Pit, Opencast Coal Site or Surface Mine. It may be mapped as Worked Ground or Worked and Made Ground on BGS mapping. Status description: Site which has ceased to extract minerals. May be considered as 'Closed' by operator. May be considered to have 'Active', 'Dormant' or 'Expired' planning permissions by the Mineral Planning Authority.
F	53m NW	Name: Bogfold Address: Bogfold, Leylodge, KINTORE, Aberdeenshire Commodity: Igneous & Metamorphic Rock Status: Ceased	Type: A surface mineral working. It may be termed Quarry, Delf, Delph, Gravel Pit, Sand Pit, Sand and Gravel Pit, Clay Pit, Pit, Opencast Coal Site or Surface Mine. It may be mapped as Worked Ground or Worked and Made Ground on BGS mapping. Status description: Site which has ceased to extract minerals. May be considered as 'Closed' by operator. May be considered to have 'Active', 'Dormant' or 'Expired' planning permissions by the Mineral Planning Authority.
G	71m SE	Name: Wester Letter Address: Wester Letter, Letter, Lyne of Skene, SKENE, Aberdeenshire Commodity: Igneous & Metamorphic Rock Status: Ceased	Type: A surface mineral working. It may be termed Quarry, Delf, Delph, Gravel Pit, Sand Pit, Sand and Gravel Pit, Clay Pit, Pit, Opencast Coal Site or Surface Mine. It may be mapped as Worked Ground or Worked and Made Ground on BGS mapping. Status description: Site which has ceased to extract minerals. May be considered as 'Closed' by operator. May be considered to have 'Active', 'Dormant' or 'Expired' planning permissions by the Mineral Planning Authority.



ID	Location	Details	Description
11	97m SE	Name: Warehouse Address: Wardes, Letter, Leylodge, KINTORE, Aberdeenshire Commodity: Igneous & Metamorphic Rock Status: Ceased	Type: A surface mineral working. It may be termed Quarry, Delf, Delph, Gravel Pit, Sand Pit, Sand and Gravel Pit, Clay Pit, Pit, Opencast Coal Site or Surface Mine. It may be mapped as Worked Ground or Worked and Made Ground on BGS mapping. Status description: Site which has ceased to extract minerals. May be considered as 'Closed' by operator. May be considered to have 'Active', 'Dormant' or 'Expired' planning permissions by the Mineral Planning Authority.
12	99m E	Name: Horsewells Address: Horsewells, Peterculter, ABERDEEN, Aberdeenshire Commodity: Sand & Gravel Status: Ceased	Type: A surface mineral working. It may be termed Quarry, Delf, Delph, Gravel Pit, Sand Pit, Sand and Gravel Pit, Clay Pit, Pit, Opencast Coal Site or Surface Mine. It may be mapped as Worked Ground or Worked and Made Ground on BGS mapping. Status description: Site which has ceased to extract minerals. May be considered as 'Closed' by operator. May be considered to have 'Active', 'Dormant' or 'Expired' planning permissions by the Mineral Planning Authority.
14	167m SE	Name: Wester Letter Pit Address: Wester Letter, Letter, Lyne of Skene, SKENE, Aberdeenshire Commodity: Sand & Gravel Status: Ceased	Type: A surface mineral working. It may be termed Quarry, Delf, Delph, Gravel Pit, Sand Pit, Sand and Gravel Pit, Clay Pit, Pit, Opencast Coal Site or Surface Mine. It may be mapped as Worked Ground or Worked and Made Ground on BGS mapping. Status description: Site which has ceased to extract minerals. May be considered as 'Closed' by operator. May be considered to have 'Active', 'Dormant' or 'Expired' planning permissions by the Mineral Planning Authority.
15	172m S	Name: Nether Park Quarry Address: Drumoak, BANCHORY, Aberdeenshire, AB31 5AD Commodity: Sand & Gravel Status: Active	Type: A surface mineral working. It may be termed Quarry, Delf, Delph, Gravel Pit, Sand Pit, Sand and Gravel Pit, Clay Pit, Pit, Opencast Coal Site or Surface Mine. It may be mapped as Worked Ground or Worked and Made Ground on BGS mapping. Status description: Site which is actively extracting a mineral, or in the case of wharfs and rail depots, is actively handling minerals
J	181m W	Name: Scaur Wood Pit Address: New Wester Echt, Dunecht, SKENE, Aberdeenshire Commodity: Igneous & Metamorphic Rock Status: Ceased	Type: A surface mineral working. It may be termed Quarry, Delf, Delph, Gravel Pit, Sand Pit, Sand and Gravel Pit, Clay Pit, Pit, Opencast Coal Site or Surface Mine. It may be mapped as Worked Ground or Worked and Made Ground on BGS mapping. Status description: Site which has ceased to extract minerals. May be considered as 'Closed' by operator. May be considered to have 'Active', 'Dormant' or 'Expired' planning permissions by the Mineral Planning Authority.



ID	Location	Details	Description
16	188m NE	Name: Northtown Pit Address: Northtown, Schoolhill, BANCHORY, Aberdeenshire Commodity: Sand & Gravel Status: Ceased	Type: A surface mineral working. It may be termed Quarry, Delf, Delph, Gravel Pit, Sand Pit, Sand and Gravel Pit, Clay Pit, Pit, Opencast Coal Site or Surface Mine. It may be mapped as Worked Ground or Worked and Made Ground on BGS mapping. Status description: Site which has ceased to extract minerals. May be considered as 'Closed' by operator. May be considered to have 'Active', 'Dormant' or 'Expired' planning permissions by the Mineral Planning Authority.
17	195m SW	Name: Myriewell Wood Address: South Monecht, Echt, SKENE, Aberdeenshire Commodity: Igneous & Metamorphic Rock Status: Ceased	Type: A surface mineral working. It may be termed Quarry, Delf, Delph, Gravel Pit, Sand Pit, Sand and Gravel Pit, Clay Pit, Pit, Opencast Coal Site or Surface Mine. It may be mapped as Worked Ground or Worked and Made Ground on BGS mapping. Status description: Site which has ceased to extract minerals. May be considered as 'Closed' by operator. May be considered to have 'Active', 'Dormant' or 'Expired' planning permissions by the Mineral Planning Authority.
L	243m SW	Name: Manse Address: South Monecht, Echt, WESTHILL, Aberdeenshire Commodity: Igneous & Metamorphic Rock Status: Ceased	Type: A surface mineral working. It may be termed Quarry, Delf, Delph, Gravel Pit, Sand Pit, Sand and Gravel Pit, Clay Pit, Pit, Opencast Coal Site or Surface Mine. It may be mapped as Worked Ground or Worked and Made Ground on BGS mapping. Status description: Site which has ceased to extract minerals. May be considered as 'Closed' by operator. May be considered to have 'Active', 'Dormant' or 'Expired' planning permissions by the Mineral Planning Authority.
22	285m S	Name: Tillyshogle Pit Address: Tillyshogle, Schoolhill, BANCHORY, Aberdeenshire Commodity: Igneous & Metamorphic Rock Status: Ceased	Type: A surface mineral working. It may be termed Quarry, Delf, Delph, Gravel Pit, Sand Pit, Sand and Gravel Pit, Clay Pit, Pit, Opencast Coal Site or Surface Mine. It may be mapped as Worked Ground or Worked and Made Ground on BGS mapping. Status description: Site which has ceased to extract minerals. May be considered as 'Closed' by operator. May be considered to have 'Active', 'Dormant' or 'Expired' planning permissions by the Mineral Planning Authority.



ID	Location	Details	Description
25	409m SE	Name: Netherpark Quarry Address: Drumoak, BANCHORY, Aberdeenshire Commodity: Sand & Gravel Status: Inactive	Type: A surface mineral working. It may be termed Quarry, Delf, Delph, Gravel Pit, Sand Pit, Sand and Gravel Pit, Clay Pit, Pit, Opencast Coal Site or Surface Mine. It may be mapped as Worked Ground or Worked and Made Ground on BGS mapping. Status description: Site which is not currently extracting minerals, but which still has a valid planning permission to do so, and can restart at any time. May be considered 'Mothballed' by operator. May be considered to have 'Active' or 'Dormant' planning permission by the Mineral Planning Authority
26	433m NW	Name: Firley Moss Address: Leylodge, KINTORE, Aberdeenshire Commodity: Peat Status: Ceased	Type: A surface mineral working. It may be termed Quarry, Delf, Delph, Gravel Pit, Sand Pit, Sand and Gravel Pit, Clay Pit, Pit, Opencast Coal Site or Surface Mine. It may be mapped as Worked Ground or Worked and Made Ground on BGS mapping. Status description: Site which has ceased to extract minerals. May be considered as 'Closed' by operator. May be considered to have 'Active', 'Dormant' or 'Expired' planning permissions by the Mineral Planning Authority.
27	462m W	Name: Craig-na-loaigh Wood Pit Address: Craig-na-loaigh Wood, Dunecht, SKENE, Aberdeenshire Commodity: Igneous & Metamorphic Rock Status: Ceased	Type: A surface mineral working. It may be termed Quarry, Delf, Delph, Gravel Pit, Sand Pit, Sand and Gravel Pit, Clay Pit, Pit, Opencast Coal Site or Surface Mine. It may be mapped as Worked Ground or Worked and Made Ground on BGS mapping. Status description: Site which has ceased to extract minerals. May be considered as 'Closed' by operator. May be considered to have 'Active', 'Dormant' or 'Expired' planning permissions by the Mineral Planning Authority.
28	464m SE	Name: Netherpark Quarry Address: Drumoak, BANCHORY, Aberdeenshire Commodity: Sand & Gravel Status: Inactive	Type: A surface mineral working. It may be termed Quarry, Delf, Delph, Gravel Pit, Sand Pit, Sand and Gravel Pit, Clay Pit, Pit, Opencast Coal Site or Surface Mine. It may be mapped as Worked Ground or Worked and Made Ground on BGS mapping. Status description: Site which is not currently extracting minerals, but which still has a valid planning permission to do so, and can restart at any time. May be considered 'Mothballed' by operator. May be considered to have 'Active' or 'Dormant' planning permission by the Mineral Planning Authority



ID	Location	Details	Description
AF	467m E	Name: Sunnybrae Sand Pit Address: Sunnybrae, Drumoak, BANCHORY, Kincardineshire Commodity: Sand Status: Ceased	Type: A surface mineral working. It may be termed Quarry, Delf, Delph, Gravel Pit, Sand Pit, Sand and Gravel Pit, Clay Pit, Pit, Opencast Coal Site or Surface Mine. It may be mapped as Worked Ground or Worked and Made Ground on BGS mapping. Status description: Site which has ceased to extract minerals. May be considered as 'Closed' by operator. May be considered to have 'Active', 'Dormant' or 'Expired' planning permissions by the Mineral Planning Authority.
30	495m NW	Name: Lauchintilly Address: Lauchintilly, Leylodge, KINTORE, Aberdeenshire Commodity: Igneous & Metamorphic Rock Status: Ceased	Type: A surface mineral working. It may be termed Quarry, Delf, Delph, Gravel Pit, Sand Pit, Sand and Gravel Pit, Clay Pit, Pit, Opencast Coal Site or Surface Mine. It may be mapped as Worked Ground or Worked and Made Ground on BGS mapping. Status description: Site which has ceased to extract minerals. May be considered as 'Closed' by operator. May be considered to have 'Active', 'Dormant' or 'Expired' planning permissions by the Mineral Planning Authority.
AG	497m E	Name: Sunnybrae Sand Pit Address: Sunnybrae, Drumoak, BANCHORY, Aberdeenshire Commodity: Sand Status: Ceased	Type: A surface mineral working. It may be termed Quarry, Delf, Delph, Gravel Pit, Sand Pit, Sand and Gravel Pit, Clay Pit, Pit, Opencast Coal Site or Surface Mine. It may be mapped as Worked Ground or Worked and Made Ground on BGS mapping. Status description: Site which has ceased to extract minerals. May be considered as 'Closed' by operator. May be considered to have 'Active', 'Dormant' or 'Expired' planning permissions by the Mineral Planning Authority.

This data is sourced from the British Geological Survey.

## 18.2 Surface ground workings

Records within 250m

60

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 122](#) >

ID	Location	Land Use	Year of mapping	Mapping scale
1	On site	Water Body	1887	1:10560
A	On site	Sand Pit	1901	1:10560



ID	Location	Land Use	Year of mapping	Mapping scale
A	On site	Sand Pit	1956	1:10560
B	On site	Water Body	1901	1:10560
B	On site	Pond	1869	1:10560
B	On site	Pond	1869	1:10560
C	On site	Old Gravel Pit	1901	1:10560
C	On site	Old Gravel Pit	1955	1:10560
D	On site	Refuse Heap	1956	1:10560
D	On site	Refuse Heap	1901	1:10560
C	On site	Unspecified Quarry	1867	1:10560
C	On site	Unspecified Quarry	1867	1:10560
9	2m SE	Gravel Pit	1956	1:10560
E	22m SE	Pond	1869	1:10560
E	22m SE	Pond	1869	1:10560
E	29m SE	Water Body	1901	1:10560
10	30m SE	Gravel Pit	1956	1:10560
F	32m NW	Water Body	1956	1:10560
F	33m NW	Water Body	1901	1:10560
G	41m SE	Water Body	1901	1:10560
G	44m SE	Water Body	1956	1:10560
H	66m E	Pond	1987	1:10000
H	66m E	Pond	1969	1:10560
I	125m E	Gravel Pit	1987	1:10000
I	125m E	Gravel Pit	1969	1:10560
13	138m W	Filter Beds	1969	1:10000
J	156m W	Sand Pit	1956	1:10560
J	165m W	Sand Pit	1901	1:10560
K	175m NE	Water Body	1956	1:10560
K	178m NE	Water Body	1901	1:10560



ID	Location	Land Use	Year of mapping	Mapping scale
K	181m NE	Pond	1865	1:10560
K	182m NE	Water Body	1902	1:10560
L	188m SW	Unspecified Quarry	1969	1:10000
M	188m W	Water Body	1956	1:10560
K	189m NE	Pond	1987	1:10000
K	189m NE	Pond	1969	1:10560
M	190m W	Water Body	1901	1:10560
L	194m SW	Unspecified Quarry	1956	1:10560
18	203m W	Unspecified Pits	1969	1:10560
N	220m N	Water Body	1901	1:10560
O	222m SE	Water Body	1956	1:10560
L	224m SW	Unspecified Quarry	1901	1:10560
O	225m SE	Water Body	1928	1:10560
O	227m SE	Pond	1899	1:10560
O	227m SE	Pond	1899	1:10560
P	227m W	Water Body	1956	1:10560
N	227m N	Pond	1867	1:10560
N	227m N	Pond	1867	1:10560
P	228m W	Water Body	1901	1:10560
19	232m SE	Pond	1969	1:10560
Q	234m S	Pond	1865	1:10560
P	236m W	Pond	1867	1:10560
P	236m W	Pond	1867	1:10560
O	236m SE	Pond	1904	1:10560
O	236m SE	Pond	1904	1:10560
Q	237m S	Water Body	1901	1:10560
Q	241m S	Water Body	1902	1:10560
20	242m S	Unspecified Ground Workings	1956	1:10560



ID	Location	Land Use	Year of mapping	Mapping scale
R	248m W	Pond	1867	1:10560
R	248m W	Pond	1867	1:10560

*This is data is sourced from Ordnance Survey/Groundsure.*

### 18.3 Underground workings

**Records within 1000m**

**0**

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

*This is data is sourced from Ordnance Survey/Groundsure.*

### 18.4 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.*

### 18.5 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.*

### 18.6 Non-coal mining

**Records within 1000m**

**8**

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 122 >](#)



ID	Location	Name	Commodity	Class	Likelihood
2	On site	Not available	Vein Mineral	B	Underground mine workings may have occurred in the past or current mines may be working at significant depth to modern engineering standards. Potential for difficult ground conditions are unlikely and are at a level where they need not be considered.
3	On site	Not available	Vein Mineral	B	Underground mine workings may have occurred in the past or current mines may be working at significant depth to modern engineering standards. Potential for difficult ground conditions are unlikely and are at a level where they need not be considered.
4	On site	Not available	Vein Mineral	B	Underground mine workings may have occurred in the past or current mines may be working at significant depth to modern engineering standards. Potential for difficult ground conditions are unlikely and are at a level where they need not be considered.
5	On site	Not available	Vein Mineral	B	Underground mine workings may have occurred in the past or current mines may be working at significant depth to modern engineering standards. Potential for difficult ground conditions are unlikely and are at a level where they need not be considered.
6	On site	Not available	Vein Mineral	B	Underground mine workings may have occurred in the past or current mines may be working at significant depth to modern engineering standards. Potential for difficult ground conditions are unlikely and are at a level where they need not be considered.
7	On site	Not available	Vein Mineral	B	Underground mine workings may have occurred in the past or current mines may be working at significant depth to modern engineering standards. Potential for difficult ground conditions are unlikely and are at a level where they need not be considered.
8	On site	Not available	Vein Mineral	B	Underground mine workings may have occurred in the past or current mines may be working at significant depth to modern engineering standards. Potential for difficult ground conditions are unlikely and are at a level where they need not be considered.
36	667m W	Not available	Vein Mineral	B	Underground mine workings may have occurred in the past or current mines may be working at significant depth to modern engineering standards. 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.*



## 18.7 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.*

## 18.8 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.*

## 18.9 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.*

## 18.10 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.*



### 18.11 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.*

### 18.12 Coal mining

Records on site

0

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

*This data is sourced from the Coal Authority.*

### 18.13 Brine areas

Records on site

0

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.*

### 18.14 Gypsum areas

Records on site

0

Generalised areas that may be affected by gypsum extraction.

*This data is sourced from British Gypsum.*

### 18.15 Tin mining

Records on site

0

Generalised areas that may be affected by historical tin mining.

*This data is sourced from Groundsure.*



## 18.16 Clay mining

Records on site

0

Generalised areas that may be affected by kaolin and ball clay extraction.

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



## 19 Ground cavities and sinkholes

### 19.1 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.*

### 19.2 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.*

### 19.3 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.*

### 19.4 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.

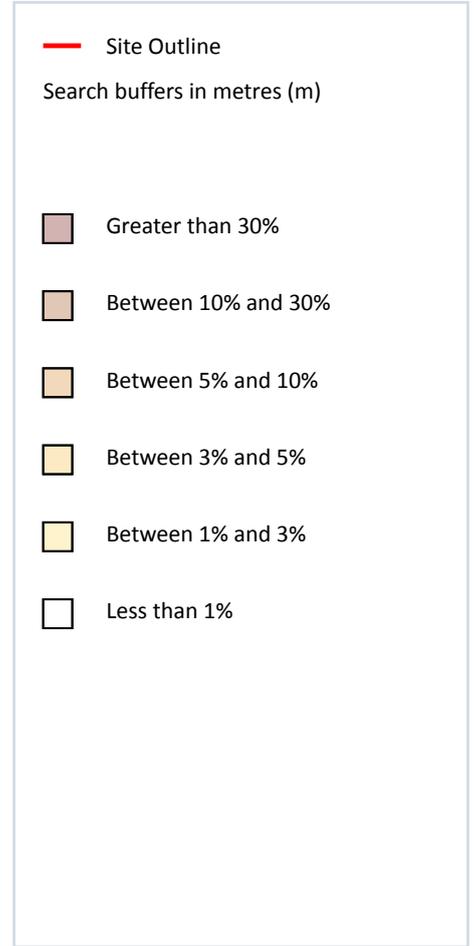
Not all 'holes' noted on Ordnance Survey mapping will necessarily be present within this dataset.



*This data is sourced from Groundsure.*



## 20 Radon



### 20.1 Radon

#### Records on site

5

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 137](#) >

Location	Estimated properties affected	Radon Protection Measures required
On site	Between 3% and 5%	Basic



Location	Estimated properties affected	Radon Protection Measures required
On site	Between 1% and 3%	Basic
On site	Less than 1%	None
On site	Between 5% and 10%	Basic
On site	Between 10% and 30%	Full

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



## 21 Soil chemistry

### 21.1 BGS Estimated Background Soil Chemistry

Records within 50m

308

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 km<sup>2</sup>. 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 km<sup>2</sup>; 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	No data	20 - 40 mg/kg	15 - 30 mg/kg
On site	15 mg/kg	-	100 mg/kg	60 mg/kg	No data	40 - 60 mg/kg	15 mg/kg
On site	15 mg/kg	-	100 mg/kg	60 mg/kg	No data	40 - 60 mg/kg	15 mg/kg
On site	15 mg/kg	-	100 mg/kg	60 mg/kg	No data	40 - 60 mg/kg	15 - 30 mg/kg
On site	15 mg/kg	-	100 mg/kg	60 mg/kg	No data	40 - 60 mg/kg	15 - 30 mg/kg
On site	15 mg/kg	-	100 mg/kg	60 mg/kg	No data	40 - 60 mg/kg	15 - 30 mg/kg
On site	15 mg/kg	-	100 mg/kg	60 mg/kg	No data	40 - 60 mg/kg	15 - 30 mg/kg
On site	15 mg/kg	-	100 mg/kg	60 mg/kg	No data	40 - 60 mg/kg	15 mg/kg
On site	15 mg/kg	-	100 mg/kg	60 mg/kg	No data	40 - 60 mg/kg	15 mg/kg
On site	15 mg/kg	-	100 mg/kg	60 mg/kg	No data	40 - 60 mg/kg	15 - 30 mg/kg
On site	15 mg/kg	-	100 mg/kg	60 mg/kg	No data	40 - 60 mg/kg	15 - 30 mg/kg
On site	15 mg/kg	-	100 mg/kg	60 mg/kg	No data	40 - 60 mg/kg	15 - 30 mg/kg
On site	15 mg/kg	-	100 mg/kg	60 mg/kg	No data	40 - 60 mg/kg	15 - 30 mg/kg
On site	15 mg/kg	-	100 mg/kg	60 mg/kg	No data	40 - 60 mg/kg	15 - 30 mg/kg
On site	15 mg/kg	-	100 mg/kg	60 mg/kg	No data	40 - 60 mg/kg	15 - 30 mg/kg
On site	15 mg/kg	-	100 mg/kg	60 mg/kg	No data	40 - 60 mg/kg	15 - 30 mg/kg
On site	15 mg/kg	-	100 mg/kg	60 mg/kg	No data	20 - 40 mg/kg	15 mg/kg
On site	15 mg/kg	-	100 mg/kg	60 mg/kg	No data	40 - 60 mg/kg	15 - 30 mg/kg



Location	Arsenic	Bioaccessible Arsenic	Lead	Bioaccessible Lead	Cadmium	Chromium	Nickel
On site	15 mg/kg	-	100 mg/kg	60 mg/kg	No data	40 - 60 mg/kg	15 - 30 mg/kg
On site	15 mg/kg	-	100 mg/kg	60 mg/kg	No data	40 - 60 mg/kg	15 - 30 mg/kg
On site	15 mg/kg	-	100 mg/kg	60 mg/kg	No data	40 - 60 mg/kg	15 - 30 mg/kg
On site	15 mg/kg	-	100 mg/kg	60 mg/kg	No data	40 - 60 mg/kg	15 - 30 mg/kg
On site	15 mg/kg	-	100 mg/kg	60 mg/kg	No data	20 - 40 mg/kg	15 - 30 mg/kg
On site	15 mg/kg	-	100 mg/kg	60 mg/kg	No data	40 - 60 mg/kg	15 - 30 mg/kg
On site	15 mg/kg	-	100 mg/kg	60 mg/kg	No data	20 - 40 mg/kg	15 - 30 mg/kg
On site	15 mg/kg	-	100 mg/kg	60 mg/kg	No data	40 - 60 mg/kg	15 - 30 mg/kg
On site	15 mg/kg	-	100 mg/kg	60 mg/kg	No data	20 - 40 mg/kg	15 mg/kg
On site	15 mg/kg	-	100 mg/kg	60 mg/kg	No data	40 - 60 mg/kg	15 - 30 mg/kg
On site	15 mg/kg	-	100 mg/kg	60 mg/kg	No data	40 - 60 mg/kg	15 - 30 mg/kg
On site	15 mg/kg	-	100 mg/kg	60 mg/kg	No data	40 - 60 mg/kg	15 - 30 mg/kg
On site	15 mg/kg	-	100 mg/kg	60 mg/kg	No data	40 - 60 mg/kg	15 - 30 mg/kg
On site	15 mg/kg	-	100 mg/kg	60 mg/kg	No data	40 - 60 mg/kg	15 - 30 mg/kg
On site	15 mg/kg	-	100 mg/kg	60 mg/kg	No data	40 - 60 mg/kg	15 - 30 mg/kg
On site	15 mg/kg	-	100 mg/kg	60 mg/kg	No data	40 - 60 mg/kg	15 - 30 mg/kg
On site	15 mg/kg	-	100 mg/kg	60 mg/kg	No data	40 - 60 mg/kg	15 - 30 mg/kg
On site	15 mg/kg	-	100 mg/kg	60 mg/kg	No data	20 - 40 mg/kg	15 mg/kg
On site	15 mg/kg	-	100 mg/kg	60 mg/kg	No data	40 - 60 mg/kg	15 - 30 mg/kg
On site	15 mg/kg	-	100 mg/kg	60 mg/kg	No data	40 - 60 mg/kg	15 - 30 mg/kg
On site	15 mg/kg	-	100 mg/kg	60 mg/kg	No data	40 - 60 mg/kg	15 - 30 mg/kg
On site	15 mg/kg	-	100 mg/kg	60 mg/kg	No data	40 - 60 mg/kg	15 - 30 mg/kg
On site	15 mg/kg	-	100 mg/kg	60 mg/kg	No data	40 - 60 mg/kg	15 - 30 mg/kg
On site	15 mg/kg	-	100 mg/kg	60 mg/kg	No data	20 - 40 mg/kg	15 mg/kg
On site	15 mg/kg	-	100 mg/kg	60 mg/kg	No data	20 - 40 mg/kg	15 mg/kg
On site	15 mg/kg	-	100 mg/kg	60 mg/kg	No data	20 - 40 mg/kg	15 mg/kg



Location	Arsenic	Bioaccessible Arsenic	Lead	Bioaccessible Lead	Cadmium	Chromium	Nickel
On site	15 mg/kg	-	100 mg/kg	60 mg/kg	No data	40 - 60 mg/kg	15 - 30 mg/kg
On site	15 mg/kg	-	100 mg/kg	60 mg/kg	No data	40 - 60 mg/kg	15 - 30 mg/kg
On site	15 mg/kg	-	100 mg/kg	60 mg/kg	No data	40 - 60 mg/kg	15 - 30 mg/kg
On site	15 mg/kg	-	100 mg/kg	60 mg/kg	No data	20 - 40 mg/kg	15 - 30 mg/kg
On site	15 mg/kg	-	100 mg/kg	60 mg/kg	No data	20 - 40 mg/kg	15 mg/kg
On site	15 mg/kg	-	100 mg/kg	60 mg/kg	No data	40 - 60 mg/kg	15 - 30 mg/kg
On site	15 mg/kg	-	100 mg/kg	60 mg/kg	No data	40 - 60 mg/kg	15 - 30 mg/kg
On site	15 mg/kg	-	100 mg/kg	60 mg/kg	No data	40 - 60 mg/kg	15 - 30 mg/kg
On site	15 mg/kg	-	100 mg/kg	60 mg/kg	No data	40 - 60 mg/kg	15 - 30 mg/kg
On site	15 mg/kg	-	100 mg/kg	60 mg/kg	No data	40 - 60 mg/kg	15 - 30 mg/kg
On site	15 mg/kg	-	100 mg/kg	60 mg/kg	No data	40 - 60 mg/kg	15 - 30 mg/kg
On site	15 mg/kg	-	100 mg/kg	60 mg/kg	No data	40 - 60 mg/kg	15 - 30 mg/kg
On site	15 mg/kg	-	100 mg/kg	60 mg/kg	No data	40 - 60 mg/kg	15 - 30 mg/kg
On site	15 mg/kg	-	100 mg/kg	60 mg/kg	No data	40 - 60 mg/kg	15 - 30 mg/kg
On site	15 mg/kg	-	100 mg/kg	60 mg/kg	No data	20 - 40 mg/kg	15 - 30 mg/kg
On site	15 mg/kg	-	100 mg/kg	60 mg/kg	No data	40 - 60 mg/kg	15 - 30 mg/kg
On site	15 mg/kg	-	100 mg/kg	60 mg/kg	No data	20 - 40 mg/kg	15 mg/kg
On site	15 mg/kg	-	100 mg/kg	60 mg/kg	No data	20 - 40 mg/kg	15 mg/kg
On site	15 mg/kg	-	100 mg/kg	60 mg/kg	No data	40 - 60 mg/kg	15 - 30 mg/kg
On site	15 mg/kg	-	100 mg/kg	60 mg/kg	No data	40 - 60 mg/kg	15 - 30 mg/kg
On site	15 mg/kg	-	100 mg/kg	60 mg/kg	No data	40 - 60 mg/kg	15 - 30 mg/kg
On site	15 mg/kg	-	100 mg/kg	60 mg/kg	No data	40 - 60 mg/kg	15 - 30 mg/kg
On site	15 mg/kg	-	100 mg/kg	60 mg/kg	No data	40 - 60 mg/kg	15 - 30 mg/kg
On site	15 mg/kg	-	100 mg/kg	60 mg/kg	No data	20 - 40 mg/kg	15 mg/kg
On site	15 mg/kg	-	100 mg/kg	60 mg/kg	No data	40 - 60 mg/kg	15 - 30 mg/kg
On site	15 mg/kg	-	100 mg/kg	60 mg/kg	No data	40 - 60 mg/kg	15 - 30 mg/kg
On site	15 mg/kg	-	100 mg/kg	60 mg/kg	No data	40 - 60 mg/kg	15 - 30 mg/kg
On site	15 mg/kg	-	100 mg/kg	60 mg/kg	No data	40 - 60 mg/kg	15 - 30 mg/kg
On site	15 mg/kg	-	100 mg/kg	60 mg/kg	No data	20 - 40 mg/kg	15 - 30 mg/kg



Location	Arsenic	Bioaccessible Arsenic	Lead	Bioaccessible Lead	Cadmium	Chromium	Nickel
On site	15 mg/kg	-	100 mg/kg	60 mg/kg	No data	40 - 60 mg/kg	15 - 30 mg/kg
On site	15 mg/kg	-	100 mg/kg	60 mg/kg	No data	40 - 60 mg/kg	15 - 30 mg/kg
On site	15 mg/kg	-	100 mg/kg	60 mg/kg	No data	40 - 60 mg/kg	15 - 30 mg/kg
On site	15 mg/kg	-	100 mg/kg	60 mg/kg	No data	40 - 60 mg/kg	15 - 30 mg/kg
On site	15 mg/kg	-	100 mg/kg	60 mg/kg	No data	20 - 40 mg/kg	15 - 30 mg/kg
On site	15 mg/kg	-	100 mg/kg	60 mg/kg	No data	40 - 60 mg/kg	15 - 30 mg/kg
On site	15 mg/kg	-	100 mg/kg	60 mg/kg	No data	20 - 40 mg/kg	15 - 30 mg/kg
On site	15 mg/kg	-	100 mg/kg	60 mg/kg	No data	40 - 60 mg/kg	15 - 30 mg/kg
On site	15 mg/kg	-	100 mg/kg	60 mg/kg	No data	40 - 60 mg/kg	15 - 30 mg/kg
On site	15 mg/kg	-	100 mg/kg	60 mg/kg	No data	40 - 60 mg/kg	15 - 30 mg/kg
On site	15 mg/kg	-	100 mg/kg	60 mg/kg	No data	40 - 60 mg/kg	15 - 30 mg/kg
On site	15 mg/kg	-	100 mg/kg	60 mg/kg	No data	40 - 60 mg/kg	15 - 30 mg/kg
On site	15 mg/kg	-	100 mg/kg	60 mg/kg	No data	40 - 60 mg/kg	15 - 30 mg/kg
On site	15 mg/kg	-	100 mg/kg	60 mg/kg	No data	20 - 40 mg/kg	15 mg/kg
On site	15 mg/kg	-	100 mg/kg	60 mg/kg	No data	40 - 60 mg/kg	15 - 30 mg/kg
On site	15 mg/kg	-	100 mg/kg	60 mg/kg	No data	20 - 40 mg/kg	15 - 30 mg/kg
On site	15 mg/kg	-	100 mg/kg	60 mg/kg	No data	20 - 40 mg/kg	15 - 30 mg/kg
On site	15 mg/kg	-	100 mg/kg	60 mg/kg	No data	40 - 60 mg/kg	15 - 30 mg/kg
On site	15 mg/kg	-	100 mg/kg	60 mg/kg	No data	40 - 60 mg/kg	15 - 30 mg/kg
On site	15 mg/kg	-	100 mg/kg	60 mg/kg	No data	20 - 40 mg/kg	15 mg/kg
On site	15 mg/kg	-	100 mg/kg	60 mg/kg	No data	20 - 40 mg/kg	15 mg/kg
On site	15 mg/kg	-	100 mg/kg	60 mg/kg	No data	20 - 40 mg/kg	15 mg/kg
On site	15 mg/kg	-	100 mg/kg	60 mg/kg	No data	20 - 40 mg/kg	15 mg/kg
On site	15 mg/kg	-	100 mg/kg	60 mg/kg	No data	20 - 40 mg/kg	15 mg/kg
On site	15 mg/kg	-	100 mg/kg	60 mg/kg	No data	40 - 60 mg/kg	15 - 30 mg/kg
On site	15 mg/kg	-	100 mg/kg	60 mg/kg	No data	20 - 40 mg/kg	15 - 30 mg/kg

