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APPENDIX IV – GROUNDSURE GEOENVIRONMENTAL INFORMATION

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Groundsure
LOCATION INTELLIGENCE

Enviro+Geo Insight

YSGOL ID HOOSON, HEOL CARADOC, RHOSLLANERCHRUGOG, WREXHAM, LL14 2DX

Order Details

Date: 07/10/2024

Your ref: Ysgol I D Hooson

Our Ref: GS-98G-HF6-5R6-GHF

Site Details

Location: 328771 346041

Area: 2.43 ha

Authority: Wrecsam - Wrexham County Borough Council ↗



Summary of findings p. 2 >

OS MasterMap site plan p.14 >

Aerial image p. 9 >

Insight User Guide ↗

Contact us with any questions at:
info@groundsure.com ↗
01273 257 755

Certified B Corporation

Summary of findings

Page	Section	Past land use >	On site	0-50m	50-250m	250-500m	500-2000m
15 >	1.1 >	Historical industrial land uses >	10	9	38	176	-
24 >	1.2 >	Historical tanks >	0	0	9	13	-
25 >	1.3 >	Historical energy features >	0	0	6	10	-
26	1.4	Historical petrol stations	0	0	0	0	-
26 >	1.5 >	Historical garages >	0	0	0	4	-
27	1.6	Historical military land	0	0	0	0	-
Page	Section	Past land use - un-grouped >	On site	0-50m	50-250m	250-500m	500-2000m
28 >	2.1 >	Historical industrial land uses >	14	11	47	222	-
39 >	2.2 >	Historical tanks >	0	0	12	14	-
40 >	2.3 >	Historical energy features >	0	0	8	24	-
42	2.4	Historical petrol stations	0	0	0	0	-
42 >	2.5 >	Historical garages >	0	0	0	11	-
Page	Section	Waste and landfill >	On site	0-50m	50-250m	250-500m	500-2000m
43	3.1	Active or recent landfill	0	0	0	0	-
43	3.2	Historical landfill (BGS records)	0	0	0	0	-
44	3.3	Historical landfill (LA/mapping records)	0	0	0	0	-
44	3.4	Historical landfill (EA/NRW records)	0	0	0	0	-
44	3.5	Historical waste sites	0	0	0	0	-
44	3.6	Licensed waste sites	0	0	0	0	-
44 >	3.7 >	Waste exemptions >	0	0	0	7	-
Page	Section	Current industrial land use >	On site	0-50m	50-250m	250-500m	500-2000m
46 >	4.1 >	Recent industrial land uses >	0	0	3	-	-
47	4.2	Current or recent petrol stations	0	0	0	0	-
47	4.3	Electricity cables	0	0	0	0	-
47	4.4	Gas pipelines	0	0	0	0	-
47	4.5	Sites determined as Contaminated Land	0	0	0	0	-

47	4.6	Control of Major Accident Hazards (COMAH)	0	0	0	0	-
48	4.7	Regulated explosive sites	0	0	0	0	-
48	4.8	Hazardous substance storage/usage	0	0	0	0	-
48	4.9	Historical licensed industrial activities (IPC)	0	0	0	0	-
48	4.10	Licensed industrial activities (Part A(1))	0	0	0	0	-
48	4.11	Licensed pollutant release (Part A(2)/B)	0	0	0	0	-
49	4.12	Radioactive Substance Authorisations	0	0	0	0	-
49 >	**4.13 >**	**Licensed Discharges to controlled waters >**	0	1	3	6	-
50	4.14	Pollutant release to surface waters (Red List)	0	0	0	0	-
51	4.15	Pollutant release to public sewer	0	0	0	0	-
51	4.16	List 1 Dangerous Substances	0	0	0	0	-
51	4.17	List 2 Dangerous Substances	0	0	0	0	-
51 >	**4.18 >**	**Pollution Incidents (EA/NRW) >**	0	0	3	6	-
52	4.19	Pollution inventory substances	0	0	0	0	-
53	4.20	Pollution inventory waste transfers	0	0	0	0	-
53	4.21	Pollution inventory radioactive waste	0	0	0	0	-

Page	Section	**Hydrogeology >**	On site	0-50m	50-250m	250-500m	500-2000m
54 >	**5.1 >**	**Superficial aquifer >**	Identified (within 500m)				
55 >	**5.2 >**	**Bedrock aquifer >**	Identified (within 500m)				
56 >	**5.3 >**	**Groundwater vulnerability >**	Identified (within 50m)				
57	5.4	Groundwater vulnerability- soluble rock risk	None (within 0m)				
57	5.5	Groundwater vulnerability- local information	None (within 0m)				
58 >	**5.6 >**	**Groundwater abstractions >**	0	0	0	0	5
60 >	**5.7 >**	**Surface water abstractions >**	0	0	0	0	4
61 >	**5.8 >**	**Potable abstractions >**	0	0	0	0	7
63	5.9	Source Protection Zones	0	0	0	0	-
63	5.10	Source Protection Zones (confined aquifer)	0	0	0	0	-

Page	Section	**Hydrology >**	On site	0-50m	50-250m	250-500m	500-2000m
64 >	**6.1 >**	**Water Network (OS MasterMap) >**	0	2	13	-	-

66 >	6.2 >	Surface water features >	0	2	7	-	-
66 >	6.3 >	WFD Surface water body catchments >	1	-	-	-	-
66 >	6.4 >	WFD Surface water bodies >	0	0	0	-	-
67 >	6.5 >	WFD Groundwater bodies >	1	-	-	-	-
Page	Section	River and coastal flooding	On site	0-50m	50-250m	250-500m	500-2000m
68	7.1	Risk of flooding from rivers and the sea	None (within 50m)				
68	7.2	Historical Flood Events	0	0	0	-	-
68	7.3	Flood Defences	0	0	0	-	-
69	7.4	Areas Benefiting from Flood Defences	0	0	0	-	-
69	7.5	Flood Storage Areas	0	0	0	-	-
70	7.6	Flood Zone 2	None (within 50m)				
70	7.7	Flood Zone 3	None (within 50m)				
Page	Section	Surface water flooding >					
71 >	8.1 >	Surface water flooding >	1 in 30 year, Greater than 1.0m (within 50m)				
Page	Section	Groundwater flooding >					
73 >	9.1 >	Groundwater flooding >	Low (within 50m)				
Page	Section	Environmental designations >	On site	0-50m	50-250m	250-500m	500-2000m
74 >	10.1 >	Sites of Special Scientific Interest (SSSI) >	0	0	0	0	4
75	10.2	Conserved wetland sites (Ramsar sites)	0	0	0	0	0
75 >	10.3 >	Special Areas of Conservation (SAC) >	0	0	0	0	4
76	10.4	Special Protection Areas (SPA)	0	0	0	0	0
76	10.5	National Nature Reserves (NNR)	0	0	0	0	0
76	10.6	Local Nature Reserves (LNR)	0	0	0	0	0
77 >	10.7 >	Designated Ancient Woodland >	0	0	0	1	25
78	10.8	Biosphere Reserves	0	0	0	0	0
78	10.9	Forest Parks	0	0	0	0	0
78	10.10	Marine Conservation Zones	0	0	0	0	0
78	10.11	Green Belt	0	0	0	0	0
79	10.12	Proposed Ramsar sites	0	0	0	0	0

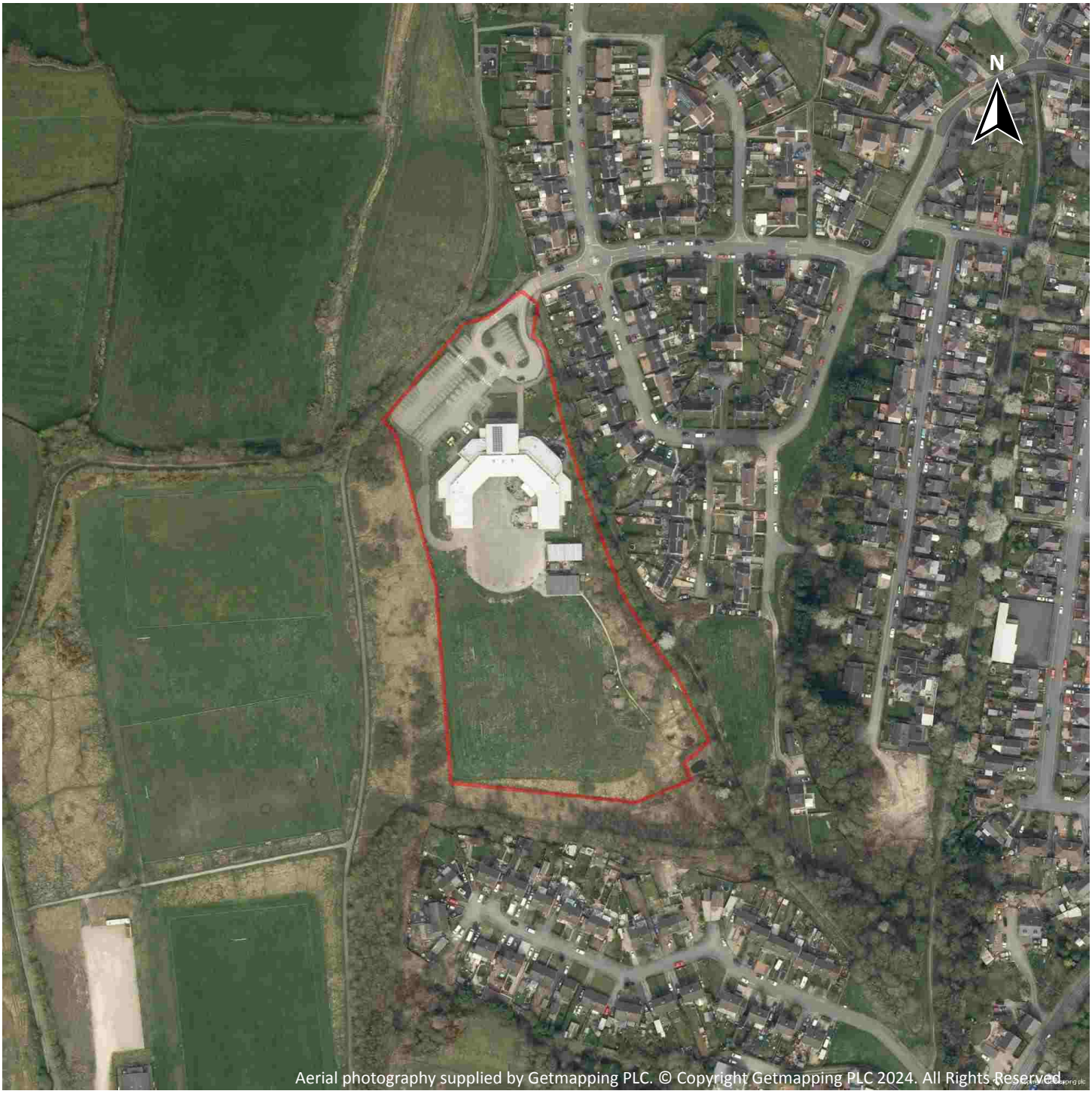
79	10.13	Possible Special Areas of Conservation (pSAC)	0	0	0	0	0
79	10.14	Potential Special Protection Areas (pSPA)	0	0	0	0	0
79	10.15	Nitrate Sensitive Areas	0	0	0	0	0
80	10.16	Nitrate Vulnerable Zones	0	0	0	0	0
81 >	10.17 >	SSSI Impact Risk Zones >	1	-	-	-	-
82	10.18	SSSI Units	0	0	0	0	0
Page	Section	Visual and cultural designations	On site	0-50m	50-250m	250-500m	500-2000m
83	11.1	World Heritage Sites	0	0	0	-	-
83	11.2	Area of Outstanding Natural Beauty	0	0	0	-	-
83	11.3	National Parks	0	0	0	-	-
83	11.4	Listed Buildings	0	0	0	-	-
84	11.5	Conservation Areas	0	0	0	-	-
84	11.6	Scheduled Ancient Monuments	0	0	0	-	-
84	11.7	Registered Parks and Gardens	0	0	0	-	-
Page	Section	Agricultural designations >	On site	0-50m	50-250m	250-500m	500-2000m
85 >	12.1 >	Agricultural Land Classification >	Grade 3a (within 250m)				
86	12.2	Open Access Land	0	0	0	-	-
86	12.3	Tree Felling Licences	0	0	0	-	-
86	12.4	Environmental Stewardship Schemes	0	0	0	-	-
86	12.5	Countryside Stewardship Schemes	0	0	0	-	-
Page	Section	Habitat designations	On site	0-50m	50-250m	250-500m	500-2000m
87	13.1	Priority Habitat Inventory	0	0	0	-	-
87	13.2	Habitat Networks	0	0	0	-	-
87	13.3	Open Mosaic Habitat	0	0	0	-	-
87	13.4	Limestone Pavement Orders	0	0	0	-	-
Page	Section	Geology 1:10,000 scale >	On site	0-50m	50-250m	250-500m	500-2000m
88 >	14.1 >	10k Availability >	Identified (within 500m)				
89 >	14.2 >	Artificial and made ground (10k) >	1	1	2	9	-
91 >	14.3 >	Superficial geology (10k) >	1	0	0	0	-

92	14.4	Landslip (10k)	0	0	0	0	-
93 >	14.5 >	Bedrock geology (10k) >	1	0	0	3	-
94 >	14.6 >	Bedrock faults and other linear features (10k) >	1	1	7	8	-
Page	Section	**Geology 1:50,000 scale** >	On site	0-50m	50-250m	250-500m	500-2000m
95 >	15.1 >	50k Availability >	Identified (within 500m)				
96 >	15.2 >	Artificial and made ground (50k) >	1	0	2	2	-
97 >	15.3 >	Artificial ground permeability (50k) >	1	0	-	-	-
98 >	15.4 >	Superficial geology (50k) >	1	0	0	0	-
99 >	15.5 >	Superficial permeability (50k) >	Identified (within 50m)				
99	15.6	Landslip (50k)	0	0	0	0	-
99	15.7	Landslip permeability (50k)	None (within 50m)				
100 >	15.8 >	Bedrock geology (50k) >	1	0	0	2	-
101 >	15.9 >	Bedrock permeability (50k) >	Identified (within 50m)				
101 >	15.10 >	Bedrock faults and other linear features (50k) >	1	1	4	7	-
Page	Section	**Boreholes** >	On site	0-50m	50-250m	250-500m	500-2000m
103 >	16.1 >	BGS Boreholes >	4	7	56	-	-
Page	Section	**Natural ground subsidence** >					
107 >	17.1 >	Shrink swell clays >	Very low (within 50m)				
108 >	17.2 >	Running sands >	Very low (within 50m)				
109 >	17.3 >	Compressible deposits >	Very low (within 50m)				
111 >	17.4 >	Collapsible deposits >	Very low (within 50m)				
112 >	17.5 >	Landslides >	Low (within 50m)				
114 >	17.6 >	Ground dissolution of soluble rocks >	Negligible (within 50m)				
Page	Section	**Mining and ground workings** >	On site	0-50m	50-250m	250-500m	500-2000m
116 >	18.1 >	BritPits >	0	1	1	15	-
120 >	18.2 >	Surface ground workings >	8	10	25	-	-
122 >	18.3 >	Underground workings >	0	1	3	29	47
125	18.4	Underground mining extents	0	0	0	0	-
125	18.5	Historical Mineral Planning Areas	0	0	0	0	-

125 >	18.6 >	Non-coal mining >	1	0	0	4	5
127	18.7	JPB mining areas	None (within 0m)				
127	18.8	The Coal Authority non-coal mining	0	0	0	0	-
127	18.9	Researched mining	0	0	0	0	-
128	18.10	Mining record office plans	0	0	0	0	-
128	18.11	BGS mine plans	0	0	0	0	-
128 >	18.12 >	Coal mining >	Identified (within 0m)				
128	18.13	Brine areas	None (within 0m)				
129	18.14	Gypsum areas	None (within 0m)				
129	18.15	Tin mining	None (within 0m)				
129	18.16	Clay mining	None (within 0m)				
Page	Section	Ground cavities and sinkholes	On site	0-50m	50-250m	250-500m	500-2000m
130	19.1	Natural cavities	0	0	0	0	-
130	19.2	Mining cavities	0	0	0	0	0
130	19.3	Reported recent incidents	0	0	0	0	-
130	19.4	Historical incidents	0	0	0	0	-
131	19.5	National karst database	0	0	0	0	-
Page	Section	Radon >					
132 >	20.1 >	Radon >	Between 5% and 10% (within 0m)				
Page	Section	Soil chemistry >	On site	0-50m	50-250m	250-500m	500-2000m
134 >	21.1 >	BGS Estimated Background Soil Chemistry >	2	0	-	-	-
134	21.2	BGS Estimated Urban Soil Chemistry	0	0	-	-	-
134	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
135	22.1	Underground railways (London)	0	0	0	-	-
135	22.2	Underground railways (Non-London)	0	0	0	-	-
136	22.3	Railway tunnels	0	0	0	-	-
136 >	22.4 >	Historical railway and tunnel features >	8	2	14	-	-
137	22.5	Royal Mail tunnels	0	0	0	-	-

137 >	22.6 >	Historical railways >	1	1	1	-	-
138	22.7	Railways	0	0	0	-	-
138	22.8	Crossrail 1	0	0	0	0	-
138	22.9	Crossrail 2	0	0	0	0	-
138	22.10	HS2	0	0	0	0	-

Recent aerial photograph



Capture Date: 10/04/2020

Site Area: 2.43ha

Recent site history - 2017 aerial photograph



Capture Date: 07/05/2017

Site Area: 2.43ha

Recent site history - 2013 aerial photograph



Capture Date: 09/06/2013

Site Area: 2.43ha

Recent site history - 2009 aerial photograph



Capture Date: 01/06/2009

Site Area: 2.43ha

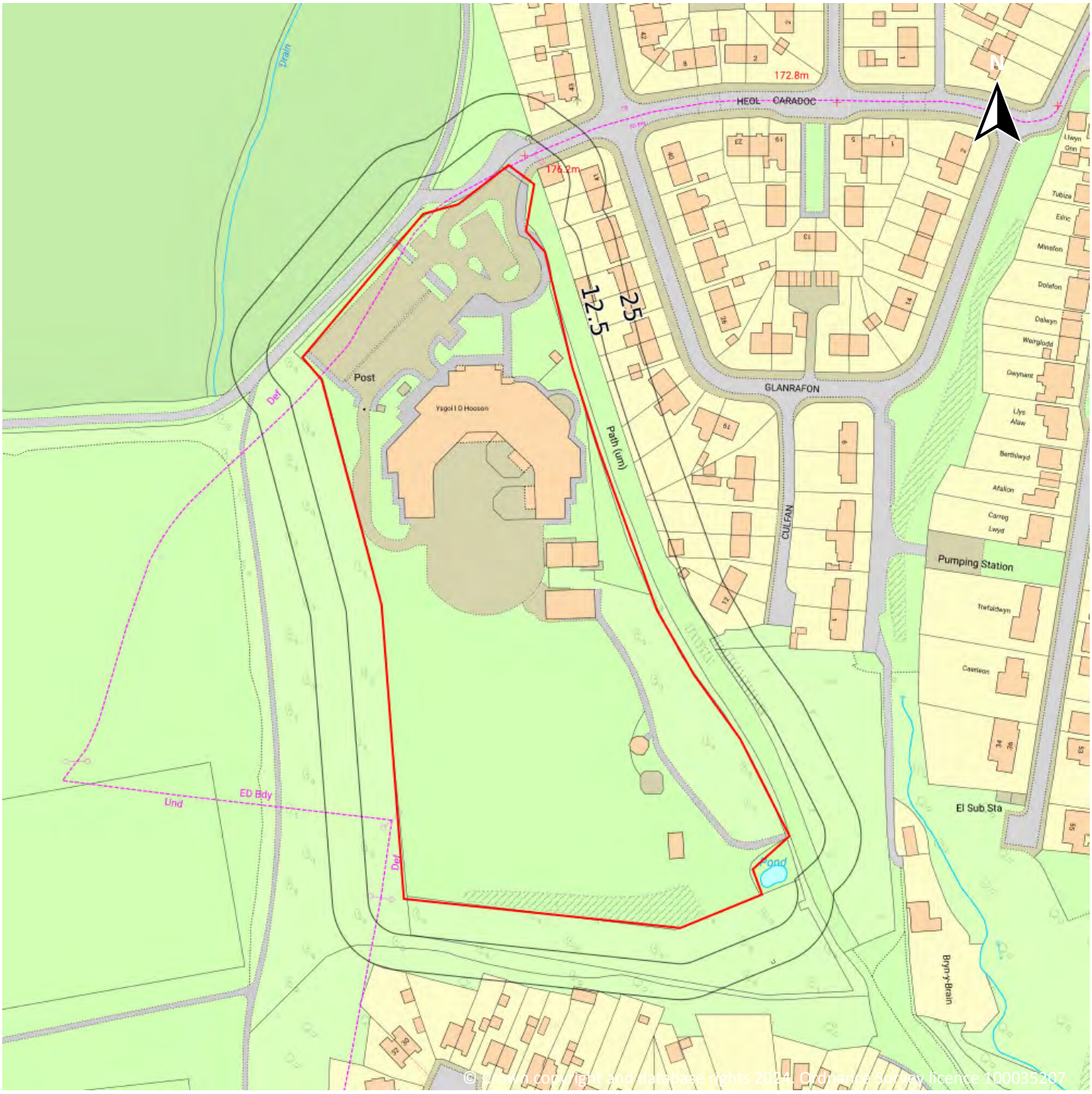
Recent site history - 2001 aerial photograph



Capture Date: 28/07/2001

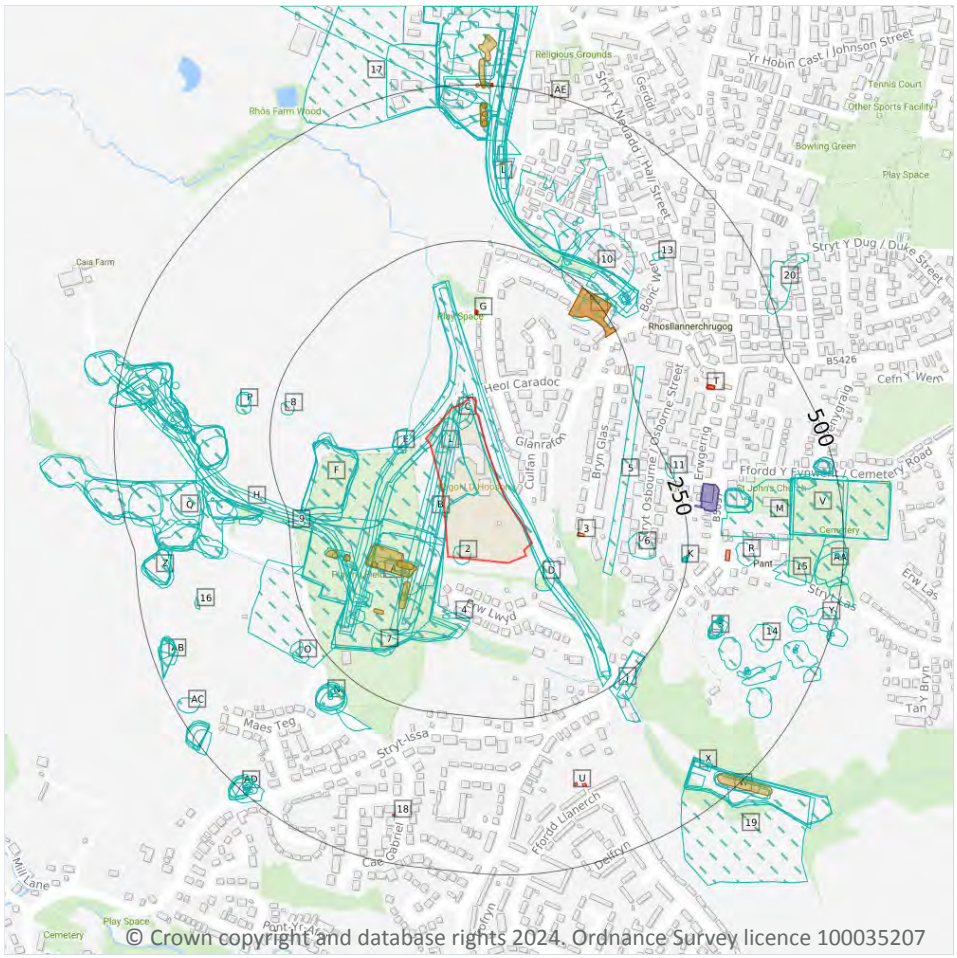
Site Area: 2.43ha

OS MasterMap site plan



Site Area: 2.43ha

1 Past land use



Site Outline

Search buffers in metres (m)

Historical industrial land uses

Historical tanks

Historical energy features

Historical garages

1.1 Historical industrial land uses

Records within 500m	233

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 15 >**

ID	Location	Land use	Dates present	Group ID
1	**On site**	**Unspecified Heap**	**1873**	**841385**

ID	Location	Land use	Dates present	Group ID
2	**On site**	**Unspecified Heap**	**1873**	**841388**
A	**On site**	**Unspecified Works**	**1960**	**834971**
A	**On site**	**Brick Works**	**1938**	**866526**
B	**On site**	**Unspecified Heap**	**1976**	**841390**
B	**On site**	**Mineral Railway Sidings**	**1938 - 1949**	**917034**
B	**On site**	**Mineral Railway Sidings**	**1960**	**931950**
B	**On site**	**Mineral Railway Sidings**	**1898 - 1909**	**945312**
C	**On site**	**Unspecified Heap**	**1938**	**943865**
C	**On site**	**Unspecified Heap**	**1873**	**953045**
A	2m SW	Brick Works	1898 - 1909	936488
A	5m SW	Brick Works	1949	918566
A	5m SW	Brick Works	1873	926338
A	11m SW	Unspecified Heap	1873 - 1898	920656
D	29m SE	Unspecified Heap	1873	841389
E	30m NW	Unspecified Heap	1873	872674
E	32m NW	Unspecified Heap	1898	968877
E	32m NW	Unspecified Heap	1949	999678
D	37m SE	Coal Shaft	1873	820141
A	51m SW	Unspecified Tanks	1898 - 1909	977104
A	65m SW	Unspecified Tanks	1960	980410
A	65m SW	Unspecified Tanks	1938 - 1949	921087
A	81m SW	Unspecified Tanks	1960	945727
4	88m S	Unspecified Ground Workings	1898	813067
A	89m SW	Unspecified Heap	1873	841387
F	112m W	Unspecified Heap	1938	969452
F	113m W	Unspecified Heap	1898 - 1909	945917
F	113m W	Unspecified Heap	1960 - 1976	953828
F	115m W	Unspecified Heap	1949	927732

ID	Location	Land use	Dates present	Group ID
F	116m W	Unspecified Heap	1873	863708
5	121m SE	Cuttings	1873	807151
H	135m SW	Tramway Sidings	1898	1007476
H	138m SW	Tramway Sidings	1909	930634
H	145m SW	Tramway Sidings	1938	900773
A	146m SW	Unspecified Tank	1960	848814
A	147m SW	Unspecified Tanks	1949	818989
6	154m E	Unspecified Heap	1873 - 1898	907495
7	155m SW	Unspecified Heap	1873	841386
A	156m SW	Unspecified Tanks	1898 - 1909	861149
A	156m SW	Unspecified Tank	1909	848813
A	161m SW	Unspecified Heap	1976	841396
A	175m SW	Unspecified Tank	1938	848815
I	204m NE	Gas Works	1873	852803
8	216m NW	Unspecified Heap	1873	841393
9	224m W	Unspecified Heap	1873	841395
J	229m SE	Unspecified Disused Mill	1898 - 1909	889525
J	230m SE	Unspecified Disused Mill	1938	915545
10	234m NE	Smithy	1873	832732
K	242m E	Old Coal Shaft	1949	921015
11	243m E	Unspecified Ground Workings	1873	813066
K	244m E	Old Coal Shaft	1909 - 1938	998010
K	244m E	Unspecified Old Shaft	1960	928535
K	246m E	Unspecified Old Shaft	1898	899166
L	247m N	Disused Railway Sidings	1960	818886
I	247m NE	Gasometer	1873	812179
L	248m N	Tramway Sidings	1949 - 1960	916851
L	250m N	Railway Sidings	1938	995066

ID	Location	Land use	Dates present	Group ID
L	254m N	Railway Sidings	1898 - 1909	939383
I	255m NE	Railway Sidings	1898	985159
J	256m SE	Flour Mill	1873	852736
L	261m N	Brick and Tile Works	1873	810272
N	269m SW	Unspecified Heap	1909	962011
O	270m SW	Unspecified Heap	1873	841394
L	271m N	Unspecified Pit	1873	963505
O	272m SW	Refuse Heap	1909	808606
N	272m SW	Unspecified Heap	1938	904124
N	274m SW	Unspecified Heap	1873	887369
N	274m SW	Unspecified Heap	1949	876993
N	275m SW	Unspecified Heap	1960 - 1976	933064
L	276m N	Unspecified Pit	1898	965618
N	280m SW	Unspecified Old Shaft	1898	822907
N	280m SW	Old Coal Shaft	1949	888646
I	281m NE	Railway Building	1949	943536
I	282m NE	Railway Building	1960	900745
I	284m NE	Railway Station	1909	818708
P	284m W	Unspecified Heap	1873 - 1898	872891
Q	285m W	Unspecified Ground Workings	1909	813070
H	285m W	Unspecified Heap	1949	879293
N	286m SW	Old Coal Shaft	1909	930819
H	287m W	Unspecified Heap	1960	937764
12	287m W	Unspecified Heaps	1938	918973
N	287m SW	Old Coal Shaft	1938	973475
P	289m W	Slag Heap	1938	997860
I	289m NE	Railway Building	1898	861274
N	290m SW	Unspecified Old Shaft	1960	822909

ID	Location	Land use	Dates present	Group ID
H	290m W	Unspecified Heap	1873	861750
N	298m SW	Unspecified Pit	1898	827554
M	304m E	Grave Yard	1873	861085
L	312m N	Cuttings	1873	903072
M	314m E	Unspecified Heap	1873	885638
S	315m SE	Unspecified Heap	1949	904629
M	316m E	Unspecified Heap	1938 - 1949	940934
S	316m SE	Unspecified Heap	1898	894596
S	316m SE	Old Coal Shaft	1909	956056
M	316m E	Unspecified Heap	1909	890685
S	316m SE	Unspecified Quarry	1938	840038
H	318m W	Unspecified Heap	1873	939977
M	318m E	Unspecified Heap	1960	983182
H	319m W	Unspecified Heap	1949	914791
S	319m SE	Unspecified Heap	1960	980103
H	319m W	Unspecified Ground Workings	1909	813069
H	320m W	Unspecified Heap	1960	962877
L	321m N	Unspecified Kilns	1873	808415
S	321m SE	Old Coal Shaft	1909 - 1938	874052
S	321m SE	Old Coal Shaft	1949	944764
S	324m SE	Unspecified Old Shaft	1960	1008884
H	324m W	Unspecified Heap	1873	962794
S	325m SE	Unspecified Old Shaft	1898	983054
R	327m E	Unspecified Heap	1873 - 1898	880329
H	327m W	Unspecified Heap	1976	859964
L	328m N	Unspecified Kilns	1873	808414
L	338m N	Unspecified Heap	1976	842546
S	343m SE	Unspecified Heap	1873 - 1898	991138

ID	Location	Land use	Dates present	Group ID
H	351m W	Unspecified Heap	1873	933453
H	353m W	Coal Shaft	1873	820144
H	361m W	Unspecified Heap	1949	951030
13	364m NE	Police Station	1976	858808
H	367m W	Unspecified Heap	1949	916549
H	367m W	Unspecified Heap	1873 - 1898	916783
H	369m W	Unspecified Shaft	1909	880872
H	369m W	Unspecified Shaft	1960	934882
L	373m N	Disused Railway Station	1960	856763
H	376m W	Unspecified Heap	1873	938215
Q	376m W	Unspecified Heaps	1949 - 1960	914645
H	376m W	Unspecified Heap	1949	889311
H	377m W	Unspecified Heap	1960	897542
14	379m SE	Unspecified Heap	1873 - 1898	870875
L	381m N	Railway Station	1938 - 1949	897549
L	383m N	Railway Station	1909	952200
H	383m W	Unspecified Heap	1898	886857
H	385m W	Unspecified Heap	1976	868174
S	386m SE	Unspecified Ground Workings	1898	814456
15	389m E	Unspecified Heap	1873 - 1898	929574
H	389m W	Unspecified Heap	1976	902917
H	390m W	Unspecified Heap	1873	952679
L	391m N	Cuttings	1976	997403
S	395m SE	Old Coal Shaft	1909	973623
S	396m SE	Old Coal Shaft	1938 - 1949	925888
S	398m SE	Unspecified Old Shaft	1960	822912
S	401m SE	Unspecified Heap	1873	842600
H	404m W	Clay Shaft	1938	836237

ID	Location	Land use	Dates present	Group ID
H	405m W	Coal Shaft	1873	820143
H	405m W	Unspecified Shaft	1898	824857
16	406m SW	Unspecified Ground Workings	1873	813068
17	412m N	Brick Works	1949	980818
L	412m N	Unspecified Works	1960	835303
V	413m E	Cemetery	1909 - 1938	998387
L	413m N	Brick Works	1938	895506
V	413m E	Cemetery	1976	875255
V	413m E	Cemetery	1949 - 1960	940795
L	415m N	Brick Works	1909	890159
L	415m N	Unspecified Disused Works	1976	848684
V	419m E	Cemetery	1898	969844
S	419m SE	Unspecified Heap	1873 - 1898	920032
W	420m SE	Sewage Works	1909	896499
H	421m W	Unspecified Heaps	1960	960607
X	421m SE	Filter Beds	1898	838390
W	421m SE	Sewage Works	1938	882188
19	423m SE	Sewage Works	1949	942503
W	425m SE	Unspecified Works	1960 - 1976	882984
Y	427m E	Unspecified Heaps	1898	837736
X	427m SE	Unspecified Tank	1909 - 1938	914070
L	430m N	Brick Works	1873	983443
L	433m N	Unspecified Tanks	1949 - 1960	907715
Q	433m W	Unspecified Heaps	1898	914102
L	433m N	Unspecified Tanks	1909 - 1938	971818
V	435m E	Unspecified Heap	1873	842594
Y	436m E	Unspecified Heap	1873	842596
H	436m W	Unspecified Heap	1873	885237

ID	Location	Land use	Dates present	Group ID
H	436m W	Clay Shaft	1949	836236
Y	437m SE	Unspecified Heap	1873 - 1898	925555
X	437m SE	Unspecified Tank	1949	849712
Q	437m W	Unspecified Heap	1873	841392
H	438m W	Unspecified Shaft	1960	824858
Z	441m W	Unspecified Heap	1873 - 1898	967733
S	441m SE	Unspecified Old Shaft	1898	823437
Z	443m W	Unspecified Heap	1949	926978
L	444m N	Brick Works	1898	880722
Z	446m W	Unspecified Heap	1960 - 1976	918225
H	450m W	Unspecified Shaft	1938 - 1949	999239
H	450m W	Unspecified Shaft	1960	966813
Y	452m SE	Old Coal Shafts	1909 - 1938	980856
Y	453m SE	Old Coal Shafts	1949	934794
Y	453m SE	Unspecified Old Shafts	1898	845652
AA	454m E	Unspecified Heaps	1898	837737
Y	455m SE	Unspecified Old Shafts	1960	845653
AA	456m E	Unspecified Ground Workings	1873	814455
AB	457m SW	Unspecified Heap	1873	913369
H	459m W	Coal Shaft	1873	820142
AB	460m SW	Unspecified Heap	1909	982768
AB	461m SW	Unspecified Heap	1938	938821
AB	461m SW	Unspecified Heap	1949	999447
AC	462m SW	Unspecified Heap	1873	841367
W	462m SE	Unspecified Tanks	1909 - 1938	1008422
H	463m W	Refuse Heap	1909	808605
AB	463m SW	Unspecified Heap	1960 - 1976	971666
L	464m N	Unspecified Heap	1873 - 1898	897997

ID	Location	Land use	Dates present	Group ID
W	466m SE	Unspecified Tanks	1949	900309
V	467m E	Unspecified Heap	1909	865498
AC	467m SW	Unspecified Heap	1909	860613
W	468m SE	Unspecified Tanks	1960 - 1976	993081
V	468m E	Unspecified Heap	1938	1001612
V	468m E	Unspecified Heap	1898	969761
V	468m E	Unspecified Heap	1949	975395
AC	469m SW	Unspecified Heap	1938	866629
AC	471m SW	Unspecified Heap	1949	862709
AD	471m SW	Unspecified Heap	1909	923995
V	472m E	Unspecified Heap	1960	862539
AC	473m SW	Unspecified Heap	1960 - 1976	896328
AC	473m SW	Unspecified Heap	1873	900115
AD	475m SW	Unspecified Heap	1938	967896
L	476m N	Unspecified Pit	1976	828936
AD	476m SW	Unspecified Heap	1949	867599
AD	476m SW	Unspecified Heap	1960 - 1976	931127
AD	477m SW	Unspecified Heap	1873	902394
Y	477m E	Unspecified Heap	1873	842597
AD	480m SW	Unspecified Heap	1898	862267
AA	483m E	Unspecified Heap	1873	842595
L	484m N	Coal Shaft	1873	820198
Y	485m SE	Unspecified Heap	1873	842599
AD	486m SW	Old Coal Shaft	1949	894951
AD	486m SW	Unspecified Old Shaft	1898	1001507
AA	486m E	Unspecified Old Shaft	1898	823436
AD	488m SW	Coal Shaft	1873	820138
20	488m NE	Unspecified Heap	1873	842592

ID	Location	Land use	Dates present	Group ID
AD	489m SW	Old Coal Shaft	1909 - 1938	903943
AD	493m SW	Unspecified Old Shaft	1960	885840
Y	495m E	Old Coal Shafts	1938 - 1949	1006779
Q	496m W	Unspecified Heap	1873	841391
Y	496m E	Old Coal Shafts	1909	990727
L	498m N	Unspecified Tank	1960	866415
L	499m N	Unspecified Tanks	1949 - 1960	936481
Y	499m E	Unspecified Old Shafts	1898	1002908

This data is sourced from Ordnance Survey / Groundsure.

1.2 Historical tanks

Records within 500m	**22**

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'.

Features are displayed on the Past land use map on **page 15 >**

ID	Location	Land use	Dates present	Group ID
A	53m SW	Tanks	1900 - 1912	140678
A	57m SW	Tanks	1964	128065
A	74m SW	Tanks	1964	111681
A	114m SW	Unspecified Tank	1964	123810
A	136m SW	Tanks	1964	111680
A	157m SW	Unspecified Tank	1900 - 1912	151714
A	176m SW	Tanks	1900 - 1912	148651
I	203m NE	Gas Works	1875	112682
I	245m NE	Gasometer	1875	114506
L	374m N	Unspecified Tank	1912	123798

ID	Location	Land use	Dates present	Group ID
L	376m N	Unspecified Tank	1963 - 1974	132713
X	425m SE	Unspecified Tank	1912	123801
L	433m N	Tanks	1912	111679
L	435m N	Unspecified Tank	1963	123806
L	450m N	Unspecified Tank	1963	123805
L	463m N	Unspecified Tank	1963	123804
W	468m SE	Tanks	1964	111682
L	495m N	Unspecified Tank	1900	123796
L	497m N	Unspecified Tank	1900	123797
L	498m N	Tanks	1912	126872
AE	498m N	Unspecified Tank	1974	151465
AE	499m N	Unspecified Tank	1991	152559

This data is sourced from Ordnance Survey / Groundsure.

1.3 Historical energy features

Records within 500m	**16**

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'.

Features are displayed on the Past land use map on **page 15 >**

ID	Location	Land use	Dates present	Group ID
3	74m SE	Electricity Substation	1991 - 1994	81962
G	133m N	Electricity Substation	1974 - 1991	81244
G	134m N	Electricity Substation	-	64431
G	134m N	Electricity Substation	1959	78496
I	203m NE	Gas Works	1875	68214
I	245m NE	Gasometer	1875	68525

ID	Location	Land use	Dates present	Group ID
R	311m E	Electricity Substation	1991	65967
T	364m NE	Electricity Substation	1959 - 1988	75313
T	365m NE	Electricity Substation	1993 - 1999	82577
T	366m NE	Electricity Substation	1992	75862
U	369m S	Electricity Substation	1990	76744
U	374m S	Electricity Substation	1976 - 1994	87882
18	422m S	Electricity Substation	1976	65966
L	498m N	Electricity Substation	1991	86260
L	499m N	Electricity Substation	-	64430
L	500m N	Electricity Substation	1959	73792

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	4

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'.

Features are displayed on the Past land use map on **page 15 >**

ID	Location	Land use	Dates present	Group ID
M	267m E	Garage	1993 - 1999	23586

ID	Location	Land use	Dates present	Group ID
M	277m E	Garage	1988 - 1992	26065
M	277m E	Garage	1959	27767
M	280m E	Garage	1963 - 1974	25915

This data is sourced from Ordnance Survey / Groundsure.

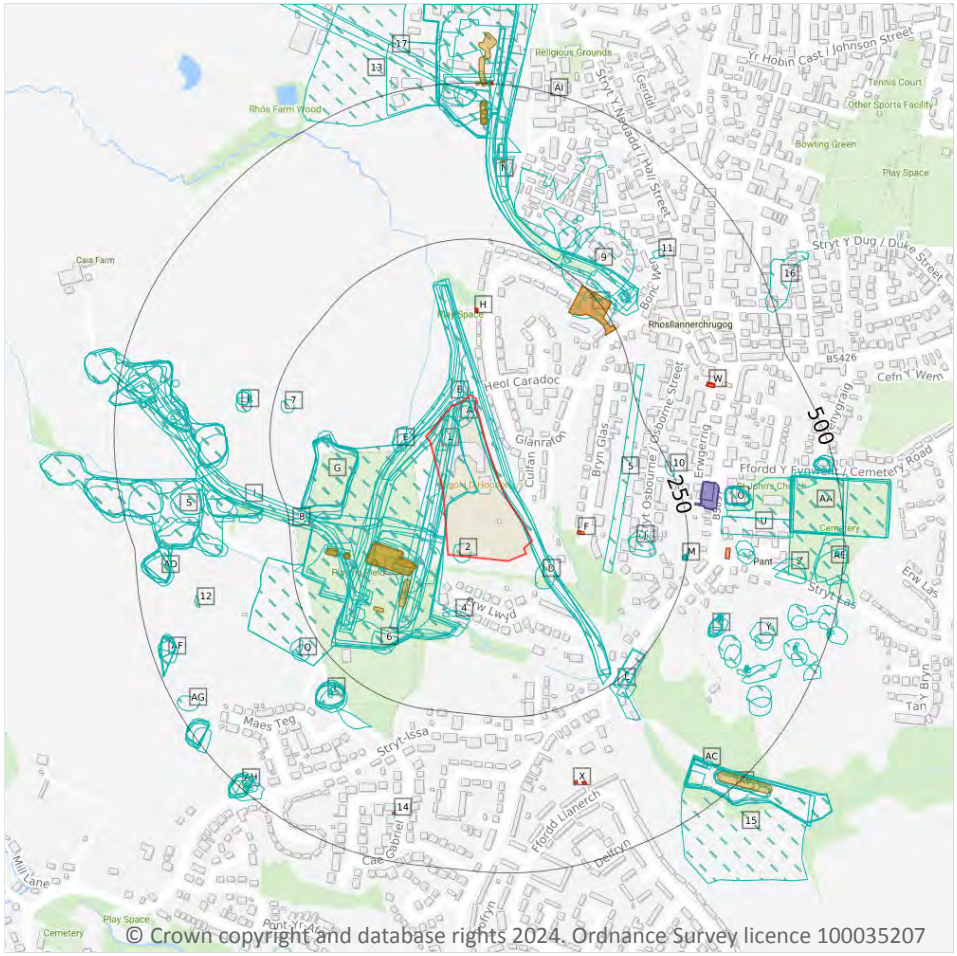
1.6 Historical military land

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.

2 Past land use - un-grouped



Site Outline

Search buffers in metres (m)

Historical industrial land uses

Historical tanks

Historical energy features

Historical garages

2.1 Historical industrial land uses

Records within 500m	294

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 28 >**

ID	Location	Land Use	Date	Group ID
1	On site	Unspecified Heap	1873	841385
2	On site	Unspecified Heap	1873	841388
3	On site	Mineral Railway Sidings	1898	945312

ID	Location	Land Use	Date	Group ID
A	**On site**	**Unspecified Heap**	**1873**	**953045**
A	**On site**	**Unspecified Heap**	**1938**	**943865**
A	**On site**	**Unspecified Heap**	**1938**	**943865**
B	**On site**	**Mineral Railway Sidings**	**1909**	**945312**
B	**On site**	**Mineral Railway Sidings**	**1949**	**917034**
B	**On site**	**Unspecified Heap**	**1976**	**841390**
B	**On site**	**Mineral Railway Sidings**	**1960**	**931950**
B	**On site**	**Mineral Railway Sidings**	**1938**	**917034**
C	**On site**	**Unspecified Works**	**1960**	**834971**
C	**On site**	**Brick Works**	**1938**	**866526**
C	**On site**	**Brick Works**	**1938**	**866526**
C	2m SW	Brick Works	1898	936488
C	4m SW	Brick Works	1909	936488
C	5m SW	Brick Works	1949	918566
C	5m SW	Brick Works	1873	926338
C	11m SW	Unspecified Heap	1898	920656
D	29m SE	Unspecified Heap	1873	841389
E	30m NW	Unspecified Heap	1873	872674
E	32m NW	Unspecified Heap	1949	999678
E	32m NW	Unspecified Heap	1898	968877
D	37m SE	Coal Shaft	1873	820141
C	41m SW	Unspecified Heap	1873	920656
C	51m SW	Unspecified Tanks	1898	977104
C	54m SW	Unspecified Tanks	1909	977104
C	65m SW	Unspecified Tanks	1960	980410
C	65m SW	Unspecified Tanks	1949	921087
C	81m SW	Unspecified Tanks	1960	945727
C	82m SW	Unspecified Tanks	1938	921087

ID	Location	Land Use	Date	Group ID
4	88m S	Unspecified Ground Workings	1898	813067
C	89m SW	Unspecified Heap	1873	841387
G	112m W	Unspecified Heap	1938	969452
G	112m W	Unspecified Heap	1938	969452
G	113m W	Unspecified Heap	1898	945917
G	113m W	Unspecified Heap	1976	953828
G	113m W	Unspecified Heap	1960	953828
G	113m W	Unspecified Heap	1909	945917
G	115m W	Unspecified Heap	1949	927732
G	116m W	Unspecified Heap	1873	863708
5	121m SE	Cuttings	1873	807151
I	135m SW	Tramway Sidings	1898	1007476
I	138m SW	Tramway Sidings	1909	930634
I	145m SW	Tramway Sidings	1938	900773
C	146m SW	Unspecified Tank	1960	848814
C	147m SW	Unspecified Tanks	1949	818989
J	154m E	Unspecified Heap	1898	907495
J	155m E	Unspecified Heap	1873	907495
6	155m SW	Unspecified Heap	1873	841386
C	156m SW	Unspecified Tanks	1898	861149
C	156m SW	Unspecified Tank	1909	848813
C	161m SW	Unspecified Heap	1976	841396
C	175m SW	Unspecified Tanks	1909	861149
C	175m SW	Unspecified Tank	1938	848815
K	204m NE	Gas Works	1873	852803
7	216m NW	Unspecified Heap	1873	841393
8	224m W	Unspecified Heap	1873	841395
L	229m SE	Unspecified Disused Mill	1909	889525

ID	Location	Land Use	Date	Group ID
L	230m SE	Unspecified Disused Mill	1938	915545
9	234m NE	Smithy	1873	832732
L	240m SE	Unspecified Disused Mill	1898	889525
M	242m E	Old Coal Shaft	1949	921015
10	243m E	Unspecified Ground Workings	1873	813066
M	244m E	Old Coal Shaft	1938	998010
M	244m E	Old Coal Shaft	1909	998010
M	244m E	Unspecified Old Shaft	1960	928535
M	246m E	Unspecified Old Shaft	1898	899166
N	247m N	Disused Railway Sidings	1960	818886
K	247m NE	Gasometer	1873	812179
N	248m N	Tramway Sidings	1949	916851
N	250m N	Railway Sidings	1938	995066
N	254m N	Railway Sidings	1909	939383
K	255m NE	Railway Sidings	1898	985159
L	256m SE	Flour Mill	1873	852736
N	261m N	Brick and Tile Works	1873	810272
P	269m SW	Unspecified Heap	1909	962011
Q	270m SW	Unspecified Heap	1873	841394
N	271m N	Unspecified Pit	1873	963505
Q	272m SW	Refuse Heap	1909	808606
P	272m SW	Unspecified Heap	1938	904124
P	272m SW	Unspecified Heap	1938	904124
P	274m SW	Unspecified Heap	1873	887369
P	274m SW	Unspecified Heap	1949	876993
P	275m SW	Unspecified Heap	1976	933064
P	275m SW	Unspecified Heap	1960	933064
N	276m N	Unspecified Pit	1898	965618

ID	Location	Land Use	Date	Group ID
P	280m SW	Old Coal Shaft	1949	888646
P	280m SW	Unspecified Old Shaft	1898	822907
K	281m NE	Railway Building	1949	943536
K	282m NE	Railway Building	1960	900745
K	284m NE	Railway Station	1909	818708
R	284m W	Unspecified Heap	1873	872891
S	285m W	Unspecified Ground Workings	1909	813070
I	285m W	Unspecified Heap	1949	879293
P	286m SW	Old Coal Shaft	1909	930819
I	287m W	Unspecified Heap	1960	937764
R	287m W	Unspecified Heap	1898	872891
T	287m W	Unspecified Heaps	1938	918973
T	287m W	Unspecified Heaps	1938	918973
P	287m SW	Old Coal Shaft	1938	973475
R	289m W	Slag Heap	1938	997860
R	289m W	Slag Heap	1938	997860
K	289m NE	Railway Building	1898	861274
P	290m SW	Unspecified Old Shaft	1960	822909
I	290m W	Unspecified Heap	1873	861750
P	298m SW	Unspecified Pit	1898	827554
U	304m E	Grave Yard	1873	861085
N	312m N	Cuttings	1873	903072
O	314m E	Unspecified Heap	1873	885638
V	315m SE	Unspecified Heap	1949	904629
U	315m E	Grave Yard	1873	861085
O	316m E	Unspecified Heap	1949	940934
V	316m SE	Unspecified Heap	1898	894596
V	316m SE	Old Coal Shaft	1909	956056

ID	Location	Land Use	Date	Group ID
O	316m E	Unspecified Heap	1909	890685
V	316m SE	Unspecified Quarry	1938	840038
O	317m E	Unspecified Heap	1938	940934
O	317m E	Unspecified Heap	1938	940934
I	318m W	Unspecified Heap	1873	939977
O	318m E	Unspecified Heap	1960	983182
I	319m W	Unspecified Heap	1949	914791
V	319m SE	Unspecified Heap	1960	980103
I	319m W	Unspecified Ground Workings	1909	813069
I	320m W	Unspecified Heap	1960	962877
N	321m N	Unspecified Kilns	1873	808415
V	321m SE	Old Coal Shaft	1909	874052
V	321m SE	Old Coal Shaft	1949	944764
V	322m SE	Old Coal Shaft	1938	874052
V	324m SE	Unspecified Old Shaft	1960	1008884
I	324m W	Unspecified Heap	1873	962794
V	325m SE	Unspecified Old Shaft	1898	983054
U	327m E	Unspecified Heap	1898	880329
I	327m W	Unspecified Heap	1976	859964
N	328m N	Unspecified Kilns	1873	808414
U	331m E	Unspecified Heap	1873	880329
N	338m N	Unspecified Heap	1976	842546
V	343m SE	Unspecified Heap	1898	991138
I	351m W	Unspecified Heap	1873	933453
I	353m W	Coal Shaft	1873	820144
V	356m SE	Unspecified Heap	1873	991138
I	361m W	Unspecified Heap	1949	951030
11	364m NE	Police Station	1976	858808

ID	Location	Land Use	Date	Group ID
I	367m W	Unspecified Heap	1949	916549
I	367m W	Unspecified Heap	1898	916783
I	369m W	Unspecified Shaft	1909	880872
I	369m W	Unspecified Shaft	1960	934882
N	373m N	Disused Railway Station	1960	856763
I	376m W	Unspecified Heap	1873	916783
I	376m W	Unspecified Heap	1873	938215
S	376m W	Unspecified Heaps	1960	914645
I	376m W	Unspecified Heap	1949	889311
I	377m W	Unspecified Heap	1960	897542
Y	379m SE	Unspecified Heap	1898	870875
N	381m N	Railway Station	1949	897549
N	381m N	Railway Station	1938	897549
N	383m N	Railway Station	1909	952200
I	383m W	Unspecified Heap	1898	886857
I	385m W	Unspecified Heap	1976	868174
V	386m SE	Unspecified Ground Workings	1898	814456
Y	389m SE	Unspecified Heap	1873	870875
Z	389m E	Unspecified Heap	1898	929574
I	389m W	Unspecified Heap	1976	902917
I	390m W	Unspecified Heap	1873	952679
N	391m N	Cuttings	1976	997403
Z	394m E	Unspecified Heap	1873	929574
V	395m SE	Old Coal Shaft	1909	973623
V	396m SE	Old Coal Shaft	1949	925888
V	396m SE	Old Coal Shaft	1938	925888
V	398m SE	Unspecified Old Shaft	1960	822912
V	401m SE	Unspecified Heap	1873	842600

ID	Location	Land Use	Date	Group ID
I	404m W	Clay Shaft	1938	836237
I	405m W	Coal Shaft	1873	820143
I	405m W	Unspecified Shaft	1898	824857
12	406m SW	Unspecified Ground Workings	1873	813068
13	412m N	Brick Works	1949	980818
N	412m N	Unspecified Works	1960	835303
AA	413m E	Cemetery	1909	998387
N	413m N	Brick Works	1938	895506
N	413m N	Brick Works	1938	895506
AA	413m E	Cemetery	1976	875255
AA	413m E	Cemetery	1949	940795
AA	413m E	Cemetery	1938	998387
N	415m N	Brick Works	1909	890159
AA	415m E	Cemetery	1960	940795
N	415m N	Unspecified Disused Works	1976	848684
AA	419m E	Cemetery	1898	969844
V	419m SE	Unspecified Heap	1898	920032
AB	420m SE	Sewage Works	1909	896499
I	421m W	Unspecified Heaps	1960	960607
AC	421m SE	Filter Beds	1898	838390
AB	421m SE	Sewage Works	1938	882188
AB	421m SE	Sewage Works	1938	882188
15	423m SE	Sewage Works	1949	942503
AB	425m SE	Unspecified Works	1976	882984
AB	425m SE	Unspecified Works	1960	882984
V	427m E	Unspecified Heaps	1898	837736
AC	427m SE	Unspecified Tank	1909	914070
AC	427m SE	Unspecified Tank	1938	914070

ID	Location	Land Use	Date	Group ID
N	430m N	Brick Works	1873	983443
V	431m SE	Unspecified Heap	1873	920032
N	433m N	Unspecified Tanks	1960	907715
N	433m N	Unspecified Tanks	1949	907715
S	433m W	Unspecified Heaps	1949	914645
S	433m W	Unspecified Heaps	1898	914102
N	433m N	Unspecified Tanks	1938	971818
AA	435m E	Unspecified Heap	1873	842594
V	436m E	Unspecified Heap	1873	842596
I	436m W	Unspecified Heap	1873	885237
I	436m W	Clay Shaft	1949	836236
V	437m SE	Unspecified Heap	1898	925555
N	437m N	Unspecified Tanks	1909	971818
AC	437m SE	Unspecified Tank	1949	849712
S	437m W	Unspecified Heap	1873	841392
I	438m W	Unspecified Shaft	1960	824858
N	439m N	Railway Sidings	1898	939383
AD	441m W	Unspecified Heap	1873	967733
V	441m SE	Unspecified Old Shaft	1898	823437
AD	443m W	Unspecified Heap	1949	926978
AD	443m W	Unspecified Heap	1898	967733
N	444m N	Brick Works	1898	880722
AD	446m W	Unspecified Heap	1976	918225
AD	446m W	Unspecified Heap	1960	918225
I	450m W	Unspecified Shaft	1949	999239
I	450m W	Unspecified Shaft	1960	966813
I	451m W	Unspecified Shaft	1938	999239
I	451m W	Unspecified Shaft	1938	999239

ID	Location	Land Use	Date	Group ID
V	452m SE	Old Coal Shafts	1938	980856
V	452m SE	Old Coal Shafts	1909	980856
V	453m SE	Old Coal Shafts	1949	934794
V	453m SE	Unspecified Old Shafts	1898	845652
V	454m SE	Unspecified Heap	1873	925555
AE	454m E	Unspecified Heaps	1898	837737
V	455m SE	Unspecified Old Shafts	1960	845653
AE	456m E	Unspecified Ground Workings	1873	814455
AF	457m SW	Unspecified Heap	1873	913369
I	459m W	Coal Shaft	1873	820142
AF	460m SW	Unspecified Heap	1909	982768
AF	461m SW	Unspecified Heap	1938	938821
AF	461m SW	Unspecified Heap	1938	938821
AF	461m SW	Unspecified Heap	1949	999447
AG	462m SW	Unspecified Heap	1873	841367
AB	462m SE	Unspecified Tanks	1909	1008422
I	463m W	Refuse Heap	1909	808605
AF	463m SW	Unspecified Heap	1976	971666
AF	463m SW	Unspecified Heap	1960	971666
AB	464m SE	Unspecified Tanks	1938	1008422
N	464m N	Unspecified Heap	1873	897997
N	464m N	Unspecified Heap	1898	897997
AB	466m SE	Unspecified Tanks	1949	900309
AA	467m E	Unspecified Heap	1909	865498
AG	467m SW	Unspecified Heap	1909	860613
AB	468m SE	Unspecified Tanks	1976	993081
AB	468m SE	Unspecified Tanks	1960	993081
AA	468m E	Unspecified Heap	1938	1001612

ID	Location	Land Use	Date	Group ID
AA	468m E	Unspecified Heap	1938	1001612
AA	468m E	Unspecified Heap	1949	975395
AA	468m E	Unspecified Heap	1898	969761
AG	469m SW	Unspecified Heap	1938	866629
AG	469m SW	Unspecified Heap	1938	866629
AG	471m SW	Unspecified Heap	1949	862709
AH	471m SW	Unspecified Heap	1909	923995
AA	472m E	Unspecified Heap	1960	862539
AG	473m SW	Unspecified Heap	1976	896328
AG	473m SW	Unspecified Heap	1960	896328
AG	473m SW	Unspecified Heap	1873	900115
AH	475m SW	Unspecified Heap	1938	967896
AH	475m SW	Unspecified Heap	1938	967896
N	476m N	Unspecified Pit	1976	828936
AH	476m SW	Unspecified Heap	1949	867599
AH	476m SW	Unspecified Heap	1976	931127
AH	476m SW	Unspecified Heap	1960	931127
AH	477m SW	Unspecified Heap	1873	902394
V	477m E	Unspecified Heap	1873	842597
AH	480m SW	Unspecified Heap	1898	862267
AE	483m E	Unspecified Heap	1873	842595
N	484m N	Coal Shaft	1873	820198
V	485m SE	Unspecified Heap	1873	842599
AH	486m SW	Old Coal Shaft	1949	894951
AH	486m SW	Unspecified Old Shaft	1898	1001507
AE	486m E	Unspecified Old Shaft	1898	823436
AH	488m SW	Coal Shaft	1873	820138
16	488m NE	Unspecified Heap	1873	842592

ID	Location	Land Use	Date	Group ID
AH	489m SW	Old Coal Shaft	1909	903943
17	489m N	Tramway Sidings	1960	916851
AH	491m SW	Old Coal Shaft	1938	903943
AH	493m SW	Unspecified Old Shaft	1960	885840
V	495m E	Old Coal Shafts	1949	1006779
S	496m W	Unspecified Heap	1873	841391
V	496m E	Old Coal Shafts	1909	990727
V	496m E	Old Coal Shafts	1938	1006779
N	498m N	Unspecified Tank	1960	866415
N	499m N	Unspecified Tanks	1949	936481
V	499m E	Unspecified Old Shafts	1898	1002908

This data is sourced from Ordnance Survey / Groundsure.

2.2 Historical tanks

Records within 500m	**26**

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'.

Features are displayed on the Past land use - un-grouped map on **page 28 >**

ID	Location	Land Use	Date	Group ID
C	53m SW	Tanks	1900	140678
C	54m SW	Tanks	1912	140678
C	57m SW	Tanks	1964	128065
C	74m SW	Tanks	1964	111681
C	114m SW	Unspecified Tank	1964	123810
C	136m SW	Tanks	1964	111680
C	157m SW	Unspecified Tank	1900	151714
C	158m SW	Unspecified Tank	1912	151714
C	176m SW	Tanks	1900	148651

ID	Location	Land Use	Date	Group ID
C	177m SW	Tanks	1912	148651
K	203m NE	Gas Works	1875	112682
K	245m NE	Gasometer	1875	114506
N	374m N	Unspecified Tank	1912	123798
N	376m N	Unspecified Tank	1963	132713
N	376m N	Unspecified Tank	1974	132713
AC	425m SE	Unspecified Tank	1912	123801
N	433m N	Tanks	1912	111679
N	435m N	Unspecified Tank	1963	123806
N	450m N	Unspecified Tank	1963	123805
N	463m N	Unspecified Tank	1963	123804
AB	468m SE	Tanks	1964	111682
N	495m N	Unspecified Tank	1900	123796
N	497m N	Unspecified Tank	1900	123797
N	498m N	Tanks	1912	126872
AI	498m N	Unspecified Tank	1974	151465
AI	499m N	Unspecified Tank	1991	152559

This data is sourced from Ordnance Survey / Groundsure.

2.3 Historical energy features

Records within 500m	**32**

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'.

Features are displayed on the Past land use - un-grouped map on **page 28 >**

ID	Location	Land Use	Date	Group ID
F	74m SE	Electricity Substation	1991	81962
F	74m E	Electricity Substation	1994	81962
H	133m N	Electricity Substation	1974	81244

ID	Location	Land Use	Date	Group ID
H	134m N	Electricity Substation	1991	81244
H	134m N	Electricity Substation	-	64431
H	134m N	Electricity Substation	1959	78496
K	203m NE	Gas Works	1875	68214
K	245m NE	Gasometer	1875	68525
U	311m E	Electricity Substation	1991	65967
W	364m NE	Electricity Substation	1959	75313
W	364m NE	Electricity Substation	1988	75313
W	365m NE	Electricity Substation	1994	82577
W	365m NE	Electricity Substation	1999	82577
W	365m NE	Electricity Substation	1996	82577
W	365m NE	Electricity Substation	1993	82577
W	365m NE	Electricity Substation	1974	75313
W	366m NE	Electricity Substation	1992	75862
X	369m S	Electricity Substation	1990	76744
X	369m S	Electricity Substation	1990	76744
X	369m S	Electricity Substation	1990	76744
X	374m S	Electricity Substation	1981	87882
X	374m S	Electricity Substation	1988	87882
X	374m S	Electricity Substation	1990	87882
X	374m S	Electricity Substation	1990	87882
X	374m S	Electricity Substation	1990	87882
X	374m S	Electricity Substation	1976	87882
X	374m S	Electricity Substation	1991	87882
X	374m S	Electricity Substation	1994	87882
14	422m S	Electricity Substation	1976	65966
N	498m N	Electricity Substation	1991	86260
N	499m N	Electricity Substation	-	64430

ID	Location	Land Use	Date	Group ID
N	500m N	Electricity Substation	1959	73792

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	11

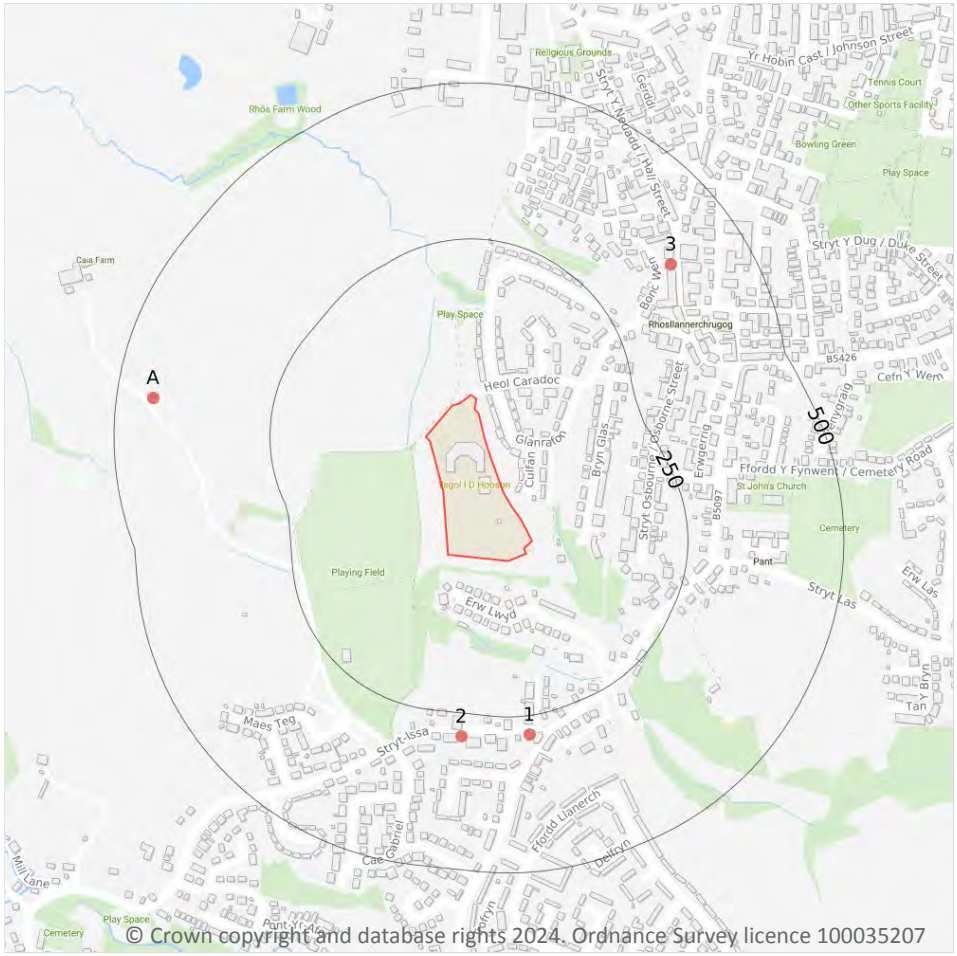
Garages digitised from historical Ordnance Survey mapping at high-detail 1:1,250 and 1:2,500 scale. Any records shown are available intelligently grouped in section 1. Grouped and the original un-grouped features can be cross-referenced across sections 1 and 2 using the 'Group ID'.

Features are displayed on the Past land use - un-grouped map on **page 28 >**

ID	Location	Land Use	Date	Group ID
O	267m E	Garage	1999	23586
O	267m E	Garage	1996	23586
O	267m E	Garage	1993	23586
O	267m E	Garage	1994	23586
O	277m E	Garage	1959	27767
O	277m E	Garage	1988	26065
O	277m E	Garage	1989	26065
O	277m E	Garage	1989	26065
O	277m E	Garage	1992	26065
O	280m E	Garage	1963	25915
O	280m E	Garage	1974	25915

This data is sourced from Ordnance Survey / Groundsure.

3 Waste and landfill



Site Outline

Search buffers in metres (m)

Waste exemptions

3.1 Active or recent landfill

Records within 500m	0

Active or recently closed landfill sites under Environment Agency/Natural Resources Wales regulation.

This data is sourced from the Environment Agency and Natural Resources Wales.

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 Historical landfill (EA/NRW records)

Records within 500m	0

Known historical (closed) landfill sites (e.g. sites where there is no PPC permit or waste management licence currently in force). This includes sites that existed before the waste licensing regime and sites that have been licensed in the past but where a licence has been revoked, ceased to exist or surrendered and a certificate of completion has been issued.

This data is sourced from the Environment Agency and Natural Resources Wales.

3.5 Historical waste sites

Records within 500m	0

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

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

3.6 Licensed waste sites

Records within 500m	0

Active or recently closed waste sites under Environment Agency/Natural Resources Wales regulation.

This data is sourced from the Environment Agency and Natural Resources Wales.

3.7 Waste exemptions

Records within 500m	7

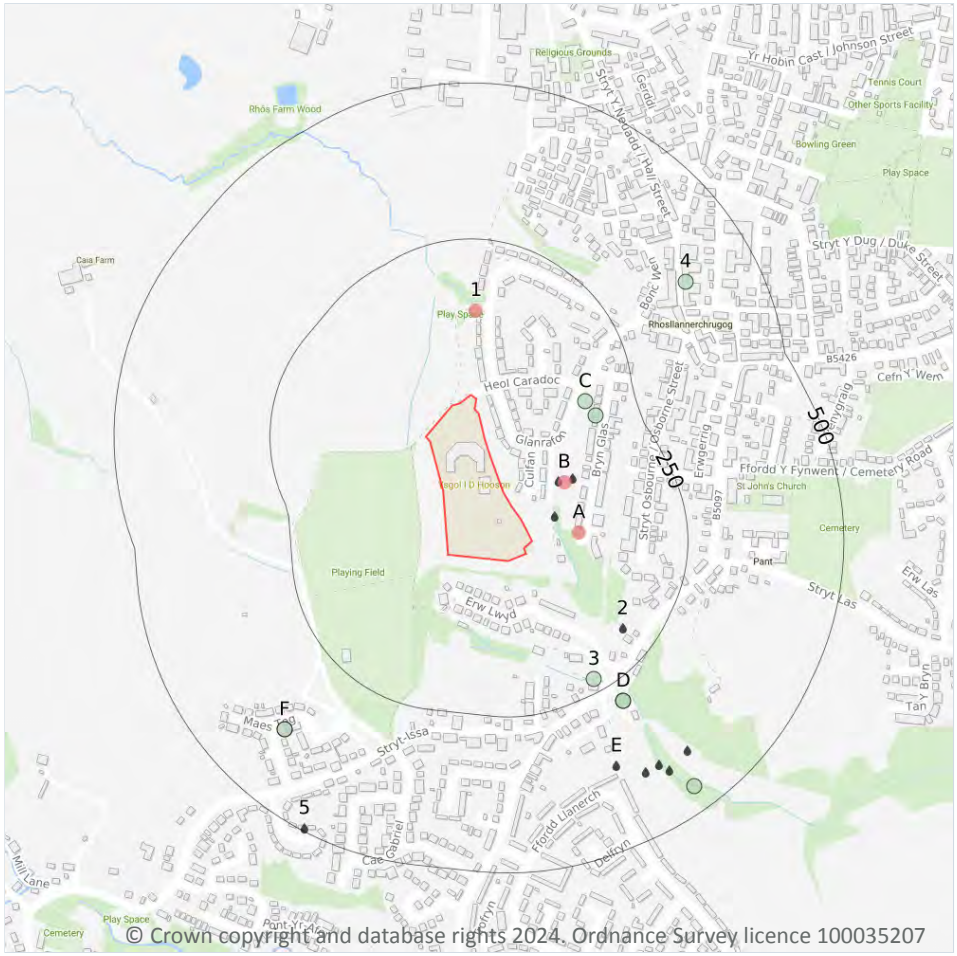
Activities involving the storage, treatment, use or disposal of waste that are exempt from needing a permit. Exemptions have specific limits and conditions that must be adhered to.

Features are displayed on the Waste and landfill map on **page 43 >**

ID	Location	Site	Reference	Category	Sub-Category	Description
1	281m S	Alexanders Pharmacies Ltd, Alexanders Pharmacy, 2-3 Stryt Issa, Pen-Y-Cae, Wrexham, Wrecsam, Ll14 2pn	NRW-WME093784	Treating waste exemption	Not on a farm	Sorting and de-naturing of controlled drugs for disposal
2	288m S	Alexander's Pharmacy, Alexanders Pharmacy, 2-3 Stryt Issa, Penycae, Wrexham, Wrecsam, Ll142pn	NRW-WME023698	Treating waste exemption	Not on a farm	Sorting and de-naturing of controlled drugs for disposal
3	379m NE	Crown Dental Care Ltd, Rhos Dental Practice, 25-27 Market Street, Rhosllanerchrugog, Wrexham, Wrecsam, Ll14 1ah	NRW-WME067719	Treating waste exemption	Not on a farm	Sorting and de-naturing of controlled drugs for disposal
A	442m W	Caia Farm, Stryt Issa, Penycae, Wrexham, Wrecsam, Ll14 2pp	NRW-WME043254	Using waste exemption	On a farm	Use of waste in construction
A	442m W	Caia Farm, Stryt Issa, Penycae, Wrexham, Wrecsam, Ll14 2pp	NRW-WME043254	Disposing of waste exemption	On a farm	Deposit of waste from dredging of inland waters
A	442m W	Caia Farm, Stryt Issa, Penycae, Wrexham, Wrecsam, Ll14 2pp	NRW-WME043254	Using waste exemption	On a farm	Spreading waste on agricultural land to confer benefit
A	442m W	Caia Farm, Stryt Issa, Penycae, Wrexham, Wrecsam, Ll14 2pp	NRW-WME043254	Disposing of waste exemption	On a farm	Burning waste in the open

This data is sourced from the Environment Agency and Natural Resources Wales.

4 Current industrial land use



Site Outline

Search buffers in metres (m)

Recent industrial land uses

Licensed Discharges to controlled waters

Pollution Incidents (EA/NRW)

4.1 Recent industrial land uses

Records within 250m	3

Current potentially contaminative industrial sites.

Features are displayed on the Current industrial land use map on **page 46 >**

ID	Location	Company	Address	Activity	Category
A	77m E	Electricity Sub Station	Clwyd, LL14	Electrical Features	Infrastructure and Facilities
B	91m E	Pumping Station	Clwyd, LL14	Water Pumping Stations	Industrial Features
1	136m N	Electricity Sub Station	Clwyd, LL14	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	0

High pressure underground gas transmission pipelines.

This data is sourced from National Grid.

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 Historical licensed industrial activities (IPC)

Records within 500m	0

Integrated Pollution Control (IPC) records of substance releases to air, land and water. This data represents a historical archive as the IPC regime has been superseded.

This data is sourced from the Environment Agency and Natural Resources Wales.

4.10 Licensed industrial activities (Part A(1))

Records within 500m	0

Records of Part A(1) installations regulated under the Environmental Permitting (England and Wales) Regulations 2016 for the release of substances to the environment.

This data is sourced from the Environment Agency and Natural Resources Wales.

4.11 Licensed pollutant release (Part A(2)/B)

Records within 500m	0

Records of Part A(2) and Part B installations regulated under the Environmental Permitting (England and Wales) Regulations 2016 for the release of substances to the environment.

This data is sourced from Local Authority records.

4.12 Radioactive Substance Authorisations

Records within 500m	0

Records of the storage, use, accumulation and disposal of radioactive substances regulated under the Radioactive Substances Act 1993.

This data is sourced from the Environment Agency and Natural Resources Wales.

4.13 Licensed Discharges to controlled waters

Records within 500m	10

Discharges of treated or untreated effluent to controlled waters under the Water Resources Act 1991.

Features are displayed on the Current industrial land use map on **page 46 >**

ID	Location	Address	Details	
A	50m E	RHOSSLANERCHGRUGOG BRYN Y BRAI	Effluent Type: UNSPECIFIED Permit Number: CM0176001 Permit Version: 1 Receiving Water: PANT BROOK AVON SOCH	Status: NEW CONSENT, BY APPLICATION (WRA 91, SECTION 88) Issue date: 20/10/1989 Effective Date: 20/10/1989 Revocation Date: 30/03/2004
B	84m E	BRYN Y BRAIN CSO, BRYN GLAS, RHOSLLANERCHGRUGOG, WREXHAM, WALES, LL14 2EB	Effluent Type: SEWAGE DISCHARGES - SEWER STORM OVERFLOW - WATER COMPANY Permit Number: CM0176001 Permit Version: 2 Receiving Water: PANT BROOK AVON SOCH	Status: Effective Issue date: 19/03/2004 Effective Date: 31/03/2004 Revocation Date: -
B	105m E	Bersham Colliery CSO, Nr 24 Bryn Glas, RHOSLLANERCHGRUGOG, Wrexham, LL14 2EB	Effluent Type: SEWAGE DISCHARGES - SEWER STORM OVERFLOW - WATER COMPANY Permit Number: CM0176001 Permit Version: 0 Receiving Water: Afon Goch	Status: Effective Issue date: 07/10/2019 Effective Date: 07/10/2019 Revocation Date: -
2	196m SE	RHOS OSBORNE STREET, OSBORNE STREET	Effluent Type: UNSPECIFIED Permit Number: CM0057901 Permit Version: 1 Receiving Water: TRIB.OF GOCH	Status: CONSENT EXPIRED - TIME LIMIT Issue date: 27/06/1969 Effective Date: 27/06/1969 Revocation Date: 05/04/1995
E	369m SE	RHOSLLANERCHGRUGOG AFONEITHA -	Effluent Type: UNSPECIFIED Permit Number: CM0175901 Permit Version: 1 Receiving Water: GOCH	Status: NEW CONSENT, BY APPLICATION (WRA 91, SECTION 88) Issue date: 20/10/1989 Effective Date: 20/10/1989 Revocation Date: 30/03/2004

ID	Location	Address	Details	
E	399m SE	Afon Eitha CSO, Nr 45 Ffordd Llanerch, Penycae, Wrexham, LL14 2ND	Effluent Type: SEWAGE DISCHARGES - SEWER STORM OVERFLOW - WATER COMPANY Permit Number: CM0175901 Permit Version: 0 Receiving Water: Afon Goch	Status: Effective Issue date: 07/08/2019 Effective Date: 07/08/2019 Revocation Date: -
E	400m SE	AFON EITHA CSO, BRYN GLAS, RHOS, WREXHAM, WALES, LL14 2AE	Effluent Type: SEWAGE DISCHARGES - SEWER STORM OVERFLOW - WATER COMPANY Permit Number: CM0175901 Permit Version: 2 Receiving Water: GOCH	Status: Effective Issue date: 15/03/2004 Effective Date: 31/03/2004 Revocation Date: -
E	408m SE	Pant CSO, Nr 47 Ffordd Llanerch, Penycae, Wrexham, Wrexham, LL14 2ND	Effluent Type: SEWAGE DISCHARGES - SEWER STORM OVERFLOW - WATER COMPANY Permit Number: CM0049901 Permit Version: 0 Receiving Water: Afon Goch	Status: Effective Issue date: 21/10/2019 Effective Date: 21/10/2019 Revocation Date: -
E	417m SE	PANT CSO, RHOSLLANERCHRUGOG, WREXHAM, WALES, UNITED KINGDOM, LL14 2DE	Effluent Type: SEWAGE DISCHARGES - SEWER STORM OVERFLOW - WATER COMPANY Permit Number: CM0049901 Permit Version: 2 Receiving Water: GOCH	Status: Effective Issue date: 19/03/2004 Effective Date: 31/03/2004 Revocation Date: -
5	495m SW	PEN Y CAE SCHOOL FIELD - SSO, LL14 2PS	Effluent Type: SEWAGE DISCHARGES - SEWER STORM OVERFLOW - WATER COMPANY Permit Number: CM0176401 Permit Version: 2 Receiving Water: AFON EITHA	Status: Effective Issue date: 08/09/2010 Effective Date: 08/09/2010 Revocation Date: -

This data is sourced from the Environment Agency and Natural Resources Wales.

4.14 Pollutant release to surface waters (Red List)

Records within 500m	**0**

Discharges of specified substances under the Environmental Protection (Prescribed Processes and Substances) Regulations 1991.

This data is sourced from the Environment Agency and Natural Resources Wales.

4.15 Pollutant release to public sewer

Records within 500m	0

Discharges of Special Category Effluents to the public sewer.

This data is sourced from the Environment Agency and Natural Resources Wales.

4.16 List 1 Dangerous Substances

Records within 500m	0

Discharges of substances identified on List I of European Directive E 2006/11/EC, and regulated under the Environmental Damage (Prevention and Remediation) Regulations 2015.

This data is sourced from the Environment Agency and Natural Resources Wales.

4.17 List 2 Dangerous Substances

Records within 500m	0

Discharges of substances identified on List II of European Directive E 2006/11/EC, and regulated under the Environmental Damage (Prevention and Remediation) Regulations 2015.

This data is sourced from the Environment Agency and Natural Resources Wales.

4.18 Pollution Incidents (EA/NRW)

Records within 500m	9

Records of substantiated pollution incidents. Since 2006 this data has only included category 1 (major) and 2 (significant) pollution incidents.

Features are displayed on the Current industrial land use map on **page 46 >**

ID	Location	Details	
C	171m NE	Incident Date: 01/09/2003 Incident Identification: 186385 Pollutant: Sewage Materials Pollutant Description: Crude Sewage	Water Impact: Category 3 (Minor) Land Impact: Category 4 (No Impact) Air Impact: Category 3 (Minor)
C	180m NE	Incident Date: 11/08/2003 Incident Identification: 180955 Pollutant: Sewage Materials Pollutant Description: Crude Sewage	Water Impact: Category 3 (Minor) Land Impact: Category 4 (No Impact) Air Impact: Category 4 (No Impact)

ID	Location	Details	
3	228m SE	Incident Date: 12/07/2002 Incident Identification: 91208 Pollutant: Sewage Materials Pollutant Description: Other Sewage Material	Water Impact: Category 2 (Significant) Land Impact: Category 4 (No Impact) Air Impact: Category 4 (No Impact)
D	283m SE	Incident Date: 27/09/2003 Incident Identification: 192875 Pollutant: Sewage Materials Pollutant Description: Crude Sewage	Water Impact: Category 3 (Minor) Land Impact: Category 4 (No Impact) Air Impact: Category 3 (Minor)
D	283m SE	Incident Date: 03/10/2001 Incident Identification: 34481 Pollutant: Sewage Materials Pollutant Description: Grey Water	Water Impact: Category 3 (Minor) Land Impact: Category 4 (No Impact) Air Impact: Category 4 (No Impact)
F	384m SW	Incident Date: 18/10/2016 Incident Identification: 1606314 Pollutant: - Pollutant Description: -	Water Impact: Category 4 (No Impact) Land Impact: No Details Air Impact: No Details
F	384m SW	Incident Date: 18/10/2016 Incident Identification: 1606314 Pollutant: Oils and Fuels Pollutant Description: Petrol	Water Impact: Category 4 (No Impact) Land Impact: No Details Air Impact: No Details
4	385m NE	Incident Date: 06/08/2014 Incident Identification: 1265372 Pollutant: Atmospheric Pollutants and Effects Pollutant Description: Smoke	Water Impact: - Land Impact: Category 4 (No Impact) Air Impact: Category 4 (No Impact)
E	460m SE	Incident Date: 23/07/2014 Incident Identification: 1259917 Pollutant: Sewage Materials Pollutant Description: Crude Sewage	Water Impact: - Land Impact: Category 3 (Minor) Air Impact: Category 4 (No Impact)

This data is sourced from the Environment Agency and Natural Resources Wales.

4.19 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.

4.20 Pollution inventory waste transfers

Records within 500m	0

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.

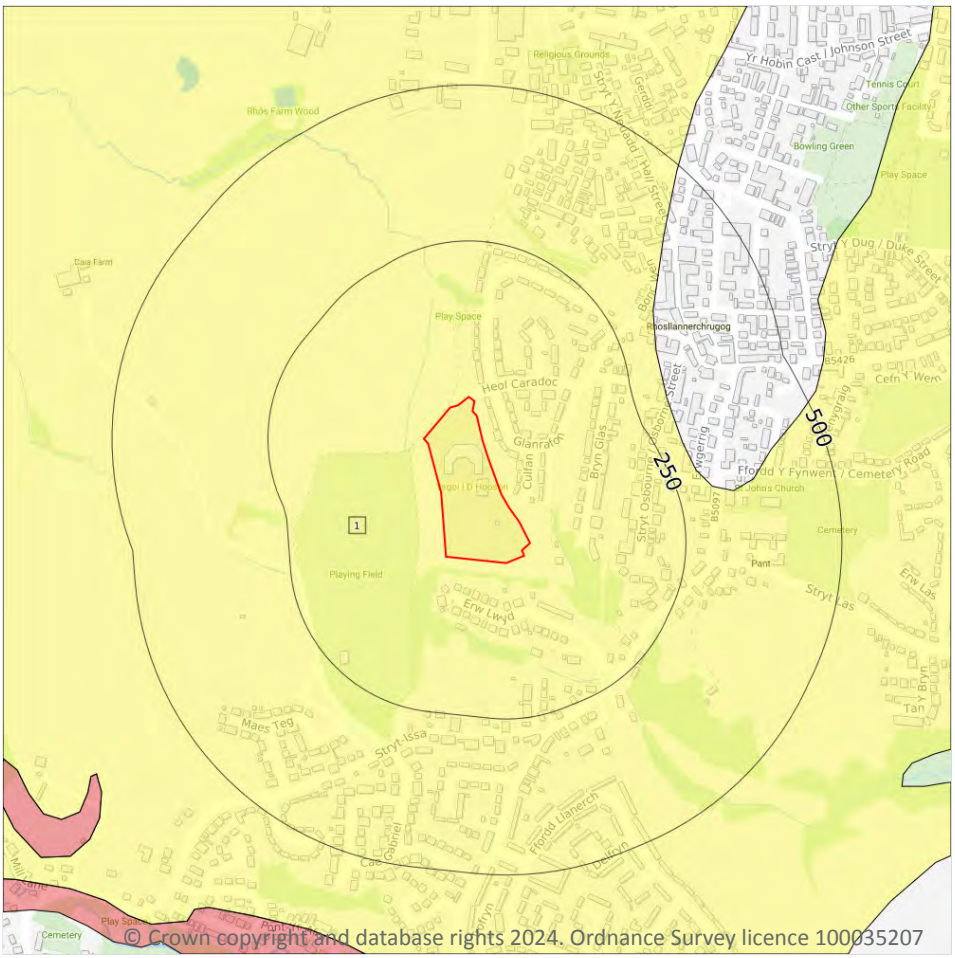
4.21 Pollution inventory radioactive waste

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.

5 Hydrogeology - Superficial aquifer



5.1 Superficial aquifer

Records within 500m	1

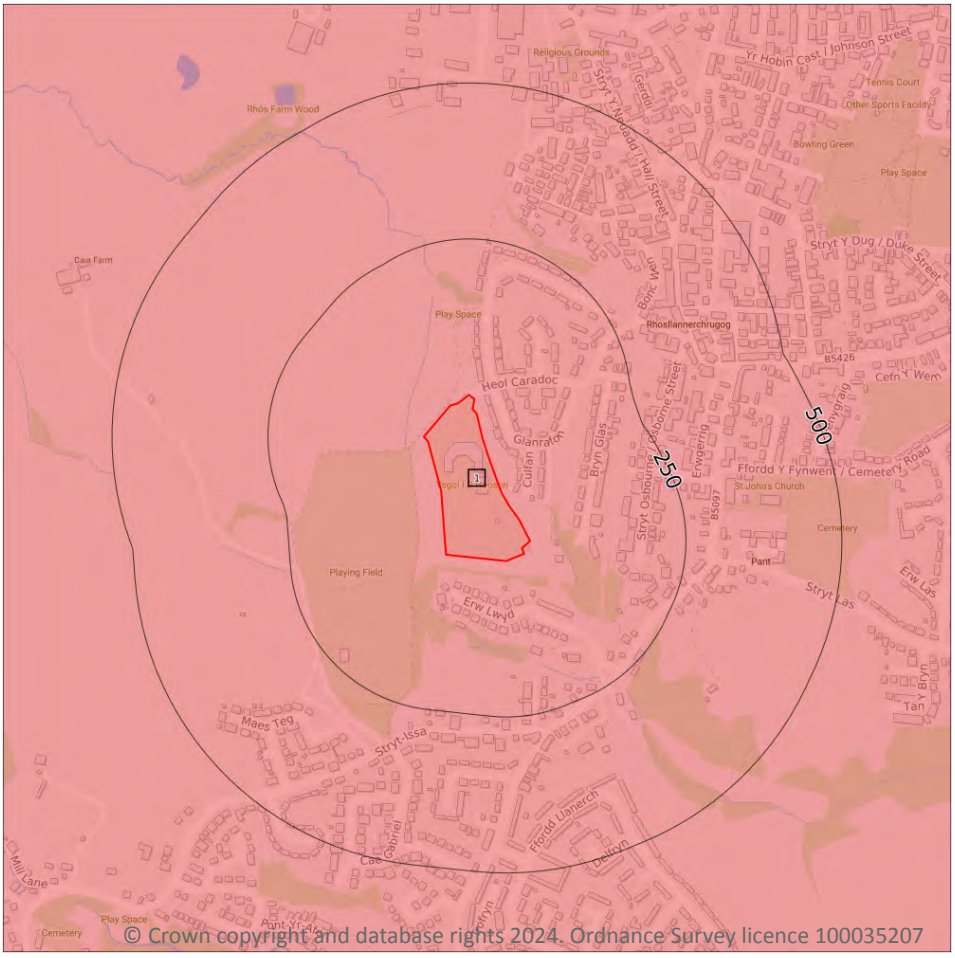
Aquifer status of groundwater held within superficial geology.

Features are displayed on the Hydrogeology map on **page 54 >**

ID	Location	Designation	Description
1	**On site**	**Secondary Undifferentiated**	**Assigned where it is not possible to attribute either category A or B to a rock type. In general these layers have previously been designated as both minor and non-aquifer in different locations due to the variable characteristics of the rock type**

This data is sourced from the British Geological Survey, the Environment Agency and Natural Resources Wales.

Bedrock aquifer



5.2 Bedrock aquifer

Records within 500m	1

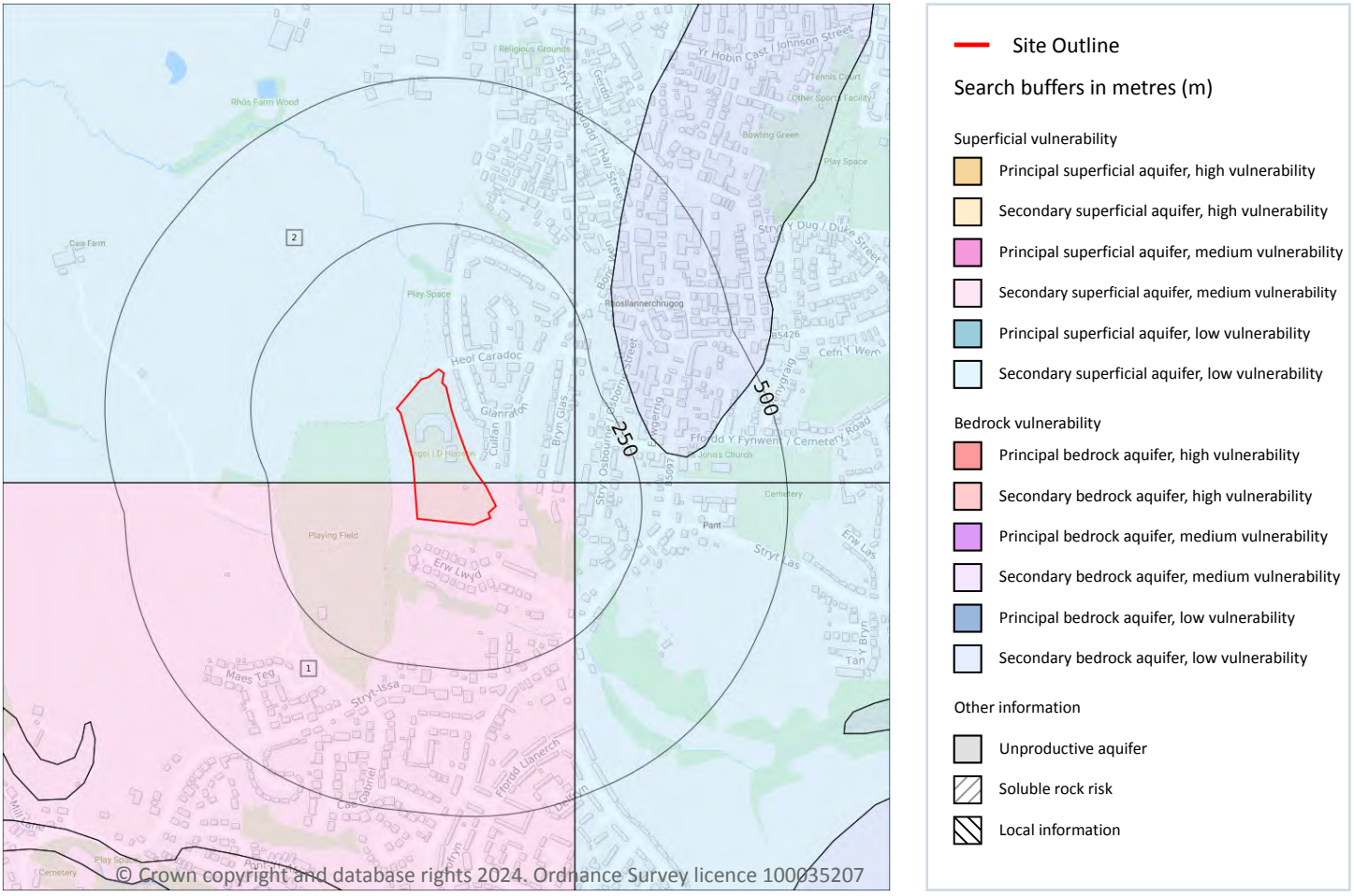
Aquifer status of groundwater held within bedrock geology.

Features are displayed on the Bedrock aquifer map on **page 55 >**

ID	Location	Designation	Description
1	**On site**	**Secondary A**	**Permeable layers capable of supporting water supplies at a local rather than strategic scale, and in some cases forming an important source of base flow to rivers. These are generally aquifers formerly classified as minor aquifers**

This data is sourced from the British Geological Survey, the Environment Agency and Natural Resources Wales.

Groundwater vulnerability



5.3 Groundwater vulnerability

Records within 50m	2

An assessment of the vulnerability of groundwater to a pollutant discharged at ground level based on the hydrological, geological, hydrogeological and soil properties within a one kilometre square grid. Groundwater vulnerability is described as High, Medium or Low as follows:

- High - Areas able to easily transmit pollution to groundwater. They are likely to be characterised by high leaching soils and the absence of low permeability superficial deposits.
- Medium - Intermediate between high and low vulnerability.
- Low - Areas that provide the greatest protection from pollution. They are likely to be characterised by low leaching soils and/or the presence of superficial deposits characterised by a low permeability.

Features are displayed on the Groundwater vulnerability map on **page 56 >**

ID	Location	Summary	Soil / surface	Superficial geology	Bedrock geology
1	On site	Summary Classification: Secondary superficial aquifer - Medium Vulnerability Combined classification: Productive Bedrock Aquifer, Productive Superficial Aquifer	Leaching class: Intermediate Infiltration value: <40% Dilution value: 300-550mm/year	Vulnerability: Medium Aquifer type: Secondary Thickness: >10m Patchiness value: >90% Recharge potential: Low	Vulnerability: Low Aquifer type: Secondary Flow mechanism: Well connected fractures
2	On site	Summary Classification: Secondary superficial aquifer - Low Vulnerability Combined classification: Productive Bedrock Aquifer, Productive Superficial Aquifer	Leaching class: Low Infiltration value: <40% Dilution value: 300-550mm/year	Vulnerability: Low Aquifer type: Secondary Thickness: >10m Patchiness value: >90% Recharge potential: Low	Vulnerability: Low Aquifer type: Secondary Flow mechanism: Well connected fractures

This data is sourced from the British Geological Survey, the Environment Agency and Natural Resources Wales.

5.4 Groundwater vulnerability- soluble rock risk

Records on site	0

This dataset identifies areas where solution features that enable rapid movement of a pollutant may be present within a 1km grid square.

This data is sourced from the British Geological Survey and the Environment Agency.

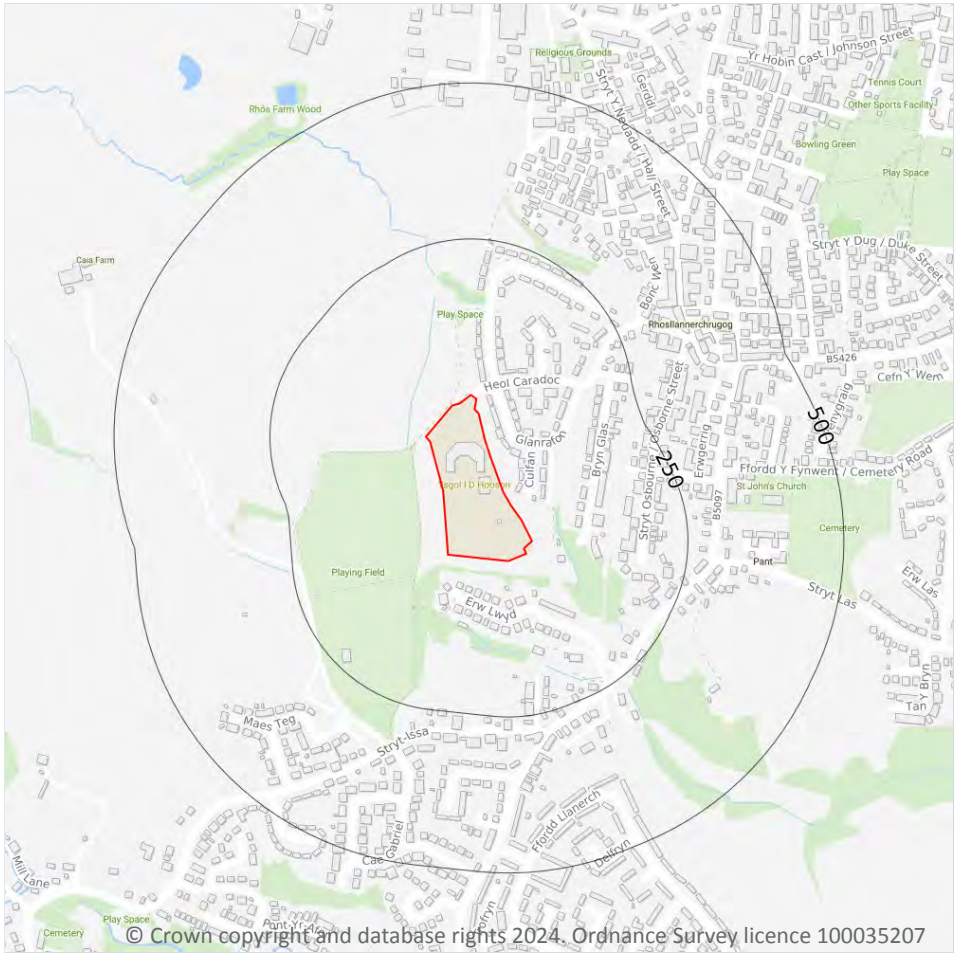
5.5 Groundwater vulnerability- local information

Records on site	0

This dataset identifies areas where additional local information affecting vulnerability is held by the Environment Agency. Further information can be obtained by contacting the Environment Agency local Area groundwater team through the Environment Agency National Customer Call Centre on 03798 506 506 or by email on enquiries@environment-agency.gov.uk ↗.

This data is sourced from the British Geological Survey and the Environment Agency.

Abstractions and Source Protection Zones



- Site Outline

Search buffers in metres (m)

- Source Protection Zone 1 — Inner catchment
- Source Protection Zone 2 — Outer catchment
- Source Protection Zone 3 — Total catchment
- Source Protection Zone 4 — Zone of Special Interest
- Source Protection Zone 1c — Inner catchment - confined aquifer
- Source Protection Zone 2c — Outer catchment - confined aquifer
- Source Protection Zone 3c — Total catchment - confined aquifer
- Drinking water abstraction licences
- Drinking water abstraction licences — Polygon features
- Drinking water abstraction licences — Linear features
- Groundwater abstraction licence (point)
- Groundwater abstraction licence (area)
- Groundwater abstraction licence (linear)
- Surface Water Abstractions (point)
- Surface Water Abstractions (area)
- Surface Water Abstractions (linear)

5.6 Groundwater abstractions

Records within 2000m	5

Licensed groundwater abstractions for sites extracting more than 20 cubic metres of water a day and includes active and historical records. The data may be for a single abstraction point, between two points (line data) or a larger area.

Features are displayed on the Abstractions and Source Protection Zones map on **page 58 >**

ID	Location	Details	
-	1301m SW	Status: Historical Licence No: 24/67/5/0046 Details: General Farming & Domestic Direct Source: EAW Groundwater Point: 35 FT DEEP, 8FT DIA. WELL Data Type: Point Name: Lloyd Easting: 328100 Northing: 344800	Annual Volume (m^3): - Max Daily Volume (m^3): - Original Application No: - Original Start Date: 12/10/1973 Expiry Date: - Issue No: 100 Version Start Date: 12/10/1973 Version End Date: -
-	1518m N	Status: Active Licence No: 24/67/7/0037 Details: Potable Water Supply - Direct - Medium Direct Source: Underground Strata - Carboniferous Coal Measures Point: - Data Type: Point Name: - Easting: 328960 Northing: 347700	Annual Volume (m^3): 272760 Max Daily Volume (m^3): 1431.99 Original Application No: - Original Start Date: 05/12/2018 Expiry Date: - Issue No: - Version Start Date: - Version End Date: -
-	1518m N	Status: Historical Licence No: 24/67/7/0037 Details: Potable Water Supply - Direct - Medium Direct Source: Underground Strata - Carboniferous Coal Measures Point: - Data Type: Point Name: - Easting: 328960 Northing: 347700	Annual Volume (m^3): 272760 Max Daily Volume (m^3): 1418.4 Original Application No: - Original Start Date: 05/12/2018 Expiry Date: - Issue No: - Version Start Date: - Version End Date: -
-	1518m N	Status: Historical Licence No: 24/67/7/0037 Details: Potable Water Supply - Direct Direct Source: EAW Groundwater Point: TALWRN BOREHOLE Data Type: Point Name: Dee Valley Water Plc Easting: 328960 Northing: 347700	Annual Volume (m^3): 272760 Max Daily Volume (m^3): 1431.99 Original Application No: - Original Start Date: 05/07/1966 Expiry Date: - Issue No: 100 Version Start Date: 01/04/2007 Version End Date: -
-	1856m E	Status: Active Licence No: WA/067/0007/0020 Details: Dewatering - Very Low Direct Source: Hafod Quarry Point: - Data Type: Point Name: - Easting: 330711 Northing: 345771	Annual Volume (m^3): 0 Max Daily Volume (m^3): - Original Application No: - Original Start Date: 16/09/2021 Expiry Date: 31/03/2039 Issue No: - Version Start Date: - Version End Date: -

This data is sourced from the Environment Agency and Natural Resources Wales.

5.7 Surface water abstractions

Records within 2000m	**4**

Licensed surface water abstractions for sites extracting more than 20 cubic metres of water a day and includes active and historical records. The data may be for a single abstraction point, a stretch of watercourse or a larger area.

Features are displayed on the Abstractions and Source Protection Zones map on **page 58 >**

ID	Location	Details	
-	1444m SW	Status: Historical Licence No: 24/67/5/0003 Details: Potable Water Supply - Direct - Medium Direct Source: Penycae Reservoirs Point: - Data Type: Point Name: - Easting: 327390 Northing: 345400	Annual Volume (m^3): 909200 Max Daily Volume (m^3): - Original Application No: - Original Start Date: 05/12/2018 Expiry Date: 31/03/2027 Issue No: - Version Start Date: - Version End Date: -
-	1444m SW	Status: Historical Licence No: 24/67/5/0003 Details: Potable Water Supply - Direct Direct Source: EAW Surface Water Point: PENYCAEBOTTOM RESERVOIR Data Type: Point Name: Dee Valley Water Plc Easting: 327390 Northing: 345400	Annual Volume (m^3): 909200 Max Daily Volume (m^3): 3409.5 Original Application No: - Original Start Date: 05/07/1966 Expiry Date: - Issue No: 100 Version Start Date: 05/07/1966 Version End Date: -
-	1444m SW	Status: Active Licence No: 24/67/5/0003 Details: Potable Water Supply - Direct - Medium Direct Source: Penycae Reservoirs Point: - Data Type: Point Name: - Easting: 327390 Northing: 345400	Annual Volume (m^3): 909200 Max Daily Volume (m^3): 3409.5 Original Application No: - Original Start Date: 05/12/2018 Expiry Date: - Issue No: - Version Start Date: - Version End Date: -
-	1973m W	Status: Historical Licence No: 24/67/5/0003 Details: Potable Water Supply - Direct Direct Source: EAW Surface Water Point: PENYCAETOP RESERVOIR Data Type: Point Name: Dee Valley Water Plc Easting: 326850 Northing: 345340	Annual Volume (m^3): 909200 Max Daily Volume (m^3): 3409.5 Original Application No: - Original Start Date: 05/07/1966 Expiry Date: - Issue No: 100 Version Start Date: 05/07/1966 Version End Date: -

This data is sourced from the Environment Agency and Natural Resources Wales.

5.8 Potable abstractions

Records within 2000m	7

Licensed potable water abstractions for sites extracting more than 20 cubic metres of water a day and includes active and historical records. The data may be for a single abstraction point, a stretch of watercourse or a larger area.

Features are displayed on the Abstractions and Source Protection Zones map on **page 58 >**

ID	Location	Details	
-	1444m SW	Status: Historical Licence No: 24/67/5/0003 Details: Potable Water Supply - Direct - Medium Direct Source: Penycae Reservoirs Point: - Data Type: Point Name: - Easting: 327390 Northing: 345400	Annual Volume (m^3): 909200 Max Daily Volume (m^3): - Original Application No: - Original Start Date: 05/12/2018 Expiry Date: 31/03/2027 Issue No: - Version Start Date: - Version End Date: -
-	1444m SW	Status: Historical Licence No: 24/67/5/0003 Details: Potable Water Supply - Direct Direct Source: EAW Surface Water Point: PENYCAEBOTTOM RESERVOIR Data Type: Point Name: Dee Valley Water Plc Easting: 327390 Northing: 345400	Annual Volume (m^3): 909200 Max Daily Volume (m^3): 3409.5 Original Application No: - Original Start Date: 05/07/1966 Expiry Date: - Issue No: 100 Version Start Date: 05/07/1966 Version End Date: -
-	1444m SW	Status: Active Licence No: 24/67/5/0003 Details: Potable Water Supply - Direct - Medium Direct Source: Penycae Reservoirs Point: - Data Type: Point Name: - Easting: 327390 Northing: 345400	Annual Volume (m^3): 909200 Max Daily Volume (m^3): 3409.5 Original Application No: - Original Start Date: 05/12/2018 Expiry Date: - Issue No: - Version Start Date: - Version End Date: -

ID	Location	Details	
-	1518m N	Status: Active Licence No: 24/67/7/0037 Details: Potable Water Supply - Direct - Medium Direct Source: Underground Strata - Carboniferous Coal Measures Point: - Data Type: Point Name: - Easting: 328960 Northing: 347700	Annual Volume (m^3): 272760 Max Daily Volume (m^3): 1431.99 Original Application No: - Original Start Date: 05/12/2018 Expiry Date: - Issue No: - Version Start Date: - Version End Date: -
-	1518m N	Status: Historical Licence No: 24/67/7/0037 Details: Potable Water Supply - Direct - Medium Direct Source: Underground Strata - Carboniferous Coal Measures Point: - Data Type: Point Name: - Easting: 328960 Northing: 347700	Annual Volume (m^3): 272760 Max Daily Volume (m^3): 1418.4 Original Application No: - Original Start Date: 05/12/2018 Expiry Date: - Issue No: - Version Start Date: - Version End Date: -
-	1518m N	Status: Historical Licence No: 24/67/7/0037 Details: Potable Water Supply - Direct Direct Source: EAW Groundwater Point: TALWRN BOREHOLE Data Type: Point Name: Dee Valley Water Plc Easting: 328960 Northing: 347700	Annual Volume (m^3): 272760 Max Daily Volume (m^3): 1431.99 Original Application No: - Original Start Date: 05/07/1966 Expiry Date: - Issue No: 100 Version Start Date: 01/04/2007 Version End Date: -
-	1973m W	Status: Historical Licence No: 24/67/5/0003 Details: Potable Water Supply - Direct Direct Source: EAW Surface Water Point: PENYCAETOP RESERVOIR Data Type: Point Name: Dee Valley Water Plc Easting: 326850 Northing: 345340	Annual Volume (m^3): 909200 Max Daily Volume (m^3): 3409.5 Original Application No: - Original Start Date: 05/07/1966 Expiry Date: - Issue No: 100 Version Start Date: 05/07/1966 Version End Date: -

This data is sourced from the Environment Agency and Natural Resources Wales.

5.9 Source Protection Zones

Records within 500m	0

Source Protection Zones define the sensitivity of an area around a potable abstraction site to contamination.

This data is sourced from the Environment Agency and Natural Resources Wales.

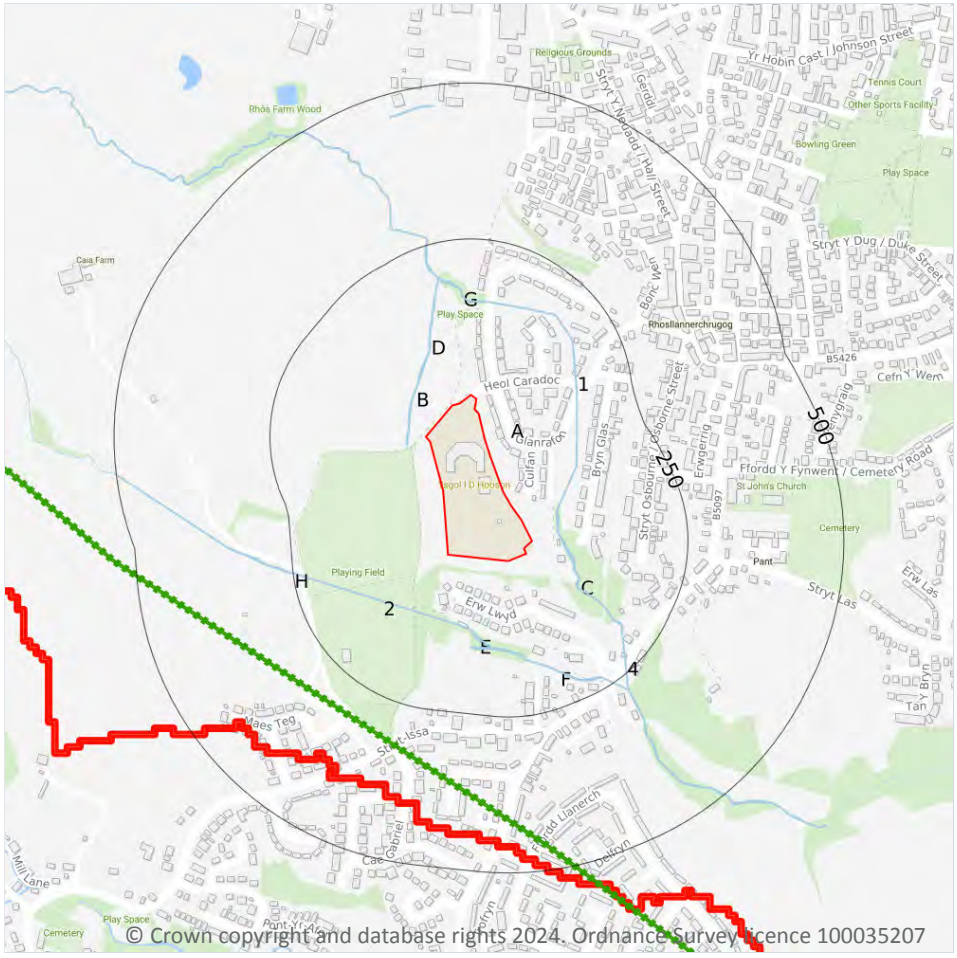
5.10 Source Protection Zones (confined aquifer)

Records within 500m	0

Source Protection Zones in the confined aquifer define the sensitivity around a deep groundwater abstraction to contamination. A confined aquifer would normally be protected from contamination by overlying geology and is only considered a sensitive resource if deep excavation/drilling is taking place.

This data is sourced from the Environment Agency and Natural Resources Wales.

6 Hydrology



6.1 Water Network (OS MasterMap)

Records within 250m	15

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 64 >**

ID	Location	Type of water feature	Ground level	Permanence	Name
B	29m NW	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
C	44m SE	Inland river not influenced by normal tidal action.	On ground surface	Watercourse contains water year round (in normal circumstances)	-
1	57m E	Inland river not influenced by normal tidal action.	Not provided	Watercourse contains water year round (in normal circumstances)	-
2	102m S	Inland river not influenced by normal tidal action.	On ground surface	Watercourse contains water year round (in normal circumstances)	Afon Goch
D	110m N	Inland river not influenced by normal tidal action.	Underground	Watercourse contains water year round (in normal circumstances)	-
D	111m N	Inland river not influenced by normal tidal action.	On ground surface	Watercourse contains water year round (in normal circumstances)	-
E	113m S	Inland river not influenced by normal tidal action.	On ground surface	Watercourse contains water year round (in normal circumstances)	Afon Goch
F	141m S	Inland river not influenced by normal tidal action.	On ground surface	Watercourse contains water year round (in normal circumstances)	Afon Goch
E	142m S	Inland river not influenced by normal tidal action.	On ground surface	Watercourse contains water year round (in normal circumstances)	-
G	149m N	Inland river not influenced by normal tidal action.	On ground surface	Watercourse contains water year round (in normal circumstances)	-
G	167m N	Inland river not influenced by normal tidal action.	Underground	Watercourse contains water year round (in normal circumstances)	-
G	195m N	Inland river not influenced by normal tidal action.	Underground	Watercourse contains water year round (in normal circumstances)	-
4	199m SE	Inland river not influenced by normal tidal action.	Not provided	Watercourse contains water year round (in normal circumstances)	-
G	200m N	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
H	246m SW	Lake, loch or reservoir.	On ground surface	Watercourse contains water year round (in normal circumstances)	Afon Goch

This data is sourced from the Ordnance Survey.

6.2 Surface water features

Records within 250m	9

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 64 >**

This data is sourced from the Ordnance Survey.

6.3 WFD Surface water body catchments

Records on site	1

The Water Framework Directive is an EU-led framework for the protection of inland surface waters, estuaries, coastal waters and groundwater through river basin-level management planning. In terms of surface water, these basins are broken down into smaller units known as management, operational and water body catchments.

Features are displayed on the Hydrology map on **page 64 >**

ID	Location	Type	Water body catchment	Water body ID	Operational catchment	Management catchment
A	**On site**	**River WB catchment**	**Black Brook (Clywedog)**	**GB111067051700**	**Clywedog - Dee**	**Dee**

This data is sourced from the Environment Agency and Natural Resources Wales.

6.4 WFD Surface water bodies

Records identified	1

Surface water bodies under the Directive may be rivers, lakes, estuary or coastal. To achieve the purpose of the Directive, environmental objectives have been set and are reported on for each water body. The progress towards delivery of the objectives is then reported on by the relevant competent authorities at the end of each six-year cycle. The river water body directly associated with the catchment listed in the previous section is detailed below, along with any lake, canal, coastal or artificial water body within 250m of the site.

Features are displayed on the Hydrology map on **page 64 >**

ID	Location	Type	Name	Water body ID	Overall rating	Chemical rating	Ecological rating	Year
-	2639m E	River	Black Brook (Clywedog)	GB111067051700	Good	Good	Good	2016

This data is sourced from the Environment Agency and Natural Resources Wales.

6.5 WFD Groundwater bodies

Records on site	**1**

Groundwater bodies are also covered by the Directive and the same regime of objectives and reporting detailed in the previous section is in place.

Features are displayed on the Hydrology map on **page 64 >**

ID	Location	Name	Water body ID	Overall rating	Chemical rating	Quantitative	Year
A	**On site**	**Dee Carboniferous Coal Measures**	**GB41102G204800**	**Poor**	**Poor**	**Good**	**2017**

This data is sourced from the Environment Agency and Natural Resources Wales.

7 River and coastal flooding

7.1 Risk of flooding from rivers and the sea

Records within 50m	0

The chance of flooding from rivers and/or the sea in any given year, based on cells of 50m within the Risk of Flooding from Rivers and Sea (RoFRaS)/Flood Risk Assessment Wales (FRAW) models. Each cell is allocated one of four flood risk categories, taking into account flood defences and their condition. The risk categories for RoFRaS for rivers and the sea and FRAW for rivers are; Very low (less than 1 in 1000 chance in any given year), Low (less than 1 in 100 but greater than or equal to 1 in 1000 chance), Medium (less than 1 in 30 but greater than or equal to 1 in 100 chance) or High (greater than or equal to 1 in 30 chance). The risk categories for FRAW for the sea are; Very low (less than 1 in 1000 chance in any given year), Low (less than 1 in 200 but greater than or equal to 1 in 1000 chance), Medium (less than 1 in 30 but greater than or equal to 1 in 200 chance) or High (greater than or equal to 1 in 30 chance).

This data is sourced from the Environment Agency and Natural Resources Wales.

7.2 Historical Flood Events

Records within 250m	0

Records of historic flooding from rivers, the sea, groundwater and surface water. Records began in 1946 when predecessor bodies started collecting detailed information about flooding incidents, although limited details may be included on flooding incidents prior to this date. Takes into account the presence of defences, structures, and other infrastructure where they existed at the time of flooding, and includes flood extents that may have been affected by overtopping, breaches or blockages.

This data is sourced from the Environment Agency and Natural Resources Wales.

7.3 Flood Defences

Records within 250m	0

Records of flood defences owned, managed or inspected by the Environment Agency and Natural Resources Wales. Flood defences can be structures, buildings or parts of buildings. Typically these are earth banks, stone and concrete walls, or sheet-piling that is used to prevent or control the extent of flooding.

This data is sourced from the Environment Agency and Natural Resources Wales.

7.4 Areas Benefiting from Flood Defences

Records within 250m	0

Areas that would benefit from the presence of flood defences in a 1 in 100 (1%) chance of flooding each year from rivers or 1 in 200 (0.5%) chance of flooding each year from the sea.

This data is sourced from the Environment Agency and Natural Resources Wales.

7.5 Flood Storage Areas

Records within 250m	0

Areas that act as a balancing reservoir, storage basin or balancing pond to attenuate an incoming flood peak to a flow level that can be accepted by the downstream channel or to delay the timing of a flood peak so that its volume is discharged over a longer period.

This data is sourced from the Environment Agency and Natural Resources Wales.

River and coastal flooding - Flood Zones

7.6 Flood Zone 2

Records within 50m	0

Areas of land at risk of flooding, when the presence of flood defences are ignored. Covering land between Flood Zone 3 (see next section) and the extent of the flooding from rivers or the sea with a 1 in 1000 (0.1%) chance of flooding each year.

This data is sourced from the Environment Agency and Natural Resources Wales.

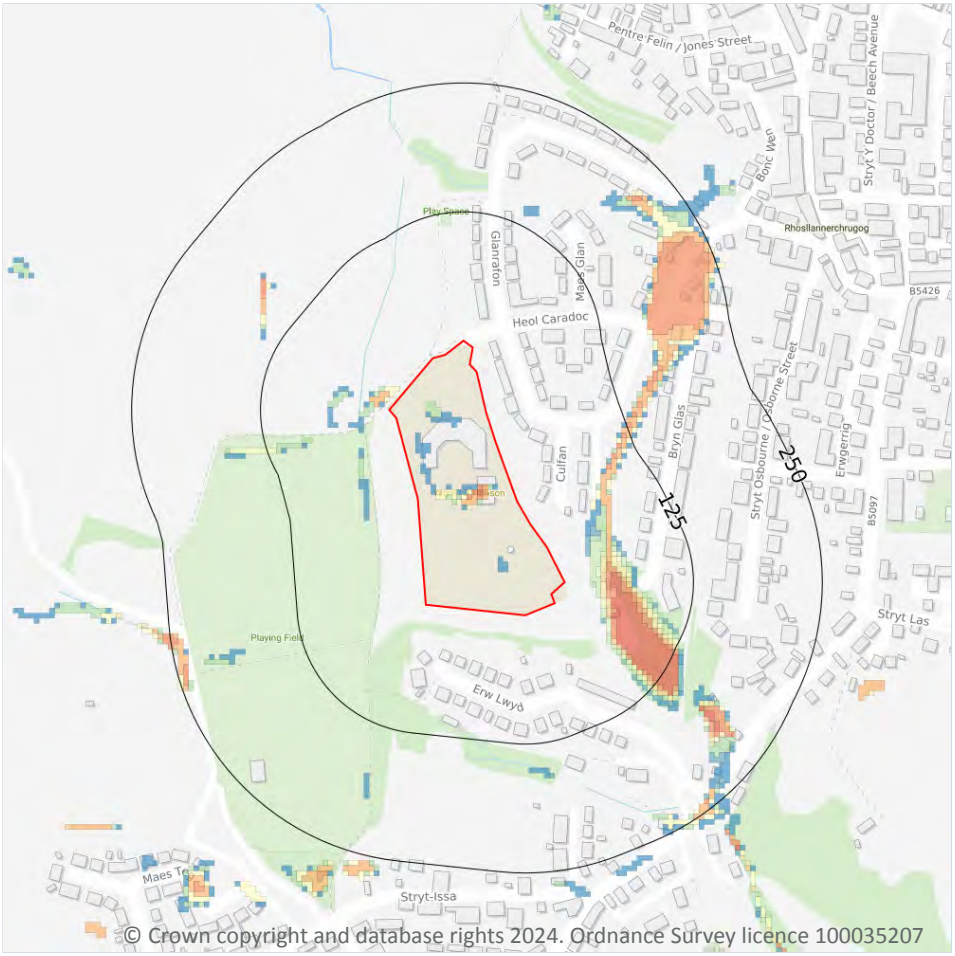
7.7 Flood Zone 3

Records within 50m	0

Areas of land at risk of flooding, when the presence of flood defences are ignored. Covering land with a 1 in 100 (1%) or greater chance of flooding each year from rivers or a 1 in 200 (0.5%) or greater chance of flooding each year from the sea.

This data is sourced from the Environment Agency and Natural Resources Wales.

8 Surface water flooding



Site Outline

Search buffers in metres (m)

1 in 1000 return period
- Depth between 0.1m - 0.3m
- Depth between 0.3m - 1.0m
- Depth greater than 1.0m

1 in 250 return period
- Depth between 0.1m - 0.3m
- Depth between 0.3m - 1.0m
- Depth greater than 1.0m

1 in 100 return period
- Depth between 0.1m - 0.3m
- Depth between 0.3m - 1.0m
- Depth greater than 1.0m

1 in 30 return period
- Depth between 0.1m - 0.3m
- Depth between 0.3m - 1.0m
- Depth greater than 1.0m

8.1 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 71 >**

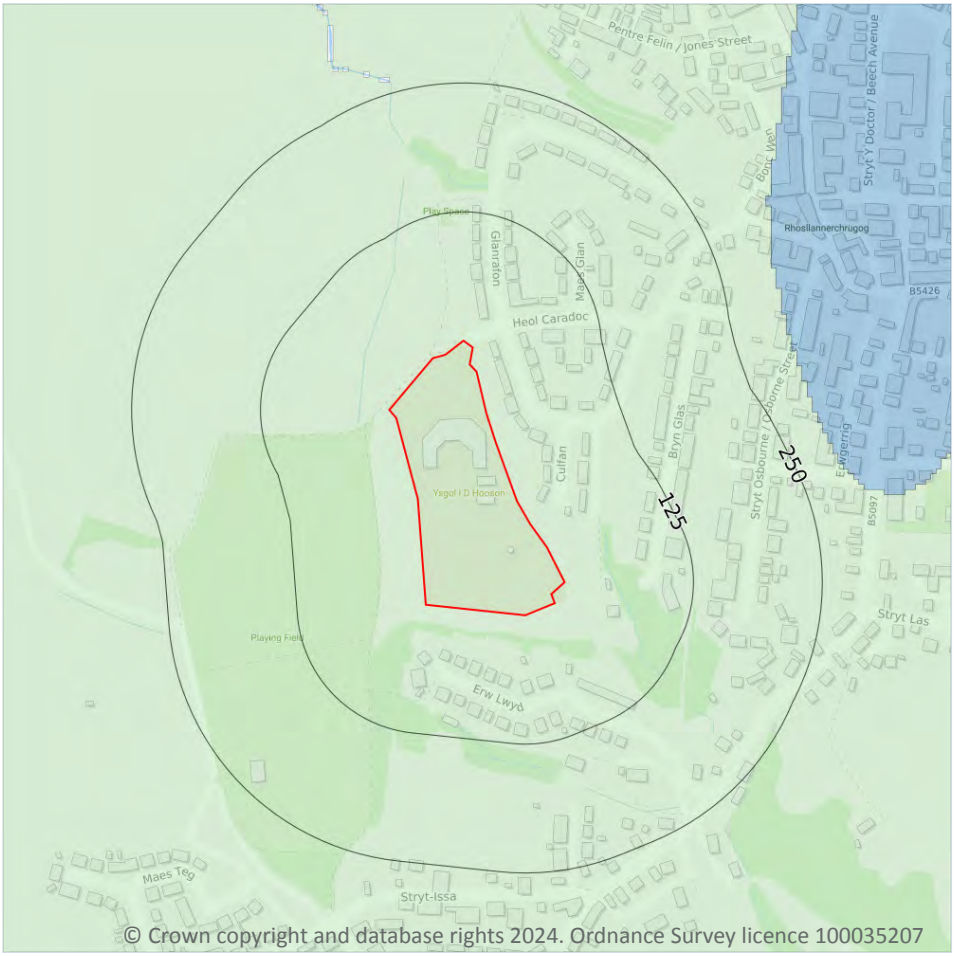
The data shown on the map and in the table above shows the highest likelihood of flood events happening at the site. Lower likelihood events may have greater flood depths and hence a greater potential impact on a site.

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.

9 Groundwater flooding



Site Outline

Search buffers in metres (m)

- High
- Moderate - High
- Moderate
- Low
- Negligible

9.1 Groundwater flooding

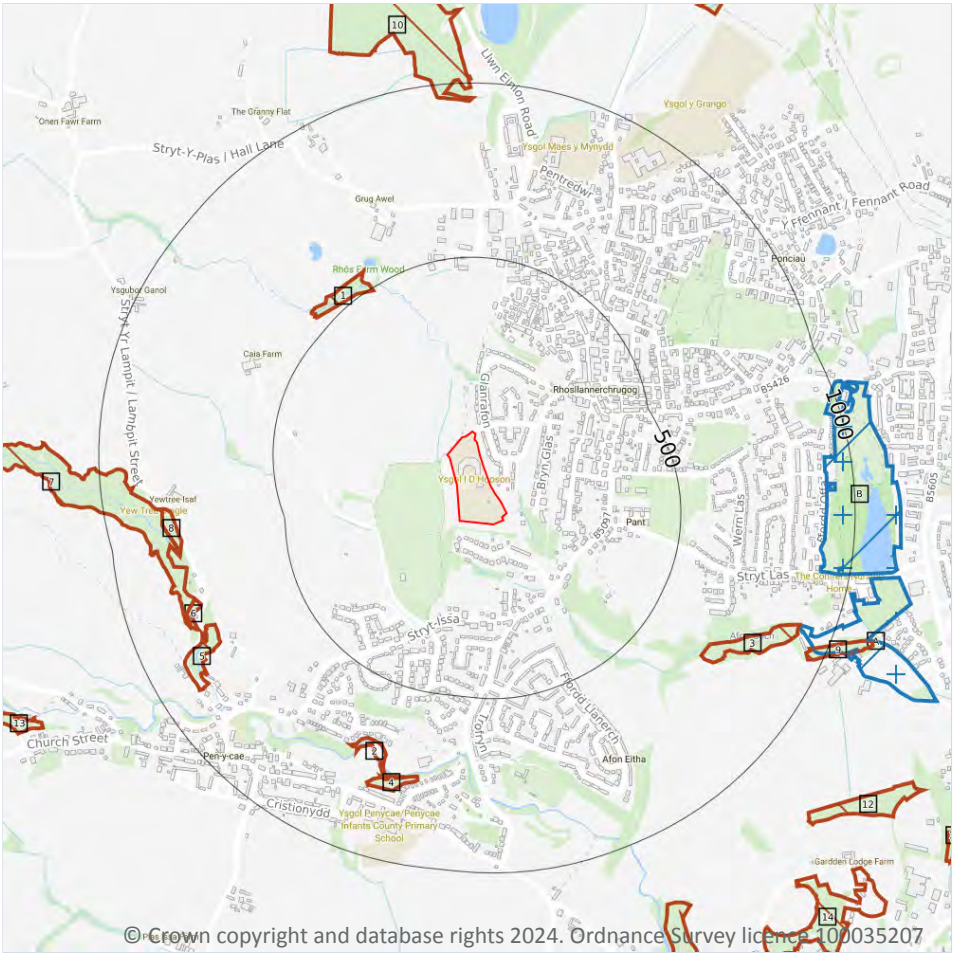
Highest risk on site	**Low**
Highest risk within 50m	**Low**

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 73 >**

This data is sourced from Ambiental Risk Analytics.

10 Environmental designations



10.1 Sites of Special Scientific Interest (SSSI)

Records within 2000m	4

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.

Features are displayed on the Environmental designations map on **page 74 >**

ID	Location	Name	Data source
A	905m SE	Stryt Las a'r Hafod	Natural Resources Wales

ID	Location	Name	Data source
B	907m E	Stryt Las a'r Hafod	Natural Resources Wales
-	1778m E	Stryt Las a'r Hafod	Natural Resources Wales
-	1804m E	Stryt Las a'r Hafod	Natural Resources Wales

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

10.2 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.

10.3 Special Areas of Conservation (SAC)

Records within 2000m	**4**

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.

Features are displayed on the Environmental designations map on **page 74 >**

ID	Location	Name	Features of interest	Habitat description	Data source
A	905m SE	Johnstown Newt Sites	Great crested newt.	Bogs, Marshes, Water fringed vegetation, Fens; Improved grassland; Heath, Scrub, Maquis and Garrigue, Phygrana; Broad-leaved deciduous woodland; Other land (including Towns, Villages, Roads, Waste places, Mines, Industrial sites); Inland water bodies (Standing water, Running water)	Natural Resources Wales
B	907m E	Johnstown Newt Sites	Great crested newt.	Bogs, Marshes, Water fringed vegetation, Fens; Improved grassland; Heath, Scrub, Maquis and Garrigue, Phygrana; Broad-leaved deciduous woodland; Other land (including Towns, Villages, Roads, Waste places, Mines, Industrial sites); Inland water bodies (Standing water, Running water)	Natural Resources Wales

ID	Location	Name	Features of interest	Habitat description	Data source
-	1778m E	Johnstown Newt Sites	Great crested newt.	Bogs, Marshes, Water fringed vegetation, Fens; Improved grassland; Heath, Scrub, Maquis and Garrigue, Phygrana; Broad-leaved deciduous woodland; Other land (including Towns, Villages, Roads, Waste places, Mines, Industrial sites); Inland water bodies (Standing water, Running water)	Natural Resources Wales
-	1804m E	Johnstown Newt Sites	Great crested newt.	Bogs, Marshes, Water fringed vegetation, Fens; Improved grassland; Heath, Scrub, Maquis and Garrigue, Phygrana; Broad-leaved deciduous woodland; Other land (including Towns, Villages, Roads, Waste places, Mines, Industrial sites); Inland water bodies (Standing water, Running water)	Natural Resources Wales

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

10.4 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.

10.5 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.

10.6 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.

10.7 Designated Ancient Woodland

Records within 2000m	26

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 74 >**

ID	Location	Name	Woodland Type
1	493m NW	Unknown	Ancient Semi Natural Woodland
2	675m S	Unknown	Ancient Semi Natural Woodland
3	688m SE	Unknown	Ancient Semi Natural Woodland
4	743m S	Unknown	Ancient Semi Natural Woodland
5	763m SW	Unknown	Ancient Semi Natural Woodland
6	779m SW	Unknown	Ancient Semi Natural Woodland
7	792m W	Unknown	Ancient Semi Natural Woodland
8	799m W	Unknown	Ancient Semi Natural Woodland
9	948m SE	Unknown	Ancient Semi Natural Woodland
10	948m N	Unknown	Restored Ancient Woodland Site
11	1199m SE	Unknown	Ancient Semi Natural Woodland
12	1213m SE	Unknown	Ancient Semi Natural Woodland
13	1332m SW	Unknown	Ancient Semi Natural Woodland
14	1334m SE	Unknown	Ancient Semi Natural Woodland
15	1386m NE	Unknown	Restored Ancient Woodland Site
-	1447m N	Unknown	Ancient Semi Natural Woodland
-	1467m W	Unknown	Ancient Semi Natural Woodland
-	1479m SW	Unknown	Ancient Semi Natural Woodland
19	1527m SE	Unknown	Restored Ancient Woodland Site
-	1549m N	Unknown	Restored Ancient Woodland Site
-	1706m NE	Unknown	Ancient Semi Natural Woodland
-	1721m NE	Unknown	Ancient Semi Natural Woodland

ID	Location	Name	Woodland Type
-	1735m W	Unknown	Ancient Semi Natural Woodland
-	1829m N	Unknown	Ancient Semi Natural Woodland
-	1890m W	Unknown	Ancient Semi Natural Woodland
-	1937m NE	Unknown	Ancient Semi Natural Woodland

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

10.8 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.

10.9 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.

10.10 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.

10.11 Green Belt

Records within 2000m	0

Areas designated to prevent urban sprawl by keeping land permanently open.

This data is sourced from the Ministry of Housing, Communities and Local Government.

10.12 Proposed Ramsar sites

Records within 2000m	0

Ramsar sites are areas listed as a Wetland of International Importance under the Convention on Wetlands of International Importance especially as Waterfowl Habitat (the Ramsar Convention) 1971. The sites here supplied have a status of 'Proposed' having been identified for potential adoption under the framework.

This data is sourced from Natural England.

10.13 Possible Special Areas of Conservation (pSAC)

Records within 2000m	0

Special Areas of Conservation are 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. Those sites supplied here are those with a status of 'Possible' having been identified for potential adoption under the framework.

This data is sourced from Natural England and Natural Resources Wales.

10.14 Potential Special Protection Areas (pSPA)

Records within 2000m	0

Special Protection Areas (SPAs) are areas designated (or ‘classified’) under the European Union Wild Birds Directive for the protection of nationally and internationally important populations of wild birds. Those sites supplied here are those with a status of 'Potential' having been identified for potential adoption under the framework.

This data is sourced from Natural England.

10.15 Nitrate Sensitive Areas

Records within 2000m	0

Areas where nitrate concentrations in drinking water sources exceeded or was at risk of exceeding the limit of 50 mg/l set by the 1980 EC Drinking Water Directive. Voluntary agricultural measures as a means of reducing the levels of nitrate were introduced by DEFRA as MAFF, with payments being made to farmers who complied. The scheme was started as a pilot in 1990 in ten areas, later implemented within 32 areas. The scheme was closed to further new entrants in 1998, although existing agreements continued for their full term. All Nitrate Sensitive Areas fell within the areas designated as Nitrate Vulnerable Zones (NVZs) in 1996 under the EC Nitrate Directive (91/676/EEC).

This data is sourced from Natural England.

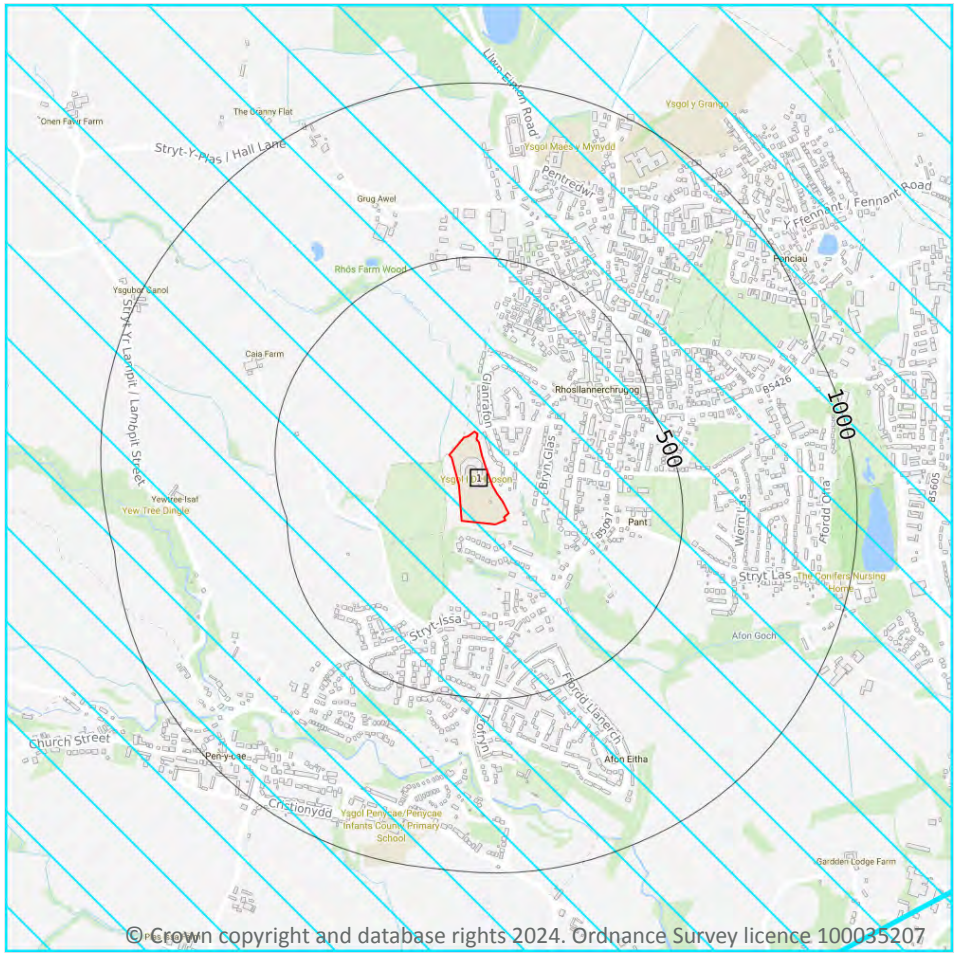
10.16 Nitrate Vulnerable Zones

Records within 2000m	0

Areas at risk from agricultural nitrate pollution designated under the EC Nitrate Directive (91/676/EEC). These are areas of land that drain into waters polluted by nitrates. Farmers operating within these areas have to follow mandatory rules to tackle nitrate loss from agriculture.

This data is sourced from Natural England and Natural Resources Wales.

SSSI Impact Zones and Units



Site Outline

Search buffers in metres (m)

SSSI Impact Risk Zones

SSSI Units

- Not recorded
- Favourable
- Unfavourable - Recovering
- Unfavourable - No change
- Unfavourable - Declining
- Partially destroyed
- Destroyed

10.17 SSSI Impact Risk Zones

Records on site	1

Developed to allow rapid initial assessment of the potential risks to SSSIs posed by development proposals. They define zones around each SSSI which reflect the particular sensitivities of the features for which it is notified and indicate the types of development proposal which could potentially have adverse impacts.

Features are displayed on the SSSI Impact Zones and Units map on **page 81 >**

ID	Location	Type of developments requiring consultation
1	On site	**Air pollution - Livestock & poultry units with floorspace > 500m², slurry lagoons & digestate stores > 4000m². Combustion - General combustion processes >50MW energy input. Incl: energy from waste incineration, other incineration, landfill gas generation plant, pyrolysis/gasification, anaerobic digestion, sewage treatment works, other incineration/ combustion.**

This data is sourced from Natural England.

10.18 SSSI Units

Records within 2000m	0

Divisions of SSSIs used to record management and condition details. Units are the smallest areas for which Natural England gives a condition assessment, however, the size of units varies greatly depending on the types of management and the conservation interest.

This data is sourced from Natural England and Natural Resources Wales.

11 Visual and cultural designations

11.1 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.

11.2 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.

11.3 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.

11.4 Listed Buildings

Records within 250m	0

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.

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

11.5 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.

11.6 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.

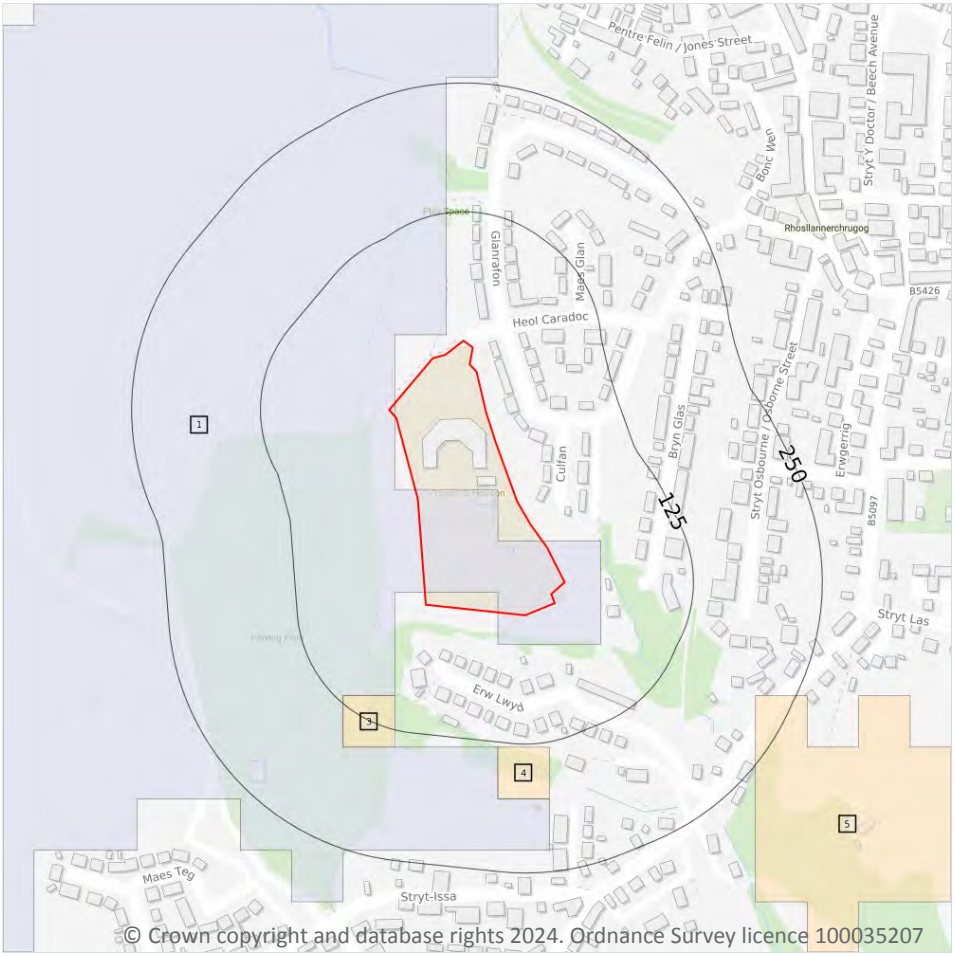
11.7 Registered Parks and Gardens

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.

12 Agricultural designations



Site Outline

Search buffers in metres (m)

- Grade 1 - excellent quality
- Grade 2 - very good quality
- Grade 3a - good quality
- Grade 3b - moderate quality
- Grade 4 - poor quality
- Grade 5 - very poor quality
- Timber felling licences
- Open Access land

12.1 Agricultural Land Classification

Records within 250m	4

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

Features are displayed on the Agricultural designations map on **page 85 >**

ID	Location	Classification	Description
1	**On site**	**Grade 3b**	**Moderate quality agricultural land**
3	93m S	Grade 3a	Good to moderate quality agricultural land
4	128m S	Grade 3a	Good to moderate quality agricultural land

ID	Location	Classification	Description
5	215m SE	Grade 3a	Good to moderate quality agricultural land

This data is sourced from Natural Resources Wales.

12.2 Open Access Land

Records within 250m	0

The Countryside and Rights of Way Act 2000 (CROW Act) gives a public right of access to land without having to use paths. Access land includes mountains, moors, heaths and downs that are privately owned. It also includes common land registered with the local council and some land around the England Coast Path. Generally permitted activities on access land are walking, running, watching wildlife and climbing.

This data is sourced from Natural England and Natural Resources Wales.

12.3 Tree Felling Licences

Records within 250m	0

Felling Licence Application (FLA) areas approved by Forestry Commission England. Anyone wishing to fell trees must ensure that a licence or permission under a grant scheme has been issued by the Forestry Commission before any felling is carried out or that one of the exceptions apply.

This data is sourced from the Forestry Commission.

12.4 Environmental Stewardship Schemes

Records within 250m	0

Environmental Stewardship covers a range of schemes that provide financial incentives to farmers, foresters and land managers to look after and improve the environment. The schemes identified may be historical schemes that have now expired, or may still be active.

This data is sourced from Natural England.

12.5 Countryside Stewardship Schemes

Records within 250m	0

Countryside Stewardship covers a range of schemes that provide financial incentives to farmers, foresters and land managers to look after and improve the environment. Main objectives are to improve the farmed environment for wildlife and to reduce diffuse water pollution.

This data is sourced from Natural England.

13 Habitat designations

13.1 Priority Habitat Inventory

Records within 250m	0

Habitats of principal importance as named under Natural Environment and Rural Communities Act (2006) Section 41.

This data is sourced from Natural England.

13.2 Habitat Networks

Records within 250m	0

Habitat networks for 18 priority habitat networks (based primarily, but not exclusively, on the priority habitat inventory) and areas suitable for the expansion of networks through restoration and habitat creation.

This data is sourced from Natural England.

13.3 Open Mosaic Habitat

Records within 250m	0

Sites verified as Open Mosaic Habitat. Mosaic habitats are brownfield sites that are identified under the UK Biodiversity Action Plan as a priority habitat due to the habitat variation within a single site, supporting an array of invertebrates.

This data is sourced from Natural England.

13.4 Limestone Pavement Orders

Records within 250m	0

Limestone pavements are outcrops of limestone where the surface has been worn away by natural means over millennia. These rocks have the appearance of paving blocks, hence their name. Not only do they have geological interest, they also provide valuable habitats for wildlife. These habitats are threatened due to their removal for use in gardens and water features. Many limestone pavements have been designated as SSSIs which affords them some protection. In addition, Section 34 of the Wildlife and Countryside Act 1981 gave them additional protection via the creation of Limestone Pavement Orders, which made it a criminal offence to remove any part of the outcrop. The associated Limestone Pavement Priority Habitat is part of the UK Biodiversity Action Plan priority habitat in England.

This data is sourced from Natural England.

14 Geology 1:10,000 scale - Availability



Site Outline

Search buffers in metres (m)

- Full coverage
- Partial coverage
- No coverage

14.1 10k Availability

Records within 500m	1

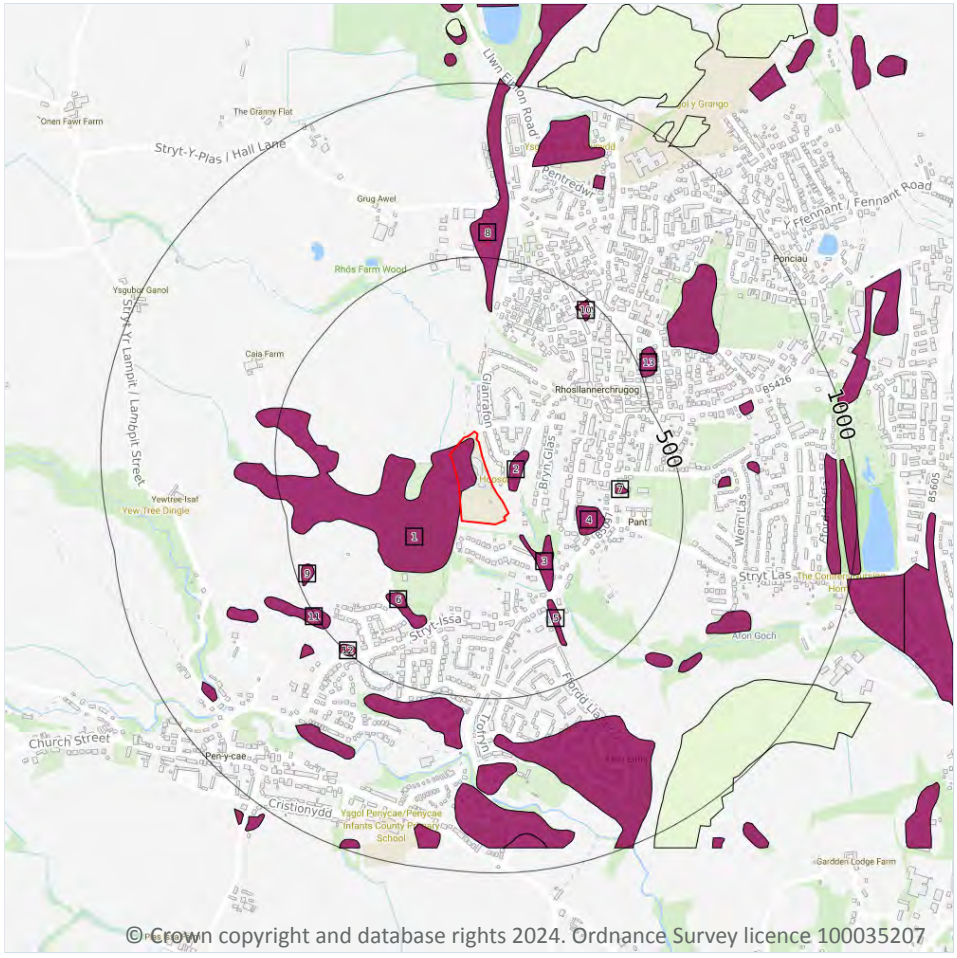
An indication on the coverage of 1:10,000 scale geology data for the site, the most detailed dataset provided by the British Geological Survey. Either 'Full', 'Partial' or 'No coverage' for each geological theme.

Features are displayed on the Geology 1:10,000 scale - Availability map on **page 88 >**

ID	Location	Artificial	Superficial	Bedrock	Mass movement	Sheet No.
1	**On site**	**Full**	**Full**	**Full**	**Full**	**SJ24NE**

This data is sourced from the British Geological Survey.

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



Site Outline

Search buffers in metres (m)

- Reclaimed ground
- Made ground
- Worked ground
- Infilled ground
- Disturbed ground
- Landscaped ground

14.2 Artificial and made ground (10k)

Records within 500m	13

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

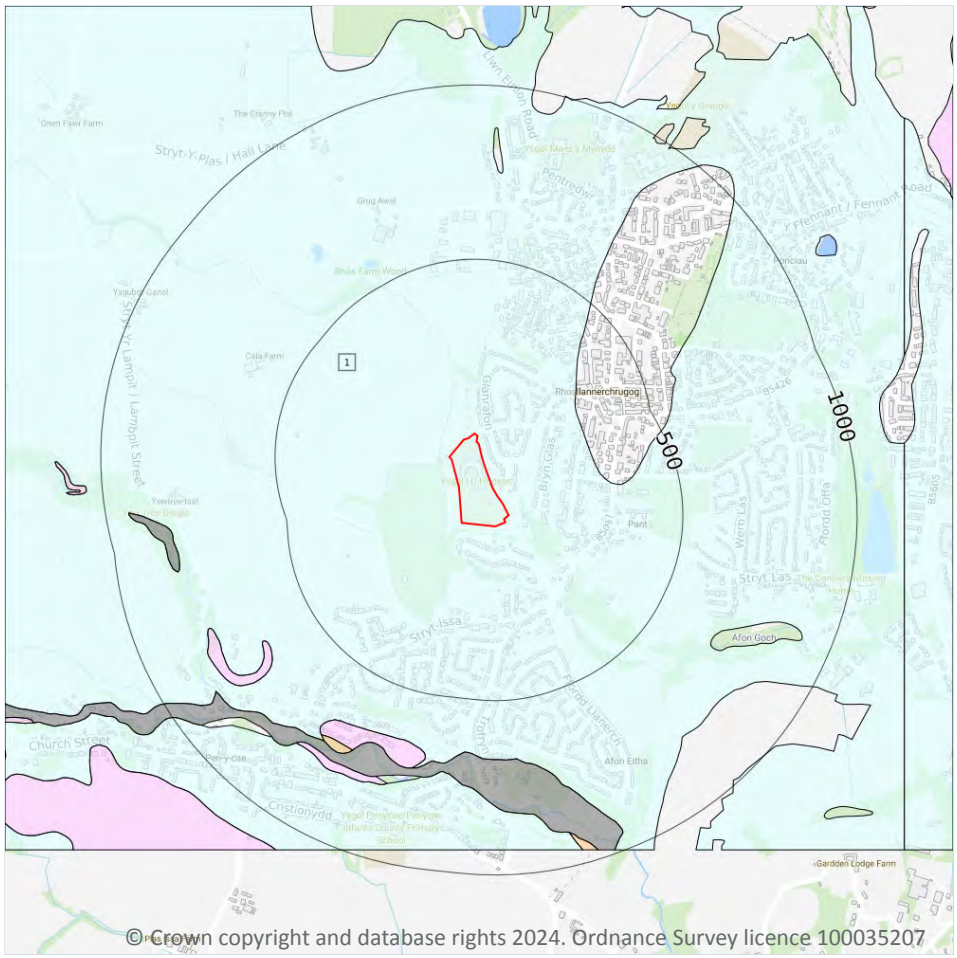
Features are displayed on the Geology 1:10,000 scale - Artificial and made ground map on **page 89 >**

ID	Location	LEX Code	Description	Rock description
1	**On site**	**MGR-ARTDP**	**Made Ground (Undivided)**	**Artificial Deposit**
2	36m E	MGR-ARTDP	Made Ground (Undivided)	Artificial Deposit
3	60m SE	MGR-ARTDP	Made Ground (Undivided)	Artificial Deposit
4	194m E	MGR-ARTDP	Made Ground (Undivided)	Artificial Deposit

ID	Location	LEX Code	Description	Rock description
5	259m SE	MGR-ARTDP	Made Ground (Undivided)	Artificial Deposit
6	269m SW	MGR-ARTDP	Made Ground (Undivided)	Artificial Deposit
7	312m E	MGR-ARTDP	Made Ground (Undivided)	Artificial Deposit
8	347m N	MGR-ARTDP	Made Ground (Undivided)	Artificial Deposit
9	447m SW	MGR-ARTDP	Made Ground (Undivided)	Artificial Deposit
10	448m NE	MGR-ARTDP	Made Ground (Undivided)	Artificial Deposit
11	469m SW	MGR-ARTDP	Made Ground (Undivided)	Artificial Deposit
12	475m SW	MGR-ARTDP	Made Ground (Undivided)	Artificial Deposit
13	499m NE	MGR-ARTDP	Made Ground (Undivided)	Artificial Deposit

This data is sourced from the British Geological Survey.

Geology 1:10,000 scale - Superficial



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Site Outline

Search buffers in metres (m)

Landslip (10k)

Superficial geology (10k)
Please see table for more details.

14.3 Superficial geology (10k)

Records within 500m	1

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

Features are displayed on the Geology 1:10,000 scale - Superficial map on **page 91 >**

ID	Location	LEX Code	Description	Rock description
1	**On site**	**TILL-DMTN**	**Till - Diamicton**	**Diamicton**

This data is sourced from the British Geological Survey.

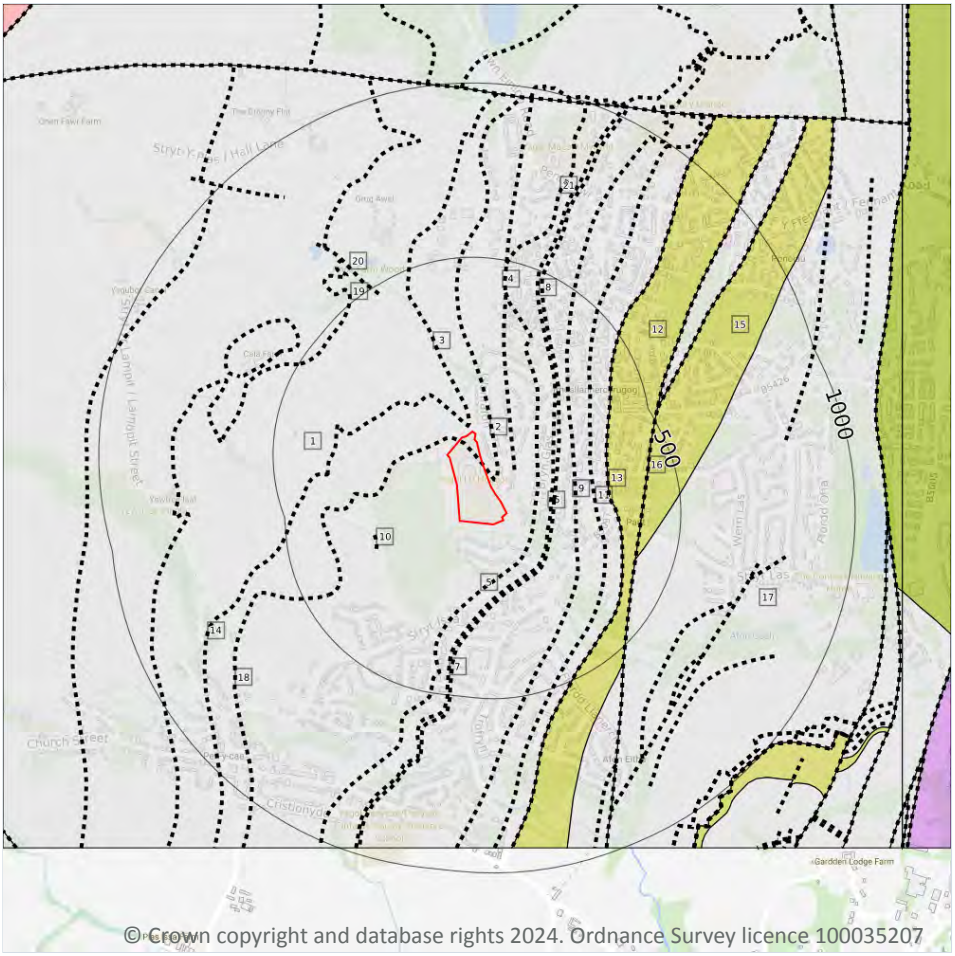
14.4 Landslip (10k)

Records within 500m	0

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

This data is sourced from the British Geological Survey.

Geology 1:10,000 scale - Bedrock



Site Outline

Search buffers in metres (m)

Bedrock faults and other linear features (10k)

Bedrock geology (10k)
Please see table for more details.

14.5 Bedrock geology (10k)

Records within 500m **4**

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

Features are displayed on the Geology 1:10,000 scale - Bedrock map on **page 93 >**

ID	Location	LEX Code	Description	Rock age
1	**On site**	**PLCM-MDSS**	**Pennine Lower Coal Measures Formation - Mudstone, Siltstone And Sandstone**	**Langsettian Sub-age**
12	298m E	PLCM-SDST	Pennine Lower Coal Measures Formation - Sandstone	Langsettian Sub-age
15	385m E	PLCM-SDST	Pennine Lower Coal Measures Formation - Sandstone	Langsettian Sub-age

ID	Location	LEX Code	Description	Rock age
17	393m SE	PLCM-MDSS	Pennine Lower Coal Measures Formation - Mudstone, Siltstone And Sandstone	Langsettian Sub-age

This data is sourced from the British Geological Survey.

14.6 Bedrock faults and other linear features (10k)

Records within 500m	**17**

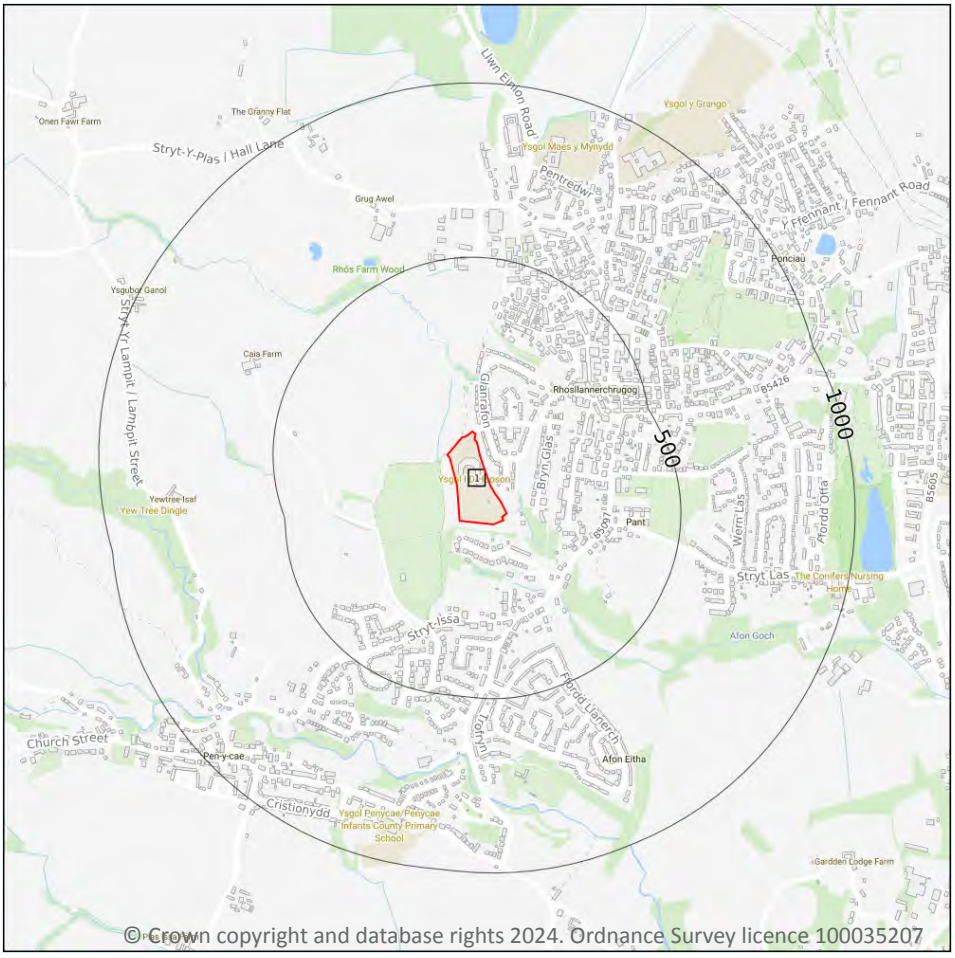
Linear features at the ground or bedrock surface at 1:10,000 scale of six main types; rock, fault, fold axis, mineral vein, alteration area or landform. Features are either observed or inferred, and relate primarily to bedrock.

Features are displayed on the Geology 1:10,000 scale - Bedrock map on **page 93 >**

ID	Location	Category	Description
2	**On site**	**ROCK**	**Coal seam, inferred**
3	22m N	ROCK	Coal seam, inferred
4	78m E	FAULT	Normal fault, inferred; crossmarks on downthrow side
5	79m SE	ROCK	Coal seam, inferred
6	125m SE	ROCK	Coal seam, inferred
7	133m SE	FOSSIL_HORIZON	Fossil horizon, marine band
8	142m E	FOSSIL_HORIZON	Fossil horizon, marine band
9	199m E	ROCK	Coal seam, inferred
10	246m SW	ROCK	Coal seam, inferred
11	256m E	ROCK	Coal seam, inferred
13	298m E	ROCK	Coal seam, inferred
14	346m W	ROCK	Coal seam, inferred
16	385m E	FAULT	Normal fault, inferred; crossmarks on downthrow side
18	432m SW	ROCK	Coal seam, inferred
19	469m NW	ROCK	Coal seam, inferred
20	474m NW	FAULT	Normal fault, inferred; crossmarks on downthrow side
21	493m N	ROCK	Coal seam, inferred

This data is sourced from the British Geological Survey.

15 Geology 1:50,000 scale - Availability



Site Outline

Search buffers in metres (m)

Geological map tile

15.1 50k Availability

Records within 500m	1

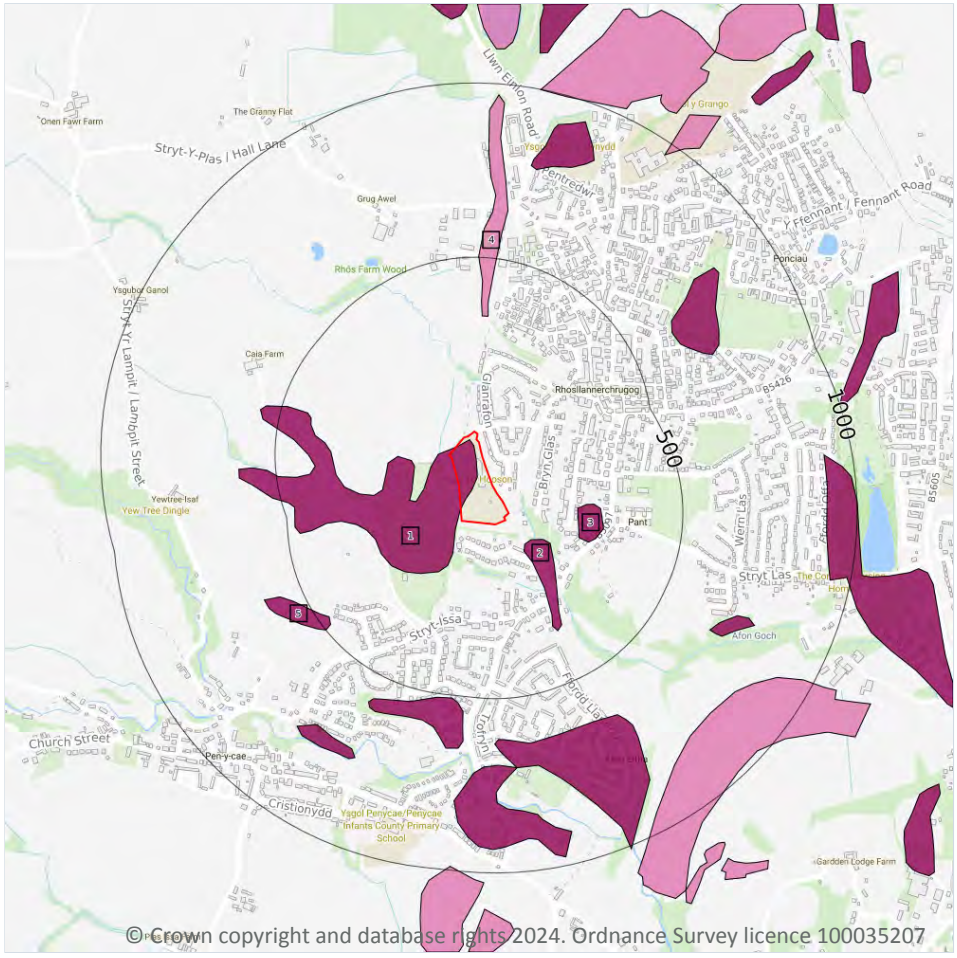
An indication on the coverage of 1:50,000 scale geology data for the site. Either 'Full' or 'No coverage' for each geological theme. Where 50k data is not available, this area has been filled in with 625k scale data.

Features are displayed on the Geology 1:50,000 scale - Availability map on **page 95 >**

ID	Location	Artificial	Superficial	Bedrock	Mass movement	Sheet No.
1	**On site**	**Full**	**Full**	**Full**	**Full**	**EW121_wrexham_v4**

This data is sourced from the British Geological Survey.

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



Site Outline

Search buffers in metres (m)

- Made ground
- Worked ground
- Infilled ground
- Disturbed ground
- Landscaped ground

15.2 Artificial and made ground (50k)

Records within 500m	5

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

Features are displayed on the Geology 1:50,000 scale - Artificial and made ground map on **page 96 >**

ID	Location	LEX Code	Description	Rock description
1	**On site**	**MGR-ARTDP**	**MADE GROUND (UNDIVIDED)**	**ARTIFICIAL DEPOSIT**
2	89m SE	MGR-ARTDP	MADE GROUND (UNDIVIDED)	ARTIFICIAL DEPOSIT
3	199m E	MGR-ARTDP	MADE GROUND (UNDIVIDED)	ARTIFICIAL DEPOSIT
4	332m N	WGR-VOID	WORKED GROUND (UNDIVIDED)	VOID

ID	Location	LEX Code	Description	Rock description
5	469m SW	MGR-ARTDP	MADE GROUND (UNDIVIDED)	ARTIFICIAL DEPOSIT

This data is sourced from the British Geological Survey.

15.3 Artificial ground permeability (50k)

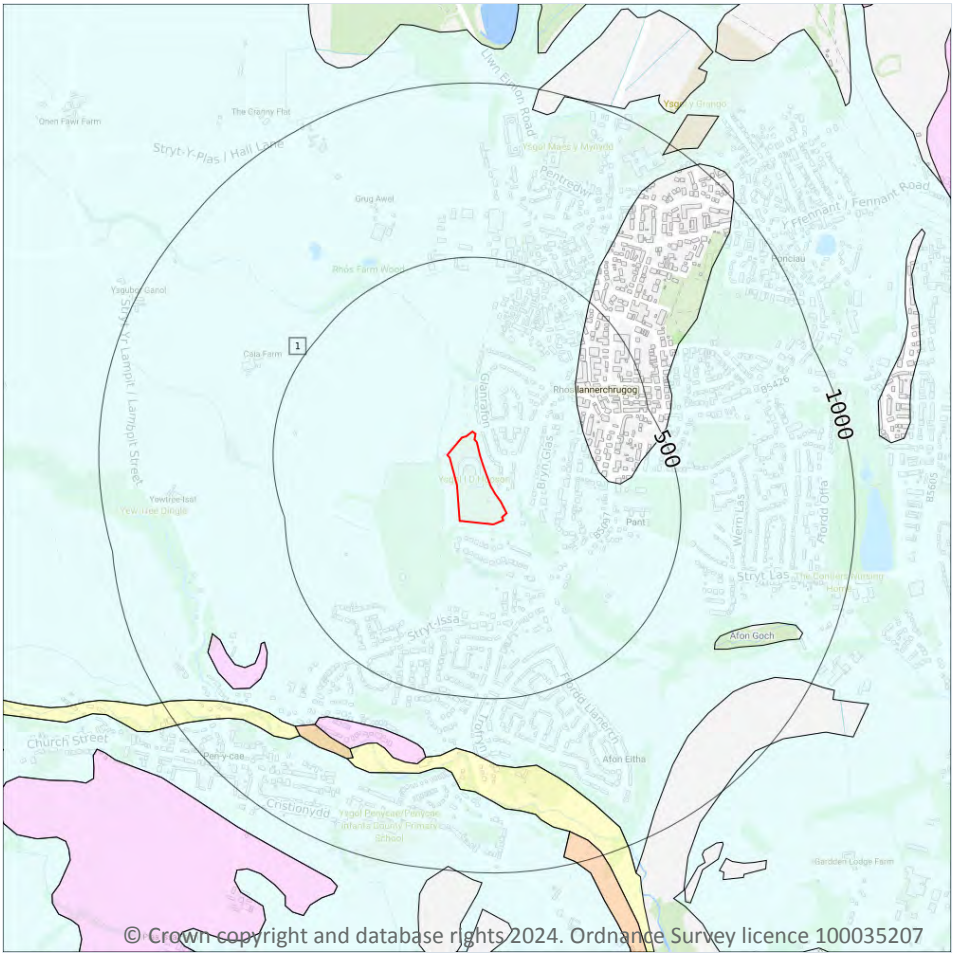
Records within 50m	**1**

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

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

This data is sourced from the British Geological Survey.

Geology 1:50,000 scale - Superficial



Site Outline

Search buffers in metres (m)

Landslip (50k)

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

15.4 Superficial geology (50k)

Records within 500m	1

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 98 >**

ID	Location	LEX Code	Description	Rock description
1	**On site**	**TILLD-DMTN**	**TILL, DEVENSIAN**	**DIAMICTON**

This data is sourced from the British Geological Survey.

15.5 Superficial permeability (50k)

Records within 50m	1

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

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

This data is sourced from the British Geological Survey.

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.

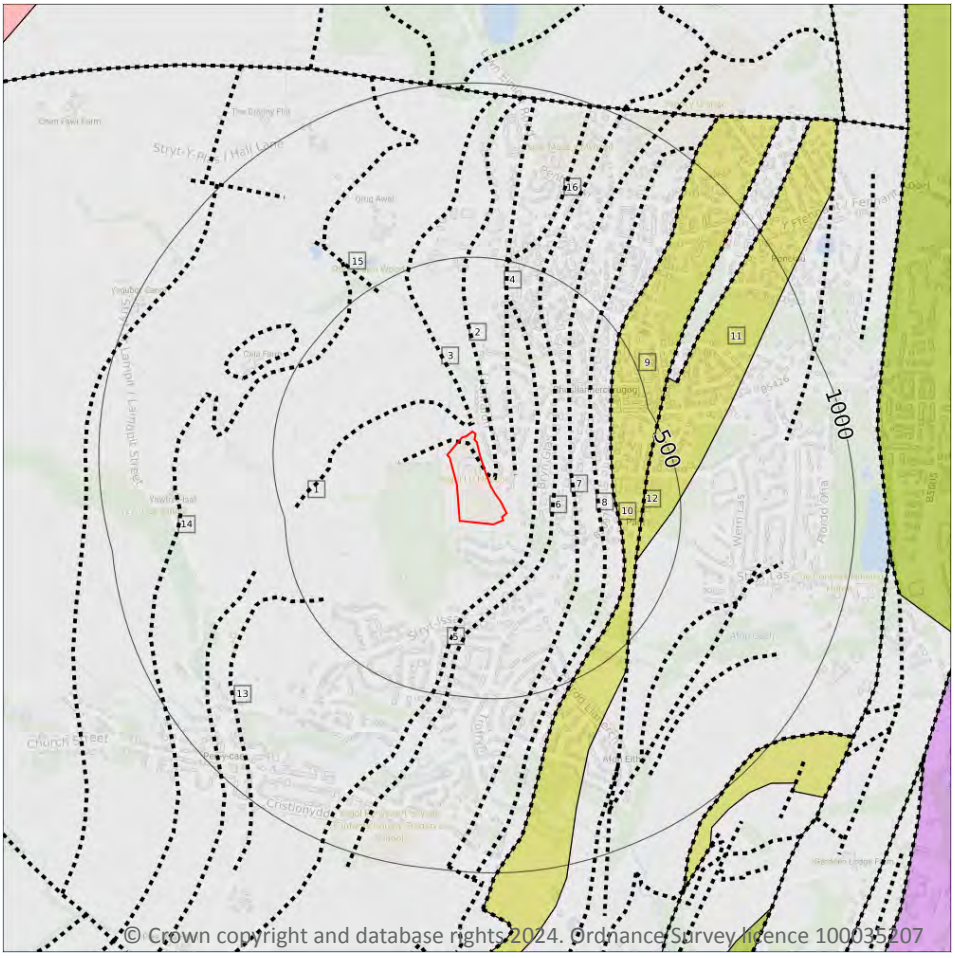
15.7 Landslip permeability (50k)

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 **3**

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 100 >**

ID	Location	LEX Code	Description	Rock age
1	**On site**	**PLMC-MDSS**	**PENNINE LOWER COAL MEASURES FORMATION AND PENNINE MIDDLE COAL MEASURES FORMATION (UNDIFFERENTIATED) - MUDSTONE, SILTSTONE AND SANDSTONE**	**WESTPHALIAN**

ID	Location	LEX Code	Description	Rock age
9	312m E	PLMC-SDST	PENNINE LOWER COAL MEASURES FORMATION AND PENNINE MIDDLE COAL MEASURES FORMATION (UNDIFFERENTIATED) - SANDSTONE	WESTPHALIAN
11	386m E	PLMC-SDST	PENNINE LOWER COAL MEASURES FORMATION AND PENNINE MIDDLE COAL MEASURES FORMATION (UNDIFFERENTIATED) - SANDSTONE	WESTPHALIAN

This data is sourced from the British Geological Survey.

15.9 Bedrock permeability (50k)

Records within 50m **1**

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

Location	Flow type	Maximum permeability	Minimum permeability
On site	**Fracture**	**Moderate**	**Low**

This data is sourced from the British Geological Survey.

15.10 Bedrock faults and other linear features (50k)

Records within 500m **13**

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.

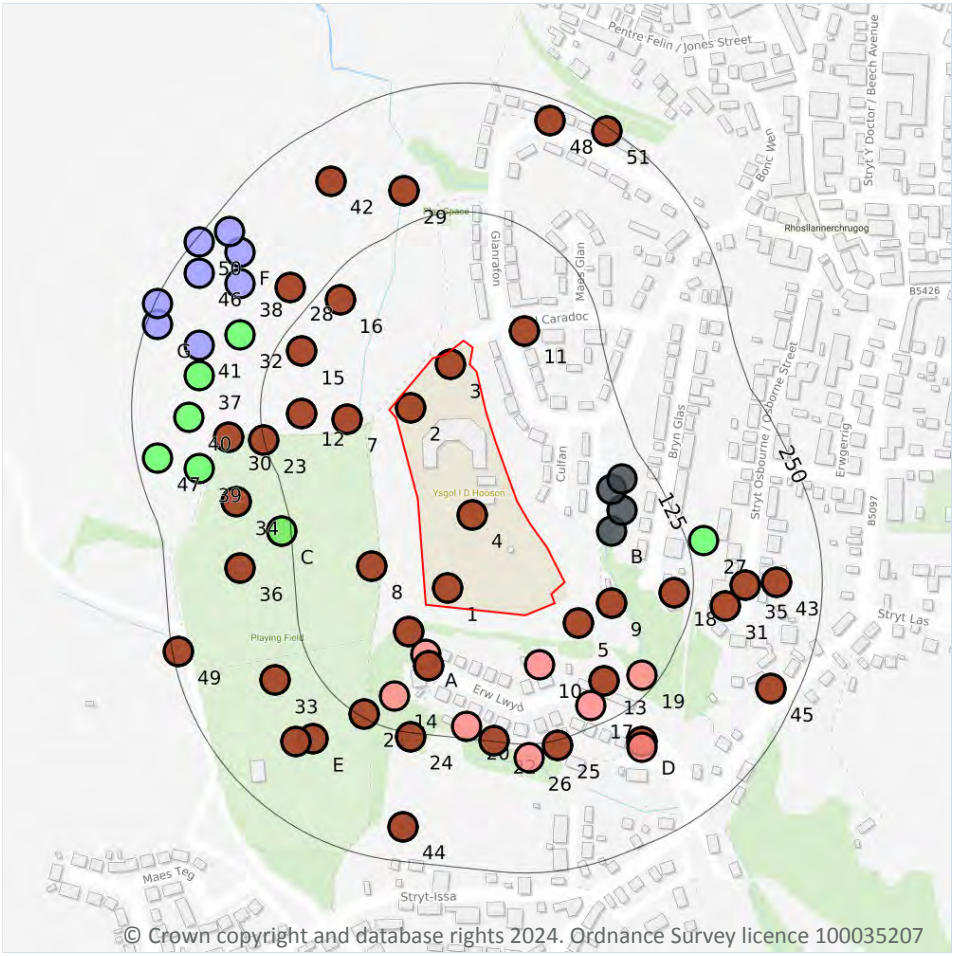
Features are displayed on the Geology 1:50,000 scale - Bedrock map on **page 100 >**

ID	Location	Category	Description
2	**On site**	**ROCK**	**Coal seam, inferred**
3	22m N	ROCK	Coal seam, inferred
4	77m E	FAULT	Fault, inferred, displacement unknown
5	78m SE	ROCK	Coal seam, inferred
6	131m E	ROCK	Coal seam, inferred
7	198m E	ROCK	Coal seam, inferred
8	264m E	ROCK	Coal seam, inferred

ID	Location	Category	Description
10	312m E	ROCK	Coal seam, inferred
12	386m E	FAULT	Fault, inferred, displacement unknown
13	439m SW	ROCK	Coal seam, inferred
14	463m NW	ROCK	Coal seam, inferred
15	470m NW	FAULT	Fault, inferred, displacement unknown
16	497m N	ROCK	Coal seam, inferred

This data is sourced from the British Geological Survey.

16 Boreholes



16.1 BGS Boreholes

Records within 250m **67**

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 103 >**

ID	Location	Grid reference	Name	Length	Confidential	Web link
1	On site	328751 345954	RHOS FARM COLL. SHAFT	-1.0	N	143113 ↗
2	On site	328715 346129	PANT COLL. SHAFT	-1.0	N	143085 ↗
3	On site	328754 346171	PANT COLL. SHAFT	-1.0	N	143086 ↗

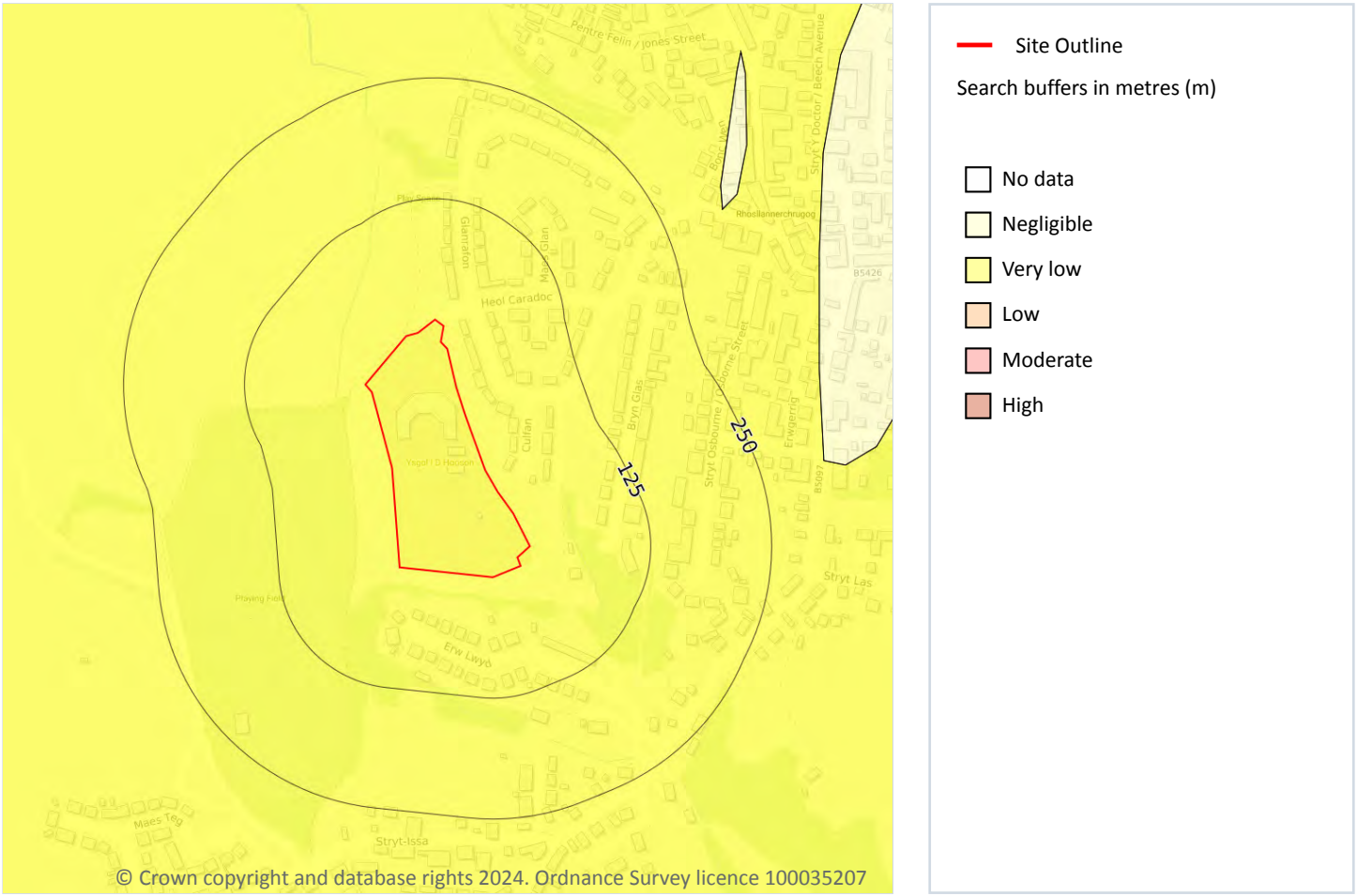
ID	Location	Grid reference	Name	Length	Confidential	Web link
4	**On site**	**328775 346025**	**RHOS FARM COLL. SHAFT**	**-1.0**	**N**	**143088**
5	30m SE	328878 345920	PANT COLL, SHAFT	-1.0	N	143194
6	31m SW	328714 345912	RHOS FARM COLL, SHAFT	-1.0	N	143199
7	42m NW	328654 346118	PANT COLL. SHAFT	-1.0	N	143084
A	48m S	328730 345890	PEN Y CAE 'C' 7	30.48	N	143665
8	49m SW	328678 345976	RHOS FARM COLL, SHAFT	-1.0	N	143198
9	50m SE	328910 345940	UNNAMED SHAFT	-1.0	N	143614
10	50m SE	328840 345880	PEN Y CAE 'C' 5	36.57	N	143663
11	53m N	328826 346204	RHOS FARM COLL. SHAFT	-1.0	N	143087
A	59m S	328733 345879	RHOS FARM COLL. SHAFT	-1.0	N	143114
B	63m E	328910 346010	BRYN Y BRAIN HWS1	-	Y	N/A
B	81m E	328920 346030	BRYN Y BRAIN TP 2	-	Y	N/A
B	83m E	328910 346050	BRYN Y BRAIN WS2	-	Y	N/A
12	85m NW	328610 346124	UNNAMED SHAFT	-1.0	N	143383
13	90m SE	328903 345864	RHOS FARM COLL. NO.2 PIT	-1.0	N	143195
14	93m S	328700 345850	PEN Y CAE 'C' 8	30.48	N	143666
B	97m E	328920 346060	BRYN Y BRAIN WS1	-	Y	N/A
15	102m NW	328610 346184	UNNAMED SHAFT	-1.0	N	143382
16	105m NW	328647 346234	UNNAMED SHAFT	-1.0	N	143381
17	105m SE	328890 345840	PEN Y CAE 'C' 3	30.48	N	143661
18	107m SE	328971 345950	UNNAMED SHAFT	-1.0	N	143318
19	110m SE	328940 345870	PEN Y CAE 'C' 1	30.48	N	143659
20	113m S	328770 345820	PEN Y CAE 'C' 6	33.52	N	143664
21	122m SW	328670 345832	RHOS FARM COLL, SHAFT	-1.0	N	143200
22	125m S	328796 345806	RHOS FARM COLL, SHAFT	-1.0	N	143201
23	125m W	328573 346098	PANT COLL. SHAFT	-1.0	N	143082
24	129m S	328715 345810	RHOS FARM COLL. SHAFT	-1.0	N	143116
25	130m S	328858 345802	UNNAMED SHAFT	-1.0	N	143196

ID	Location	Grid reference	Name	Length	Confidential	Web link
C	134m W	328590 346010	N WALES COKING COAL SURV. BH65	93.0	N	142545 ↗
C	134m W	328590 346010	N WALES COKING COAL SURV. BH66	20.7	N	142546 ↗
26	138m S	328830 345790	PEN Y CAE 'C' 4	36.57	N	143662 ↗
27	141m E	329000 346000	PONKEY NO 4 TRIAL BH	14.63	N	12845249 ↗
28	150m NW	328599 346246	UNNAMED SHAFT	-1.0	N	143380 ↗
29	157m N	328709 346340	UNNAMED SHAFT	-1.0	N	143379 ↗
30	158m W	328539 346101	PANT COLL. SHAFT	-1.0	N	143081 ↗
31	158m SE	329021 345937	UNNAMED SHAFT	-1.0	N	143319 ↗
D	159m SE	328940 345805	RHOS FARM COLL, SHAFT	-1.0	N	143197 ↗
32	162m NW	328550 346200	ERW LLWYD O/C SITE BH25	10.06	N	142716 ↗
33	163m SW	328584 345865	UNNAMED SHAFT	-1.0	N	143224 ↗
D	163m SE	328940 345800	PEN Y CAE 'C' 2	36.57	N	143660 ↗
E	170m SW	328621 345808	UNNAMED SHAFT	-1.0	N	143189 ↗
34	171m W	328546 346038	PANT COLL. SHAFT	-1.0	N	143083 ↗
35	175m E	329040 345957	UNNAMED SHAFT	-1.0	N	143219 ↗
36	177m W	328550 345974	UNNAMED SHAFT	-1.0	N	143229 ↗
E	183m SW	328604 345805	UNNAMED SHAFT	-1.0	N	143225 ↗
37	188m NW	328510 346160	ERW LLWYD O/C SITE BH26	11.0	N	142715 ↗
38	190m NW	328550 346250	ERW LLWYD O/C SITE BH22	6.1	N	142717 ↗
39	193m W	328510 346070	ERW LLWYD O/C SITE BH12	12.19	N	142705 ↗
40	195m W	328500 346120	ERW LLWYD O/C SITE BH201	13.41	N	142738 ↗
41	195m NW	328510 346190	ERW LLWYD O/C SITE BH124	7.92	N	142733 ↗
42	198m NW	328638 346349	UNNAMED SHAFT	-1.0	N	143378 ↗
43	205m E	329070 345960	UNNAMED SHAFT	-1.0	N	143494 ↗
F	209m NW	328550 346280	ERW LLWYD O/C SITE BH24	6.1	N	142718 ↗
44	216m S	328708 345723	UNNAMED SHAFT	-1.0	N	143121 ↗
45	225m SE	329065 345857	UNNAMED SHAFT	-1.0	N	143321 ↗
46	228m NW	328510 346260	ERW LLWYD O/C SITE BH21	6.1	N	142720 ↗

ID	Location	Grid reference	Name	Length	Confidential	Web link
47	230m W	328470 346080	ERW LLWYD O/C SITE BH11	12.19	N	142706 ↗
F	230m NW	328540 346300	ERW LLWYD O/C SITE BH23	4.88	N	142719 ↗
48	230m N	328851 346408	UNNAMED SHAFT	-1.0	N	143384 ↗
G	240m NW	328470 346210	ERW LLWYD O/C SITE BH122	8.0	N	142713 ↗
49	244m SW	328490 345893	RHOS FARM COLL. SHAFT	-1.0	N	143112 ↗
50	246m NW	328510 346290	ERW LLWYD O/C SITE BH20	9.14	N	142721 ↗
51	247m N	328906 346398	UNNAMED SHAFT	-1.0	N	143385 ↗
G	247m NW	328470 346230	ERW LLWYD O/C SITE BH123	8.0	N	142714 ↗

This data is sourced from the British Geological Survey.

17 Natural ground subsidence - Shrink swell clays



17.1 Shrink swell clays

Records within 50m	1

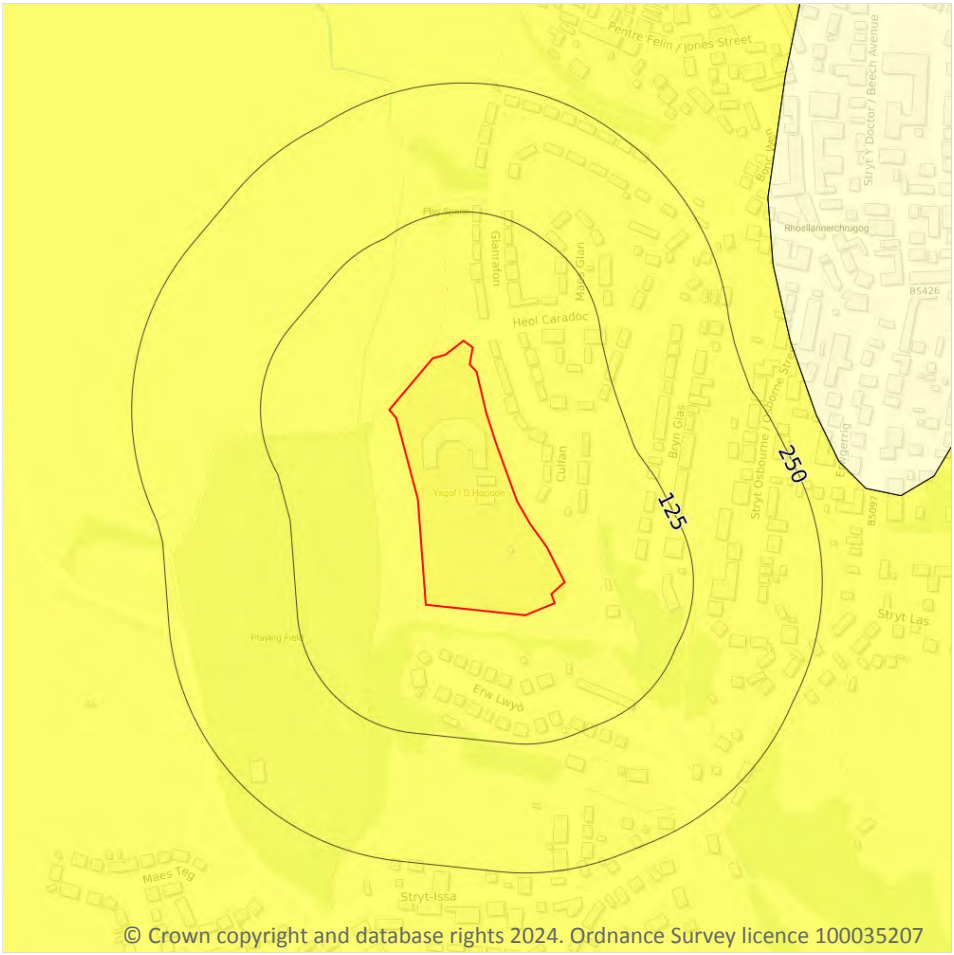
The potential hazard presented by soils that absorb water when wet (making them swell), and lose water as they dry (making them shrink). This shrink-swell behaviour is controlled by the type and amount of clay in the soil, and by seasonal changes in the soil moisture content (related to rainfall and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

Features are displayed on the Natural ground subsidence - Shrink swell clays map on **page 107 >**

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

This data is sourced from the British Geological Survey.

Natural ground subsidence - Running sands



Site Outline

Search buffers in metres (m)

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

17.2 Running sands

Records within 50m	1

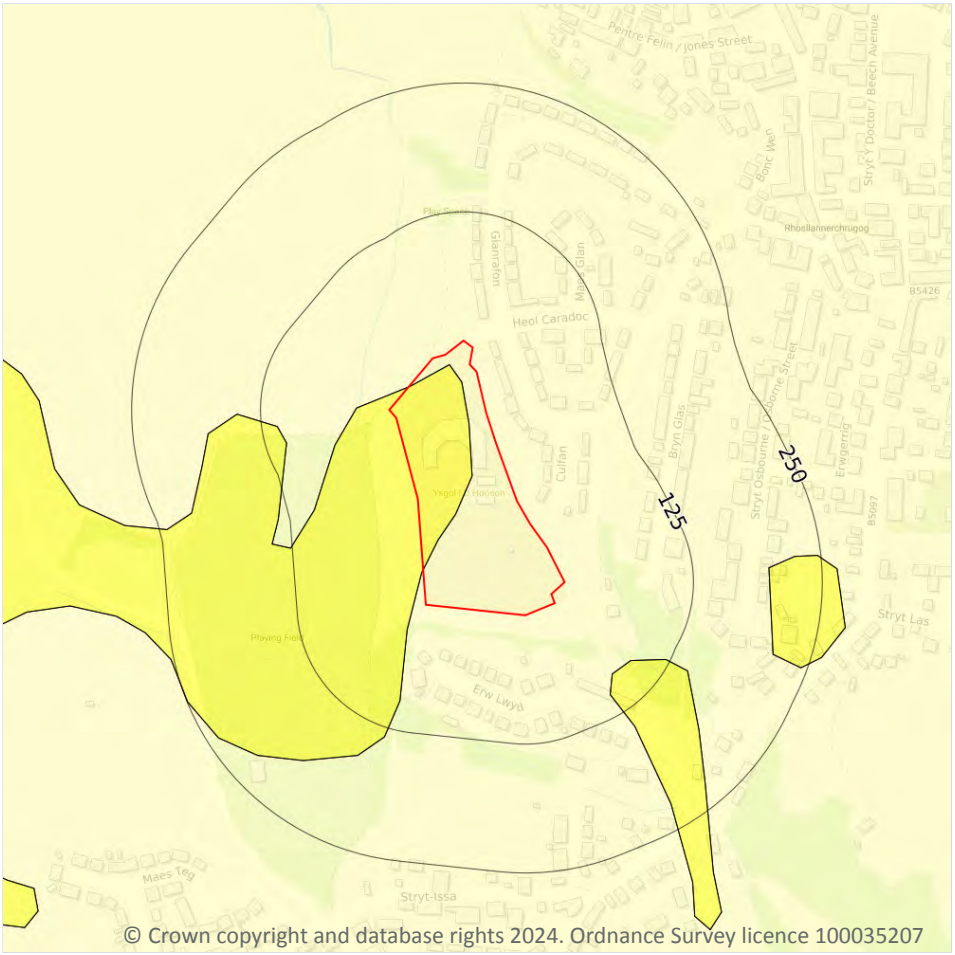
The potential hazard presented by rocks that can contain loosely-packed sandy layers that can become fluidised by water flowing through them. Such sands can 'run', removing support from overlying buildings and causing potential damage.

Features are displayed on the Natural ground subsidence - Running sands map on **page 108 >**

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

This data is sourced from the British Geological Survey.

Natural ground subsidence - Compressible deposits



17.3 Compressible deposits

Records within 50m	2

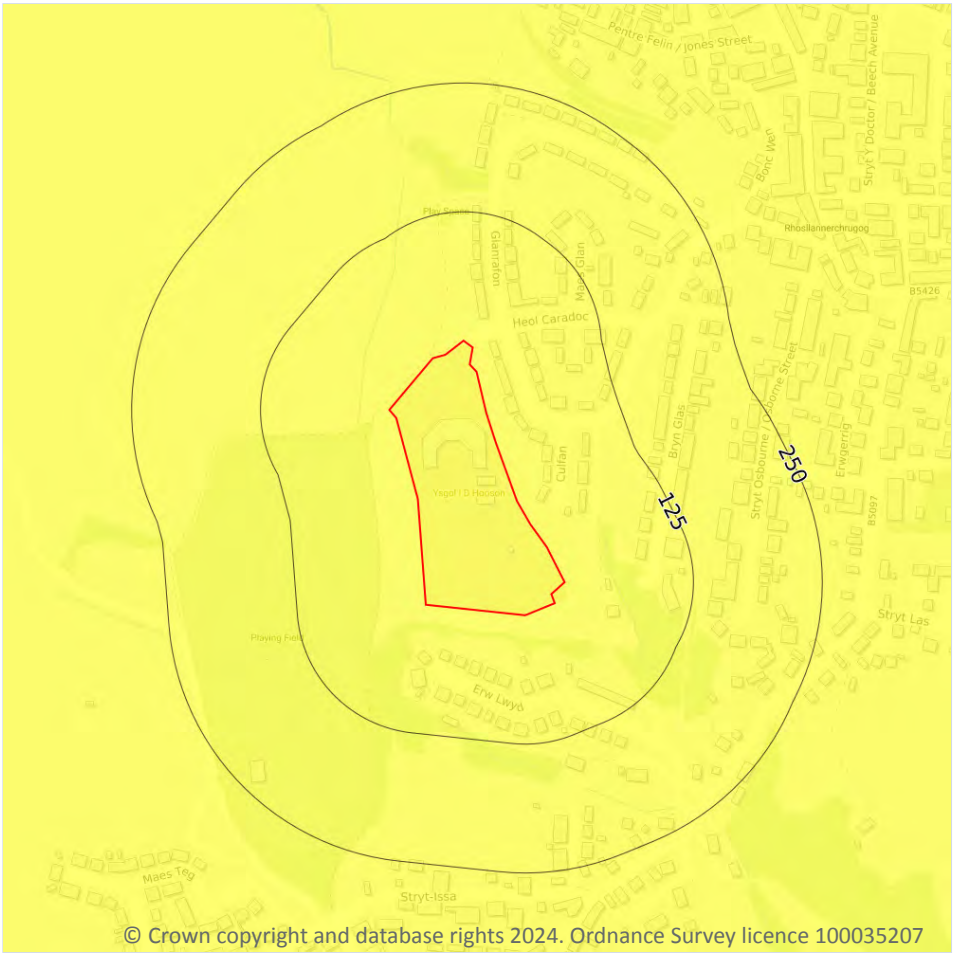
The potential hazard presented by types of ground that may contain layers of very soft materials like clay or peat and may compress if loaded by overlying structures, or if the groundwater level changes, potentially resulting in depression of the ground and disturbance of foundations.

Features are displayed on the Natural ground subsidence - Compressible deposits map on **page 109 >**

Location	Hazard rating	Details
On site	**Negligible**	**Compressible strata are not thought to occur.**
On site	**Very low**	**Compressibility and uneven settlement problems are not likely to be significant on the site for most land uses.**

This data is sourced from the British Geological Survey.

Natural ground subsidence - Collapsible deposits



Site Outline

Search buffers in metres (m)

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

17.4 Collapsible deposits

Records within 50m	1

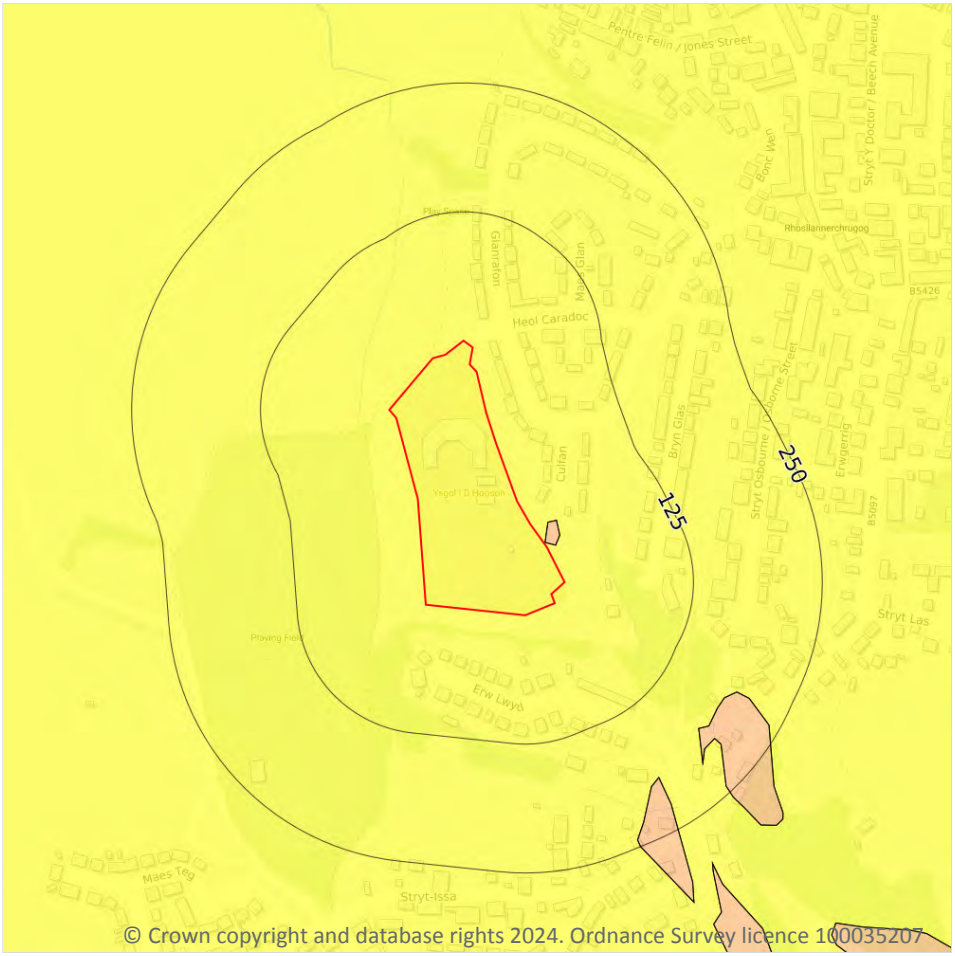
The potential hazard presented by natural deposits that could collapse when a load (such as a building) is placed on them or they become saturated with water.

Features are displayed on the Natural ground subsidence - Collapsible deposits map on **page 111 >**

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

This data is sourced from the British Geological Survey.

Natural ground subsidence - Landslides



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.

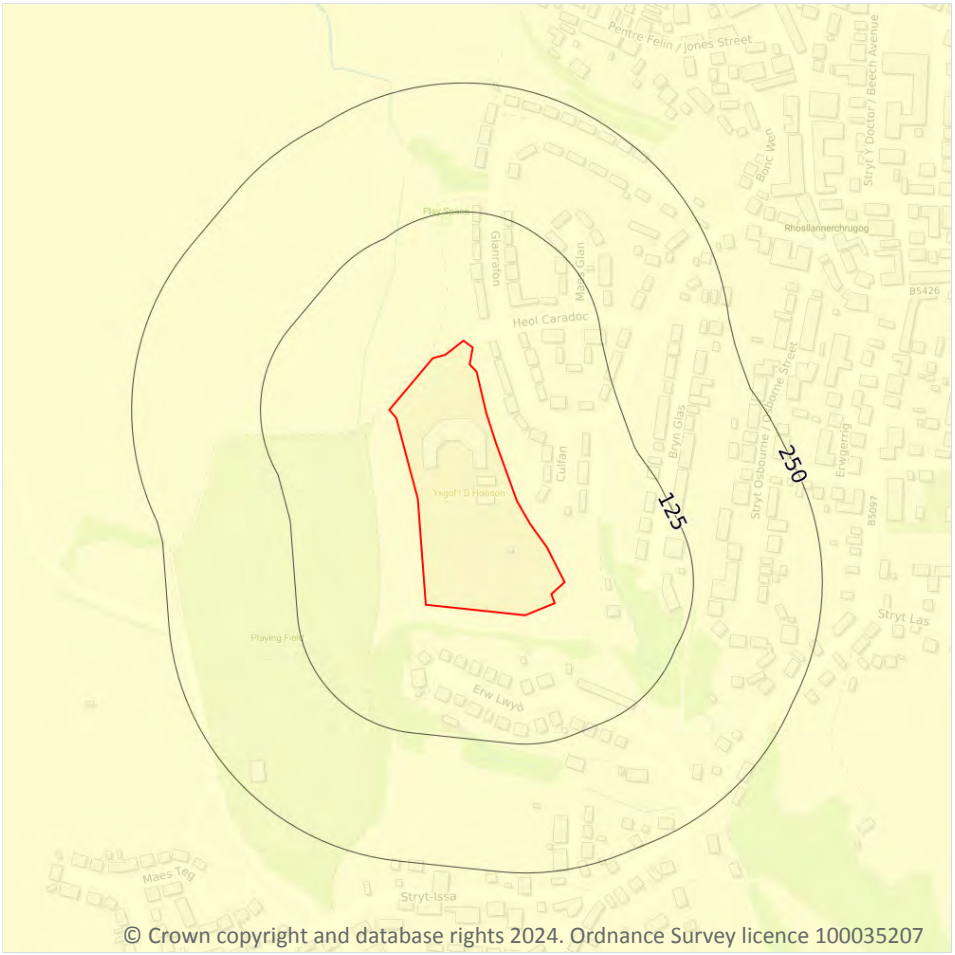
Features are displayed on the Natural ground subsidence - Landslides map on **page 112 >**

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
1m SE	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

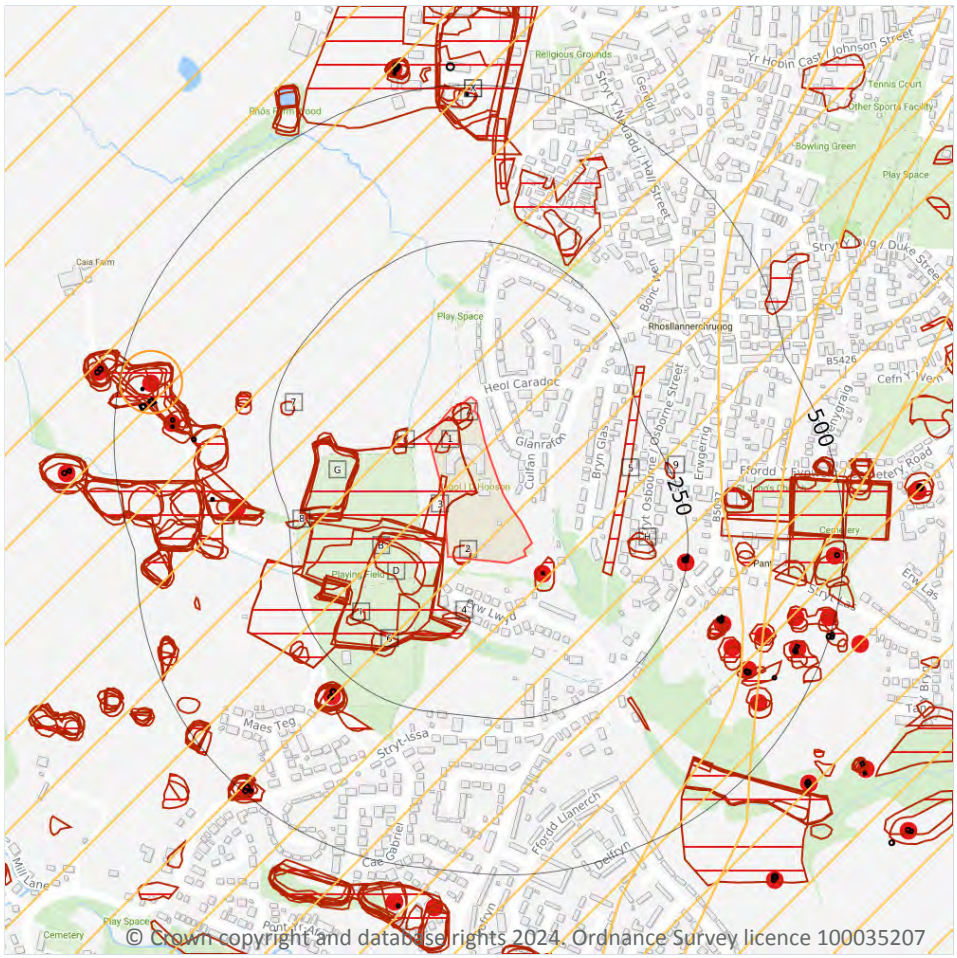
The potential hazard presented by ground dissolution, which occurs when water passing through soluble rocks produces underground cavities and cave systems. These cavities reduce support to the ground above and can cause localised collapse of the overlying rocks and deposits.

Features are displayed on the Natural ground subsidence - Ground dissolution of soluble rocks map on **page 114 >**

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

This data is sourced from the British Geological Survey.

18 Mining and ground workings



Site Outline

Search buffers in metres (m)

- BritPits
- Surface ground workings
- Underground workings
- Underground mining extents
- Historical mineral planning areas
- TCA non-coal mining

Non Coal Mining

- Sporadic underground mining of restricted extent possible
- Localised small scale underground mining possible
- Small scale mining possible
- Underground mining known or likely within or in close proximity
- Underground mining known within or in very close proximity

18.1 BritPits

Records within 500m	17

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 116 >**

ID	Location	Details	Description
E	39m SE	Name: Pant Brick Works Address: Rhosllanerchrugog, WREXHAM, Denbighshire Commodity: Coal, Deep Status: Ceased	Type: Working is wholly underground, access by shaft, adit or drift. Working may be termed Colliery, Mine, Drift Mine, Slant, Level, Adit or Ingoing Eye (Ingaun Ee - Scots) Status description: Site which, at date of entry, has ceased to extract minerals. May be considered as Closed by operator. May be considered to have Active, Dormant or Expired planning permissions by Mineral Planning Authority
J	248m E	Name: Pant Address: Rhosllanerchrugog, WREXHAM, Denbighshire Commodity: Coal, Deep Status: Ceased	Type: Working is wholly underground, access by shaft, adit or drift. Working may be termed Colliery, Mine, Drift Mine, Slant, Level, Adit or Ingoing Eye (Ingaun Ee - Scots) Status description: Site which, at date of entry, has ceased to extract minerals. May be considered as Closed by operator. May be considered to have Active, Dormant or Expired planning permissions by Mineral Planning Authority
L	290m SW	Name: Stryt-issa Address: Penycae, WREXHAM, Denbighshire Commodity: Coal, Deep Status: Ceased	Type: Working is wholly underground, access by shaft, adit or drift. Working may be termed Colliery, Mine, Drift Mine, Slant, Level, Adit or Ingoing Eye (Ingaun Ee - Scots) Status description: Site which, at date of entry, has ceased to extract minerals. May be considered as Closed by operator. May be considered to have Active, Dormant or Expired planning permissions by Mineral Planning Authority
P	321m W	Name: Pant Brick Works Address: Rhosllanerchrugog, WREXHAM, Denbighshire Commodity: Coal, Deep Status: Ceased	Type: Working is wholly underground, access by shaft, adit or drift. Working may be termed Colliery, Mine, Drift Mine, Slant, Level, Adit or Ingoing Eye (Ingaun Ee - Scots) Status description: Site which, at date of entry, has ceased to extract minerals. May be considered as Closed by operator. May be considered to have Active, Dormant or Expired planning permissions by Mineral Planning Authority
U	332m SE	Name: Pant Colliery Pit Address: Pant, Rhosllanerchrugog, WREXHAM, Denbighshire Commodity: Coal, Deep Status: Ceased	Type: Working is wholly underground, access by shaft, adit or drift. Working may be termed Colliery, Mine, Drift Mine, Slant, Level, Adit or Ingoing Eye (Ingaun Ee - Scots) Status description: Site which, at date of entry, has ceased to extract minerals. May be considered as Closed by operator. May be considered to have Active, Dormant or Expired planning permissions by Mineral Planning Authority

ID	Location	Details	Description
U	361m SE	Name: Pant Colliery Pit Address: Pant, Rhosllanerchrugog, WREXHAM, Denbighshire Commodity: Coal, Deep Status: Ceased	Type: Working is wholly underground, access by shaft, adit or drift. Working may be termed Colliery, Mine, Drift Mine, Slant, Level, Adit or Ingoing Eye (Ingaun Ee - Scots) Status description: Site which, at date of entry, has ceased to extract minerals. May be considered as Closed by operator. May be considered to have Active, Dormant or Expired planning permissions by Mineral Planning Authority
U	400m SE	Name: Pant Colliery Pit Address: Pant, Rhosllanerchrugog, WREXHAM, Denbighshire Commodity: Coal, Deep Status: Ceased	Type: Working is wholly underground, access by shaft, adit or drift. Working may be termed Colliery, Mine, Drift Mine, Slant, Level, Adit or Ingoing Eye (Ingaun Ee - Scots) Status description: Site which, at date of entry, has ceased to extract minerals. May be considered as Closed by operator. May be considered to have Active, Dormant or Expired planning permissions by Mineral Planning Authority
U	401m SE	Name: Brandie Pits Shaft Address: Pant, Rhosllanerchrugog, WREXHAM, Denbighshire Commodity: Coal, Deep Status: Ceased	Type: Working is wholly underground, access by shaft, adit or drift. Working may be termed Colliery, Mine, Drift Mine, Slant, Level, Adit or Ingoing Eye (Ingaun Ee - Scots) Status description: Site which, at date of entry, has ceased to extract minerals. May be considered as Closed by operator. May be considered to have Active, Dormant or Expired planning permissions by Mineral Planning Authority
C	409m W	Name: Pant Brick Works Address: Rhosllanerchrugog, WREXHAM, Denbighshire Commodity: Coal, Deep Status: Ceased	Type: Working is wholly underground, access by shaft, adit or drift. Working may be termed Colliery, Mine, Drift Mine, Slant, Level, Adit or Ingoing Eye (Ingaun Ee - Scots) Status description: Site which, at date of entry, has ceased to extract minerals. May be considered as Closed by operator. May be considered to have Active, Dormant or Expired planning permissions by Mineral Planning Authority
U	439m E	Name: Brandie Pits Shaft Address: Stryt Las, Rhosllanerchrugog, WREXHAM, Denbighshire Commodity: Coal, Deep Status: Ceased	Type: Working is wholly underground, access by shaft, adit or drift. Working may be termed Colliery, Mine, Drift Mine, Slant, Level, Adit or Ingoing Eye (Ingaun Ee - Scots) Status description: Site which, at date of entry, has ceased to extract minerals. May be considered as Closed by operator. May be considered to have Active, Dormant or Expired planning permissions by Mineral Planning Authority

ID	Location	Details	Description
U	441m SE	Name: Brandie Pits Shaft Address: Pant, Rhosllanerchrugog, WREXHAM, Denbighshire Commodity: Coal, Deep Status: Ceased	Type: Working is wholly underground, access by shaft, adit or drift. Working may be termed Colliery, Mine, Drift Mine, Slant, Level, Adit or Ingoing Eye (Ingaun Ee - Scots) Status description: Site which, at date of entry, has ceased to extract minerals. May be considered as Closed by operator. May be considered to have Active, Dormant or Expired planning permissions by Mineral Planning Authority
C	450m W	Name: Pant Brick Works Address: Rhosllanerchrugog, WREXHAM, Denbighshire Commodity: Coal, Deep Status: Ceased	Type: Working is wholly underground, access by shaft, adit or drift. Working may be termed Colliery, Mine, Drift Mine, Slant, Level, Adit or Ingoing Eye (Ingaun Ee - Scots) Status description: Site which, at date of entry, has ceased to extract minerals. May be considered as Closed by operator. May be considered to have Active, Dormant or Expired planning permissions by Mineral Planning Authority
C	450m W	Name: Pant Brick Works Address: Rhosllanerchrugog, WREXHAM, Denbighshire Commodity: Clay & Shale Status: Ceased	Type: Working is wholly underground, access by shaft, adit or drift. Working may be termed Colliery, Mine, Drift Mine, Slant, Level, Adit or Ingoing Eye (Ingaun Ee - Scots) Status description: Site which, at date of entry, has ceased to extract minerals. May be considered as Closed by operator. May be considered to have Active, Dormant or Expired planning permissions by Mineral Planning Authority
U	458m SE	Name: Brandie Pits Shaft Address: Stryt Las, Rhosllanerchrugog, WREXHAM, Denbighshire Commodity: Coal, Deep Status: Ceased	Type: Working is wholly underground, access by shaft, adit or drift. Working may be termed Colliery, Mine, Drift Mine, Slant, Level, Adit or Ingoing Eye (Ingaun Ee - Scots) Status description: Site which, at date of entry, has ceased to extract minerals. May be considered as Closed by operator. May be considered to have Active, Dormant or Expired planning permissions by Mineral Planning Authority
U	485m E	Name: Pant Address: Rhosllanerchrugog, WREXHAM, Denbighshire Commodity: Coal, Deep Status: Ceased	Type: Working is wholly underground, access by shaft, adit or drift. Working may be termed Colliery, Mine, Drift Mine, Slant, Level, Adit or Ingoing Eye (Ingaun Ee - Scots) Status description: Site which, at date of entry, has ceased to extract minerals. May be considered as Closed by operator. May be considered to have Active, Dormant or Expired planning permissions by Mineral Planning Authority

ID	Location	Details	Description
U	491m E	Name: Brandie Pits Shaft Address: Stryt Las, Rhosllanerchrugog, WREXHAM, Denbighshire Commodity: Coal, Deep Status: Ceased	Type: Working is wholly underground, access by shaft, adit or drift. Working may be termed Colliery, Mine, Drift Mine, Slant, Level, Adit or Ingoing Eye (Ingaun Ee - Scots) Status description: Site which, at date of entry, has ceased to extract minerals. May be considered as Closed by operator. May be considered to have Active, Dormant or Expired planning permissions by Mineral Planning Authority
AD	496m SW	Name: Berwyn View Address: Penycae, WREXHAM, Denbighshire Commodity: Coal, Deep Status: Ceased	Type: Working is wholly underground, access by shaft, adit or drift. Working may be termed Colliery, Mine, Drift Mine, Slant, Level, Adit or Ingoing Eye (Ingaun Ee - Scots) Status description: Site which, at date of entry, has ceased to extract minerals. May be considered as Closed by operator. May be considered to have Active, Dormant or Expired planning permissions by Mineral Planning Authority

This data is sourced from the British Geological Survey.

18.2 Surface ground workings

Records within 250m **43**

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 116 >**

ID	Location	Land Use	Year of mapping	Mapping scale
1	**On site**	**Unspecified Heap**	**1873**	**1:10560**
2	**On site**	**Unspecified Heap**	**1873**	**1:10560**
3	**On site**	**Unspecified Heap**	**1976**	**1:10000**
A	**On site**	**Unspecified Heap**	**1873**	**1:10560**
A	**On site**	**Unspecified Heap**	**1938**	**1:10560**
A	**On site**	**Unspecified Heap**	**1938**	**1:10560**
B	**On site**	**Brick Works**	**1938**	**1:10560**
B	**On site**	**Brick Works**	**1938**	**1:10560**
D	2m SW	Brick Works	1898	1:10560
D	4m SW	Brick Works	1909	1:10560

ID	Location	Land Use	Year of mapping	Mapping scale
D	5m SW	Brick Works	1949	1:10560
D	5m SW	Brick Works	1873	1:10560
D	11m SW	Unspecified Heap	1898	1:10560
E	29m SE	Unspecified Heap	1873	1:10560
F	30m NW	Unspecified Heap	1873	1:10560
F	32m NW	Unspecified Heap	1949	1:10560
F	32m NW	Unspecified Heap	1898	1:10560
D	41m SW	Unspecified Heap	1873	1:10560
4	88m S	Unspecified Ground Workings	1898	1:10560
D	89m SW	Unspecified Heap	1873	1:10560
G	112m W	Unspecified Heap	1938	1:10560
G	112m W	Unspecified Heap	1938	1:10560
G	113m W	Unspecified Heap	1898	1:10560
G	113m W	Unspecified Heap	1976	1:10000
G	113m W	Unspecified Heap	1960	1:10560
G	113m W	Unspecified Heap	1909	1:10560
G	115m W	Unspecified Heap	1949	1:10560
G	116m W	Unspecified Heap	1873	1:10560
5	121m SE	Cuttings	1873	1:10560
H	154m E	Unspecified Heap	1898	1:10560
H	155m E	Unspecified Heap	1873	1:10560
6	155m SW	Unspecified Heap	1873	1:10560
I	161m SW	Unspecified Heap	1976	1:10000
I	162m SW	Reservoir	1949	1:10560
I	162m SW	Reservoir	1898	1:10560
I	164m SW	Pond	1873	1:10560
I	165m SW	Reservoir	1909	1:10560
I	166m SW	Reservoir	1938	1:10560

ID	Location	Land Use	Year of mapping	Mapping scale
I	168m SW	Pond	1976	1:10000
I	168m SW	Pond	1960	1:10560
7	216m NW	Unspecified Heap	1873	1:10560
8	224m W	Unspecified Heap	1873	1:10560
9	243m E	Unspecified Ground Workings	1873	1:10560

This is data is sourced from Ordnance Survey/Groundsure.

18.3 Underground workings

Records within 1000m	**80**

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

Features are displayed on the Mining and ground workings map on **page 116 >**

ID	Location	Land Use	Year of mapping	Mapping scale
E	37m SE	Coal Shaft	1873	1:10560
J	242m E	Old Coal Shaft	1949	1:10560
J	244m E	Unspecified Old Shaft	1960	1:10560
J	246m E	Unspecified Old Shaft	1898	1:10560
L	280m SW	Old Coal Shaft	1949	1:10560
L	280m SW	Unspecified Old Shaft	1898	1:10560
L	290m SW	Unspecified Old Shaft	1960	1:10560
U	321m SE	Old Coal Shaft	1949	1:10560
U	324m SE	Unspecified Old Shaft	1960	1:10560
U	325m SE	Unspecified Old Shaft	1898	1:10560
P	353m W	Coal Shaft	1873	1:10560
C	369m W	Unspecified Shaft	1960	1:10560
U	396m SE	Old Coal Shaft	1949	1:10560
U	398m SE	Unspecified Old Shaft	1960	1:10560
C	405m W	Coal Shaft	1873	1:10560

ID	Location	Land Use	Year of mapping	Mapping scale
C	405m W	Unspecified Shaft	1898	1:10560
C	436m W	Clay Shaft	1949	1:10560
C	438m W	Unspecified Shaft	1960	1:10560
U	441m SE	Unspecified Old Shaft	1898	1:10560
C	450m W	Unspecified Shaft	1949	1:10560
C	450m W	Unspecified Shaft	1960	1:10560
U	453m SE	Old Coal Shafts	1949	1:10560
U	453m SE	Unspecified Old Shafts	1898	1:10560
U	455m SE	Unspecified Old Shafts	1960	1:10560
C	459m W	Coal Shaft	1873	1:10560
X	484m N	Coal Shaft	1873	1:10560
AD	486m SW	Old Coal Shaft	1949	1:10560
AD	486m SW	Unspecified Old Shaft	1898	1:10560
U	486m E	Unspecified Old Shaft	1898	1:10560
AD	488m SW	Coal Shaft	1873	1:10560
AD	493m SW	Unspecified Old Shaft	1960	1:10560
U	495m E	Old Coal Shafts	1949	1:10560
U	499m E	Unspecified Old Shafts	1898	1:10560
U	501m E	Unspecified Old Shafts	1960	1:10560
X	525m N	Unspecified Disused Shaft	1976	1:10000
C	530m W	Old Coal Shaft	1949	1:10560
C	530m W	Unspecified Old Shaft	1898	1:10560
X	531m N	Coal Shaft	1873	1:10560
C	533m W	Unspecified Old Shaft	1960	1:10560
X	535m N	Unspecified Old Shaft	1960	1:10560
X	537m N	Unspecified Disused Shaft	1976	1:10000
X	539m N	Old Coal Shaft	1949	1:10560
X	539m N	Unspecified Old Shaft	1898	1:10560

ID	Location	Land Use	Year of mapping	Mapping scale
AF	563m S	Coal Shaft	1873	1:10560
AI	571m W	Old Coal Shaft	1949	1:10560
AI	571m W	Unspecified Old Shaft	1898	1:10560
AK	576m SE	Old Coal Shaft	1949	1:10560
AK	576m SE	Unspecified Old Shafts	1898	1:10560
AK	576m SE	Unspecified Disused Shaft	1976	1:10000
AI	578m W	Unspecified Old Shaft	1960	1:10560
AK	581m SE	Unspecified Old Shaft	1960	1:10560
AM	624m E	Unspecified Disused Shaft	1976	1:10000
AM	626m E	Unspecified Old Shaft	1898	1:10560
AP	630m SE	Unspecified Old Shafts	1898	1:10560
-	632m S	Old Coal Shaft	1949	1:10560
-	632m S	Unspecified Old Shaft	1898	1:10560
AP	643m SE	Coal Shaft	1873	1:10560
AR	646m SE	Unspecified Disused Shaft	1976	1:10000
AR	648m SE	Old Coal Shaft	1949	1:10560
AR	648m SE	Unspecified Old Shaft	1898	1:10560
AR	651m SE	Unspecified Old Shaft	1960	1:10560
-	730m E	Old Coal Shaft	1949	1:10560
-	730m E	Unspecified Old Shaft	1898	1:10560
-	734m E	Unspecified Old Shaft	1960	1:10560
AT	741m SE	Unspecified Old Shaft	1960	1:10560
AT	750m SE	Unspecified Old Shaft	1949	1:10560
AT	756m SE	Unspecified Old Shaft	1960	1:10560
-	807m S	Colliery	1873	1:10560
-	823m S	Colliery	1873	1:10560
-	839m S	Unspecified Old Shafts	1898	1:10560
-	846m S	Unspecified Old Shafts	1960	1:10560

ID	Location	Land Use	Year of mapping	Mapping scale
-	847m S	Old Coal Shafts	1949	1:10560
-	857m S	Unspecified Shaft	1873	1:10560
-	911m S	Unspecified Old Shafts	1898	1:10560
-	915m S	Old Coal Shafts	1949	1:10560
-	917m S	Unspecified Old Shafts	1960	1:10560
-	928m S	Unspecified Shaft	1873	1:10560
-	966m SE	Coal Shaft	1873	1:10560
-	967m SE	Unspecified Old Shafts	1898	1:10560
-	982m S	Coal Shaft	1873	1:10560

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	**10**

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 116 >**

ID	Location	Name	Commodity	Class	Likelihood
C	**On site**	**Not available**	**Iron Ore (Bedded)**	**B**	**Underground mine workings may have occurred in the past or current mines may be working at significant depth to modern engineering standards. Potential for difficult ground conditions are unlikely and are at a level where they need not be considered.**
11	312m E	Not available	Iron Ore (Bedded)	B	Underground mine workings may have occurred in the past or current mines may be working at significant depth to modern engineering standards. Potential for difficult ground conditions are unlikely and are at a level where they need not be considered.
V	386m E	Not available	Iron Ore (Bedded)	B	Underground mine workings may have occurred in the past or current mines may be working at significant depth to modern engineering standards. Potential for difficult ground conditions are unlikely and are at a level where they need not be considered.
13	396m SE	Not available	Iron Ore (Bedded)	B	Underground mine workings may have occurred in the past or current mines may be working at significant depth to modern engineering standards. Potential for difficult ground conditions are unlikely and are at a level where they need not be considered.
C	400m W	Pant Brick works	Clay and Shale	C	Underground mine workings may have occurred in the past, or current mines may be operating to modern engineering standards. Potential for difficult ground conditions should be considered.
18	574m NE	Not available	Iron Ore (Bedded)	B	Underground mine workings may have occurred in the past or current mines may be working at significant depth to modern engineering standards. Potential for difficult ground conditions are unlikely and are at a level where they need not be considered.
-	928m S	Not available	Iron Ore (Bedded)	B	Underground mine workings may have occurred in the past or current mines may be working at significant depth to modern engineering standards. Potential for difficult ground conditions are unlikely and are at a level where they need not be considered.
-	930m S	Not available	Iron Ore (Bedded)	B	Underground mine workings may have occurred in the past or current mines may be working at significant depth to modern engineering standards. Potential for difficult ground conditions are unlikely and are at a level where they need not be considered.

ID	Location	Name	Commodity	Class	Likelihood
-	968m N	Not available	Iron Ore (Bedded)	B	Underground mine workings may have occurred in the past or current mines may be working at significant depth to modern engineering standards. Potential for difficult ground conditions are unlikely and are at a level where they need not be considered.
-	980m SE	Not available	Iron Ore (Bedded)	B	Underground mine workings may have occurred in the past or current mines may be working at significant depth to modern engineering standards. Potential for difficult ground conditions are unlikely and are at a level where they need not be considered.

This data is sourced from the British Geological Survey.

18.7 JPB mining areas

Records on site	0

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

This data is sourced from Johnson Poole and Bloomer.

18.8 The Coal Authority non-coal mining

Records within 500m	0

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

This data is sourced from The Coal Authority.

18.9 Researched mining

Records within 500m	0

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

This data is sourced from Groundsure.

18.10 Mining record office plans

Records within 500m	0

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

This data is sourced from Groundsure.

18.11 BGS mine plans

Records within 500m	0

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

This data is sourced from Groundsure.

18.12 Coal mining

Records on site	1

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

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

This data is sourced from the Coal Authority.

18.13 Brine areas

Records on site	0

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

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

18.14 Gypsum areas

Records on site	0

Generalised areas that may be affected by gypsum extraction.

This data is sourced from British Gypsum.

18.15 Tin mining

Records on site	0

Generalised areas that may be affected by historical tin mining.

This data is sourced from Groundsure.

18.16 Clay mining

Records on site	0

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

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

19 Ground cavities and sinkholes

19.1 Natural cavities

Records within 500m	0

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

This data is sourced from Stantec UK Ltd.

19.2 Mining cavities

Records within 1000m	0

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

This data is sourced from Stantec UK Ltd.

19.3 Reported recent incidents

Records within 500m	0

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

This data is sourced from Groundsure.

19.4 Historical incidents

Records within 500m	0

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

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

This data is sourced from Groundsure.

19.5 National karst database

Records within 500m	0

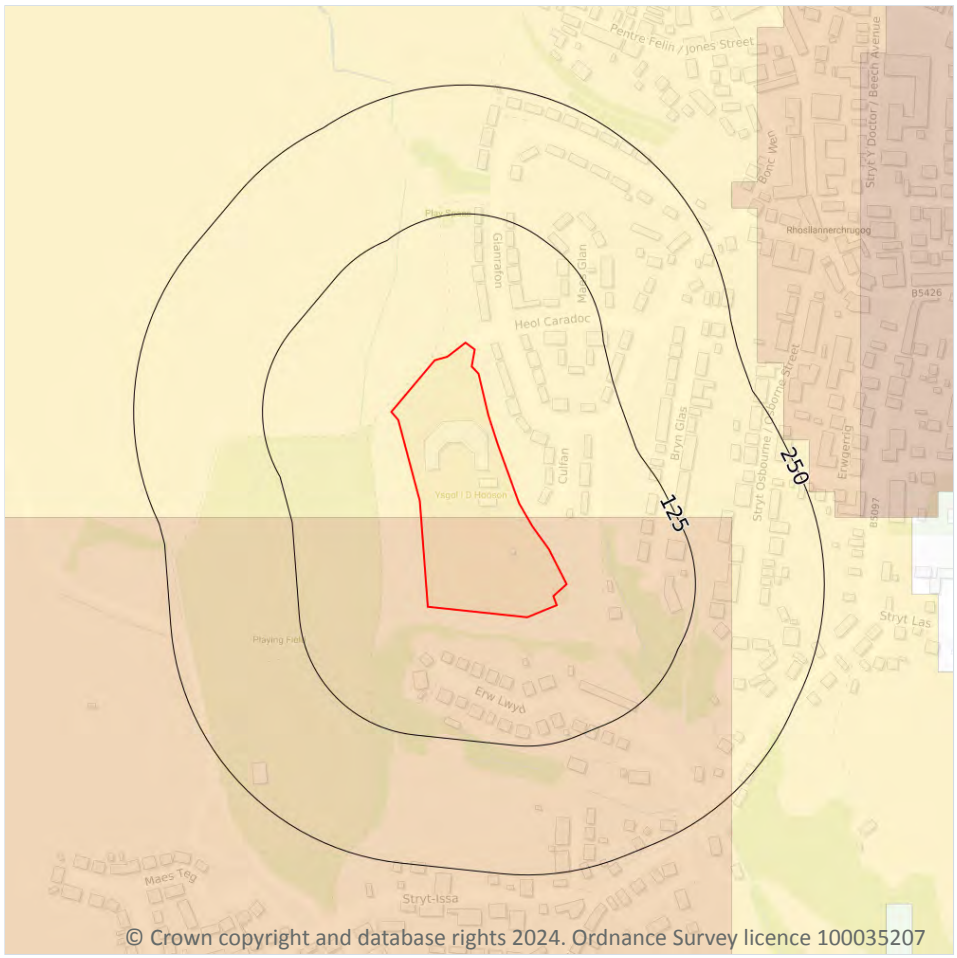
This is a comprehensive database of national karst information gathered from a wide range of sources. BGS have collected data on five main types of karst feature: Sinkholes, stream links, caves, springs, and incidences of associated damage to buildings, roads, bridges and other engineered works.

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



Site Outline

Search buffers in metres (m)

- Greater than 30%
- Between 10% and 30%
- Between 5% and 10%
- Between 3% and 5%
- Between 1% and 3%
- Less than 1%

20.1 Radon

Records on site	2

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 132 >**

Location	Estimated properties affected	Radon Protection Measures required
On site	**Between 1% and 3%**	**None**

Location	Estimated properties affected	Radon Protection Measures required
On site	**Between 5% and 10%**	**Basic**

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

21 Soil chemistry

21.1 BGS Estimated Background Soil Chemistry

Records within 50m	2

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

Location	Arsenic	Bioaccessible Arsenic	Lead	Bioaccessible Lead	Cadmium	Chromium	Nickel
On site	**15 mg/kg**	**No data**	**100 mg/kg**	**60 mg/kg**	**1.8 mg/kg**	**60 - 90 mg/kg**	**15 mg/kg**
On site	**15 mg/kg**	**No data**	**100 mg/kg**	**60 mg/kg**	**1.8 mg/kg**	**60 - 90 mg/kg**	**15 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 km^2).

This data is sourced from the British Geological Survey.

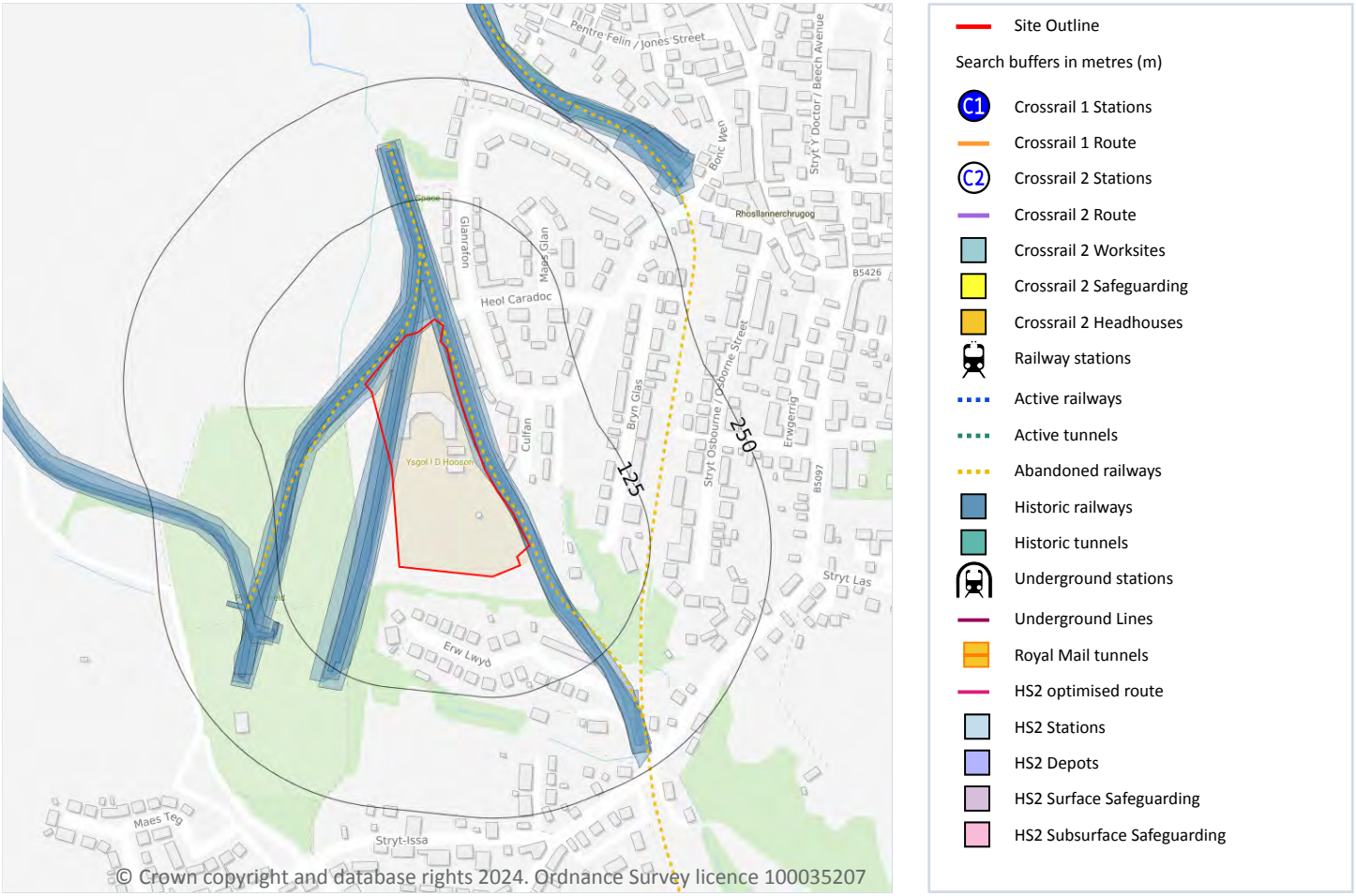
21.3 BGS Measured Urban Soil Chemistry

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 km^2.

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	0

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	24

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.

Features are displayed on the Railway infrastructure and projects map on **page 135 >**

Location	Land Use	Year of mapping	Mapping scale
On site	**Mineral Railway Sidings**	**1900**	**2500**
On site	**Mineral Railway Sidings**	**1912**	**2500**
On site	**Mineral Railway Sidings**	**1963**	**2500**
On site	**Mineral Railway Sidings**	**1949**	**10560**
On site	**Mineral Railway Sidings**	**1898**	**10560**
On site	**Mineral Railway Sidings**	**1960**	**10560**
On site	**Mineral Railway Sidings**	**1938**	**10560**
On site	**Mineral Railway Sidings**	**1909**	**10560**
16m SW	Mineral Railway Sidings	1964	2500
25m SW	Railway Sidings	1912	2500
109m W	Mineral Railway Sidings	1964	2500
110m SW	Railway Sidings	1900	2500
111m SW	Mineral Railway Sidings	1912	2500
135m SW	Tramway Sidings	1898	10560
137m SW	Railway Sidings	1964	2500
138m SW	Tramway Sidings	1909	10560
138m SW	Tramway Sidings	1912	2500

Location	Land Use	Year of mapping	Mapping scale
145m SW	Tramway Sidings	1938	10560
175m SE	Railway Sidings	1873	2500
183m W	Tramway Sidings	1912	2500
184m W	Tramway Sidings	1900	2500
247m N	Disused Railway Sidings	1960	10560
248m N	Tramway Sidings	1949	10560
250m N	Railway Sidings	1938	10560

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	3

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

Features are displayed on the Railway infrastructure and projects map on **page 135 >**

Location	Description
On site	**Abandoned**
4m N	Abandoned
123m SE	Abandoned

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: www.groundsure.com/terms-and-conditions-april-2023/ ↗.