

Enviro+Geo

Braco West

Order Details

Date: 29/01/2024

Your ref: **Braco West**

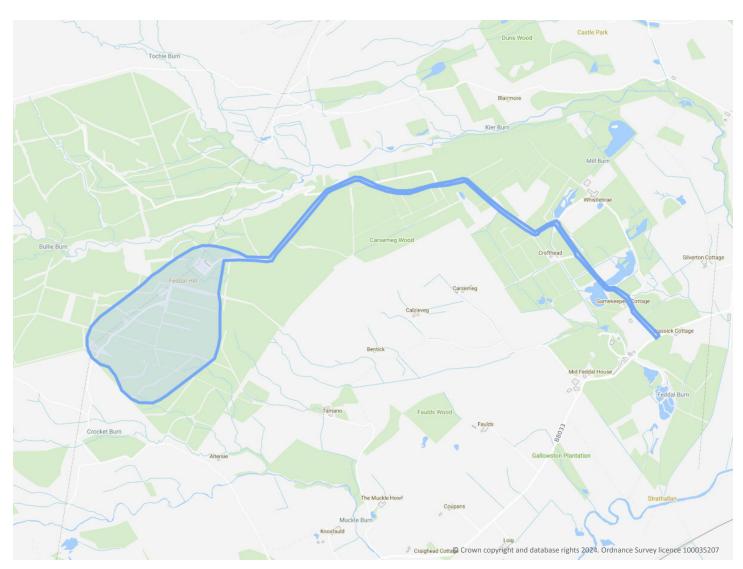
Our Ref: GSIP-2024-14502-17022

Site Details

Location: 280707 709438

79.87 ha Area:

Authority: Perth and Kinross Council ↗



Summary of findings

p. 2 > **Aerial image**

p. 7 >

OS MasterMap site plan

N/A: >10ha

groundsure.com/insightuserguide ↗





Summary of findings



Date: 29 January 2024



			_	-	_	_		
20	4.8	Hazardous substance storage/usage	0	0	0	0	-	
20	4.9	Part A(1), IPPC and Historic IPC Authorisations	0	0	-			
21	4.10	Part B Authorisations	0 0 0 0				-	
21	4.11	Pollution inventory substances	0	0	0	0	-	
21	4.12	Pollution inventory waste transfers	0	0	0	0	-	
21	4.13	Pollution inventory radioactive waste	0	0	0	0	-	
Page	Section	<u>Hydrogeology</u> >	On site	0-50m	50-250m	250-500m	500-2000m	
<u>22</u> >	<u>5.1</u> >	Superficial aquifer >	Identified (within 500m)			
<u>23</u> >	<u>5.2</u> >	Bedrock aquifer >	Identified (within 500m)			
Page	Section	<u>Hydrology</u> >	On site	0-50m	50-250m	250-500m	500-2000m	
<u>25</u> >	<u>6.1</u> >	Water Network (OS MasterMap) >	33	9	82	-	-	
<u>35</u> >	<u>6.2</u> >	<u>Surface water features</u> >	1 10 55				-	
Page	Section	River flooding						
36	7.1	River flooding	Negligible (within 50m)					
Page	Section	Coastal flooding						
37	8.1	Coastal flooding	Negligible ((within 50m)				
Page	Section	Surface water flooding >						
<u>38</u> >	<u>9.1</u> >	Surface water flooding >	1 in 30 yea	r, Greater tha	an 1.0m (wit	hin 50m)		
Page	Section	Groundwater flooding >						
<u>40</u> >	<u>10.1</u> >	Groundwater flooding >	Moderate ((within 50m)				
Page	Section	Environmental designations >	On site	0-50m	50-250m	250-500m	500-2000m	
41	11.1	Sites of Special Scientific Interest (SSSI)	0	0	0	0	0	
42	11.2	Conserved wetland sites (Ramsar sites)	0	0	0	0	0	
42	11.3	Special Areas of Conservation (SAC)	0	0	0	0	0	
42	11.4	Special Protection Areas (SPA)	0	0	0	0	0	
42	11.5	National Nature Reserves (NNR)	0	0	0	0	0	
43	11.6	Local Nature Reserves (LNR)	0	0	0	0	0	
<u>43</u> >	<u>11.7</u> >	Designated Ancient Woodland >	0	0	0	1	22	
44	11.8	Biosphere Reserves	0	0	0	0	0	





44	11.9	Forest Parks	0	0	0	0	0
44	11.10	Marine Conservation Zones	0	0	0	0	0
Page	Section	Visual and cultural designations >	On site 0-50m 50-25			250-500m	500-2000m
45	12.1	World Heritage Sites	0	0	0	-	-
46	12.2	Area of Outstanding Natural Beauty	0	0	0	-	-
46	12.3	National Parks	0	0	0	-	-
<u>46</u> >	<u>12.4</u> >	<u>Listed Buildings</u> >	0	0	1	-	-
47	12.5	Conservation Areas	0	0	0	-	-
47	12.6	Scheduled Ancient Monuments	0	0	0	-	-
47	12.7	Registered Parks and Gardens	0	0	0	-	-
Page	Section	Agricultural designations >	On site	0-50m	50-250m	250-500m	500-2000m
<u>48</u> >	<u>13.1</u> >	Agricultural Land Classification >	Grade 5.3 (within 250m)		
Page	Section	<u>Geology 1:10,000 scale</u> >	On site	0-50m	50-250m	250-500m	500-2000m
<u>50</u> >	<u>14.1</u> >	10k Availability >	Identified (within 500m)		
51	14.2	Artificial and made ground (10k)	0	0	0	0	-
52	14.3	Superficial geology (10k)	0	0	0	0	-
52	14.4	Landslip (10k)	0	0	0	0	-
53	14.5	Bedrock geology (10k)	0	0	0	0	-
53	14.6	Bedrock faults and other linear features (10k)	0	0	0	0	-
Page	Section	<u>Geology 1:50,000 scale</u> >	On site	0-50m	50-250m	250-500m	500-2000m
<u>54</u> >	<u>15.1</u> >	50k Availability >	Identified (within 500m)		
55	15.2	Artificial and made ground (50k)	0	0	0	0	-
55	15.3	Artificial ground permeability (50k)	0	0	-	-	-
<u>56</u> >	<u>15.4</u> >	Superficial geology (50k) >	5	1	5	4	-
<u>57</u> >	<u>15.5</u> >	<u>Superficial permeability (50k)</u> >	Identified (within 50m)			
58	15.6	Landslip (50k)	0	0	0	0	-
58	15.7	Landslip permeability (50k)	None (with	in 50m)			
<u>59</u> >	<u>15.8</u> >	Bedrock geology (50k) >	4	1	1	0	-
<u>60</u> >	<u>15.9</u> >	Bedrock permeability (50k) >	Identified (within 50m)			





<u>60</u> >	<u>15.10</u> >	Bedrock faults and other linear features (50k) >	2	1	5	11	-	
Page	Section	Boreholes >	On site	0-50m	50-250m	250-500m	500-2000m	
<u>62</u> >	<u>16.1</u> >	BGS Boreholes >	1 0 1 -				-	
Page	Section	Natural ground subsidence >						
<u>64</u> >	<u>17.1</u> >	Shrink swell clays >	Very low (v	vithin 50m)				
<u>66</u> >	<u>17.2</u> >	Running sands >	Low (withir	n 50m)				
<u>68</u> >	<u>17.3</u> >	Compressible deposits >	High (withi	n 50m)				
<u>70</u> >	<u>17.4</u> >	Collapsible deposits >	Very low (w	vithin 50m)				
<u>72</u> >	<u>17.5</u> >	<u>Landslides</u> >	Low (withir	n 50m)				
<u>74</u> >	<u>17.6</u> >	Ground dissolution of soluble rocks >	Negligible (within 50m)				
Page	Section	Mining and ground workings >	On site	0-50m	50-250m	250-500m	500-2000m	
<u>76</u> >	<u>18.1</u> >	BritPits >	1	0	2	0	-	
<u>77</u> >	<u>18.2</u> >	Surface ground workings >	2	4	4	-	-	
78	18.3	Underground workings	0	0	0	0	0	
78	18.4	Underground mining extents	0 0 0 0			0	-	
78	18.5	Historical Mineral Planning Areas	0 0 0 0				-	
<u>78</u> >	<u>18.6</u> >	Non-coal mining >	3	0	0	1	0	
79	18.7	JPB mining areas	None (with	in 0m)				
79	18.8	The Coal Authority non-coal mining	0	0	0	0	-	
80	18.9	Researched mining	0	0	0	0	-	
80	18.10	Mining record office plans	0	0	0	0	-	
80	18.11	BGS mine plans	0	0	0	0	-	
80	18.12	Coal mining	None (with	in 0m)				
80	18.13	Brine areas	None (within 0m)					
81	18.14	Gypsum areas	None (within 0m)					
81	18.15	Tin mining	None (with	in 0m)				
81	18.16	Clay mining	None (with	in 0m)				
Page	Section	Ground cavities and sinkholes	On site	0-50m	50-250m	250-500m	500-2000m	
82	19.1	Natural cavities	0	0	0	0	-	





82	19.2	Mining cavities	0	0	0	0	0
82	19.3	Reported recent incidents	0	0	0	0	-
82	19.4	Historical incidents	0	0	0	0	-
83	19.5	National karst database	0	0	0	0	-
Page	Section	Radon >					
<u>84</u> >	<u>20.1</u> >	Radon >	Less than 1	% (within 0n	n)		
Page	Section	Soil chemistry >	On site	0-50m	50-250m	250-500m	500-2000m
<u>86</u> >	<u>21.1</u> >	BGS Estimated Background Soil Chemistry >	41	14	-	-	-
88	21.2	BGS Estimated Urban Soil Chemistry	0	0	-	-	-
88	21.3	BGS Measured Urban Soil Chemistry	0	0	-	-	-
Page	Section	Railway infrastructure and projects	On site	0-50m	50-250m	250-500m	500-2000m
89	22.1	Underground railways (London)	0	0	0	-	-
89	22.2	Underground railways (Non-London)	0	0	0	-	-
89	22.3	Railway tunnels	0	0	0	-	-
89	22.4	Historical railway and tunnel features	0	0	0	-	-
89	22.5	Royal Mail tunnels	0	0	0	-	-
90	22.6	Historical railways	0	0	0	-	-
90	22.7	Railways	0	0	0	-	-
90	22.8	Crossrail 1	0	0	0	0	-
90	22.9	Crossrail 2	0	0	0	0	-
90	22.10	HS2	0	0	0	0	-





Recent aerial photograph



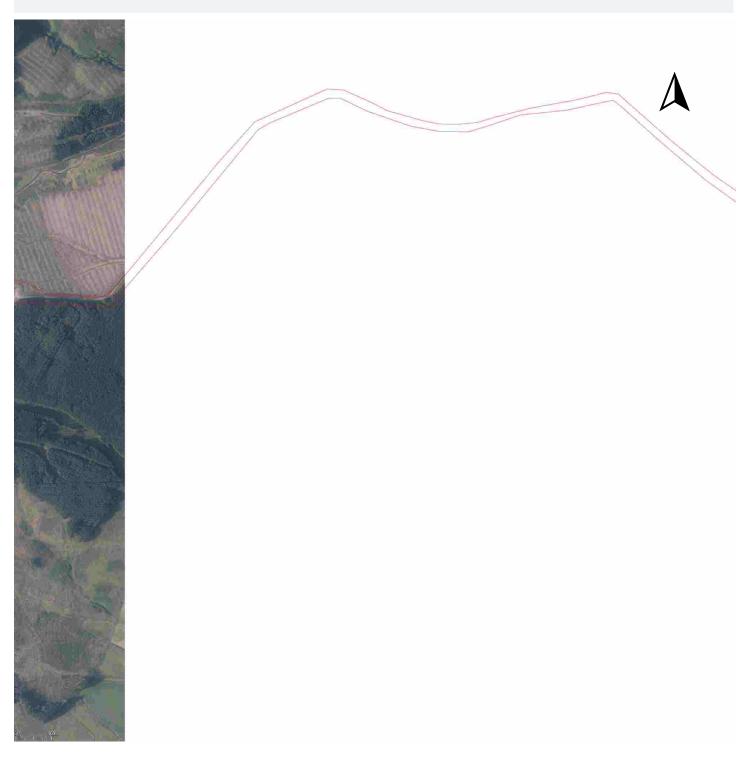
Capture Date: 23/04/2022

Site Area: 79.87ha





Recent site history - 2019 aerial photograph



Capture Date: 25/08/2019

Site Area: 79.87ha





Recent site history - 2011 aerial photograph



Capture Date: 01/05/2011

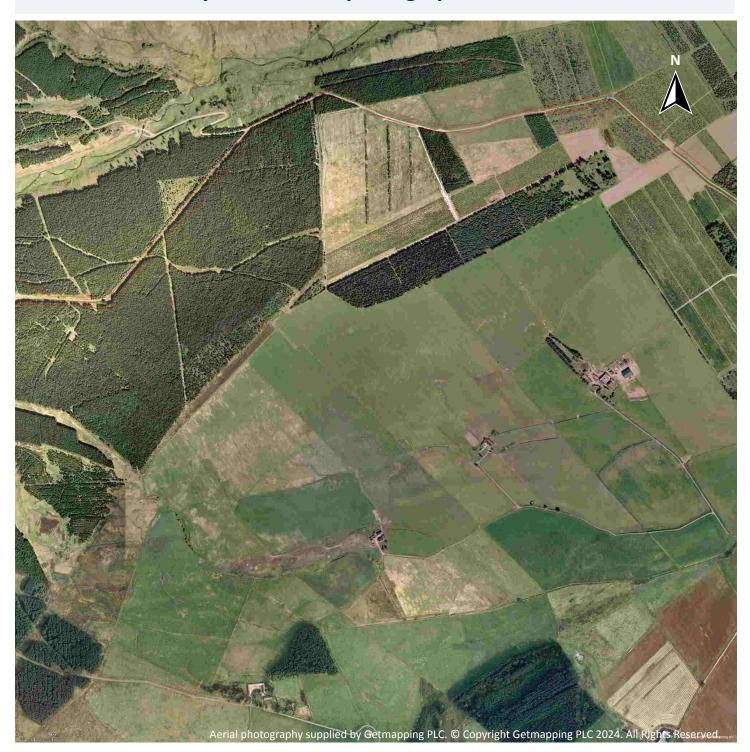
Site Area: 79.87ha



Date: 29 January 2024



Recent site history - 2005 aerial photograph



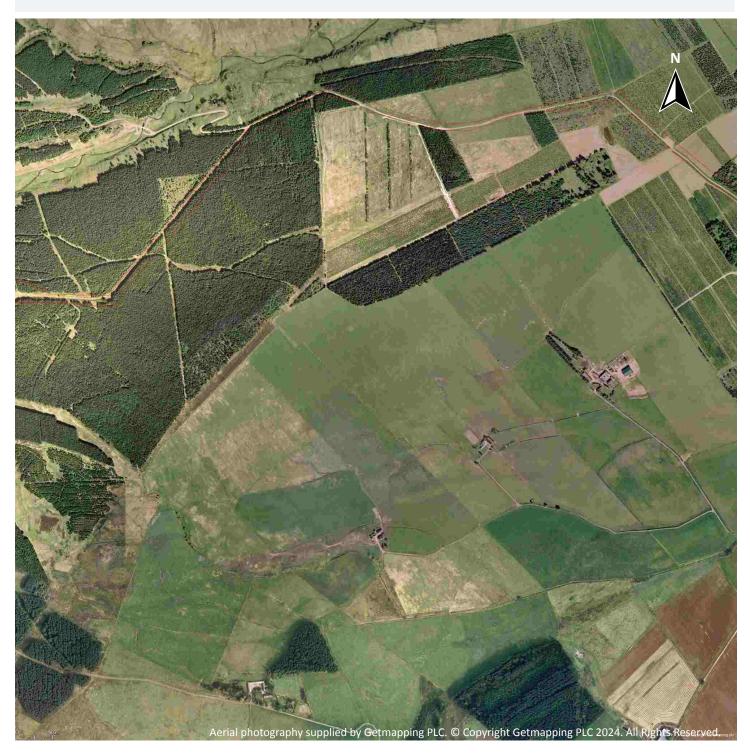
Capture Date: 14/05/2005

Site Area: 79.87ha





Recent site history - 2001 aerial photograph

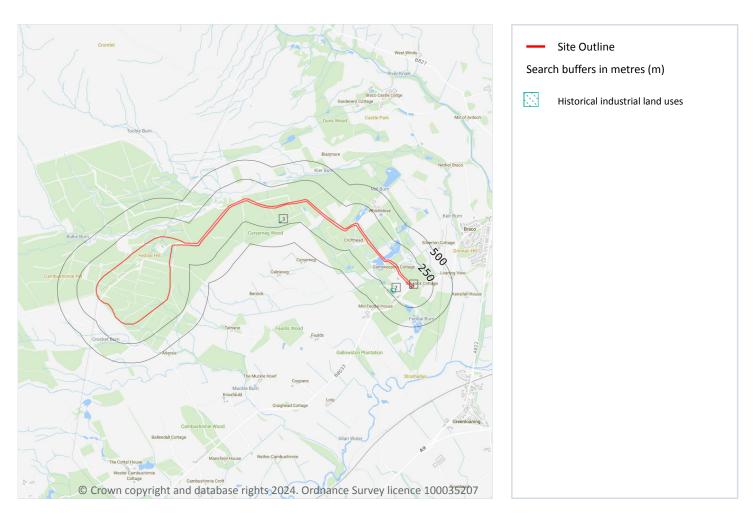


Capture Date: 01/01/2001

Site Area: 79.87ha



1 Past land use



1.1 Historical industrial land uses

Records within 500m 3

Potentially contaminative land use features digitised from historical Ordnance Survey mapping at 1:10,000 and 1:10,560 scale, intelligently grouped into contiguous features. To prevent misrepresentation of the size of historical features at any given time, features are only grouped if they have similar geometries within immediately preceding or succeeding map editions. See section 2 for a breakdown of grouping if required. Grouped and the original un-grouped features can be cross-referenced across sections 1 and 2 using the 'Group ID'.

Features are displayed on the Past land use map on page 12 >

ID	Location	Land use	Dates present	Group ID
1	On site	Sand Pit	1901 - 1954	76684





ID	Location	Land use	Dates present	Group ID
2	171m E	Corn Mill	1863	74626
3	188m NE	Unspecified Quarry	1978	72530

This data is sourced from Ordnance Survey / Groundsure.

1.2 Historical tanks

Records within 500m 0

Tank features digitised from historical Ordnance Survey mapping at high-detail 1:1,250 and 1:2,500 scale, intelligently grouped into contiguous features. To prevent misrepresentation of the size of historical features at any given time, features are only grouped if they have similar geometries within immediately preceding or succeeding map editions. See section 2 for a breakdown of grouping if required. Grouped and the original un-grouped features can be cross-referenced across sections 1 and 2 using the 'Group ID'.

This data is sourced from Ordnance Survey / Groundsure.

1.3 Historical energy features

Records within 500m 0

Energy features digitised from historical Ordnance Survey mapping at high-detail 1:1,250 and 1:2,500 scale, intelligently grouped into contiguous features. To prevent misrepresentation of the size of historical features at any given time, features are only grouped if they have similar geometries within immediately preceding or succeeding map editions. See section 2 for a breakdown of grouping if required. Grouped and the original un-grouped features can be cross-referenced across sections 1 and 2 using the 'Group ID'.

This data is sourced from Ordnance Survey / Groundsure.

1.4 Historical petrol stations

Records within 500m 0

Petrol stations digitised from historical Ordnance Survey mapping at high-detail 1:1,250 and 1:2,500 scale, intelligently grouped into contiguous features. To prevent misrepresentation of the size of historical features at any given time, features are only grouped if they have similar geometries within immediately preceding or succeeding map editions. See section 2 for a breakdown of grouping if required. Grouped and the original un-grouped features can be cross-referenced across sections 1 and 2 using the 'Group ID'.

This data is sourced from Ordnance Survey / Groundsure.





1.5 Historical garages

Records within 500m 0

Garages digitised from historical Ordnance Survey mapping at high-detail 1:1,250 and 1:2,500 scale, intelligently grouped into contiguous features. To prevent misrepresentation of the size of historical features at any given time, features are only grouped if they have similar geometries within immediately preceding or succeeding map editions. See section 2 for a breakdown of grouping if required. Grouped and the original un-grouped features can be cross-referenced across sections 1 and 2 using the 'Group ID'.

This data is sourced from Ordnance Survey / Groundsure.

1.6 Historical military land

Records within 500m 0

Areas of military land digitised from multiple sources including the National Archives, local records, MOD records and verified other sources, intelligently grouped into contiguous features.

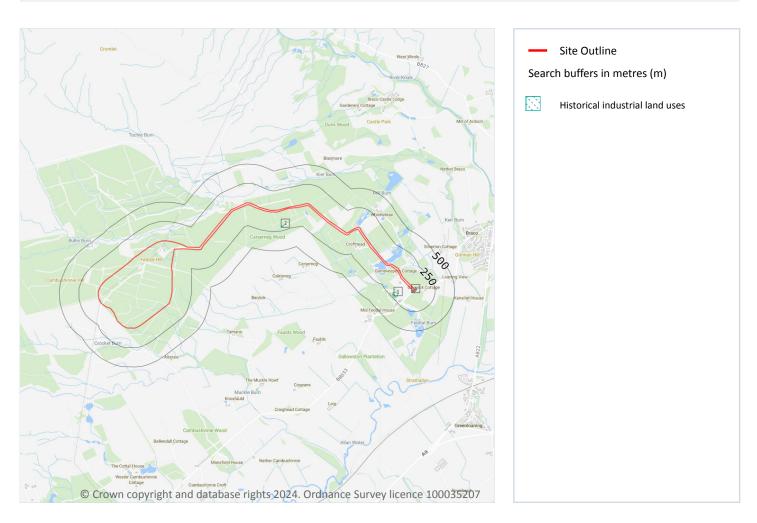
This data is sourced from Ordnance Survey / Groundsure / other sources.



Date: 29 January 2024



2 Past land use - un-grouped



2.1 Historical industrial land uses

Records within 500m 4

Potentially contaminative land use features digitised from historical Ordnance Survey mapping at 1:10,000 and 10,560 scale. Any records shown are available intelligently grouped in section 1. Grouped and the original un-grouped features can be cross-referenced across sections 1 and 2 using the 'Group ID'.

Features are displayed on the Past land use - un-grouped map on page 15 >

ID	Location	Land Use	Date	Group ID
Α	On site	Sand Pit	1901	76684
Α	On site	Sand Pit	1954	76684



t us with any questions at: Date: 29 January 2024



ID	Location	Land Use	Date	Group ID
2	188m NE	Unspecified Quarry	1978	72530

This data is sourced from Ordnance Survey / Groundsure.

2.2 Historical tanks

Records within 500m 0

Tank features digitised from historical Ordnance Survey mapping at high-detail 1:1,250 and 1:2,500 scale. Any records shown are available intelligently grouped in section 1. Grouped and the original un-grouped features can be cross-referenced across sections 1 and 2 using the 'Group ID'.

This data is sourced from Ordnance Survey / Groundsure.

2.3 Historical energy features

Records within 500m 0

Energy features digitised from historical Ordnance Survey mapping at high-detail 1:1,250 and 1:2,500 scale. Any records shown are available intelligently grouped in section 1. Grouped and the original un-grouped features can be cross-referenced across sections 1 and 2 using the 'Group ID'.

This data is sourced from Ordnance Survey / Groundsure.

2.4 Historical petrol stations

Records within 500m 0

Petrol stations digitised from historical Ordnance Survey mapping at high-detail 1:1,250 and 1:2,500 scale. Any records shown are available intelligently grouped in section 1. Grouped and the original un-grouped features can be cross-referenced across sections 1 and 2 using the 'Group ID'.

This data is sourced from Ordnance Survey / Groundsure.

2.5 Historical garages

Records within 500m 0

Garages digitised from historical Ordnance Survey mapping at high-detail 1:1,250 and 1:2,500 scale. Any records shown are available intelligently grouped in section 1. Grouped and the original un-grouped features can be cross-referenced across sections 1 and 2 using the 'Group ID'.

This data is sourced from Ordnance Survey / Groundsure.





3 Waste and landfill

3.1 Active or recent landfill

Records within 500m 0

Active or recently closed landfill sites under Scottish Environment Protection (SEPA) regulation.

This data is sourced from the Scottish Environment Protection Agency.

3.2 Historical landfill (BGS records)

Records within 500m 0

Landfill sites identified on a survey carried out on behalf of the DoE in 1973. These sites may have been closed or operational at this time.

This data is sourced from the British Geological Survey.

3.3 Historical landfill (LA/mapping records)

Records within 500m 0

Landfill sites identified from Local Authority records and high detail historical mapping.

This data is sourced from the Ordnance Survey/Groundsure and Local Authority records.

3.4 Licensed waste sites

Records within 500m 0

Active or recently closed waste sites under Scottish Environment Protection Acency (SEPA) regulation.

This data is sourced from the Scottish Environment Protection Agency.

3.5 Historical waste sites

Records within 500m 0

Waste site records derived from Local Authority planning records and high detail historical mapping.

info@groundsure.com ↗

01273 257 755

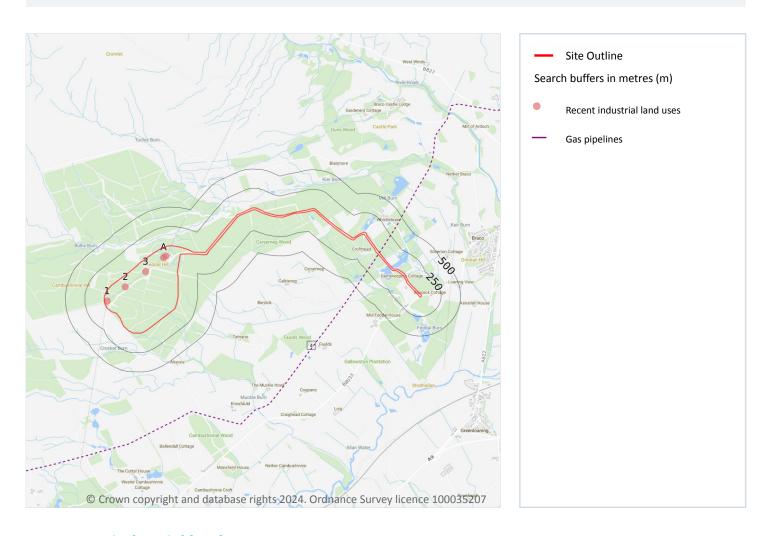
This data is sourced from Ordnance Survey/Groundsure and Local Authority records.



Contact us with any questions at: Date: 29 January 2024



4 Current industrial land use



4.1 Recent industrial land uses

Records within 250m 5

Current potentially contaminative industrial sites.

Features are displayed on the Current industrial land use map on page 18 >

ID	Location	Company	Address	Activity	Category
1	On site	Pylon	Perth and Kinross, FK15	Electrical Features	Infrastructure and Facilities
2	On site	Pylon	Perth and Kinross, FK15	Electrical Features	Infrastructure and Facilities
3	On site	Pylon	Perth and Kinross, FK15	Electrical Features	Infrastructure and Facilities



Date: 29 January 2024



ID	Location	Company	Address	Activity	Category
Α	On site	Electricity Sub Station	Perth and Kinross, FK15	Electrical Features	Infrastructure and Facilities
Α	On site	Pylon	Perth and Kinross, FK15	Electrical Features	Infrastructure and Facilities

This data is sourced from Ordnance Survey.

4.2 Current or recent petrol stations

Records within 500m 0

Open, closed, under development and obsolete petrol stations.

This data is sourced from Experian.

4.3 Electricity cables

Records within 500m 0

High voltage underground electricity transmission cables.

This data is sourced from National Grid.

4.4 Gas pipelines

Records within 500m 1

High pressure underground gas transmission pipelines.

Features are displayed on the Current industrial land use map on page 18 >

ID	Location	Pipe Name	Details	
4	On site	KIRRIEMUIR TO BATHGATE	Pipe Number: - Pipeline Safety Regulations Number: - Ownership: National Grid Maximum Operating Pressure (Bar): -	Pipeline Diameter (mm): 900 Wall Thickness (mm): - Year of commission: Not specified Abandonment Status: Not abandoned

This data is sourced from National Grid.



Date: 29 January 2024



4.5 Sites determined as Contaminated Land

Records within 500m 0

Contaminated Land Register of sites designated under Part 2a of the Environmental Protection Act 1990.

This data is sourced from Local Authority records.

4.6 Control of Major Accident Hazards (COMAH)

Records within 500m 0

Control of Major Accident Hazards (COMAH) sites. This data includes upper and lower tier sites, and includes a historical archive of COMAH sites and Notification of Installations Handling Hazardous Substances (NIHHS) records.

This data is sourced from the Health and Safety Executive.

4.7 Regulated explosive sites

Records within 500m 0

Sites registered and licensed by the Health and Safety Executive under the Manufacture and Storage of Explosives Regulations 2005 (MSER). The last update to this data was in April 2011.

This data is sourced from the Health and Safety Executive.

4.8 Hazardous substance storage/usage

Records within 500m 0

Consents granted for a site to hold certain quantities of hazardous substances at or above defined limits in accordance with the Planning (Hazardous Substances) Regulations 2015.

This data is sourced from Local Authority records.

4.9 Part A(1), IPPC and Historic IPC Authorisations

Records within 500m 0

Records of Part A installations regulated for the release of substances to the environment.

This data is sourced from the Scottish Environment Protection Agency.



Contact us with any questions at: Date: 29 January 2024



4.10 Part B Authorisations

Records within 500m 0

Records of Part B installations regulated for the release of substances to the environment.

This data is sourced from the Scottish Environment Protection Agency.

4.11 Pollution inventory substances

Records within 500m 0

The pollution inventory (substances) includes reporting on annual emissions of certain regulated substances to air, controlled waters and land. A reporting threshold for each substance is also included. Where emissions fall below the reporting threshold, no value will be given. The data is given for the most recent complete year available.

This data is sourced from the Environment Agency and the Scottish Environment Protection Agency.

4.12 Pollution inventory waste transfers

Records within 500m

The pollution inventory (waste transfers) includes reporting on annual transfers and recovery/disposal of controlled wastes from a site. A reporting threshold for each waste type is also included. Where releases fall below the reporting threshold, no value will be given. The data is given for the most recent complete year available.

This data is sourced from the Environment Agency and the Scottish Environment Protection Agency.

4.13 Pollution inventory radioactive waste

Records within 500m 0

The pollution inventory (radioactive wastes) includes reporting on annual releases of radioactive substances from a site, including the means of release. Where releases fall below the reporting threshold, no value will be given. The data is given for the most recent complete year available.

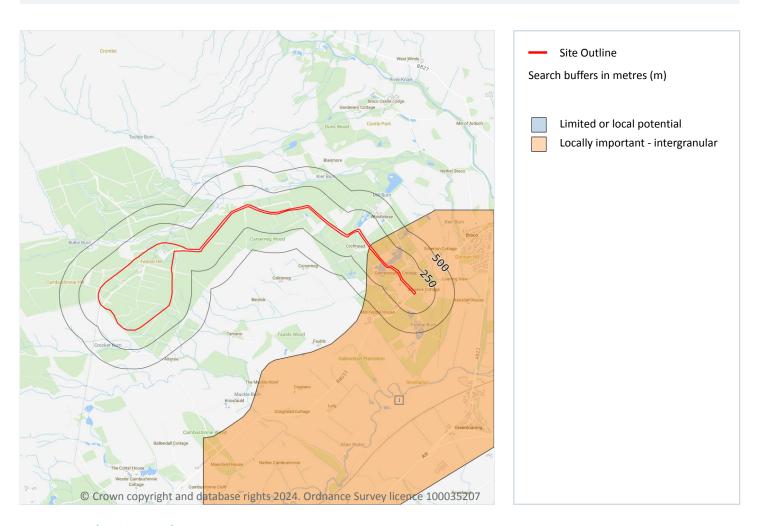
This data is sourced from the Environment Agency and the Scottish Environment Protection Agency.



Date: 29 January 2024



5 Hydrogeology - Superficial aquifer



5.1 Superficial aquifer

Records within 500m 1

Records of groundwater classification within superficial geology.

Features are displayed on the Hydrogeology map on page 22 >

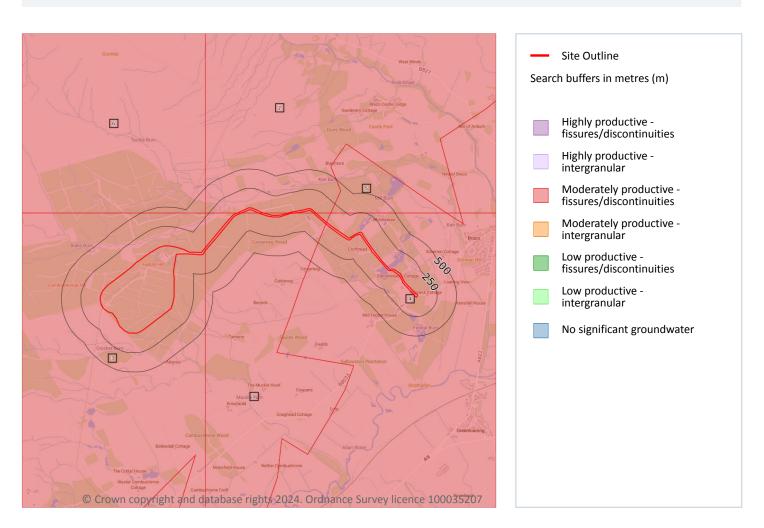
ID	Location	Description	Туре	Rock description
1	On site	Aquifers in which intergranular flow is significant	Locally important aquifers	Quaternary Sands and Gravels

This data is sourced from the British Geological Survey.





Bedrock aquifer



5.2 Bedrock aquifer

Records within 500m

Records of groundwater classification within bedrock geology.

Features are displayed on the Bedrock aquifer map on page 23 >

ID	Location	Description	Flow	Summary	Rock description
1	On site	Moderately productive aquifer	Flow is virtually all through fractures and other discontinuities	Sandstones, in places flaggy, with siltstones, mudstones and conglomerates and interbedded lavas locally yield up to 12 L/s in parts of Strathmore.	STRATHMORE GROUP





ID	Location	Description	Flow	Summary	Rock description
2	On site	Moderately productive aquifer	Flow is virtually all through fractures and other discontinuities	Sandstones, in places flaggy, with siltstones, mudstones and conglomerates and interbedded lavas locally yield up to 12 L/s in parts of Strathmore.	STRATHMORE GROUP
3	On site	Moderately productive aquifer	Flow is virtually all through fractures and other discontinuities	Sandstones, in places flaggy, with siltstones, mudstones and conglomerates and interbedded lavas locally yield up to 12 L/s in parts of Strathmore.	STRATHMORE GROUP
4	On site	Moderately productive aquifer	Flow is virtually all through fractures and other discontinuities	Sandstones, in places flaggy, with siltstones, mudstones and conglomerates and interbedded lavas, locally yield moderate amounts of groundwater.	ARBUTHNOTT- GARVOCK GROUP
5	126m NE	Moderately productive aquifer	Flow is virtually all through fractures and other discontinuities	Sandstones, in places flaggy, with siltstones, mudstones and conglomerates and interbedded lavas, locally yield moderate amounts of groundwater.	ARBUTHNOTT- GARVOCK GROUP
6	287m NE	Moderately productive aquifer	Flow is virtually all through fractures and other discontinuities	Sandstones, in places flaggy, with siltstones, mudstones and conglomerates and interbedded lavas locally yield up to 12 L/s in parts of Strathmore.	STRATHMORE GROUP

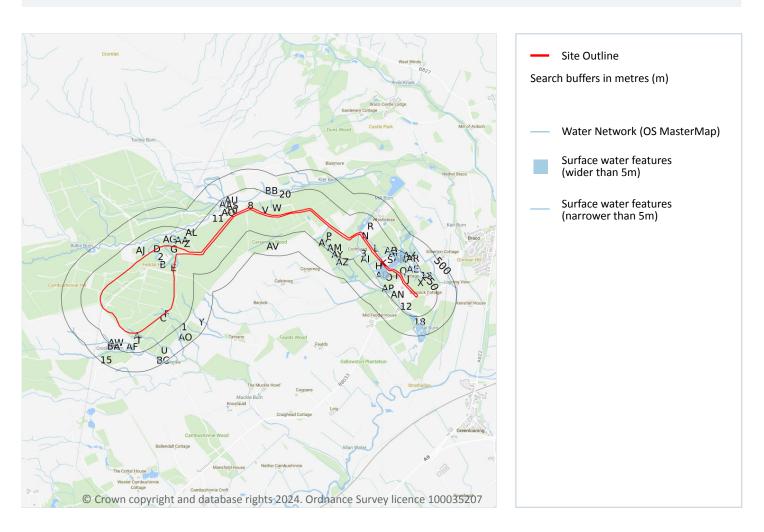
This data is sourced from the British Geological Survey.



Date: 29 January 2024



6 Hydrology



6.1 Water Network (OS MasterMap)

Records within 250m 124

Detailed water network of Great Britain showing the flow and precise central course of every river, stream, lake and canal.

Features are displayed on the Hydrology map on page 25 >

ID	Location	Type of water feature	Ground level	Permanence	Name
1	On site	Inland river not influenced by normal tidal action.	On ground surface	Watercourse contains water year round (in normal circumstances)	-





ID	Location	Type of water feature	Ground level	Permanence	Name
2	On site	Inland river not influenced by normal tidal action.	Underground	Watercourse contains water year round (in normal circumstances)	-
3	On site	Inland river not influenced by normal tidal action.	On ground surface	Watercourse contains water year round (in normal circumstances)	Mill Burn
Α	On site	Inland river not influenced by normal tidal action.	On ground surface	Watercourse contains water year round (in normal circumstances)	-
В	On site	Inland river not influenced by normal tidal action.	On ground surface	Watercourse contains water year round (in normal circumstances)	-
С	On site	Inland river not influenced by normal tidal action.	On ground surface	Watercourse contains water year round (in normal circumstances)	-
D	On site	Inland river not influenced by normal tidal action.	On ground surface	Watercourse contains water year round (in normal circumstances)	-
Е	On site	Inland river not influenced by normal tidal action.	On ground surface	Watercourse contains water year round (in normal circumstances)	-
Е	On site	Inland river not influenced by normal tidal action.	Underground	Watercourse contains water year round (in normal circumstances)	-
E	On site	Inland river not influenced by normal tidal action.	On ground surface	Watercourse contains water year round (in normal circumstances)	-
E	On site	Inland river not influenced by normal tidal action.	On ground surface	Watercourse contains water year round (in normal circumstances)	-
E	On site	Inland river not influenced by normal tidal action.	On ground surface	Watercourse contains water year round (in normal circumstances)	-
E	On site	Inland river not influenced by normal tidal action.	On ground surface	Watercourse contains water year round (in normal circumstances)	-
Е	On site	Inland river not influenced by normal tidal action.	On ground surface	Watercourse contains water year round (in normal circumstances)	-





ID	Location	Type of water feature	Ground level	Permanence	Name
E	On site	Inland river not influenced by normal tidal action.	Underground	Watercourse contains water year round (in normal circumstances)	-
E	On site	Inland river not influenced by normal tidal action.	Underground	Watercourse contains water year round (in normal circumstances)	-
E	On site	Inland river not influenced by normal tidal action.	On ground surface	Watercourse contains water year round (in normal circumstances)	-
E	On site	Inland river not influenced by normal tidal action.	On ground surface	Watercourse contains water year round (in normal circumstances)	-
E	On site	Inland river not influenced by normal tidal action.	Underground	Watercourse contains water year round (in normal circumstances)	-
Е	On site	Inland river not influenced by normal tidal action.	On ground surface	Watercourse contains water year round (in normal circumstances)	-
E	On site	Inland river not influenced by normal tidal action.	On ground surface	Watercourse contains water year round (in normal circumstances)	-
E	On site	Inland river not influenced by normal tidal action.	On ground surface	Watercourse contains water year round (in normal circumstances)	-
F	On site	Inland river not influenced by normal tidal action.	On ground surface	Watercourse contains water year round (in normal circumstances)	-
G	On site	Inland river not influenced by normal tidal action.	On ground surface	Watercourse contains water year round (in normal circumstances)	-
Н	On site	Inland river not influenced by normal tidal action.	On ground surface	Watercourse contains water year round (in normal circumstances)	-
I	On site	Inland river not influenced by normal tidal action.	On ground surface	Watercourse contains water year round (in normal circumstances)	-
ı	On site	Inland river not influenced by normal tidal action.	On ground surface	Watercourse contains water year round (in normal circumstances)	-





ID	Location	Type of water feature	Ground level	Permanence	Name
I	On site	Inland river not influenced by normal tidal action.	Underground	Watercourse contains water year round (in normal circumstances)	-
I	On site	Inland river not influenced by normal tidal action.	On ground surface	Watercourse contains water year round (in normal circumstances)	-
J	On site	Inland river not influenced by normal tidal action.	On ground surface	Watercourse contains water year round (in normal circumstances)	-
K	On site	Inland river not influenced by normal tidal action.	Underground	Watercourse contains water year round (in normal circumstances)	-
K	On site	Inland river not influenced by normal tidal action.	On ground surface	Watercourse contains water year round (in normal circumstances)	-
L	On site	Inland river not influenced by normal tidal action.	On ground surface	Watercourse contains water year round (in normal circumstances)	-
N	1m E	Inland river not influenced by normal tidal action.	Underground	Watercourse contains water year round (in normal circumstances)	-
Р	6m E	Inland river not influenced by normal tidal action.	On ground surface	Watercourse contains water year round (in normal circumstances)	-
Q	7m E	Inland river not influenced by normal tidal action.	On ground surface	Watercourse contains water year round (in normal circumstances)	-
N	11m E	Inland river not influenced by normal tidal action.	On ground surface	Watercourse contains water year round (in normal circumstances)	Mill Burn
Е	20m NE	Inland river not influenced by normal tidal action.	On ground surface	Watercourse contains water year round (in normal circumstances)	-
S	22m E	Inland river not influenced by normal tidal action.	On ground surface	Watercourse contains water year round (in normal circumstances)	-
Т	30m SW	Inland river not influenced by normal tidal action.	On ground surface	Watercourse contains water year round (in normal circumstances)	-





ID	Location	Type of water feature	Ground level	Permanence	Name
U	31m SW	Inland river not influenced by normal tidal action.	On ground surface	Watercourse contains water year round (in normal circumstances)	-
V	32m NE	Inland river not influenced by normal tidal action.	On ground surface	Watercourse contains water year round (in normal circumstances)	-
0	62m E	Lake, loch or reservoir.	On ground surface	Watercourse contains water year round (in normal circumstances)	Mill Burn
N	63m E	Inland river not influenced by normal tidal action.	On ground surface	Watercourse contains water year round (in normal circumstances)	Mill Burn
R	63m E	Lake, loch or reservoir.	On ground surface	Watercourse contains water year round (in normal circumstances)	Mill Burn
N	68m E	Inland river not influenced by normal tidal action.	On ground surface	Watercourse contains water year round (in normal circumstances)	-
W	88m NE	Inland river not influenced by normal tidal action.	On ground surface	Watercourse contains water year round (in normal circumstances)	-
8	88m NE	Inland river not influenced by normal tidal action.	On ground surface	Watercourse contains water year round (in normal circumstances)	Bullie Burn
Χ	95m E	Inland river not influenced by normal tidal action.	On ground surface	Watercourse contains water year round (in normal circumstances)	-
Υ	106m SE	Inland river not influenced by normal tidal action.	On ground surface	Watercourse contains water year round (in normal circumstances)	-
Z	106m N	Inland river not influenced by normal tidal action.	On ground surface	Watercourse contains water year round (in normal circumstances)	-
AA	106m N	Inland river not influenced by normal tidal action.	On ground surface	Watercourse contains water year round (in normal circumstances)	-
AB	115m E	Inland river not influenced by normal tidal action.	On ground surface	Watercourse contains water year round (in normal circumstances)	-





ID	Location	Type of water feature	Ground level	Permanence	Name
AD	121m E	Inland river not influenced by normal tidal action.	On ground surface	Watercourse contains water year round (in normal circumstances)	Mill Burn
AE	123m E	Inland river not influenced by normal tidal action.	On ground surface	Watercourse contains water year round (in normal circumstances)	-
AD	124m E	Inland river not influenced by normal tidal action.	On ground surface	Watercourse contains water year round (in normal circumstances)	Mill Burn
AF	133m SW	Inland river not influenced by normal tidal action.	On ground surface	Watercourse contains water year round (in normal circumstances)	-
AG	140m N	Inland river not influenced by normal tidal action.	On ground surface	Watercourse contains water year round (in normal circumstances)	Bullie Burn
AB	140m E	Inland river not influenced by normal tidal action.	Underground	Watercourse contains water year round (in normal circumstances)	-
AD	141m E	Inland river not influenced by normal tidal action.	On ground surface	Watercourse contains water year round (in normal circumstances)	Mill Burn
АН	142m E	Inland river not influenced by normal tidal action.	On ground surface	Watercourse contains water year round (in normal circumstances)	-
Al	142m E	Inland river not influenced by normal tidal action.	On ground surface	Watercourse contains water year round (in normal circumstances)	-
AE	144m E	Inland river not influenced by normal tidal action.	Underground	Watercourse contains water year round (in normal circumstances)	-
AE	145m E	Inland river not influenced by normal tidal action.	On ground surface	Watercourse contains water year round (in normal circumstances)	-
AE	146m E	Inland river not influenced by normal tidal action.	On ground surface	Watercourse contains water year round (in normal circumstances)	-
AJ	148m N	Inland river not influenced by normal tidal action.	On ground surface	Watercourse contains water year round (in normal circumstances)	Bullie Burn





ID	Location	Type of water feature	Ground level	Permanence	Name
AK	151m E	Inland river not influenced by normal tidal action.	On ground surface	Watercourse contains water year round (in normal circumstances)	-
AK	151m E	Inland river not influenced by normal tidal action.	On ground surface	Watercourse contains water year round (in normal circumstances)	-
M	151m E	Lake, loch or reservoir.	On ground surface	Watercourse contains water year round (in normal circumstances)	-
AK	151m E	Inland river not influenced by normal tidal action.	On ground surface	Watercourse contains water year round (in normal circumstances)	-
AK	151m E	Inland river not influenced by normal tidal action.	Underground	Watercourse contains water year round (in normal circumstances)	-
AD	152m E	Inland river not influenced by normal tidal action.	Underground	Watercourse contains water year round (in normal circumstances)	Mill Burn
AK	152m E	Inland river not influenced by normal tidal action.	Underground	Watercourse contains water year round (in normal circumstances)	-
AD	154m E	Inland river not influenced by normal tidal action.	On ground surface	Watercourse contains water year round (in normal circumstances)	Mill Burn
AD	154m E	Inland river not influenced by normal tidal action.	On ground surface	Watercourse contains water year round (in normal circumstances)	-
AD	155m E	Inland river not influenced by normal tidal action.	Underground	Watercourse contains water year round (in normal circumstances)	-
AD	156m E	Inland river not influenced by normal tidal action.	On ground surface	Watercourse contains water year round (in normal circumstances)	-
10	158m NE	Inland river not influenced by normal tidal action.	On ground surface	Watercourse contains water year round (in normal circumstances)	Bullie Burn
AK	159m E	Inland river not influenced by normal tidal action.	On ground surface	Watercourse contains water year round (in normal circumstances)	-





ID	Location	Type of water feature	Ground level	Permanence	Name
AL	161m N	Inland river not influenced by normal tidal action.	On ground surface	Watercourse contains water year round (in normal circumstances)	Bullie Burn
AE	162m E	Inland river not influenced by normal tidal action.	On ground surface	Watercourse contains water year round (in normal circumstances)	-
AC	164m E	Inland river not influenced by normal tidal action.	On ground surface	Watercourse contains water year round (in normal circumstances)	-
AM	164m E	Inland river not influenced by normal tidal action.	On ground surface	Watercourse contains water year round (in normal circumstances)	-
11	165m NE	Inland river not influenced by normal tidal action.	On ground surface	Watercourse contains water year round (in normal circumstances)	Bullie Burn
12	169m E	Inland river not influenced by normal tidal action.	On ground surface	Watercourse contains water year round (in normal circumstances)	Feddal Burn
AO	169m S	Inland river not influenced by normal tidal action.	On ground surface	Watercourse contains water year round (in normal circumstances)	-
AP	169m E	Inland river not influenced by normal tidal action.	On ground surface	Watercourse contains water year round (in normal circumstances)	Mill Burn
AI	174m E	Inland river not influenced by normal tidal action.	Underground	Watercourse contains water year round (in normal circumstances)	-
AE	177m E	Inland river not influenced by normal tidal action.	On ground surface	Watercourse contains water year round (in normal circumstances)	-
Χ	181m E	Inland river not influenced by normal tidal action.	Underground	Watercourse contains water year round (in normal circumstances)	-
AI	182m E	Inland river not influenced by normal tidal action.	On ground surface	Watercourse contains water year round (in normal circumstances)	-
Χ	188m E	Inland river not influenced by normal tidal action.	On ground surface	Watercourse contains water year round (in normal circumstances)	-





ID	Location	Type of water feature	Ground level	Permanence	Name
AQ	188m NE	Inland river not influenced by normal tidal action.	On ground surface	Watercourse contains water year round (in normal circumstances)	Tochie Burn
AQ	189m NE	Inland river not influenced by normal tidal action.	On ground surface	Watercourse contains water year round (in normal circumstances)	Tochie Burn
AR	190m E	Inland river not influenced by normal tidal action.	On ground surface	Watercourse contains water year round (in normal circumstances)	-
13	190m E	Inland river not influenced by normal tidal action.	On ground surface	Watercourse contains water year round (in normal circumstances)	-
AE	190m E	Inland river not influenced by normal tidal action.	On ground surface	Watercourse contains water year round (in normal circumstances)	-
AE	190m E	Inland river not influenced by normal tidal action.	On ground surface	Watercourse contains water year round (in normal circumstances)	-
AN	193m E	Inland river not influenced by normal tidal action.	On ground surface	Watercourse contains water year round (in normal circumstances)	Feddal Burn
AN	193m E	Lake, loch or reservoir.	On ground surface	Watercourse contains water year round (in normal circumstances)	Feddal Burn
AN	195m E	Manmade watercourse for water transfer.	On ground surface	Watercourse may not contain water all year round	Feddal Burn
AS	197m NE	Inland river not influenced by normal tidal action.	On ground surface	Watercourse contains water year round (in normal circumstances)	-
M	199m E	Lake, loch or reservoir.	On ground surface	Watercourse contains water year round (in normal circumstances)	-
AE	203m E	Inland river not influenced by normal tidal action.	On ground surface	Watercourse contains water year round (in normal circumstances)	-
AN	204m E	Lake, loch or reservoir.	On ground surface	Watercourse contains water year round (in normal circumstances)	Feddal Burn





ID	Location	Type of water feature	Ground level	Permanence	Name
15	210m SW	Inland river not influenced by normal tidal action.	On ground surface	Watercourse contains water year round (in normal circumstances)	Crocket Burn
AT	210m NE	Inland river not influenced by normal tidal action.	On ground surface	Watercourse contains water year round (in normal circumstances)	-
AE	215m E	Inland river not influenced by normal tidal action.	On ground surface	Watercourse contains water year round (in normal circumstances)	-
AU	215m NE	Inland river not influenced by normal tidal action.	On ground surface	Watercourse contains water year round (in normal circumstances)	-
AV	218m NE	Inland river not influenced by normal tidal action.	On ground surface	Watercourse contains water year round (in normal circumstances)	-
AW	222m SW	Inland river not influenced by normal tidal action.	On ground surface	Watercourse contains water year round (in normal circumstances)	-
AE	223m E	Inland river not influenced by normal tidal action.	On ground surface	Watercourse contains water year round (in normal circumstances)	-
AN	224m E	Lake, loch or reservoir.	On ground surface	Watercourse contains water year round (in normal circumstances)	Feddal Burn
AE	226m E	Inland river not influenced by normal tidal action.	On ground surface	Watercourse contains water year round (in normal circumstances)	-
X	230m E	Inland river not influenced by normal tidal action.	On ground surface	Watercourse contains water year round (in normal circumstances)	-
18	231m E	Lake, loch or reservoir.	On ground surface	Watercourse contains water year round (in normal circumstances)	Feddal Burn
AX	232m E	Lake, loch or reservoir.	On ground surface	Watercourse contains water year round (in normal circumstances)	-
AY	235m E	Inland river not influenced by normal tidal action.	Underground	Watercourse contains water year round (in normal circumstances)	-





ID	Location	Type of water feature	Ground level	Permanence	Name
AZ	242m E	Inland river not influenced by normal tidal action.	On ground surface	Watercourse contains water year round (in normal circumstances)	-
Χ	243m E	Inland river not influenced by normal tidal action.	On ground surface	Watercourse contains water year round (in normal circumstances)	-
ВА	244m SW	Inland river not influenced by normal tidal action.	On ground surface	Watercourse contains water year round (in normal circumstances)	-
20	246m NE	Inland river not influenced by normal tidal action.	On ground surface	Watercourse contains water year round (in normal circumstances)	Bullie Burn
ВВ	247m NE	Inland river not influenced by normal tidal action.	On ground surface	Watercourse contains water year round (in normal circumstances)	-
ВС	249m S	Inland river not influenced by normal tidal action.	On ground surface	Watercourse contains water year round (in normal circumstances)	Crocket Burn

This data is sourced from the Ordnance Survey.

6.2 Surface water features

Records within 250m 66

Covering rivers, streams and lakes (some overlap with OS MasterMap Water Network data in previous section) but additionally covers smaller features such as ponds. Rivers and streams narrower than 5m are represented as a single line. Lakes, ponds and rivers or streams wider than 5m are represented as polygons.

Features are displayed on the Hydrology map on page 25 >

This data is sourced from the Ordnance Survey.





7 River flooding

7.1 River flooding

Highest risk on site Negligible

Highest risk within 50m

Negligible

This is an assessment of flood risk for rivers in Scotland produced using modelled data, provided by Ambiental Risk Analytics. It also takes account of flood defence information provided by the Scottish Environment Protection Agency (SEPA). It shows the chance of flooding from rivers presented in the following categories:

- 1 in 30 year (3.33%)
- 1 in 100 year (1%)
- 1 in 250 year (0.4%)
- and 1 in 1,000 year (0.1%)

The data shown on the map and in the table above shows the highest likelihood of flood events happening at the site. Lower likelihood events may have greater flood depths and hence a greater potential impact on a site. The table below shows the maximum flood depths for a range of return periods for the site.

Return period	Maximum modelled depth
1 in 1000 year	Negligible
1 in 250 year	Negligible
1 in 100 year	Negligible
1 in 30 year	Negligible

This data is sourced from Ambiental Risk Analytics.





8 Coastal flooding - Coastal flooding

8.1 Coastal flooding

Highest risk on site Negligible

Highest risk within 50m

Negligible

This is an assessment of coastal flood risk in Scotland produced using modelled data, provided by Ambiental Risk Analytics. It also takes account of flood defence information provided by the Scottish Environment Protection Agency (SEPA). It shows the chance of coastal flooding presented in the following categories:

- 1 in 30 year (3.33%)
- 1 in 100 year (1%)
- 1 in 250 year (0.4%)
- and 1 in 1,000 year (0.1%)

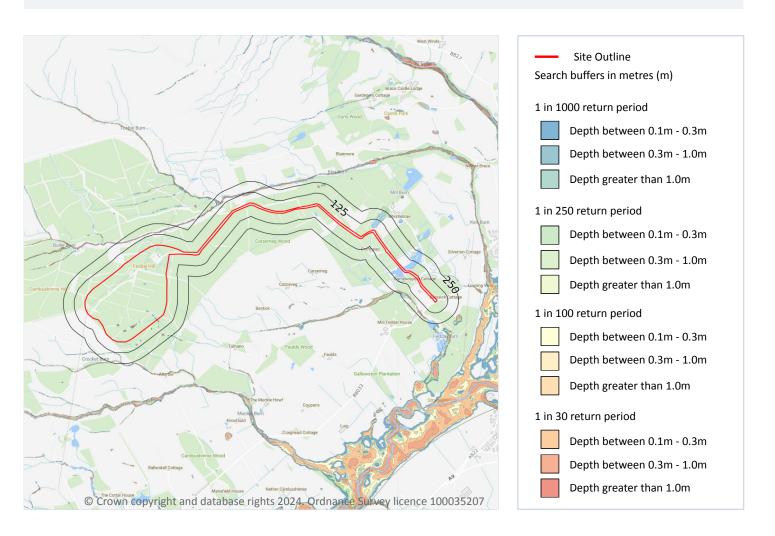
The data shown on the map shows the highest likelihood of flood events happening at the site. Lower likelihood events may have greater flood depths and hence a greater potential impact on a site. The table below shows the maximum flood depths for a range of return periods for the site.

Return period	Maximum modelled depth
1 in 1000 year	Negligible
1 in 250 year	Negligible
1 in 100 year	Negligible
1 in 30 year	Negligible

This data is sourced from Ambiental Risk Analytics.



9 Surface water flooding



9.1 Surface water flooding

Highest risk on site

1 in 30 year, Greater than 1.0m

Highest risk within 50m

1 in 30 year, Greater than 1.0m

Ambiental Risk Analytics surface water (pluvial) FloodMap identifies areas likely to flood as a result of extreme rainfall events, i.e. land naturally vulnerable to surface water ponding or flooding. This data set was produced by simulating 1 in 30 year, 1 in 100 year, 1 in 250 year and 1 in 1,000 year rainfall events. Modern urban drainage systems are typically built to cope with rainfall events between 1 in 20 and 1 in 30 years, though some older ones may flood in a 1 in 5 year rainfall event.

Features are displayed on the Surface water flooding map on page 38 >

The data shown on the map and in the table above shows the highest likelihood of flood events happening at the site. Lower likelihood events may have greater flood depths and hence a greater potential impact on





a site. The table below shows the maximum flood depths for a range of return periods for the site.

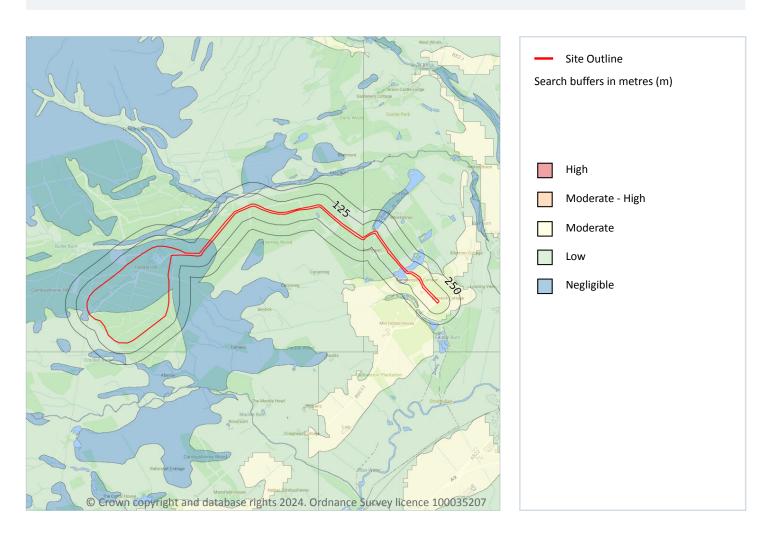
Return period	Maximum modelled depth
1 in 1000 year	Greater than 1.0m
1 in 250 year	Greater than 1.0m
1 in 100 year	Greater than 1.0m
1 in 30 year	Greater than 1.0m

This data is sourced from Ambiental Risk Analytics.





10 Groundwater flooding



10.1 Groundwater flooding

Highest risk on site Moderate

Highest risk within 50m Moderate

Groundwater flooding is caused by unusually high groundwater levels. It occurs when the water table rises above the ground surface or within underground structures such as basements or cellars. Groundwater flooding tends to exhibit a longer duration than surface water flooding, possibly lasting for weeks or months, and as a result it can cause significant damage to property. This risk assessment is based on a 1 in 100 year return period and a 5m Digital Terrain Model (DTM).

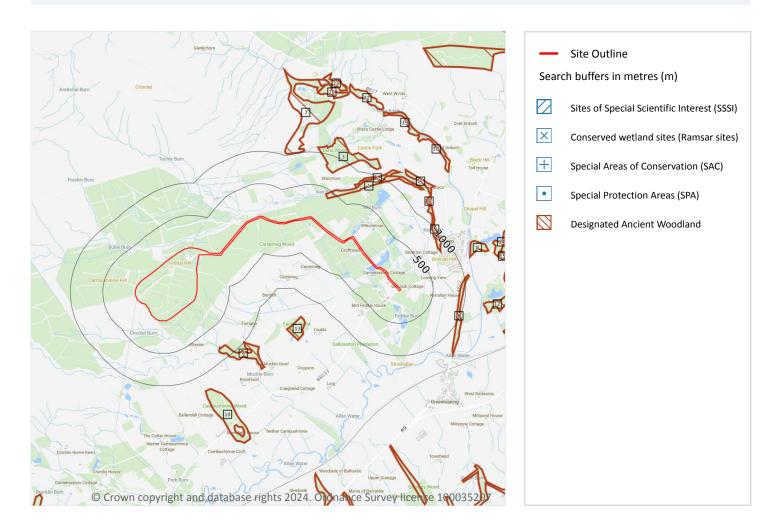
Features are displayed on the Groundwater flooding map on page 40 >

This data is sourced from Ambiental Risk Analytics.





11 Environmental designations



11.1 Sites of Special Scientific Interest (SSSI)

Records within 2000m 0

Sites providing statutory protection for the best examples of UK flora, fauna, or geological or physiographical features. Originally notified under the National Parks and Access to the Countryside Act 1949, SSSIs were re-notified under the Wildlife and Countryside Act 1981. Improved provisions for the protection and management of SSSIs were introduced by the Countryside and Rights of Way Act 2000 (in England and Wales) and (in Scotland) by the Nature Conservation (Scotland) Act 2004 and the Wildlife and Natural Environment (Scotland) Act 2010.

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

01273 257 755





11.2 Conserved wetland sites (Ramsar sites)

Records within 2000m 0

Ramsar sites are designated under the Convention on Wetlands of International Importance, agreed in Ramsar, Iran, in 1971. They cover all aspects of wetland conservation and wise use, recognizing wetlands as ecosystems that are extremely important for biodiversity conservation in general and for the well-being of human communities. These sites cover a broad definition of wetland; marsh, fen, peatland or water, whether natural or artificial, permanent or temporary, with water that is static or flowing, fresh, brackish or salt, and even some marine areas.

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

11.3 Special Areas of Conservation (SAC)

Records within 2000m 0

Areas which have been identified as best representing the range and variety within the European Union of habitats and (non-bird) species listed on Annexes I and II to the Directive. SACs are designated under the EC Habitats Directive.

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

11.4 Special Protection Areas (SPA)

Records within 2000m 0

Sites classified by the UK Government under the EC Birds Directive, SPAs are areas of the most important habitat for rare (listed on Annex I to the Directive) and migratory birds within the European Union.

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

11.5 National Nature Reserves (NNR)

Records within 2000m 0

Sites containing examples of some of the most important natural and semi-natural terrestrial and coastal ecosystems in Great Britain. They are managed to conserve their habitats, provide special opportunities for scientific study or to provide public recreation compatible with natural heritage interests.

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





11.6 Local Nature Reserves (LNR)

Records within 2000m 0

Sites managed for nature conservation, and to provide opportunities for research and education, or simply enjoying and having contact with nature. They are declared by local authorities under the National Parks and Access to the Countryside Act 1949 after consultation with the relevant statutory nature conservation agency.

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

11.7 Designated Ancient Woodland

Records within 2000m 23

Ancient woodlands are classified as areas which have been wooded continuously since at least 1600 AD. This includes semi-natural woodland and plantations on ancient woodland sites. 'Wooded continuously' does not mean there is or has previously been continuous tree cover across the whole site, and not all trees within the woodland have to be old.

Features are displayed on the Environmental designations map on page 41 >

ID	Location	Name	Woodland Type	
1	379m NE	Unknown	Long-Established (of plantation origin)	
2	749m NE	Unknown	Ancient (of semi-natural origin)	
3	754m NE	Duns Wood	Long-Established (of plantation origin)	
4	812m SE	Unknown	Long-Established (of plantation origin)	
5	850m E	Unknown	Long-Established (of plantation origin)	
6	909m E	Unknown	Long-Established (of plantation origin)	
7	999m NE	Unknown	Ancient (of semi-natural origin)	
8	1184m E	Unknown	Long-Established (of plantation origin)	
9	1215m E	Unknown	Long-Established (of plantation origin)	
10	1241m S	Unknown	Long-Established (of plantation origin)	
11	1259m NE	Unknown	Ancient (of semi-natural origin)	
12	1300m E	Unknown	Long-Established (of plantation origin)	
13	1308m E	Faulds Wood	Long-Established (of plantation origin)	
14	1549m E	Unknown	Long-Established (of plantation origin)	
15	1593m E	Unknown	Long-Established (of plantation origin)	





ID	Location	Name	Woodland Type
16	1608m E	Unknown	Long-Established (of plantation origin)
17	1703m E	Unknown	Long-Established (of plantation origin)
18	1760m NE	Unknown	Ancient (of semi-natural origin)
19	1811m NE	Unknown	Ancient (of semi-natural origin)
20	1861m NE	Unknown	Ancient (of semi-natural origin)
-	1943m E	Unknown	Long-Established (of plantation origin)
22	1955m NE	Unknown	Ancient (of semi-natural origin)
23	1997m NE	Unknown	Ancient (of semi-natural origin)

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

11.8 Biosphere Reserves

Records within 2000m 0

Biosphere Reserves are internationally recognised by UNESCO as sites of excellence to balance conservation and socioeconomic development between nature and people. They are recognised under the Man and the Biosphere (MAB) Programme with the aim of promoting sustainable development founded on the work of the local community.

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

11.9 Forest Parks

Records within 2000m 0

These are areas managed by the Forestry Commission designated on the basis of recreational, conservation or scenic interest.

This data is sourced from the Forestry Commission.

11.10 Marine Conservation Zones

Records within 2000m 0

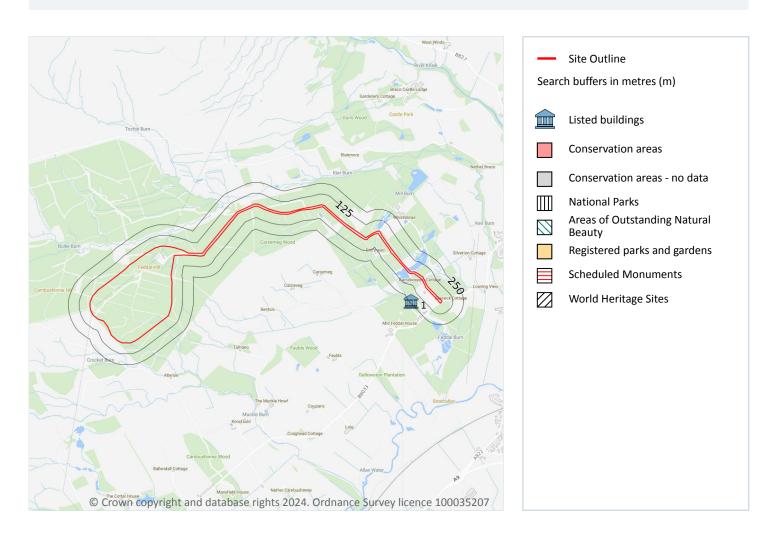
A type of marine nature reserve in UK waters established under the Marine and Coastal Access Act (2009). They are designated with the aim to protect nationally important, rare or threatened habitats and species.

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





12 Visual and cultural designations



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.



Contact us with any questions at: Date: 29 January 2024



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 1

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 45 >

ID	Location	Name	Grade	Reference Number	Listed date
1	234m E	Feddal Castle, Perth And Kinross	В	337289	05/10/1971

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 0

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.

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

12.7 Registered Parks and Gardens

Records within 250m 0

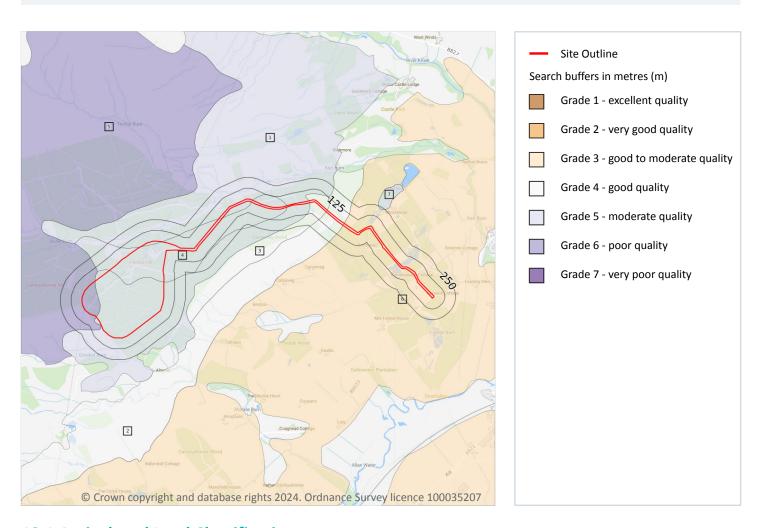
Parks and gardens assessed to be of particular interest and of special historic interest. The emphasis being on 'designed' landscapes, rather than on planting or botanical importance. Registration is a 'material consideration' in the planning process, meaning that planning authorities must consider the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

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





13 Agricultural designations



13.1 Agricultural Land Classification

Records within 250m 7

Classification of the quality of agricultural land taking into consideration multiple factors inclusing 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 48 >

ID	Location	Classification	Description	
1	On site	Grade 5.2	Land Suited only to Improved Grassland and Rough Grazings	
2	On site	Grade 4.1	Land Suited to Arable Cropping	
3	On site	Grade 4.2	Land Suited to Arable Cropping	



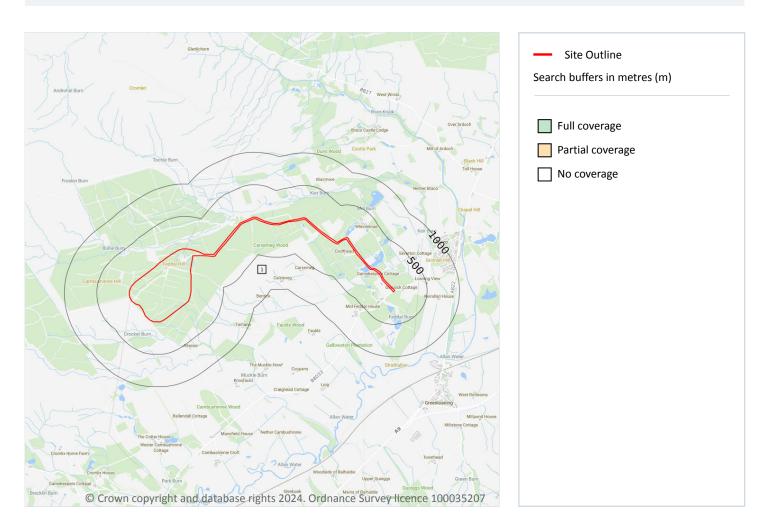


ID	Location	Classification	Description		
4	On site	Grade 5.3	Land Suited only to Improved Grassland and Rough Grazings		
5	On site	Grade 6.3	Land Suited only to Improved Grassland and Rough Grazings		
6	On site	Grade 3.2	Land Suited to Arable Cropping		
7	227m E	Grade 5.3	Land Suited only to Improved Grassland and Rough Grazings		

This data is sourced from the James Hutton Institute.



14 Geology 1:10,000 scale - Availability



14.1 10k Availability

Records within 500m

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 50 >

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

This data is sourced from the British Geological Survey.



Contact us with any questions at: Date: 29 January 2024



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

14.2 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

14.3 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.

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

14.5 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.

14.6 Bedrock faults and other linear features (10k)

Records within 500m 0

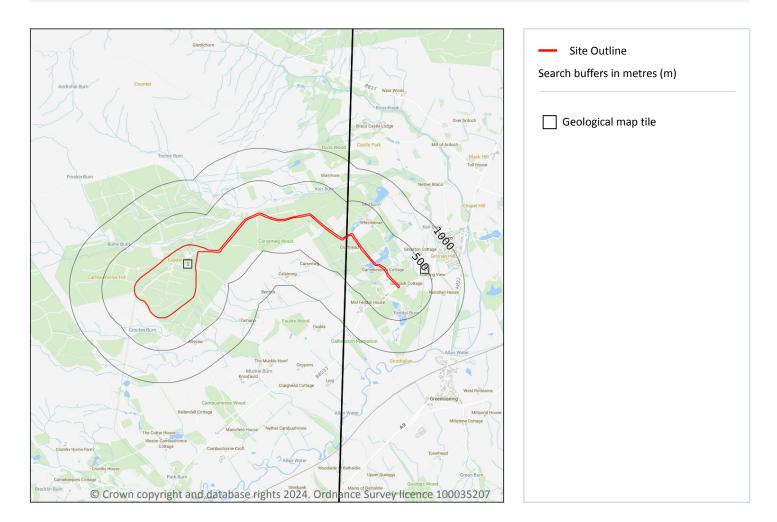
Linear features at the ground or bedrock surface at 1:10,000 scale of six main types; rock, fault, fold axis, mineral vein, alteration area or landform. Features are either observed or inferred, and relate primarily to bedrock.

This data is sourced from the British Geological Survey.





15 Geology 1:50,000 scale - Availability



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 54 >

ID	Location	Artificial	Superficial	Bedrock	Mass movement	Sheet No.
1	On site	No coverage	Full	Full	Full	SC039w_Stirling_v4
2	On site	No coverage	Full	Full	Full	SC039e_Alloa_v4

This data is sourced from the British Geological Survey.



Contact us with any questions at: Date: 29 January 2024



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

15.2 Artificial and made ground (50k)

Records within 500m 0

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.

This data is sourced from the British Geological Survey.

15.3 Artificial ground permeability (50k)

Records within 50m 0

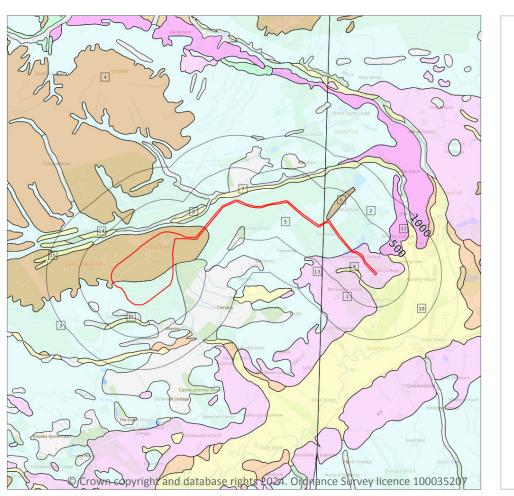
A qualitative classification of estimated rates of vertical movement of water from the ground surface through the unsaturated zone of any artificial deposits (the zone between the land surface and the water table).

This data is sourced from the British Geological Survey.





Geology 1:50,000 scale - Superficial



Site OutlineSearch buffers in metres (m)

Landslip (50k)

Superficial geology (50k) Please see table for more details.

15.4 Superficial geology (50k)

Records within 500m 15

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 56 >

ID	Location	LEX Code	Description	Rock description
1	On site	GFIC-XVSZ	GLACIOFLUVIAL ICE CONTACT DEPOSITS	GRAVEL, SAND AND SILT
2	On site	TILLD- DMTN	TILL, DEVENSIAN	DIAMICTON
3	On site	TILLD- DMTN	TILL, DEVENSIAN	DIAMICTON





ID	Location	LEX Code	Description	Rock description
4	On site	PEAT-P	PEAT	PEAT
5	On site	TILLD- DMTN	TILL, DEVENSIAN	DIAMICTON
6	14m E	PEAT-P	PEAT	PEAT
7	51m NE	ALV-XCZSV	ALLUVIUM	CLAY, SILT, SAND AND GRAVEL
8	150m N	ALV-XCZSV	ALLUVIUM	CLAY, SILT, SAND AND GRAVEL
9	154m E	ALV-XCZSV	ALLUVIUM	CLAY, SILT, SAND AND GRAVEL
10	200m E	ALV-XCZSV	ALLUVIUM	CLAY, SILT, SAND AND GRAVEL
11	210m SW	ALV-XCZSV	ALLUVIUM	CLAY, SILT, SAND AND GRAVEL
12	268m E	GFSD-XVSZ	GLACIOFLUVIAL SHEET DEPOSITS	GRAVEL, SAND AND SILT
13	391m E	GFIC-XVSZ	GLACIOFLUVIAL ICE CONTACT DEPOSITS	GRAVEL, SAND AND SILT
14	425m NW	ALV-XCZSV	ALLUVIUM	CLAY, SILT, SAND AND GRAVEL
15	486m W	ALV-XCZSV	ALLUVIUM	CLAY, SILT, SAND AND GRAVEL

This data is sourced from the British Geological Survey.

15.5 Superficial permeability (50k)

Records within 50m 7

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	Very High	Moderate
On site	Mixed	Low	Very Low
On site	Mixed	Low	Very Low
On site	Mixed	High	Low
On site	Mixed	High	Low
On site	Mixed	High	Low
14m E	Mixed	Low	Very 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

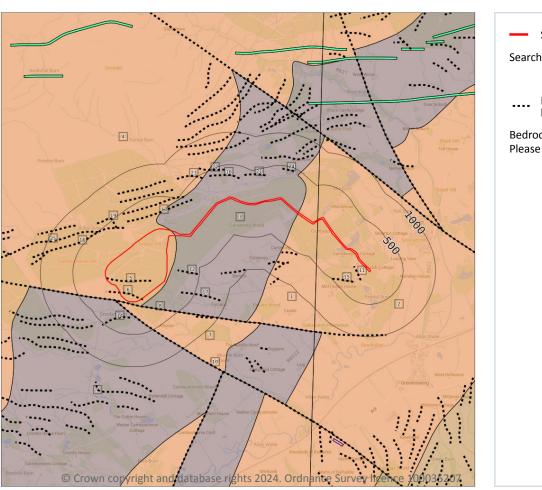
A qualitative classification of estimated rates of vertical movement of water from the ground surface through the unsaturated zone of any landslip deposits (the zone between the land surface and the water table).

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

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 59 >

ID	Location	LEX Code	Description	Rock age
1	On site	DUF-SDST	DUNBLANE SANDSTONE MEMBER - SANDSTONE	-
2	On site	DUF-SDST	DUNBLANE SANDSTONE MEMBER - SANDSTONE	-
3	On site	CXF-MDSI	CROMLIX MUDSTONE FORMATION - MUDSTONE AND SILTSTONE	EMSIAN





ID	Location	LEX Code	Description	Rock age
4	On site	THF-SDST	TEITH SANDSTONE FORMATION - SANDSTONE	EMSIAN
7	28m SW	THF-SDST	TEITH SANDSTONE FORMATION - SANDSTONE	EMSIAN
9	111m SW	CXF-MDSI	CROMLIX MUDSTONE FORMATION - MUDSTONE AND SILTSTONE	EMSIAN

This data is sourced from the British Geological Survey.

15.9 Bedrock permeability (50k)

Records within 50m 5

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	High
On site	Fracture	Moderate	Low
On site	Fracture	Moderate	Low
On site	Fracture	Moderate	Low
On site	Fracture	High	High

This data is sourced from the British Geological Survey.

15.10 Bedrock faults and other linear features (50k)

Records within 500m 19

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 59 >

ID	Location	Category	Description
5	On site	LANDFORM	Glacial meltwater channel centre line, undifferentiated
6	On site	LANDFORM	Glacial meltwater channel centre line, undifferentiated
8	28m SW	FAULT	Fault, inferred, displacement unknown
10	111m SW	FAULT	Fault, inferred, displacement unknown



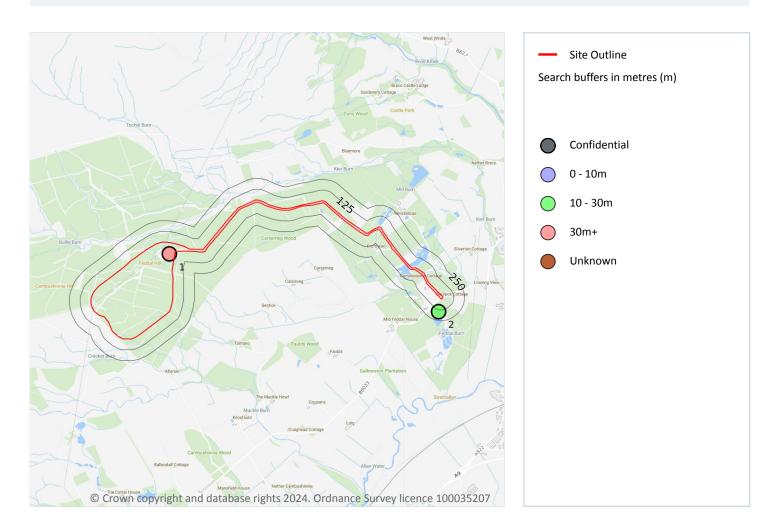


ID	Location	Category	Description
11	117m E	LANDFORM	Glacial meltwater channel centre line, undifferentiated
12	163m E	LANDFORM	Glacial meltwater channel centre line, undifferentiated
13	233m N	LANDFORM	Glacial meltwater channel centre line, undifferentiated
14	243m SW	LANDFORM	Glacial meltwater channel centre line, undifferentiated
15	288m E	LANDFORM	Glacial meltwater channel centre line, undifferentiated
16	290m NW	LANDFORM	Glacial meltwater channel centre line, undifferentiated
17	308m SE	LANDFORM	Glacial meltwater channel centre line, undifferentiated
18	312m NE	LANDFORM	Glacial meltwater channel centre line, undifferentiated
19	367m NW	LANDFORM	Glacial meltwater channel centre line (tail)
20	370m N	LANDFORM	Glacial meltwater channel centre line, undifferentiated
21	383m NE	LANDFORM	Glacial meltwater channel centre line, undifferentiated
22	430m NE	LANDFORM	Glacial meltwater channel centre line, undifferentiated
23	442m NE	LANDFORM	Glacial meltwater channel centre line, undifferentiated
24	447m NE	LANDFORM	Glacial meltwater channel centre line, undifferentiated
25	493m NW	LANDFORM	Glacial meltwater channel centre line (tail)

This data is sourced from the British Geological Survey.



16 Boreholes



16.1 BGS Boreholes

Records within 250m 2

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 62 >

ID	Location	Grid reference	Name	Length	Confidential	Web link
1	On site	279559 709438	BRACO	150.0	N	20955868 7
2	147m E	282690 708770	GLASSICK ARDOCH H	16.9	N	<u>631677</u> ⊅



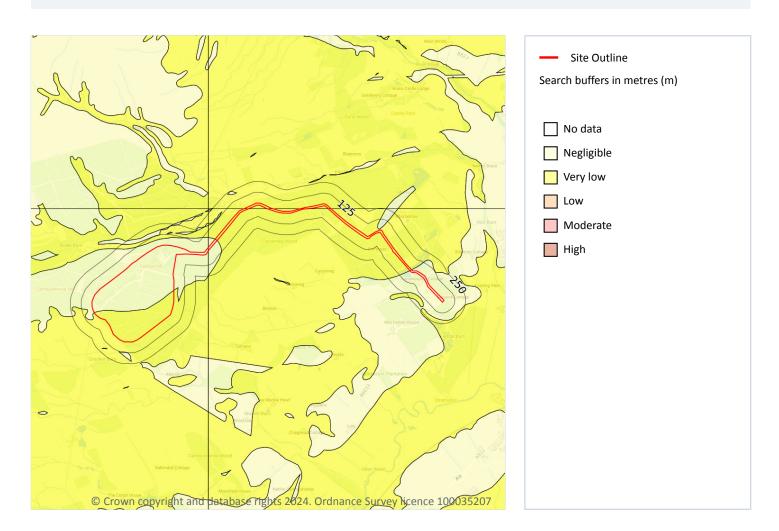


This data is sourced from the British Geological Survey.





17 Natural ground subsidence - Shrink swell clays



17.1 Shrink swell clays

Records within 50m

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 64 >

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



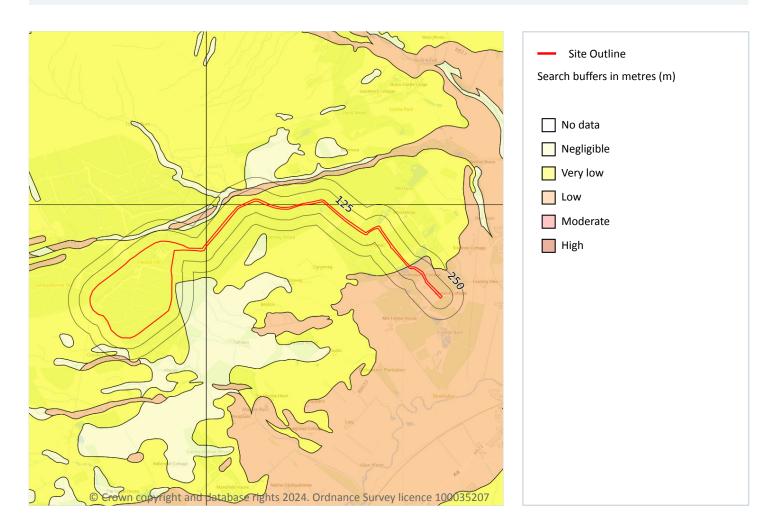


This data is sourced from the British Geological Survey.





Natural ground subsidence - Running sands



17.2 Running sands

Records within 50m 3

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 66 >

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.





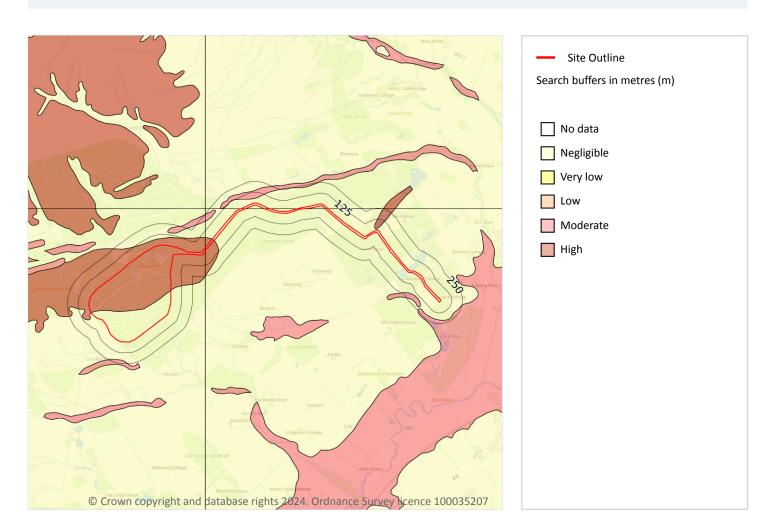
Location	Hazard rating	Details
On site	Low	Running sand conditions may be present. Constraints may apply to land uses involving excavation or the addition or removal of water.
45m E	Negligible	Running sand conditions are not thought to occur whatever the position of the water table. No identified constraints 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 3

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 68 >

Location	Hazard rating	Details
On site	Negligible	Compressible strata are not thought to occur.
On site	High	Highly compressible strata present. Significant constraint on land use depending on thickness.





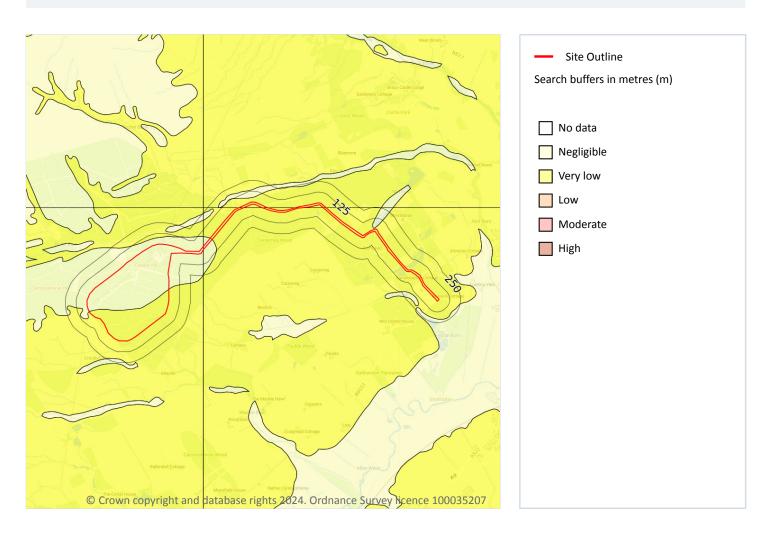
Location	Hazard rating	Details
14m E	High	Highly compressible strata present. Significant constraint on land use depending on thickness.

This data is sourced from the British Geological Survey.





Natural ground subsidence - Collapsible deposits



17.4 Collapsible deposits

Records within 50m 3

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 70 >

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.
14m E	Negligible	Deposits with potential to collapse when loaded and saturated are believed not to be present.



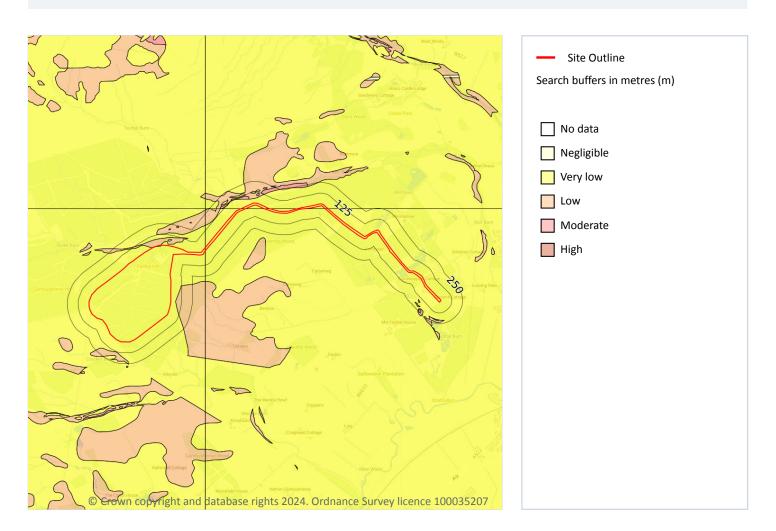


This data is sourced from the British Geological Survey.





Natural ground subsidence - Landslides



17.5 Landslides

Records within 50m 2

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 72 >

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.





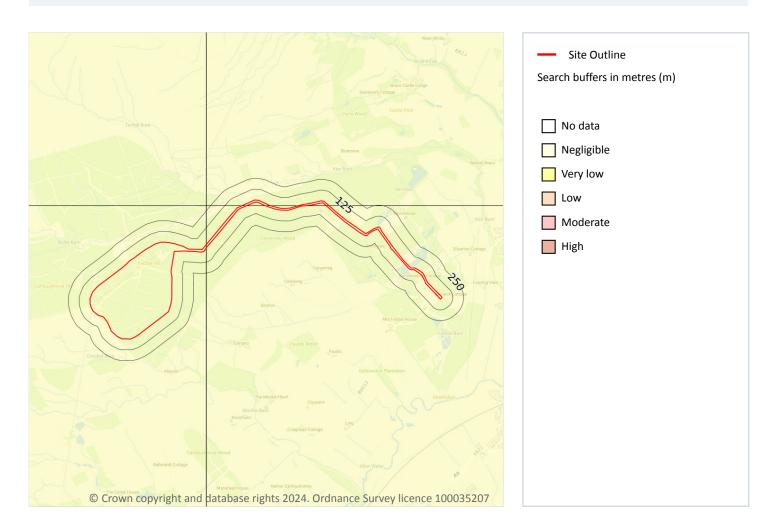
Location	Hazard rating	Details
On site	Low	Slope instability problems may be present or anticipated. Site investigation should consider specifically the slope stability of the site.

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

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.





Ref: GSIP-2024-14502-17022 Your ref: Braco West

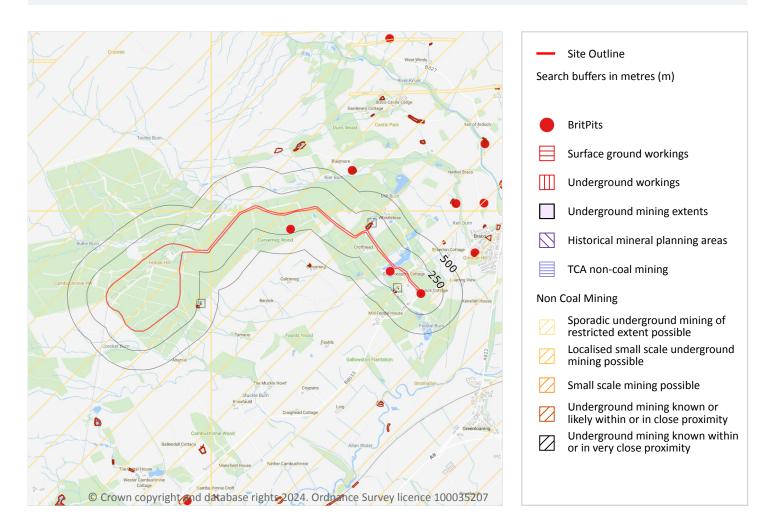
Grid ref: 280707 709438

This data is sourced from the British Geological Survey.





18 Mining and ground workings



18.1 BritPits

Records within 500m

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 76 >





ID	Location	Details	Description
Α	On site	Name: Glassick Sand Pit Address: Braco, AUCHTERARDER, Perthshire Commodity: Sand 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
3	68m E	Name: Nether Braco & Silverton Farms Address: Braco, COMRIE, Perthshire Commodity: Sand & Gravel 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
D	193m NE	Name: Carsemeg Wood Address: Braco, AUCHTERARDER, Perthshire 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

This data is sourced from the British Geological Survey.

18.2 Surface ground workings

Records within 250m 10

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 76 >

ID	Location	Land Use	Year of mapping	Mapping scale
Α	On site	Sand Pit	1954	1:10560
Α	On site	Sand Pit	1901	1:10560
С	13m E	Water Body	1863	1:10560
С	14m E	Water Body	1901	1:10560
С	16m E	Water Body	1954	1:10560
С	16m E	Water Body	1978	1:10000
D	188m NE	Unspecified Quarry	1978	1:10000





ID	Location	Land Use	Year of mapping	Mapping scale
4	205m E	Pond	1863	1:10560
Е	235m SE	Pond	1901	1:10560
Е	235m SE	Pond	1862	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

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 76 >





ID	Location	Name	Commodity	Class	Likelihood
1	On site	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.
2	On site	Not available	Vein Mineral	Α	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.
В	On site	Not available	Vein Mineral	Α	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.

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

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

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

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

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.

info@groundsure.com ↗

01273 257 755



Contact us with any questions at: Date: 29 January 2024



This data is sourced from Groundsure.

19.5 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.

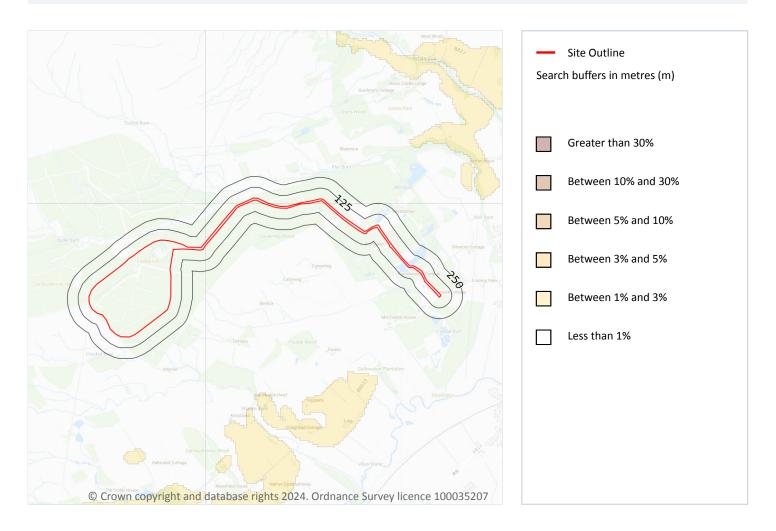
Since the database was set up in 2002 data covering most of the evaporite karst areas of the UK have now been added, along with data covering about 60% of the Chalk, and 35% of the Carboniferous Limestone outcrops. Many of the classic upland karst areas have yet to be included. Recorded so far are: Over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



20 Radon



20.1 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 84 >

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.



01273 257 755



21 Soil chemistry

21.1 BGS Estimated Background Soil Chemistry

Records within 50m 55

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	Cadmiu m	Chromium	Nickel
On site	15 mg/kg	-	100 mg/kg	60 mg/kg	No data	120 - 180 mg/kg	15 - 30 mg/kg
On site	15 mg/kg	-	100 mg/kg	60 mg/kg	No data	120 - 180 mg/kg	15 - 30 mg/kg
On site	15 mg/kg	-	100 mg/kg	60 mg/kg	No data	120 - 180 mg/kg	15 - 30 mg/kg
On site	15 mg/kg	-	100 mg/kg	60 mg/kg	No data	120 - 180 mg/kg	15 - 30 mg/kg
On site	15 mg/kg	-	100 mg/kg	60 mg/kg	No data	120 - 180 mg/kg	15 - 30 mg/kg
On site	15 mg/kg	-	100 mg/kg	60 mg/kg	No data	90 - 120 mg/kg	15 - 30 mg/kg
On site	15 mg/kg	-	100 mg/kg	60 mg/kg	No data	90 - 120 mg/kg	15 - 30 mg/kg
On site	15 mg/kg	-	100 mg/kg	60 mg/kg	No data	90 - 120 mg/kg	15 - 30 mg/kg
On site	15 mg/kg	-	100 mg/kg	60 mg/kg	No data	90 - 120 mg/kg	15 - 30 mg/kg
On site	15 mg/kg	-	100 mg/kg	60 mg/kg	No data	60 - 90 mg/kg	15 - 30 mg/kg
On site	15 mg/kg	-	100 mg/kg	60 mg/kg	No data	60 - 90 mg/kg	15 - 30 mg/kg
On site	15 mg/kg	-	100 mg/kg	60 mg/kg	No data	60 - 90 mg/kg	15 - 30 mg/kg
On site	15 mg/kg	-	100 mg/kg	60 mg/kg	No data	90 - 120 mg/kg	15 - 30 mg/kg
On site	15 mg/kg	-	100 mg/kg	60 mg/kg	No data	90 - 120 mg/kg	15 - 30 mg/kg
On site	15 mg/kg	-	100 mg/kg	60 mg/kg	No data	90 - 120 mg/kg	15 - 30 mg/kg
On site	15 mg/kg	-	100 mg/kg	60 mg/kg	No data	90 - 120 mg/kg	15 - 30 mg/kg
On site	15 mg/kg	-	100 mg/kg	60 mg/kg	No data	90 - 120 mg/kg	15 - 30 mg/kg
On site	15 mg/kg	-	100 mg/kg	60 mg/kg	No data	60 - 90 mg/kg	15 - 30 mg/kg





Location	Arsenic	Bioaccessible Arsenic	Lead	Bioaccessible Lead	Cadmiu m	Chromium	Nickel
On site	15 mg/kg	-	100 mg/kg	60 mg/kg	No data	60 - 90 mg/kg	15 - 30 mg/kg
On site	15 mg/kg	-	100 mg/kg	60 mg/kg	No data	60 - 90 mg/kg	15 - 30 mg/kg
On site	15 mg/kg	-	100 mg/kg	60 mg/kg	No data	60 - 90 mg/kg	15 - 30 mg/kg
On site	15 mg/kg	-	100 mg/kg	60 mg/kg	No data	60 - 90 mg/kg	15 - 30 mg/kg
On site	15 mg/kg	-	100 mg/kg	60 mg/kg	No data	60 - 90 mg/kg	15 - 30 mg/kg
On site	15 mg/kg	-	100 mg/kg	60 mg/kg	No data	60 - 90 mg/kg	15 - 30 mg/kg
On site	15 mg/kg	-	100 mg/kg	60 mg/kg	No data	60 - 90 mg/kg	15 - 30 mg/kg
On site	15 mg/kg	-	100 mg/kg	60 mg/kg	No data	60 - 90 mg/kg	15 - 30 mg/kg
On site	15 mg/kg	-	100 mg/kg	60 mg/kg	No data	60 - 90 mg/kg	15 - 30 mg/kg
On site	15 mg/kg	-	100 mg/kg	60 mg/kg	No data	60 - 90 mg/kg	15 - 30 mg/kg
On site	15 mg/kg	-	100 mg/kg	60 mg/kg	No data	60 - 90 mg/kg	15 - 30 mg/kg
On site	15 mg/kg	-	100 mg/kg	60 mg/kg	No data	90 - 120 mg/kg	15 - 30 mg/kg
On site	15 mg/kg	-	100 mg/kg	60 mg/kg	No data	90 - 120 mg/kg	15 - 30 mg/kg
On site	15 mg/kg	-	100 mg/kg	60 mg/kg	No data	90 - 120 mg/kg	15 - 30 mg/kg
On site	15 mg/kg	-	100 mg/kg	60 mg/kg	No data	90 - 120 mg/kg	15 - 30 mg/kg
On site	15 mg/kg	-	100 mg/kg	60 mg/kg	No data	90 - 120 mg/kg	15 - 30 mg/kg
On site	15 mg/kg	-	100 mg/kg	60 mg/kg	No data	90 - 120 mg/kg	15 - 30 mg/kg
On site	15 mg/kg	-	100 mg/kg	60 mg/kg	No data	90 - 120 mg/kg	15 - 30 mg/kg
On site	15 mg/kg	-	100 mg/kg	60 mg/kg	No data	90 - 120 mg/kg	15 - 30 mg/kg
On site	15 mg/kg	-	100 mg/kg	60 mg/kg	No data	120 - 180 mg/kg	15 - 30 mg/kg
On site	15 mg/kg	-	100 mg/kg	60 mg/kg	No data	90 - 120 mg/kg	15 - 30 mg/kg
On site	15 mg/kg	-	100 mg/kg	60 mg/kg	No data	90 - 120 mg/kg	15 - 30 mg/kg
On site	15 mg/kg	-	100 mg/kg	60 mg/kg	No data	90 - 120 mg/kg	15 - 30 mg/kg
7m NE	15 mg/kg	-	100 mg/kg	60 mg/kg	No data	60 - 90 mg/kg	15 - 30 mg/kg
7m NE	15 mg/kg	-	100 mg/kg	60 mg/kg	No data	60 - 90 mg/kg	15 - 30 mg/kg
14m E	15 mg/kg	-	100 mg/kg	60 mg/kg	No data	90 - 120 mg/kg	15 - 30 mg/kg
17m E	15 mg/kg	-	100 mg/kg	60 mg/kg	No data	90 - 120 mg/kg	15 - 30 mg/kg
18m NE	15 mg/kg	-	100 mg/kg	60 mg/kg	No data	90 - 120 mg/kg	15 - 30 mg/kg





Location	Arsenic	Bioaccessible Arsenic	Lead	Bioaccessible Lead	Cadmiu m	Chromium	Nickel
18m NE	15 mg/kg	-	100 mg/kg	60 mg/kg	No data	90 - 120 mg/kg	15 - 30 mg/kg
28m SW	15 mg/kg	-	100 mg/kg	60 mg/kg	No data	90 - 120 mg/kg	15 - 30 mg/kg
29m SE	15 mg/kg	-	100 mg/kg	60 mg/kg	No data	90 - 120 mg/kg	15 - 30 mg/kg
31m SW	15 mg/kg	-	100 mg/kg	60 mg/kg	No data	90 - 120 mg/kg	15 - 30 mg/kg
45m E	15 mg/kg	-	100 mg/kg	60 mg/kg	No data	90 - 120 mg/kg	15 - 30 mg/kg
45m E	15 mg/kg	-	100 mg/kg	60 mg/kg	No data	90 - 120 mg/kg	15 - 30 mg/kg
45m E	15 mg/kg	-	100 mg/kg	60 mg/kg	No data	90 - 120 mg/kg	15 - 30 mg/kg
49m NE	15 mg/kg	-	100 mg/kg	60 mg/kg	No data	90 - 120 mg/kg	15 - 30 mg/kg
49m NE	15 mg/kg	-	100 mg/kg	60 mg/kg	No data	90 - 120 mg/kg	15 - 30 mg/kg

This data is sourced from the British Geological Survey.

21.2 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.

21.3 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.





22 Railway infrastructure and projects

22.1 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.

22.2 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.

22.3 Railway tunnels

Records within 250m

Railway tunnels taken from contemporary Ordnance Survey mapping.

This data is sourced from the Ordnance Survey.

22.4 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.

22.5 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.

22.6 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.

22.7 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.

22.8 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.

22.9 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.

22.10 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.

¬.

Terms and conditions

Groundsure's Terms and Conditions can be accessed at this link: $\underline{www.groundsure.com/terms-and-conditions-april-2023/}$ \nearrow .

