

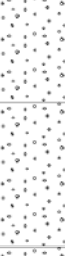


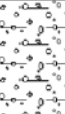

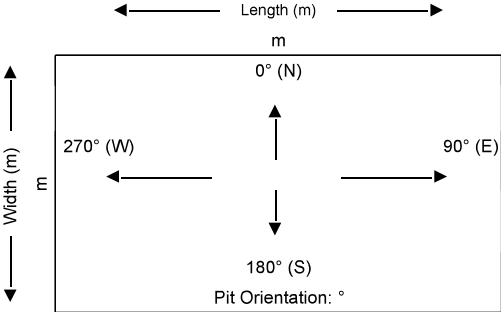





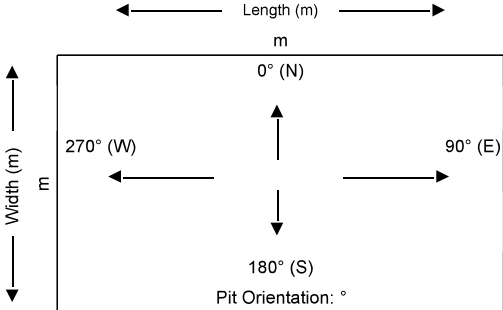
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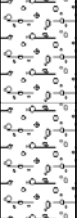

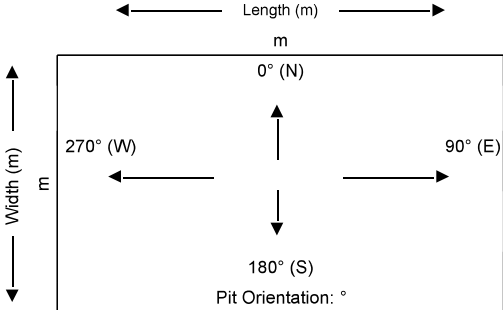


## **Appendix D**

### **Exploratory Hole Logs**

	Contract Name: Aberthaw Quarry			Client: RWE Generation		Trial Pit ID: TP01			
	Contract Number: JFR2782	Start Date: 31/10/2022	End Date: 31/10/2022	Checked By:	Status: DRAFT	Sheet 1 of 1			
Trial Pit Log	Easting: 304313.0	Northing: 167152.0	Ground Level: 44.18mOD	Plant Used:	Logged By:	Scale: 1:50			
	Hole Termination: Target depth achieved.								
Samples & In Situ Testing				Strata Details			Water	Backfill	
Depths	Type/Ref	Testing	Level (mAOD)	Depth (m) (Thickness)	Legend	Strata Description			
				(1.90)		Probably medium dense dark grey to black ashy silty SAND. PULVERISED FUEL ASH	1		
			42.28	1.90 (0.70)		Probably medium dense dark grey to black slightly silty sandy angular medium GRAVEL of limestone (Drainage Layer). MADE GROUND	2		
			41.58	2.60 (0.80)		Probably dense dark grey slightly clayey slightly sandy slightly gravelly subangular to angular COBBLES and BOULDERS of limestone with pockets of gravelly clay. Gravel is fine to coarse angular mudstone and limestone. MADE GROUND <i>2.6m: Geotextile.</i>	3		
			40.78	3.40		End of Trial Pit at 3.40m	4		
							5		
							6		
							7		
Dimensions:						General Remarks:			
Final Depth: 3.40m						1. Location undertaken to inspect potential fill materials. 2. Backfilled with arisings. 3. Location surveyed. 4. No groundwater encountered			
									
						Water Strikes			
						Strike (m)	Remarks		
						RPS TP Template Issue Number: 1 Issue Date: 13/09/2017			

	Contract Name: Aberthaw Quarry			Client: RWE Generation		Trial Pit ID: TP02			
	Contract Number: JFR2782	Start Date: 31/10/2022	End Date: 31/10/2022	Checked By:	Status: DRAFT	Sheet 1 of 1			
Trial Pit Log	Easting: 304269.0	Northing: 167162.0	Ground Level: 39.83mOD	Plant Used:	Logged By:	Scale: 1:50			
	Hole Termination: Target depth achieved.								
Samples & In Situ Testing				Strata Details				Water	Backfill
Depths	Type/Ref	Testing	Level (mAOD)	Depth (m) (Thickness)	Legend	Strata Description			
				(4.20)		Probably medium dense Dark grey to black ashy silty SAND. PULVERISED FUEL ASH		1	
			35.63	4.20		End of Trial Pit at 4.20m		2	
								3	
								4	
								5	
								6	
								7	
Dimensions:						General Remarks:			
Final Depth: 4.20m						1. Location undertaken to inspect potential fill materials. 2. Backfilled with arisings. 3. Location surveyed. 4. No groundwater encountered			
									
						Water Strikes			
						Strike (m)      Remarks			
						RPS TP Template    Issue Number: 1    Issue Date: 13/09/2017			

	Contract Name: Aberthaw Quarry			Client: RWE Generation		Trial Pit ID: TP03			
	Contract Number: JFR2782	Start Date: 31/10/2022	End Date: 31/10/2022	Checked By:	Status: DRAFT	Sheet 1 of 1			
Trial Pit Log	Easting: 304331.0	Northing: 167141.0	Ground Level: 45.63mOD	Plant Used:	Logged By:	Scale: 1:50			
	Hole Termination: Target depth achieved.								
Samples & In Situ Testing						Strata Details		Water	Backfill
Depths	Type/Ref	Testing	Level (mAOD)	Depth (m) (Thickness)	Legend	Strata Description			
			44.13	(1.50)		Probably dense dark grey slightly clayey gravelly subangular to angular COBBLES and BOULDERS of limestone with pockets of firm gravelly clay. Gravel is fine to coarse angular mudstone and limestone. MADE GROUND		1	
				1.50		End of Trial Pit at 1.50m		2	
								3	
								4	
								5	
								6	
								7	
Dimensions:						General Remarks:			
Final Depth: 1.50m						1. Location undertaken to inspect potential fill materials. 2. Backfilled with arisings. 3. Location surveyed. 4. No groundwater encountered			
									
						Water Strikes			
						Strike (m)      Remarks			
						RPS TP Template    Issue Number: 1    Issue Date: 13/09/2017			

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## **Appendix E**

### **Groundsure Report**

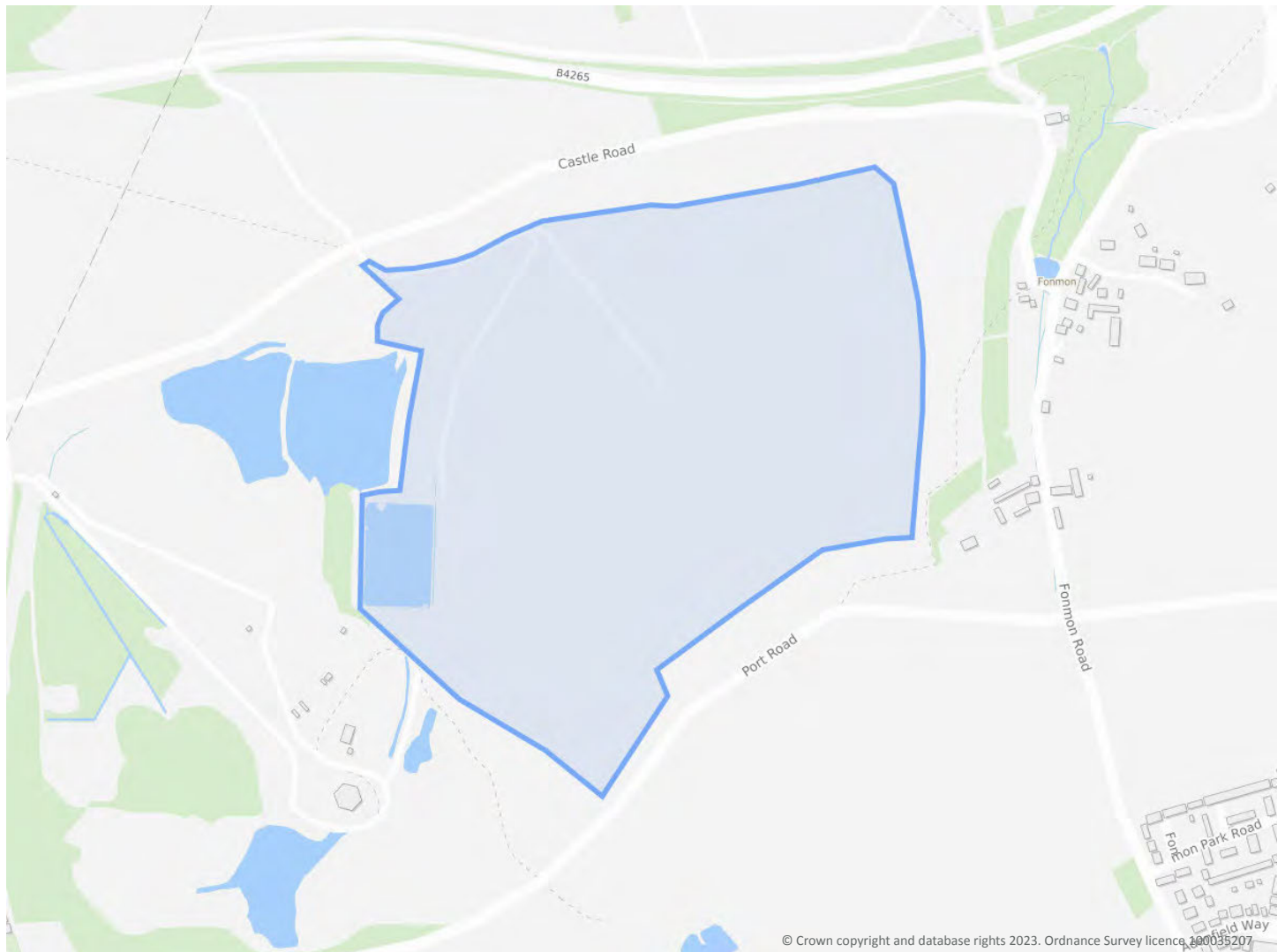
304331 , 167411,

## Order Details

**Date:** 10/02/2023  
**Your ref:** JFR2782\_PO23-0091  
**Our Ref:** GS-9351278

## Site Details

**Location:** 304297 167407  
**Area:** 34.64 ha  
**Authority:** [Bro Morgannwg - Vale of Glamorgan Council](#)



**Summary of findings**

p. 2

**Aerial image**

p. 8

**OS MasterMap site plan**

N/A: >10ha

[groundsure.com/insightuserguide](https://groundsure.com/insightuserguide)

## Summary of findings

Page	Section	Past land use	On site	0-50m	50-250m	250-500m	500-2000m
<b>13</b>	<b>1.1</b>	<b><u>Historical industrial land uses</u></b>	4	0	7	33	-
<b>15</b>	<b>1.2</b>	<b><u>Historical tanks</u></b>	1	0	2	3	-
<b>16</b>	<b>1.3</b>	<b><u>Historical energy features</u></b>	0	0	2	2	-
16	1.4	Historical petrol stations	0	0	0	0	-
17	1.5	Historical garages	0	0	0	0	-
17	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
<b>18</b>	<b>2.1</b>	<b><u>Historical industrial land uses</u></b>	6	0	10	51	-
<b>21</b>	<b>2.2</b>	<b><u>Historical tanks</u></b>	1	0	6	5	-
<b>22</b>	<b>2.3</b>	<b><u>Historical energy features</u></b>	0	0	8	4	-
22	2.4	Historical petrol stations	0	0	0	0	-
23	2.5	Historical garages	0	0	0	0	-
Page	Section	Waste and landfill	On site	0-50m	50-250m	250-500m	500-2000m
<b>24</b>	<b>3.1</b>	<b><u>Active or recent landfill</u></b>	1	0	1	0	-
25	3.2	Historical landfill (BGS records)	0	0	0	0	-
25	3.3	Historical landfill (LA/mapping records)	0	0	0	0	-
<b>25</b>	<b>3.4</b>	<b><u>Historical landfill (EA/NRW records)</u></b>	0	0	1	1	-
26	3.5	Historical waste sites	0	0	0	0	-
<b>26</b>	<b>3.6</b>	<b><u>Licensed waste sites</u></b>	2	0	0	6	-
<b>28</b>	<b>3.7</b>	<b><u>Waste exemptions</u></b>	0	0	0	1	-
Page	Section	Current industrial land use	On site	0-50m	50-250m	250-500m	500-2000m
<b>30</b>	<b>4.1</b>	<b><u>Recent industrial land uses</u></b>	1	0	3	-	-
31	4.2	Current or recent petrol stations	0	0	0	0	-
31	4.3	Electricity cables	0	0	0	0	-
31	4.4	Gas pipelines	0	0	0	0	-
31	4.5	Sites determined as Contaminated Land	0	0	0	0	-



31	4.6	Control of Major Accident Hazards (COMAH)	0	0	0	0	-
32	4.7	Regulated explosive sites	0	0	0	0	-
32	4.8	Hazardous substance storage/usage	0	0	0	0	-
32	4.9	Historical licensed industrial activities (IPC)	0	0	0	0	-
<b>32</b>	<b>4.10</b>	<b><u>Licensed industrial activities (Part A(1))</u></b>	<b>4</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>-</b>
33	4.11	Licensed pollutant release (Part A(2)/B)	0	0	0	0	-
33	4.12	Radioactive Substance Authorisations	0	0	0	0	-
<b>34</b>	<b>4.13</b>	<b><u>Licensed Discharges to controlled waters</u></b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>7</b>	<b>-</b>
35	4.14	Pollutant release to surface waters (Red List)	0	0	0	0	-
35	4.15	Pollutant release to public sewer	0	0	0	0	-
35	4.16	List 1 Dangerous Substances	0	0	0	0	-
36	4.17	List 2 Dangerous Substances	0	0	0	0	-
<b>36</b>	<b>4.18</b>	<b><u>Pollution Incidents (EA/NRW)</u></b>	<b>2</b>	<b>0</b>	<b>1</b>	<b>2</b>	<b>-</b>
37	4.19	Pollution inventory substances	0	0	0	0	-
37	4.20	Pollution inventory waste transfers	0	0	0	0	-
37	4.21	Pollution inventory radioactive waste	0	0	0	0	-
Page	Section	Hydrogeology	On site	0-50m	50-250m	250-500m	500-2000m
<b>38</b>	<b>5.1</b>	<b><u>Superficial aquifer</u></b>	Identified (within 500m)				
<b>39</b>	<b>5.2</b>	<b><u>Bedrock aquifer</u></b>	Identified (within 500m)				
<b>41</b>	<b>5.3</b>	<b><u>Groundwater vulnerability</u></b>	Identified (within 50m)				
<b>42</b>	<b>5.4</b>	<b><u>Groundwater vulnerability- soluble rock risk</u></b>	Identified (within 0m)				
43	5.5	Groundwater vulnerability- local information	None (within 0m)				
<b>44</b>	<b>5.6</b>	<b><u>Groundwater abstractions</u></b>	0	0	0	0	1
<b>45</b>	<b>5.7</b>	<b><u>Surface water abstractions</u></b>	0	0	0	0	5
46	5.8	Potable abstractions	0	0	0	0	0
47	5.9	Source Protection Zones	0	0	0	0	-
47	5.10	Source Protection Zones (confined aquifer)	0	0	0	0	-
Page	Section	Hydrology	On site	0-50m	50-250m	250-500m	500-2000m
<b>48</b>	<b>6.1</b>	<b><u>Water Network (OS MasterMap)</u></b>	1	1	17	-	-





<b>50</b>	<b>6.2</b>	<b><u>Surface water features</u></b>	1	3	10	-	-
<b>50</b>	<b>6.3</b>	<b><u>WFD Surface water body catchments</u></b>	1	-	-	-	-
<b>51</b>	<b>6.4</b>	<b><u>WFD Surface water bodies</u></b>	0	0	0	-	-
<b>51</b>	<b>6.5</b>	<b><u>WFD Groundwater bodies</u></b>	1	-	-	-	-
Page	Section	River and coastal flooding	On site	0-50m	50-250m	250-500m	500-2000m
52	7.1	Risk of flooding from rivers and the sea	None (within 50m)				
52	7.2	Historical Flood Events	0	0	0	-	-
52	7.3	Flood Defences	0	0	0	-	-
53	7.4	Areas Benefiting from Flood Defences	0	0	0	-	-
53	7.5	Flood Storage Areas	0	0	0	-	-
54	7.6	Flood Zone 2	None (within 50m)				
54	7.7	Flood Zone 3	None (within 50m)				
Page	Section	Surface water flooding					
<b>55</b>	<b>8.1</b>	<b><u>Surface water flooding</u></b>	1 in 30 year, 0.3m - 1.0m (within 50m)				
Page	Section	Groundwater flooding					
<b>57</b>	<b>9.1</b>	<b><u>Groundwater flooding</u></b>	Negligible (within 50m)				
Page	Section	Environmental designations	On site	0-50m	50-250m	250-500m	500-2000m
<b>58</b>	<b>10.1</b>	<b><u>Sites of Special Scientific Interest (SSSI)</u></b>	0	0	0	0	1
59	10.2	Conserved wetland sites (Ramsar sites)	0	0	0	0	0
59	10.3	Special Areas of Conservation (SAC)	0	0	0	0	0
59	10.4	Special Protection Areas (SPA)	0	0	0	0	0
59	10.5	National Nature Reserves (NNR)	0	0	0	0	0
60	10.6	Local Nature Reserves (LNR)	0	0	0	0	0
<b>60</b>	<b>10.7</b>	<b><u>Designated Ancient Woodland</u></b>	0	0	5	4	37
62	10.8	Biosphere Reserves	0	0	0	0	0
62	10.9	Forest Parks	0	0	0	0	0
62	10.10	Marine Conservation Zones	0	0	0	0	0
62	10.11	Green Belt	0	0	0	0	0
63	10.12	Proposed Ramsar sites	0	0	0	0	0



63	10.13	Possible Special Areas of Conservation (pSAC)	0	0	0	0	0
63	10.14	Potential Special Protection Areas (pSPA)	0	0	0	0	0
63	10.15	Nitrate Sensitive Areas	0	0	0	0	0
64	10.16	Nitrate Vulnerable Zones	0	0	0	0	0
65	10.17	SSSI Impact Risk Zones	0	-	-	-	-
65	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
66	11.1	World Heritage Sites	0	0	0	-	-
67	11.2	Area of Outstanding Natural Beauty	0	0	0	-	-
67	11.3	National Parks	0	0	0	-	-
<b>67</b>	<b>11.4</b>	<b>Listed Buildings</b>	0	0	3	-	-
68	11.5	Conservation Areas	0	0	0	-	-
68	11.6	Scheduled Ancient Monuments	0	0	0	-	-
<b>68</b>	<b>11.7</b>	<b>Registered Parks and Gardens</b>	0	0	2	-	-
Page	Section	Agricultural designations	On site	0-50m	50-250m	250-500m	500-2000m
<b>69</b>	<b>12.1</b>	<b>Agricultural Land Classification</b>	Grade 4 (within 250m)				
70	12.2	Open Access Land	0	0	0	-	-
70	12.3	Tree Felling Licences	0	0	0	-	-
70	12.4	Environmental Stewardship Schemes	0	0	0	-	-
71	12.5	Countryside Stewardship Schemes	0	0	0	-	-
Page	Section	Habitat designations	On site	0-50m	50-250m	250-500m	500-2000m
72	13.1	Priority Habitat Inventory	0	0	0	-	-
72	13.2	Habitat Networks	0	0	0	-	-
72	13.3	Open Mosaic Habitat	0	0	0	-	-
72	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
<b>73</b>	<b>14.1</b>	<b>10k Availability</b>	Identified (within 500m)				
<b>74</b>	<b>14.2</b>	<b>Artificial and made ground (10k)</b>	0	1	0	4	-
<b>76</b>	<b>14.3</b>	<b>Superficial geology (10k)</b>	0	0	0	1	-

77	14.4	Landslip (10k)	0	0	0	0	-
<b>78</b>	<b>14.5</b>	<b><u>Bedrock geology (10k)</u></b>	1	0	0	1	-
79	14.6	Bedrock faults and other linear features (10k)	0	0	0	0	-
Page	Section	Geology 1:50,000 scale	On site	0-50m	50-250m	250-500m	500-2000m
<b>80</b>	<b>15.1</b>	<b><u>50k Availability</u></b>	Identified (within 500m)				
81	15.2	Artificial and made ground (50k)	0	0	0	0	-
81	15.3	Artificial ground permeability (50k)	0	0	-	-	-
<b>82</b>	<b>15.4</b>	<b><u>Superficial geology (50k)</u></b>	0	0	0	1	-
83	15.5	Superficial permeability (50k)	None (within 50m)				
83	15.6	Landslip (50k)	0	0	0	0	-
83	15.7	Landslip permeability (50k)	None (within 50m)				
<b>84</b>	<b>15.8</b>	<b><u>Bedrock geology (50k)</u></b>	1	0	0	0	-
<b>85</b>	<b>15.9</b>	<b><u>Bedrock permeability (50k)</u></b>	Identified (within 50m)				
85	15.10	Bedrock faults and other linear features (50k)	0	0	0	0	-
Page	Section	Boreholes	On site	0-50m	50-250m	250-500m	500-2000m
86	16.1	BGS Boreholes	0	0	0	-	-
Page	Section	Natural ground subsidence					
<b>87</b>	<b>17.1</b>	<b><u>Shrink swell clays</u></b>	Negligible (within 50m)				
<b>88</b>	<b>17.2</b>	<b><u>Running sands</u></b>	Negligible (within 50m)				
<b>89</b>	<b>17.3</b>	<b><u>Compressible deposits</u></b>	Negligible (within 50m)				
<b>90</b>	<b>17.4</b>	<b><u>Collapsible deposits</u></b>	Very low (within 50m)				
<b>91</b>	<b>17.5</b>	<b><u>Landslides</u></b>	Very low (within 50m)				
<b>92</b>	<b>17.6</b>	<b><u>Ground dissolution of soluble rocks</u></b>	Very low (within 50m)				
Page	Section	Mining, ground workings and natural cavities	On site	0-50m	50-250m	250-500m	500-2000m
94	18.1	Natural cavities	0	0	0	0	-
<b>95</b>	<b>18.2</b>	<b><u>BritPits</u></b>	4	0	4	4	-
<b>97</b>	<b>18.3</b>	<b><u>Surface ground workings</u></b>	7	3	18	-	-
98	18.4	Underground workings	0	0	0	0	0
<b>98</b>	<b>18.5</b>	<b><u>Historical Mineral Planning Areas</u></b>	2	1	1	0	-



99	18.6	Non-coal mining	0	0	0	0	0
99	18.7	Mining cavities	0	0	0	0	0
99	18.8	JPB mining areas	None (within 0m)				
99	18.9	Coal mining	None (within 0m)				
100	18.10	Brine areas	None (within 0m)				
100	18.11	Gypsum areas	None (within 0m)				
100	18.12	Tin mining	None (within 0m)				
100	18.13	Clay mining	None (within 0m)				
Page	Section	Radon					
<b><u>101</u></b>	<b><u>19.1</u></b>	<b><u>Radon</u></b>	Between 10% and 30% (within 0m)				
Page	Section	Soil chemistry	On site	0-50m	50-250m	250-500m	500-2000m
<b><u>103</u></b>	<b><u>20.1</u></b>	<b><u>BGS Estimated Background Soil Chemistry</u></b>	9	0	-	-	-
103	20.2	BGS Estimated Urban Soil Chemistry	0	0	-	-	-
104	20.3	BGS Measured Urban Soil Chemistry	0	0	-	-	-
Page	Section	Railway infrastructure and projects	On site	0-50m	50-250m	250-500m	500-2000m
105	21.1	Underground railways (London)	0	0	0	-	-
105	21.2	Underground railways (Non-London)	0	0	0	-	-
106	21.3	Railway tunnels	0	0	0	-	-
<b><u>106</u></b>	<b><u>21.4</u></b>	<b><u>Historical railway and tunnel features</u></b>	1	0	0	-	-
106	21.5	Royal Mail tunnels	0	0	0	-	-
106	21.6	Historical railways	0	0	0	-	-
107	21.7	Railways	0	0	0	-	-
107	21.8	Crossrail 1	0	0	0	0	-
107	21.9	Crossrail 2	0	0	0	0	-
107	21.10	HS2	0	0	0	0	-



## Recent aerial photograph



Aerial photography supplied by Getmapping PLC. © Copyright Getmapping PLC 2023. All Rights Reserved.

Capture Date: 18/09/2019

Site Area: 34.64ha





## Recent site history - 2016 aerial photograph



Capture Date: 19/07/2016

Site Area: 34.64ha



## Recent site history - 2013 aerial photograph



Capture Date: 14/07/2013

Site Area: 34.64ha





## Recent site history - 2009 aerial photograph



Capture Date: 13/09/2009

Site Area: 34.64ha





## Recent site history - 2000 aerial photograph

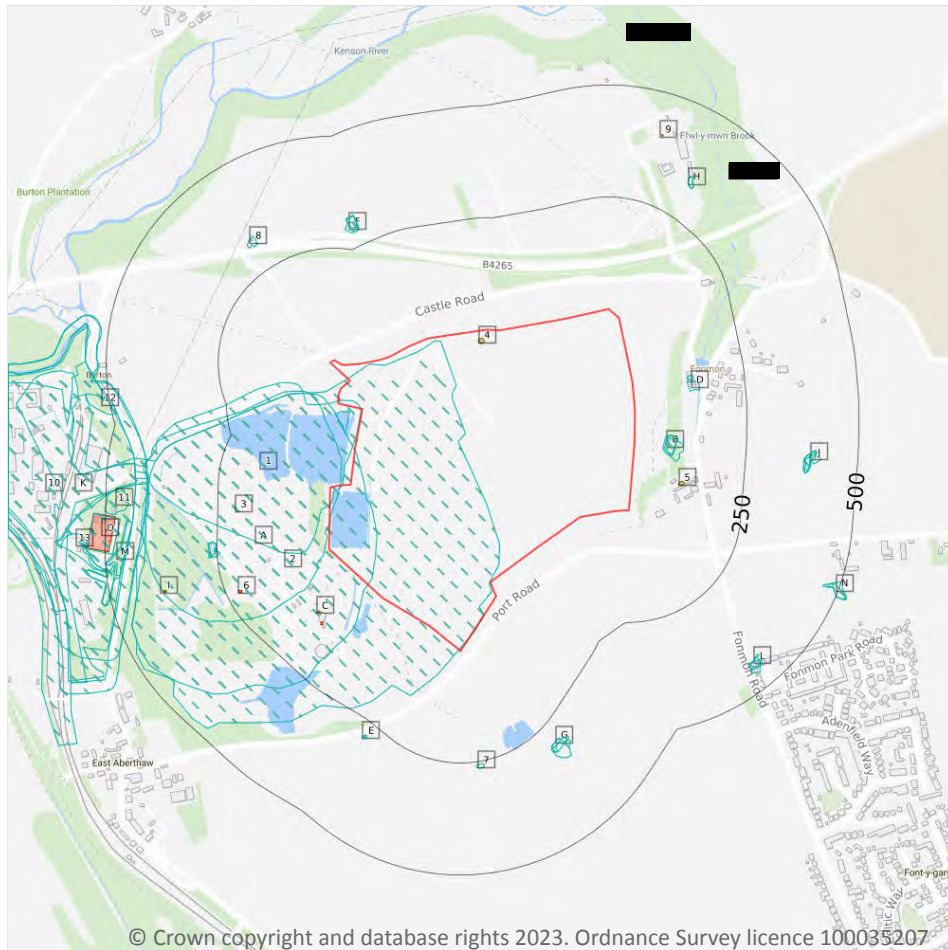


Capture Date: 21/07/2000

Site Area: 34.64ha



## 1 Past land use



- Site Outline
- Search buffers in metres (m)
- Historical industrial land uses
- Historical tanks
- Historical energy features

### 1.1 Historical industrial land uses

Records within 500m

44

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 13**

ID	Location	Land use	Dates present	Group ID
1	On site	Unspecified Disused Quarry	1989	1182973





ID	Location	Land use	Dates present	Group ID
<b>2</b>	<b>On site</b>	<b>Limestone Quarry</b>	<b>1984 - 1989</b>	<b>1208050</b>
<b>3</b>	<b>On site</b>	<b>Unspecified Quarry</b>	<b>1947 - 1948</b>	<b>1245075</b>
<b>A</b>	<b>On site</b>	<b>Mineral Railway Sidings</b>	<b>1984 - 1989</b>	<b>1236853</b>
B	64m E	Unspecified Pit	1948	1237235
B	68m E	Unspecified Pit	1914 - 1947	1242172
B	72m E	Unspecified Quarry	1878	1169424
D	122m E	Smithy	1898	1188805
D	122m E	Smithy	1914 - 1921	1262935
A	243m W	Unspecified Quarry	1878	1257346
A	250m W	Unspecified Old Quarry	1898	1180713
A	251m W	Old Lime Kiln	1914 - 1921	1204601
7	256m S	Unspecified Pit	1878	1185519
E	279m SW	Old Lime Kiln	1914 - 1947	1251484
F	282m NW	Unspecified Old Quarries	1898	1166328
E	283m SW	Old Lime Kiln	1948	1199046
F	286m NW	Unspecified Ground Workings	1914 - 1947	1208836
F	291m NW	Unspecified Heap	1948	1162189
G	292m S	Unspecified Ground Workings	1914 - 1947	1231573
G	292m S	Unspecified Pit	1948	1185520
G	299m S	Unspecified Quarry	1878 - 1898	1239307
8	309m NW	Unspecified Old Quarries	1898	1166327
H	326m NE	Unspecified Ground Workings	1878	1248686
H	326m NE	Unspecified Ground Workings	1914 - 1947	1258291
J	380m E	Unspecified Quarry	1878	1169423
J	380m E	Unspecified Pit	1953	1185517
J	382m E	Unspecified Ground Workings	1914 - 1947	1234549
10	406m W	Railway Sidings	1947 - 1948	1202696
K	406m W	Cement Works	1947	1266978



ID	Location	Land use	Dates present	Group ID
K	409m W	Cement Works	1984	1219672
L	431m SE	Unspecified Pit	1914 - 1947	1270173
L	434m SE	Unspecified Quarry	1878	1169418
K	434m W	Unspecified Works	1948	1178845
K	434m W	Cement Works	1989	1215356
L	434m SE	Unspecified Pit	1948	1217151
M	440m W	Unspecified Ground Workings	1948	1241386
M	441m W	Unspecified Ground Workings	1947	1256332
11	448m W	Unspecified Heap	1947 - 1948	1195668
N	465m E	Unspecified Quarry	1878	1169417
O	467m W	Electric Substation	1984 - 1989	1207348
N	474m E	Unspecified Old Quarry	1898	1180681
M	479m W	Unspecified Pits	1948	1167057
12	491m W	Unspecified Heap	1947 - 1948	1263517
13	499m W	Unspecified Heap	1948	1162192

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

## 1.2 Historical tanks

### Records within 500m

**6**

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 ungrouped 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 13**

ID	Location	Land use	Dates present	Group ID
<b>4</b>	<b>On site</b>	<b>Unspecified Tank</b>	<b>1943</b>	<b>172281</b>
5	106m E	Unspecified Tank	1900 - 1919	191207
C	116m SW	Unspecified Tank	1987 - 1993	190456



ID	Location	Land use	Dates present	Group ID
I	375m SW	Unspecified Tank	1993	187807
I	375m SW	Unspecified Tank	1987	180486
9	404m NE	Unspecified Tank	1919	172287

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

### 1.3 Historical energy features

**Records within 500m**

**4**

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 ungrouped 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 13**

ID	Location	Land use	Dates present	Group ID
C	130m SW	Electricity Substation	1987 - 1993	103251
6	216m SW	Electricity Substation	1987 - 1993	106321
O	478m W	Electricity Substation	1993	109028
O	495m W	Electricity Substation	1987	112838

*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 ungrouped features can be cross-referenced across sections 1 and 2 using the 'Group ID'.

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



## 1.5 Historical garages

Records within 500m

0

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

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

## 1.6 Historical military land

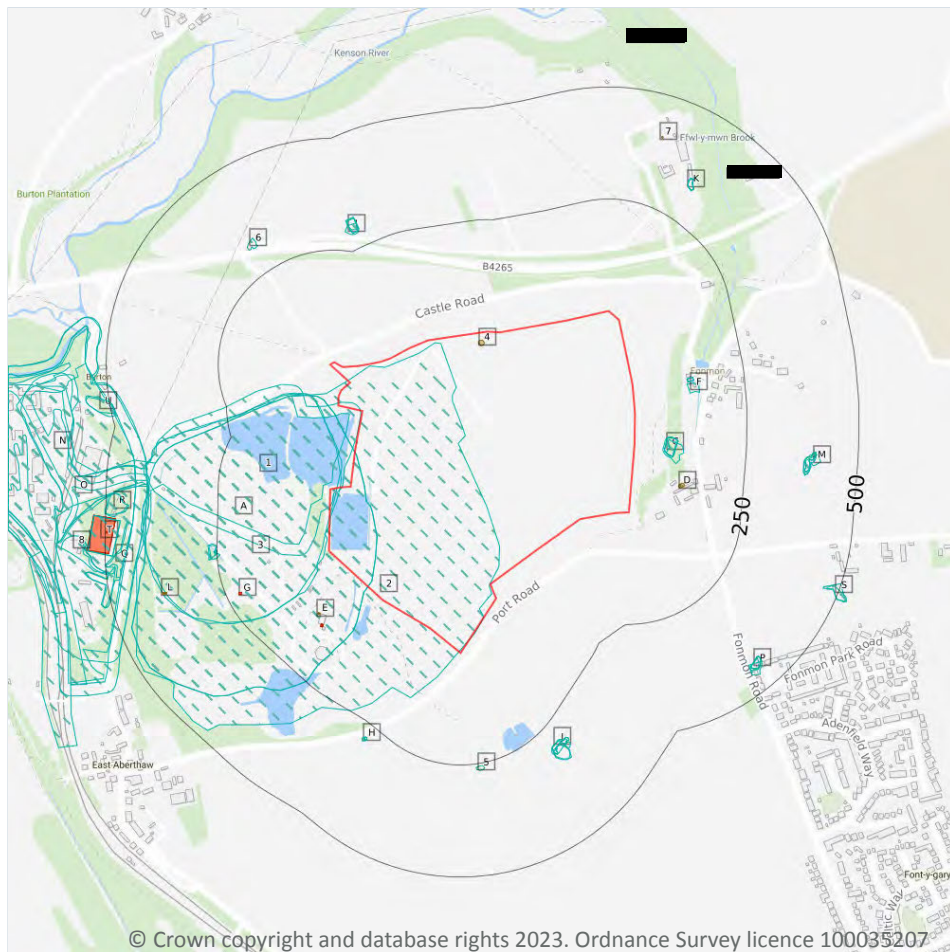
Records within 500m

0

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

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

## 2 Past land use - un-grouped



- Site Outline
- Search buffers in metres (m)
- Historical industrial land uses
- Historical tanks
- Historical energy features

### 2.1 Historical industrial land uses

Records within 500m

67

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 18**

ID	Location	Land Use	Date	Group ID
1	On site	Unspecified Disused Quarry	1989	1182973
2	On site	Limestone Quarry	1989	1208050
3	On site	Limestone Quarry	1984	1208050



ID	Location	Land Use	Date	Group ID
A	On site	Unspecified Quarry	1948	1245075
A	On site	Unspecified Quarry	1947	1245075
B	On site	Mineral Railway Sidings	1984	1236853
C	64m E	Unspecified Pit	1948	1237235
C	68m E	Unspecified Pit	1947	1242172
C	68m E	Unspecified Pit	1914	1242172
C	68m E	Unspecified Pit	1921	1242172
C	72m E	Unspecified Quarry	1878	1169424
F	122m E	Smithy	1898	1188805
F	122m E	Smithy	1914	1262935
F	122m E	Smithy	1921	1262935
B	243m W	Unspecified Quarry	1878	1257346
B	250m W	Unspecified Old Quarry	1898	1180713
B	251m W	Old Lime Kiln	1914	1204601
B	251m W	Old Lime Kiln	1921	1204601
5	256m S	Unspecified Pit	1878	1185519
H	279m SW	Old Lime Kiln	1947	1251484
H	279m SW	Old Lime Kiln	1914	1251484
H	279m SW	Old Lime Kiln	1921	1251484
I	282m NW	Unspecified Old Quarries	1898	1166328
H	283m SW	Old Lime Kiln	1948	1199046
I	286m NW	Unspecified Ground Workings	1947	1208836
I	286m NW	Unspecified Ground Workings	1914	1208836
I	286m NW	Unspecified Ground Workings	1921	1208836
I	291m NW	Unspecified Heap	1948	1162189
J	292m S	Unspecified Ground Workings	1947	1231573
J	292m S	Unspecified Ground Workings	1914	1231573
J	292m S	Unspecified Ground Workings	1921	1231573





ID	Location	Land Use	Date	Group ID
J	292m S	Unspecified Pit	1948	1185520
J	299m S	Unspecified Quarry	1878	1239307
J	300m S	Unspecified Quarry	1898	1239307
6	309m NW	Unspecified Old Quarries	1898	1166327
K	326m NE	Unspecified Ground Workings	1947	1258291
K	326m NE	Unspecified Ground Workings	1914	1258291
K	326m NE	Unspecified Ground Workings	1878	1248686
K	326m NE	Unspecified Ground Workings	1921	1258291
M	380m E	Unspecified Quarry	1878	1169423
M	380m E	Unspecified Pit	1953	1185517
M	382m E	Unspecified Ground Workings	1947	1234549
M	382m E	Unspecified Ground Workings	1914	1234549
M	382m E	Unspecified Ground Workings	1921	1234549
N	406m W	Railway Sidings	1947	1202696
O	406m W	Cement Works	1947	1266978
O	409m W	Cement Works	1984	1219672
P	431m SE	Unspecified Pit	1947	1270173
P	431m SE	Unspecified Pit	1914	1270173
P	431m SE	Unspecified Pit	1921	1270173
P	434m SE	Unspecified Quarry	1878	1169418
O	434m W	Cement Works	1989	1215356
O	434m W	Unspecified Works	1948	1178845
N	434m W	Railway Sidings	1948	1202696
P	434m SE	Unspecified Pit	1948	1217151
Q	440m W	Unspecified Ground Workings	1948	1241386
Q	441m W	Unspecified Ground Workings	1947	1256332
R	448m W	Unspecified Heap	1947	1195668
R	451m W	Unspecified Heap	1948	1195668



ID	Location	Land Use	Date	Group ID
S	465m E	Unspecified Quarry	1878	1169417
T	467m W	Electric Substation	1989	1207348
T	467m W	Electric Substation	1984	1207348
S	474m E	Unspecified Old Quarry	1898	1180681
Q	479m W	Unspecified Pits	1948	1167057
U	491m W	Unspecified Heap	1947	1263517
U	491m W	Unspecified Heap	1948	1263517
8	499m W	Unspecified Heap	1948	1162192

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

## 2.2 Historical tanks

### Records within 500m

**12**

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 18**

ID	Location	Land Use	Date	Group ID
<b>4</b>	<b>On site</b>	<b>Unspecified Tank</b>	<b>1943</b>	<b>172281</b>
D	106m E	Unspecified Tank	1900	191207
D	109m E	Unspecified Tank	1919	191207
E	116m SW	Unspecified Tank	1987	190456
E	117m SW	Unspecified Tank	1993	190456
E	117m SW	Unspecified Tank	1993	190456
E	117m SW	Unspecified Tank	1993	190456
L	375m SW	Unspecified Tank	1993	187807
L	375m SW	Unspecified Tank	1993	187807
L	375m SW	Unspecified Tank	1993	187807
L	375m SW	Unspecified Tank	1987	180486
7	404m NE	Unspecified Tank	1919	172287



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

## 2.3 Historical energy features

**Records within 500m**

**12**

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 18**

ID	Location	Land Use	Date	Group ID
E	130m SW	Electricity Substation	1987	103251
E	131m SW	Electricity Substation	1993	103251
E	131m SW	Electricity Substation	1993	103251
E	131m SW	Electricity Substation	1993	103251
G	216m SW	Electricity Substation	1987	106321
G	217m SW	Electricity Substation	1993	106321
G	217m SW	Electricity Substation	1993	106321
G	217m SW	Electricity Substation	1993	106321
T	478m W	Electricity Substation	1993	109028
T	478m W	Electricity Substation	1993	109028
T	478m W	Electricity Substation	1993	109028
T	495m W	Electricity Substation	1987	112838

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

## 2.4 Historical petrol stations

**Records within 500m**

**0**

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

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



## 2.5 Historical garages

Records within 500m

0

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

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



## 3 Waste and landfill



- Site Outline
- Search buffers in metres (m)
- Active or recent landfill
- Historical landfill (EA/NRW)
- Licensed waste sites
- Waste exemptions

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### 3.1 Active or recent landfill

Records within 500m

2

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

Features are displayed on the Waste and landfill map on **page 24**

ID	Location	Details	
1	On site	<p><b>Operator:</b> RWE npower plc</p> <p><b>Site Address:</b> Aberthaw Quarry, Lafarge Cement Works, East Aberthaw, Barry, Vale of Glamorgan, CF62 3ZR</p>	<p><b>WML Number:</b> 0</p> <p><b>EPR Reference:</b> -</p> <p><b>Landfill type:</b> WASTE LANDFILLING; &gt;10 T/D WITH CAPACITY &gt;25,000T EXCLUDING INERT WASTE</p> <p><b>Status:</b> Effective</p> <p><b>IPPC Reference:</b> -</p> <p><b>EPR Number:</b> -</p>



ID	Location	Details	
B	196m SW	Operator: Blue Circle Industries Ltd Site Address: Blue Circle Cement, Aberthaw Cement Works, East Aberthaw, Barry, Glamorgan, CF62 3ZR	WML Number: 30016 EPR Reference: BLU001 Landfill type: A7 : Industrial Waste Landfill (Factory curtilage) Status: Closure IPPC Reference: - EPR Number: EAEPR\EA/EPR/HP3799FH/A001

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

### 3.2 Historical landfill (BGS records)

<b>Records within 500m</b>	<b>0</b>
----------------------------	----------

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)

<b>Records within 500m</b>	<b>0</b>
----------------------------	----------

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)

<b>Records within 500m</b>	<b>2</b>
----------------------------	----------

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.

Features are displayed on the Waste and landfill map on **page 24**

ID	Location	Details		
B	229m SW	Site Address: Aberthaw No.2 Licence Holder Address: Aberthaw Works, East Aberthaw, near Barry	Waste Licence: Yes Site Reference: 25 Waste Type: Inert, Industrial, Commercial, Household Environmental Permitting Regulations (Waste) Reference: - Licence Issue: 06/01/1987 Licence Surrender: 23/03/1995	Operator: Blue Circle Industries Plc Licence Holder: Blue Circle Industries Plc First Recorded 31/12/1986 Last Recorded: 30/11/1991
2	396m W	Site Address: Aberthaw No.1 Licence Holder Address: -	Waste Licence: Yes Site Reference: 11 Waste Type: Inert, Industrial, Commercial, Household Environmental Permitting Regulations (Waste) Reference: - Licence Issue: 27/06/1978 Licence Surrender: 31/12/1995	Operator: Blue Circle Industries Plc Licence Holder: Aberthaw and Bristol Channel Portland Cement Company Limited First Recorded 31/12/1978 Last Recorded: 31/12/1981

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

### 3.5 Historical waste sites

<b>Records within 500m</b>	<b>0</b>
----------------------------	----------

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

<b>Records within 500m</b>	<b>8</b>
----------------------------	----------

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

Features are displayed on the Waste and landfill map on **page 24**

ID	Location	Details		
A	On site	Site Name: Aberthaw Quarry Ash Disposal Site EPR/BP3339BH Site Address: RWE Generation UK plc, Aberthaw Quarry Ash Disposal Site EPR/BP3339BH, Aberthaw Quarry Lafarge Cement Works, Vale of Glamorgan, CF62 3ZR Correspondence Address: -	Type of Site: Borehole Size: Unknown Environmental Permitting Regulations (Waste) Licence Number: BP3339BH EPR reference: - Operator: RWE Generation UK plc Waste Management licence No: 0 Annual Tonnage: 500000	Issue Date: 26/10/2012 Effective Date: - Modified: - Surrendered Date: - Expiry Date: - Cancelled Date: - Status: Effective

ID	Location	Details		
A	On site	<b>Site Name:</b> Aberthaw Quarry Ash Disposal Site EPR/BP3339BH <b>Site Address:</b> RWE Generation UK plc, Aberthaw Quarry Ash Disposal Site EPR/BP3339BH, Aberthaw Quarry Lafarge Cement Works, Vale of Glamorgan, CF62 3ZR <b>Correspondence Address:</b> -	<b>Type of Site:</b> Industrial Waste Landfill (Factory curtilage) <b>Size:</b> Unknown <b>Environmental Permitting Regulations (Waste) Licence Number:</b> BP3339BH <b>EPR reference:</b> - <b>Operator:</b> RWE Generation UK plc <b>Waste Management licence No:</b> 0 <b>Annual Tonnage:</b> 500000	<b>Issue Date:</b> 26/10/2012 <b>Effective Date:</b> - <b>Modified:</b> - <b>Surrendered Date:</b> - <b>Expiry Date:</b> - <b>Cancelled Date:</b> - <b>Status:</b> Effective
B	377m SW	<b>Site Name:</b> Blue Circle Cement <b>Site Address:</b> Blue Circle Cement, Aberthaw Cement Works, East Aberthaw, Barry, Glamorgan, CF62 3ZR <b>Correspondence Address:</b> -	<b>Type of Site:</b> Industrial Waste Landfill (Factory curtilage) <b>Size:</b> 25000 tonnes <b>Environmental Permitting Regulations (Waste) Licence Number:</b> BLU001 <b>EPR reference:</b> HP3799FH/A001 <b>Operator:</b> Blue Circle Industries Ltd <b>Waste Management licence No:</b> 30016 <b>Annual Tonnage:</b> 24999	<b>Issue Date:</b> 06/01/1987 <b>Effective Date:</b> - <b>Modified:</b> - <b>Surrendered Date:</b> 0 <b>Expiry Date:</b> 0 <b>Cancelled Date:</b> 0 <b>Status:</b> Closure
B	379m SW	<b>Site Name:</b> - <b>Site Address:</b> Blue Circle Cement, East Aberthaw, Barry, Vale of Glamorgan, CF62 3ZR <b>Correspondence Address:</b> -	<b>Type of Site:</b> - <b>Size:</b> Unknown <b>Environmental Permitting Regulations (Waste) Licence Number:</b> HP3799FH <b>EPR reference:</b> - <b>Operator:</b> Blue Circle Industries Ltd <b>Waste Management licence No:</b> 0 <b>Annual Tonnage:</b> 0	<b>Issue Date:</b> 06/01/1987 <b>Effective Date:</b> 06/01/1987 <b>Modified:</b> - <b>Surrendered Date:</b> - <b>Expiry Date:</b> - <b>Cancelled Date:</b> - <b>Status:</b> Effective
B	379m SW	<b>Site Name:</b> - <b>Site Address:</b> Blue Circle Cement, East Aberthaw, Barry, Glamorgan, CF62 3ZR <b>Correspondence Address:</b> -	<b>Type of Site:</b> Industrial Waste Landfill (Factory curtilage) <b>Size:</b> - <b>Environmental Permitting Regulations (Waste) Licence Number:</b> HP3799FH <b>EPR reference:</b> - <b>Operator:</b> Blue Circle Industries Ltd <b>Waste Management licence No:</b> 30016 <b>Annual Tonnage:</b> 0	<b>Issue Date:</b> 06/01/1987 <b>Effective Date:</b> 06/01/1987 <b>Modified:</b> - <b>Surrendered Date:</b> - <b>Expiry Date:</b> 14/07/2008 <b>Cancelled Date:</b> - <b>Status:</b> Effective





ID	Location	Details		
B	379m SW	Site Name: - Site Address: Blue Circle Cement, East Aberthaw, Barry, Glamorgan, CF62 3ZR Correspondence Address: -	Type of Site: Industrial Waste Landfill (Factory curtilage) Size: Unknown Environmental Permitting Regulations (Waste) Licence Number: HP3799FH EPR reference: - Operator: - Waste Management licence No: 30016 Annual Tonnage: 0	Issue Date: 06/01/1987 Effective Date: 06/01/1987 Modified: - Surrendered Date: - Expiry Date: 14/07/2008 Cancelled Date: - Status: Effective
B	379m SW	Site Name: - Site Address: Blue Circle Cement, East Aberthaw, Barry, Glamorgan, CF62 3ZR Correspondence Address: -	Type of Site: Industrial Waste Landfill (Factory curtilage) Size: - Environmental Permitting Regulations (Waste) Licence Number: HP3799FH EPR reference: - Operator: Blue Circle Industries Ltd Waste Management licence No: 30016 Annual Tonnage: 0	Issue Date: 06/01/1987 Effective Date: 06/01/1987 Modified: - Surrendered Date: - Expiry Date: 14/07/2008 Cancelled Date: - Status: Effective
B	379m SW	Site Name: - Site Address: Blue Circle Cement, East Aberthaw, Glamorgan, Barry, Vale of Glamorgan, CF62 3ZR Correspondence Address: -	Type of Site: - Size: Unknown Environmental Permitting Regulations (Waste) Licence Number: HP3799FH EPR reference: - Operator: Blue Circle Industries Ltd Waste Management licence No: 30016 Annual Tonnage: 0	Issue Date: 06/01/1987 Effective Date: 06/01/1987 Modified: - Surrendered Date: - Expiry Date: 14/07/2008 Cancelled Date: - Status: Effective

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

### 3.7 Waste exemptions

#### Records within 500m

1

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 24**



ID	Location	Site	Reference	Category	Sub-Category	Description
3	401m NE	FONMON, BARRY, CF62 3ZN	WEX104159	Disposing of waste exemption	On a farm	Deposit of agricultural waste consisting of plant tissue under a Plant Health notice

*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
- Part A(1) industrial activities
- Licensed Discharges to controlled waters
- Pollution Incidents (EA/NRW)

### 4.1 Recent industrial land uses

Records within 250m

4

Current potentially contaminative industrial sites.

Features are displayed on the Current industrial land use map on **page 30**

ID	Location	Company	Address	Activity	Category
1	On site	Aberthaw Quarry	South Glamorgan, CF62	Unspecified Quarries Or Mines	Extractive Industries
B	127m SW	Hopper	South Glamorgan, CF62	Hoppers and Silos	Farming
B	135m SW	Electricity Sub Station	South Glamorgan, CF62	Electrical Features	Infrastructure and Facilities



ID	Location	Company	Address	Activity	Category
5	136m SW	Electricity Sub Station	South Glamorgan, CF62	Electrical Features	Infrastructure and Facilities

*This data is sourced from Ordnance Survey.*

## 4.2 Current or recent petrol stations

<b>Records within 500m</b>	<b>0</b>
----------------------------	----------

Open, closed, under development and obsolete petrol stations.

*This data is sourced from Experian.*

## 4.3 Electricity cables

<b>Records within 500m</b>	<b>0</b>
----------------------------	----------

High voltage underground electricity transmission cables.

*This data is sourced from National Grid.*

## 4.4 Gas pipelines

<b>Records within 500m</b>	<b>0</b>
----------------------------	----------

High pressure underground gas transmission pipelines.

*This data is sourced from National Grid.*

## 4.5 Sites determined as Contaminated Land

<b>Records within 500m</b>	<b>0</b>
----------------------------	----------

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)

<b>Records within 500m</b>	<b>0</b>
----------------------------	----------

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

4

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

Features are displayed on the Current industrial land use map on **page 30**

ID	Location	Details	
A	On site	<b>Operator:</b> RWE GENERATION UK PLC <b>Installation Name:</b> ABERTHAW QUARRY ASH DISPOSAL SITE EPR/BP3339BH <b>Process:</b> WASTE LANDFILLING; >10 T/D WITH CAPACITY >25,000T EXCLUDING INERT WASTE <b>Permit Number:</b> NP3433ZC <b>Original Permit Number:</b> BP3339BH	<b>EPR Reference:</b> - <b>Issue Date:</b> 26/10/2012 <b>Effective Date:</b> 26/10/2012 <b>Last date noted as effective:</b> 17/11/2015 <b>Status:</b> EFFECTIVE

ID	Location	Details	
A	On site	<b>Operator:</b> RWE NPOWER PLC <b>Installation Name:</b> ABERTHAW QUARRY ASH DISPOSAL SITE <b>Process:</b> WASTE LANDFILLING; >10 T/D WITH CAPACITY >25,000T EXCLUDING INERT WASTE <b>Permit Number:</b> BP3339BH <b>Original Permit Number:</b> BP3339BH	<b>EPR Reference:</b> - <b>Issue Date:</b> 04/05/2007 <b>Effective Date:</b> 04/05/2007 <b>Last date noted as effective:</b> 17/11/2015 <b>Status:</b> SUPERCEDED
A	On site	<b>Operator:</b> RWE GENERATION UK PLC <b>Installation Name:</b> ABERTHAW QUARRY ASH DISPOSAL SITE EPR/BP3339BH <b>Process:</b> - <b>Permit Number:</b> BP3339BH <b>Original Permit Number:</b> NP3433ZC	<b>EPR Reference:</b> - <b>Issue Date:</b> 26/10/2012 <b>Effective Date:</b> 26/10/2012 <b>Last date noted as effective:</b> 01/12/2016 <b>Status:</b> EFFECTIVE
A	On site	<b>Operator:</b> RWE GENERATION UK PLC <b>Installation Name:</b> ABERTHAW QUARRY ASH DISPOSAL SITE EPR/BP3339BH <b>Process:</b> THE DISPOSAL OF WASTE IN A LANDFILL RECEIVING MORE THAN 10 TONNES OF WASTE IN ANY DAY, OR WITH A TOTAL CAPACITY OF MORE THAN 25,000 TONNES, BUT EXCLUDING DISPOSALS IN A LANDFILL TAKING ONLY INERT WASTE. <b>Permit Number:</b> BP3339BH <b>Original Permit Number:</b> NP3433ZC	<b>EPR Reference:</b> - <b>Issue Date:</b> 26/10/2012 <b>Effective Date:</b> 26/10/2012 <b>Last date noted as effective:</b> 01/12/2022 <b>Status:</b> EFFECTIVE

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

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

<b>Records within 500m</b>	<b>0</b>
----------------------------	----------

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

<b>Records within 500m</b>	<b>0</b>
----------------------------	----------

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

7

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 30**

ID	Location	Address	Details	
C	374m E	ROCK HOUSE FONMON BARRY, ROCK HOUSE, FONMON, BARRY, VALE OF GLAMORGAN, CF62 3BJ	Effluent Type: SEWAGE DISCHARGES - FINAL/TREATED EFFLUENT - NOT WATER COMPANY Permit Number: AN0402401 Permit Version: 1 Receiving Water: GROUNDWATER VIA SOAKAWAY	Status: NEW CONSENT (WRA 91, S88 & SCHED 10 AS AMENDED BY ENV ACT 1995) Issue date: 24/08/2006 Effective Date: 24/08/2006 Revocation Date: 24/08/2018
C	374m E	ROCK HOUSE FONMON BARRY, ROCK HOUSE, FONMON, BARRY, VALE OF GLAMORGAN, CF62 3BJ	Effluent Type: SEWAGE DISCHARGES - FINAL/TREATED EFFLUENT - NOT WATER COMPANY Permit Number: AN0402401 Permit Version: 1 Receiving Water: GROUNDWATER VIA SOAKAWAY	Status: NEW CONSENT (WRA 91, S88 & SCHED 10 AS AMENDED BY ENV ACT 1995) Issue date: 24/08/2006 Effective Date: 24/08/2006 Revocation Date: 24/08/2018
D	467m SE	RHOOSE - FONMON PARK ROAD PUMP	Effluent Type: UNSPECIFIED Permit Number: AG0013901 Permit Version: 1 Receiving Water: DRAINAGE DITCH	Status: NEW CONSENT, BY APPLICATION (WRA 91, SECTION 88) Issue date: 14/11/1982 Effective Date: 14/11/1982 Revocation Date: 30/12/2004
D	469m SE	Fonmon Park SPS Rhooose, Fonmon Park Rd, Rhooose, Barry, CF62 3BG	Effluent Type: SEWAGE DISCHARGES - STW STORM OVERFLOW/STORM TANK - WATER COMPANY Permit Number: AG0013901 Permit Version: 3 Receiving Water: Bristol Channel	Status: Effective Issue date: 06/02/2020 Effective Date: 06/02/2020 Revocation Date: -
D	469m SE	Fonmon Park SPS Rhooose, Fonmon Park Rd, Rhooose, Barry, CF62 3BG	Effluent Type: SEWAGE DISCHARGES - STW STORM OVERFLOW/STORM TANK - WATER COMPANY Permit Number: AG0013901 Permit Version: 3 Receiving Water: Bristol Channel	Status: Effective Issue date: 06/02/2020 Effective Date: 06/02/2020 Revocation Date: -



ID	Location	Address	Details	
D	475m SE	A SEWAGE PUMPING STATION FONMON PAR, A SEWAGE PUMPING STATION, FONMON PARK SPS, FONTYGARY, Barry	Effluent Type: SEWAGE DISCHARGES - PUMPING STATION - WATER COMPANY Permit Number: AG0013901 Permit Version: 2 Receiving Water: BRISTOL CHANNEL	Status: Effective Issue date: 19/11/2004 Effective Date: 31/12/2004 Revocation Date: -
D	475m SE	A SEWAGE PUMPING STATION FONMON PAR, A SEWAGE PUMPING STATION, FONMON PARK SPS, FONTYGARY, Barry	Effluent Type: SEWAGE DISCHARGES - SEWER STORM OVERFLOW - WATER COMPANY Permit Number: AG0013901 Permit Version: 2 Receiving Water: BRISTOL CHANNEL	Status: Effective Issue date: 19/11/2004 Effective Date: 31/12/2004 Revocation Date: -

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

#### 4.14 Pollutant release to surface waters (Red List)

<b>Records within 500m</b>	<b>0</b>
----------------------------	----------

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

<b>Records within 500m</b>	<b>0</b>
----------------------------	----------

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

<b>Records within 500m</b>	<b>0</b>
----------------------------	----------

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

5

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 30**

ID	Location	Details	
2	On site	Incident Date: 02/08/2013 Incident Identification: 1142729 Pollutant: Atmospheric Pollutants and Effects Pollutant Description: Dust	Water Impact: - Land Impact: Category 4 (No Impact) Air Impact: Category 4 (No Impact)
3	On site	Incident Date: 14/04/2015 Incident Identification: 1328527 Pollutant: Other Pollutant Pollutant Description: Noise	Water Impact: - Land Impact: Category 4 (No Impact) Air Impact: Category 4 (No Impact)
4	121m W	Incident Date: 06/07/2016 Incident Identification: 1603717 Pollutant: - Pollutant Description: -	Water Impact: Other Land Impact: Other Air Impact: Other
E	485m W	Incident Date: 12/07/2016 Incident Identification: 1603847 Pollutant: - Pollutant Description: -	Water Impact: No Details Land Impact: No Details Air Impact: Category 3 (Minor)
E	485m W	Incident Date: 12/07/2016 Incident Identification: 1603847 Pollutant: Atmospheric Pollutants and Effects Pollutant Description: Dust	Water Impact: No Details Land Impact: No Details Air Impact: Category 3 (Minor)

*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



- Site Outline
- Search buffers in metres (m)
- Principal
  - Secondary A
  - Secondary B
  - Secondary Undifferentiated
  - Unproductive
  - Unknown

### 5.1 Superficial aquifer

Records within 500m

1

Aquifer status of groundwater held within superficial geology.

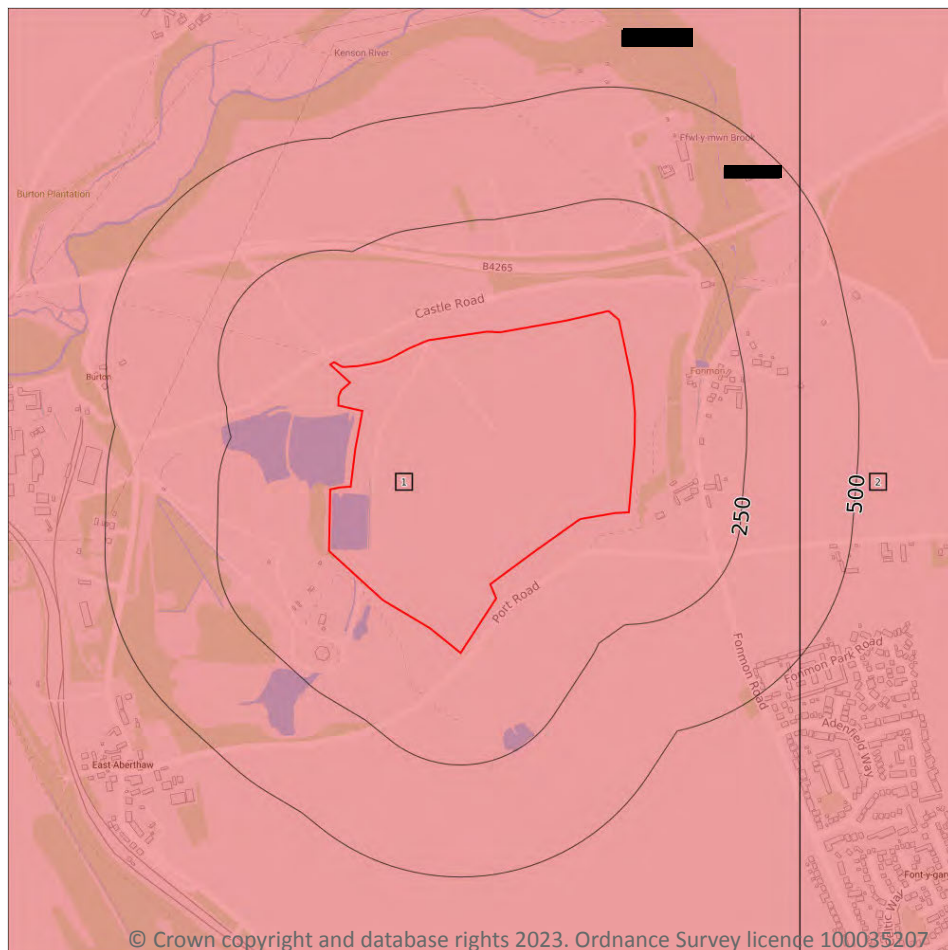
Features are displayed on the Hydrogeology map on **page 38**

ID	Location	Designation	Description
1	482m NE	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.*



## Bedrock aquifer



- Site Outline**
- Search buffers in metres (m)**
- Principal
  - Secondary A
  - Secondary B
  - Secondary Undifferentiated
  - Unproductive

### 5.2 Bedrock aquifer

#### Records within 500m

2

Aquifer status of groundwater held within bedrock geology.

Features are displayed on the Bedrock aquifer map on **page 39**

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
2	368m E	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

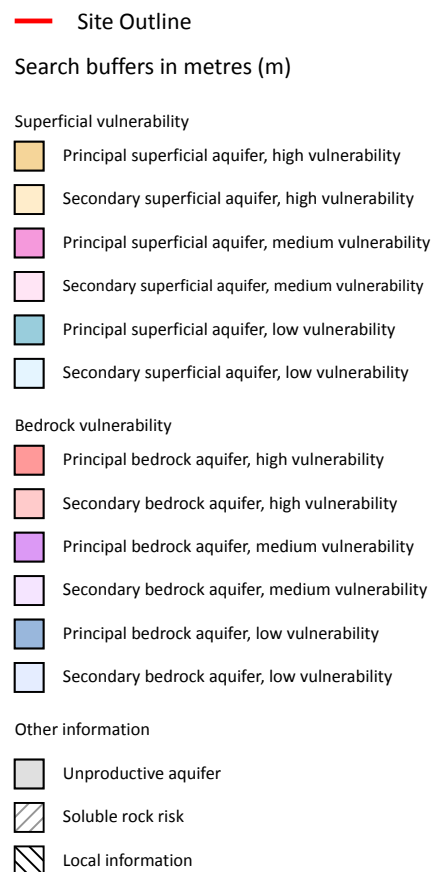
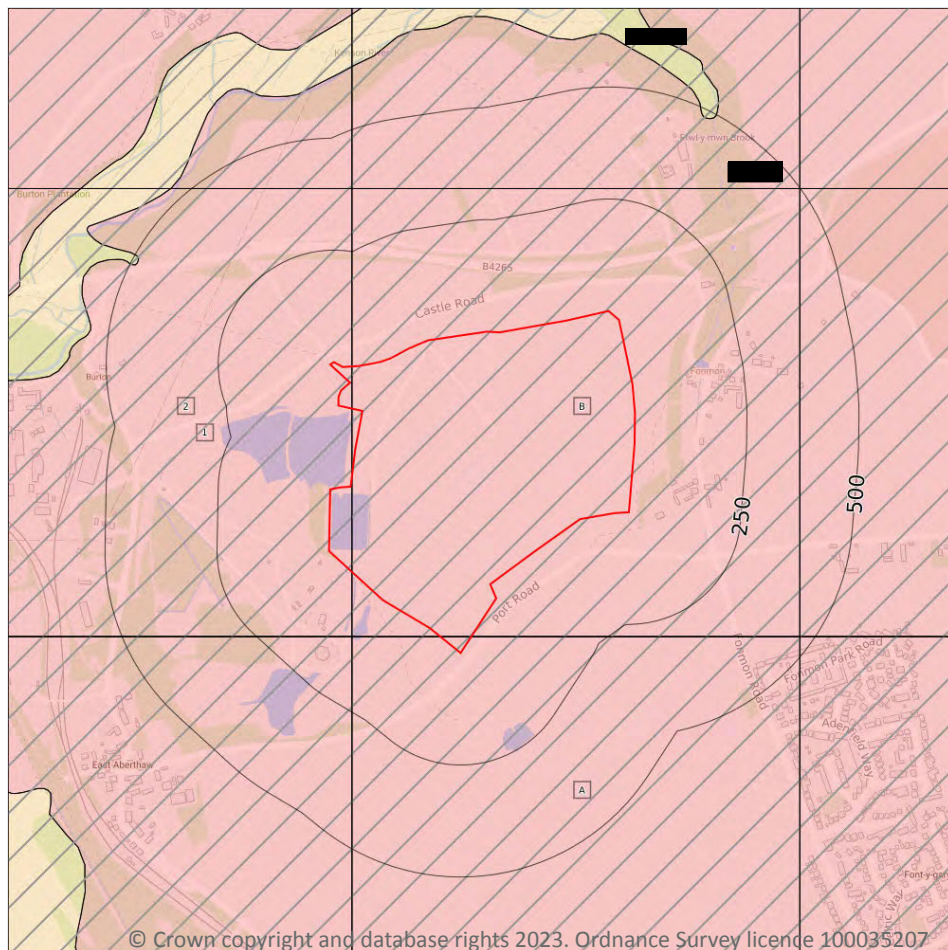


*This data is sourced from the British Geological Survey, the Environment Agency and Natural Resources Wales.*





## Groundwater vulnerability



### 5.3 Groundwater vulnerability

#### Records within 50m

3

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 41**

ID	Location	Summary	Soil / surface	Superficial geology	Bedrock geology
1	On site	Summary Classification: Secondary bedrock aquifer - High Vulnerability Combined classification: Productive Bedrock Aquifer, No Superficial Aquifer	Leaching class: High Infiltration value: >70% Dilution value: 300- 550mm/year	Vulnerability: - Aquifer type: - Thickness: <3m Patchiness value: <90% Recharge potential: No Data	Vulnerability: High Aquifer type: Secondary Flow mechanism: Well connected fractures
A	On site	Summary Classification: Secondary bedrock aquifer - High Vulnerability Combined classification: Productive Bedrock Aquifer, No Superficial Aquifer	Leaching class: High Infiltration value: >70% Dilution value: 300- 550mm/year	Vulnerability: - Aquifer type: - Thickness: <3m Patchiness value: <90% Recharge potential: No Data	Vulnerability: High Aquifer type: Secondary Flow mechanism: Well connected fractures
B	On site	Summary Classification: Secondary bedrock aquifer - High Vulnerability Combined classification: Productive Bedrock Aquifer, No Superficial Aquifer	Leaching class: High Infiltration value: >70% Dilution value: 300- 550mm/year	Vulnerability: - Aquifer type: - Thickness: <3m Patchiness value: <90% Recharge potential: No Data	Vulnerability: High 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

<b>Records on site</b>	<b>3</b>
------------------------	----------

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

ID	Maximum soluble risk category	Percentage of grid square covered by maximum risk
2	Significant soluble rocks are likely to be present. Problems unlikely except with considerable surface or subsurface water flow.	96.0%
A	Significant soluble rocks are likely to be present. Problems unlikely except with considerable surface or subsurface water flow.	98.0%
B	Significant soluble rocks are likely to be present. Problems unlikely except with considerable surface or subsurface water flow.	100.0%

*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](mailto: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  
Point features
- 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

1

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 44**

ID	Location	Details	
-	1831m E	Status: Historical Licence No: 21/58/21/0013 Details: General Farming & Domestic Direct Source: EAW Groundwater Point: [REDACTED] Data Type: Point Name: [REDACTED] Easting: [REDACTED] Northing: [REDACTED]	Annual Volume (m³): - Max Daily Volume (m³): - Original Application No: - Original Start Date: 25/03/1966 Expiry Date: - Issue No: 100 Version Start Date: 25/03/1966 Version End Date: -

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

## 5.7 Surface water abstractions

<b>Records within 2000m</b>	<b>5</b>
-----------------------------	----------

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 44**

ID	Location	Details	
A	645m W	Status: Historical Licence No: 21/58/21/0004 Details: Transfer Between Sources (Pre Water Act 2003) Direct Source: EAW Surface Water Point: RIVER KENSON AT ABERTHAW Data Type: Point Name: Lafarge Tarmac Cement and Lime Limited Easting: 303320 Northing: 167740	Annual Volume (m³): 998322 Max Daily Volume (m³): 2728 Original Application No: - Original Start Date: 02/03/1966 Expiry Date: - Issue No: 104 Version Start Date: 23/10/2013 Version End Date: -
A	645m W	Status: Historical Licence No: 21/58/21/0004 Details: Evaporative Cooling Direct Source: EAW Surface Water Point: RIVER KENSON AT ABERTHAW Data Type: Point Name: Lafarge Tarmac Cement and Lime Limited Easting: 303320 Northing: 167740	Annual Volume (m³): 998322 Max Daily Volume (m³): 2728 Original Application No: - Original Start Date: 02/03/1966 Expiry Date: - Issue No: 104 Version Start Date: 23/10/2013 Version End Date: -

ID	Location	Details	
A	645m W	Status: Active Licence No: 21/58/21/0004 Details: Evaporative Cooling - High Direct Source: River Kenson Point: - Data Type: Point Name: - Easting: 303320 Northing: 167740	Annual Volume (m <sup>3</sup> ): 499,161 Max Daily Volume (m <sup>3</sup> ): - Original Application No: - Original Start Date: May 24 2018 12:00AM Expiry Date: - Issue No: - Version Start Date: - Version End Date: -
A	645m W	Status: Active Licence No: 21/58/21/0004 Details: Transfer between Sources (Pre Water Act 2003) - Very Low Direct Source: River Kenson Point: - Data Type: Point Name: - Easting: 303320 Northing: 167740	Annual Volume (m <sup>3</sup> ): 499,161 Max Daily Volume (m <sup>3</sup> ): - Original Application No: - Original Start Date: May 24 2018 12:00AM Expiry Date: - Issue No: - Version Start Date: - Version End Date: -
-	742m W	Status: Historical Licence No: 21/58/21/0016 Details: Evaporative Cooling Direct Source: EAW Surface Water Point: RIVER KENSON & QUARRY Data Type: Point Name: Blue Circle Industries PLC Easting: 303210 Northing: 167580	Annual Volume (m <sup>3</sup> ): 1,818,438 Max Daily Volume (m <sup>3</sup> ): 5000.7 Original Application No: - Original Start Date: 01/03/1984 Expiry Date: - Issue No: 101 Version Start Date: 18/05/2004 Version End Date: -

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

## 5.8 Potable abstractions

### Records within 2000m

**0**

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.

*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

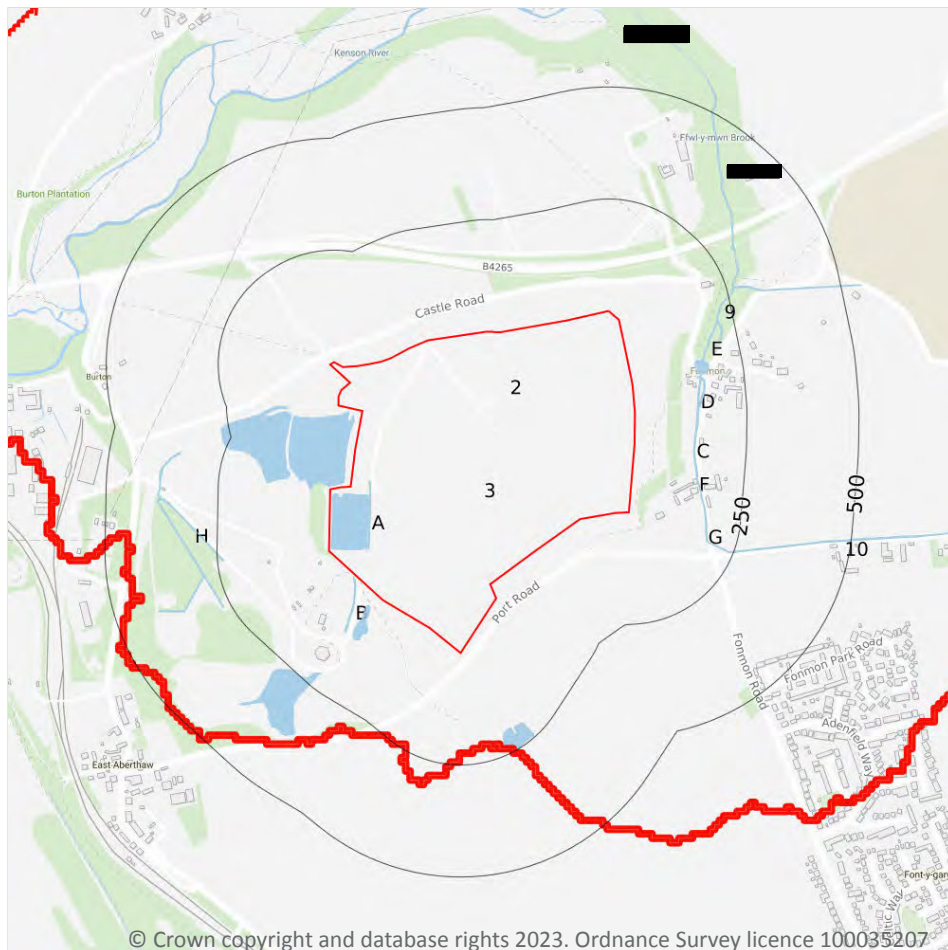
0

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



- Site Outline
- Search buffers in metres (m)
- Water Network (OS MasterMap)
- Surface water features (wider than 5m)
- Surface water features (narrower than 5m)
- ⋯ WFD River, canal and surface water transfer water bodies
- WFD Lake water bodies
- WFD Transitional and coastal water bodies
- WFD Surface water body catchments boundaries
- WFD Groundwater body boundaries

### 6.1 Water Network (OS MasterMap)

Records within 250m

19

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 48**

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





ID	Location	Type of water feature	Ground level	Permanence	Name
B	5m SW	Inland river not influenced by normal tidal action.	On ground surface	Watercourse contains water year round (in normal circumstances)	-
C	133m E	Inland river not influenced by normal tidal action.	On ground surface	Watercourse contains water year round (in normal circumstances)	-
D	140m E	Inland river not influenced by normal tidal action.	On ground surface	Watercourse contains water year round (in normal circumstances)	-
D	140m E	Inland river not influenced by normal tidal action.	On ground surface	Watercourse contains water year round (in normal circumstances)	-
F	144m E	Inland river not influenced by normal tidal action.	Underground	Watercourse contains water year round (in normal circumstances)	-
D	144m E	Inland river not influenced by normal tidal action.	On ground surface	Watercourse contains water year round (in normal circumstances)	-
F	145m E	Inland river not influenced by normal tidal action.	On ground surface	Watercourse contains water year round (in normal circumstances)	-
F	145m E	Inland river not influenced by normal tidal action.	Underground	Watercourse contains water year round (in normal circumstances)	-
D	153m E	Inland river not influenced by normal tidal action.	On ground surface	Watercourse contains water year round (in normal circumstances)	-
D	153m E	Lake, loch or reservoir.	On ground surface	Watercourse contains water year round (in normal circumstances)	Fon-mon Pond
F	157m E	Inland river not influenced by normal tidal action.	On ground surface	Watercourse contains water year round (in normal circumstances)	-
E	165m NE	Inland river not influenced by normal tidal action.	On ground surface	Watercourse contains water year round (in normal circumstances)	Ffwl-y-mwn Brook
G	170m E	Inland river not influenced by normal tidal action.	On ground surface	Watercourse contains water year round (in normal circumstances)	-



ID	Location	Type of water feature	Ground level	Permanence	Name
G	185m E	Inland river not influenced by normal tidal action.	Not provided	Watercourse contains water year round (in normal circumstances)	-
E	211m NE	Inland river not influenced by normal tidal action.	On ground surface	Watercourse contains water year round (in normal circumstances)	-
9	213m NE	Inland river not influenced by normal tidal action.	On ground surface	Watercourse contains water year round (in normal circumstances)	Ffwl-y-mwn Brook
H	236m W	Inland river not influenced by normal tidal action.	On ground surface	Watercourse contains water year round (in normal circumstances)	-
10	241m E	Inland river not influenced by normal tidal action.	On ground surface	Watercourse contains water year round (in normal circumstances)	-

*This data is sourced from the Ordnance Survey.*

## 6.2 Surface water features

### Records within 250m

**14**

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 48**

*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 48**



ID	Location	Type	Water body catchment	Water body ID	Operational catchment	Management catchment
2	On site	River WB catchment	Kenson - conf with Waycock to conf with Thaw	GB110058021000	Thaw and Cadoxton	Tawe to Cadoxton

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

## 6.4 WFD Surface water bodies

<b>Records identified</b>	<b>1</b>
---------------------------	----------

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 48**

ID	Location	Type	Name	Water body ID	Overall rating	Chemical rating	Ecological rating	Year
-	517m NW	River	Kenson - conf with Waycock to conf with Thaw	GB110058021000	Poor	Good	Poor	2016

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

## 6.5 WFD Groundwater bodies

<b>Records on site</b>	<b>1</b>
------------------------	----------

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 48**

ID	Location	Name	Water body ID	Overall rating	Chemical rating	Quantitative	Year
3	On site	Thaw & Cadoxton Jurassic Lias	GB41002G201400	Good	Good	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

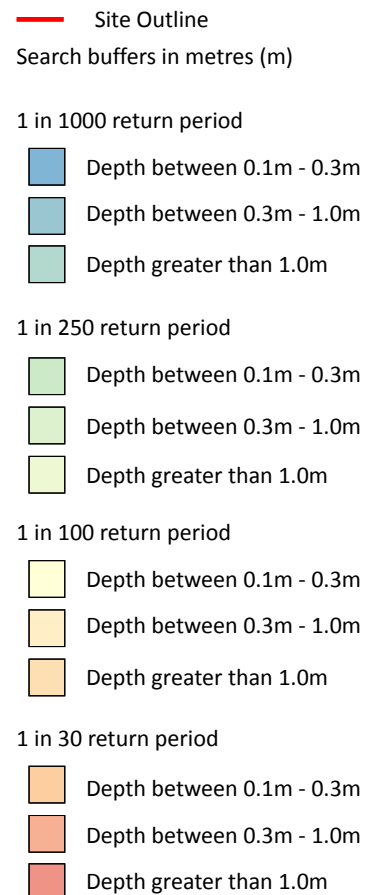
0

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



### 8.1 Surface water flooding

**Highest risk on site**

**1 in 30 year, 0.3m - 1.0m**

**Highest risk within 50m**

**1 in 30 year, 0.3m - 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 55**

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.

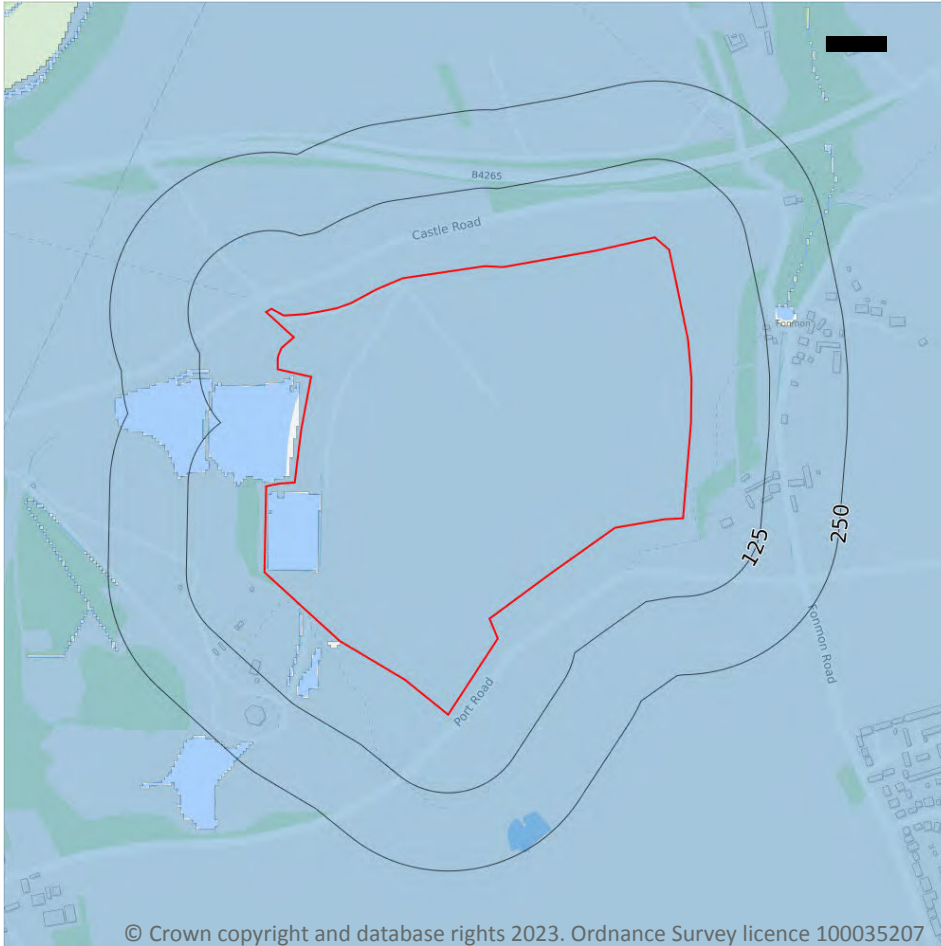
The table below shows the maximum flood depths for a range of return periods for the site.

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	Between 0.3m and 1.0m
1 in 30 year	Between 0.3m and 1.0m

*This data is sourced from Ambiantal 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**

**Negligible**

**Highest risk within 50m**

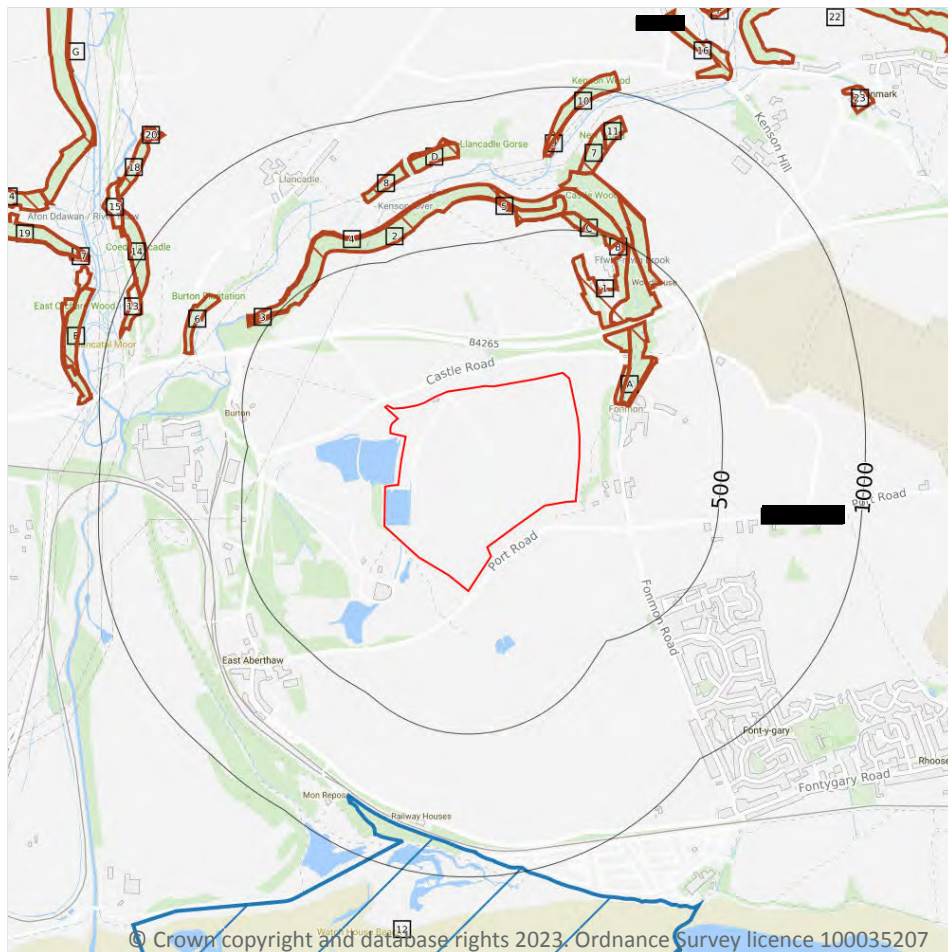
**Negligible**

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 57**

*This data is sourced from Ambiantal Risk Analytics.*

## 10 Environmental designations



- Site Outline
- Search buffers in metres (m)
- Sites of Special Scientific Interest (SSSI)
- Designated Ancient Woodland

### 10.1 Sites of Special Scientific Interest (SSSI)

#### Records within 2000m

1

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 58**

ID	Location	Name	Data source
12	829m S	East Aberthaw Coast	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**

**0**

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

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

## 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****46**

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 58**

ID	Location	Name	Woodland Type
A	140m NE	Unknown	Ancient Semi Natural Woodland
A	160m NE	Unknown	Ancient Semi Natural Woodland
A	186m NE	Unknown	Ancient Semi Natural Woodland
1	211m NE	Unknown	Restored Ancient Woodland Site
B	245m NE	Unknown	Ancient Semi Natural Woodland
B	419m NE	Unknown	Ancient Semi Natural Woodland
C	464m NE	Unknown	Plantation on Ancient Woodland Site
2	468m NW	Unknown	Ancient Semi Natural Woodland
3	478m NW	Unknown	Ancient Semi Natural Woodland
C	505m NE	Unknown	Plantation on Ancient Woodland Site
4	515m NW	Unknown	Ancient Semi Natural Woodland
5	541m N	Unknown	Ancient Semi Natural Woodland
6	690m NW	Unknown	Ancient Semi Natural Woodland
7	701m N	Unknown	Ancient Semi Natural Woodland
8	714m NW	Unknown	Ancient Semi Natural Woodland
9	760m N	Unknown	Restored Ancient Woodland Site





ID	Location	Name	Woodland Type
10	772m N	Unknown	Restored Ancient Woodland Site
D	775m N	Unknown	Ancient Semi Natural Woodland
11	792m N	Unknown	Plantation on Ancient Woodland Site
D	820m N	Unknown	Ancient Semi Natural Woodland
13	913m NW	Unknown	Ancient Semi Natural Woodland
14	934m NW	Unknown	Ancient Semi Natural Woodland
E	1028m W	Unknown	Ancient Semi Natural Woodland
15	1057m NW	Unknown	Ancient Semi Natural Woodland
E	1081m W	Unknown	Ancient Semi Natural Woodland
16	1137m NE	Unknown	Ancient Semi Natural Woodland
17	1158m NW	Unknown	Restored Ancient Woodland Site
18	1181m NW	Unknown	Ancient Semi Natural Woodland
19	1191m NW	Unknown	Restored Ancient Woodland Site
20	1227m NW	Unknown	Ancient Semi Natural Woodland
21	1237m NW	Unknown	Restored Ancient Woodland Site
22	1281m NE	Unknown	Ancient Semi Natural Woodland
F	1350m NE	Unknown	Ancient Semi Natural Woodland
F	1362m NE	Unknown	Ancient Semi Natural Woodland
G	1368m NW	Unknown	Ancient Semi Natural Woodland
G	1369m NW	Unknown	Ancient Semi Natural Woodland
23	1371m NE	Unknown	Ancient Semi Natural Woodland
24	1371m NW	Unknown	Restored Ancient Woodland Site
-	1400m NE	Unknown	Ancient Semi Natural Woodland
-	1513m N	Unknown	Ancient Semi Natural Woodland
-	1527m N	Unknown	Ancient Semi Natural Woodland
-	1667m NW	Unknown	Ancient Semi Natural Woodland
28	1765m NE	Unknown	Ancient Semi Natural Woodland
-	1921m NE	Unknown	Ancient Semi Natural Woodland



ID	Location	Name	Woodland Type
-	1972m NE	Unknown	Ancient Semi Natural Woodland
-	1995m 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

### 10.17 SSSI Impact Risk Zones

Records on site

0

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.

*This data is sourced from Natural England.*

### 10.18 SSSI Units

Records within 2000m

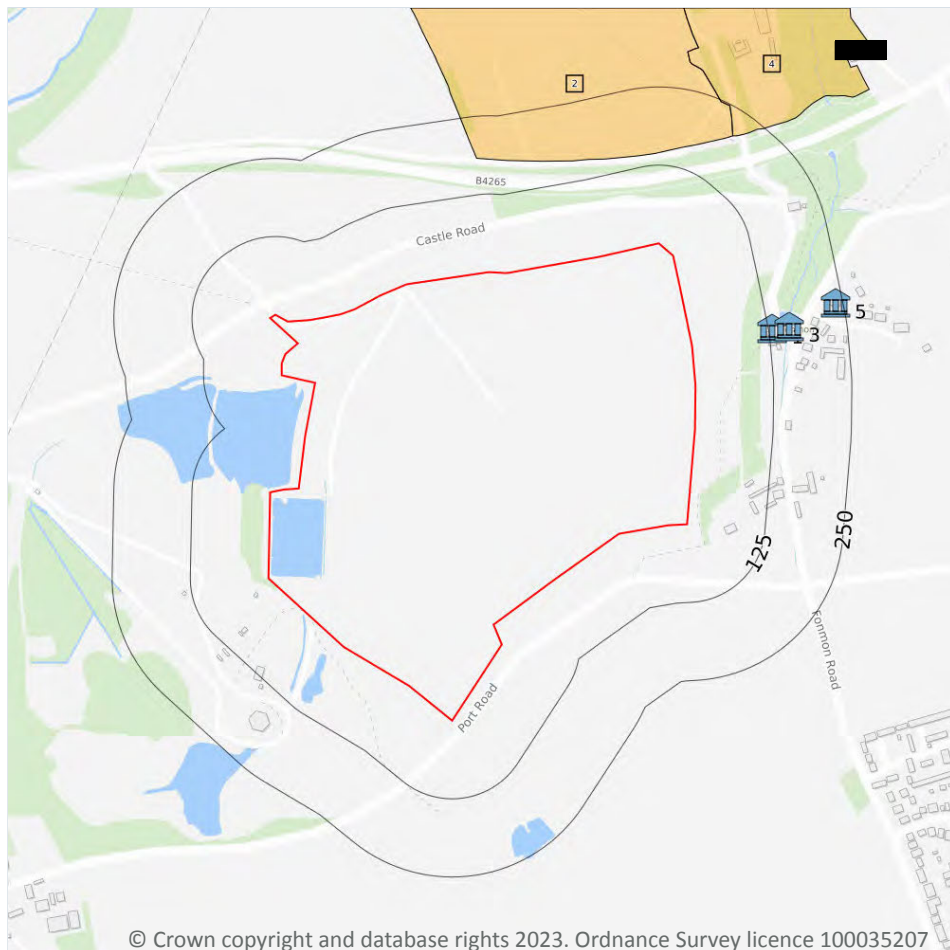
0

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



- Site Outline
- Search buffers in metres (m)
- Listed buildings
- Conservation areas
- Conservation areas - no data
- National Parks
- Areas of Outstanding Natural Beauty
- Registered parks and gardens
- Scheduled Monuments
- World Heritage Sites

### 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

3

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

Features are displayed on the Visual and cultural designations map on **page 66**

ID	Location	Name	Grade	Reference Number	Listed date
1	132m NE	Fonmon Well, About 25m west of Fonmon pond beside the road to Fonmon Castle.	II	83153	30/09/2004
3	159m E	Walls surrounding Fonmon Pond including the Bridge and Weir and Well at Fonmon, In the centre of Fonmon village.	II	83165	30/09/2004
5	239m NE	East Hall (aka Rosedene), In Fonmon village about 100m north-east of the pond approached up a lane off the road to Penmark.	II	83151	30/09/2004

*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

2

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

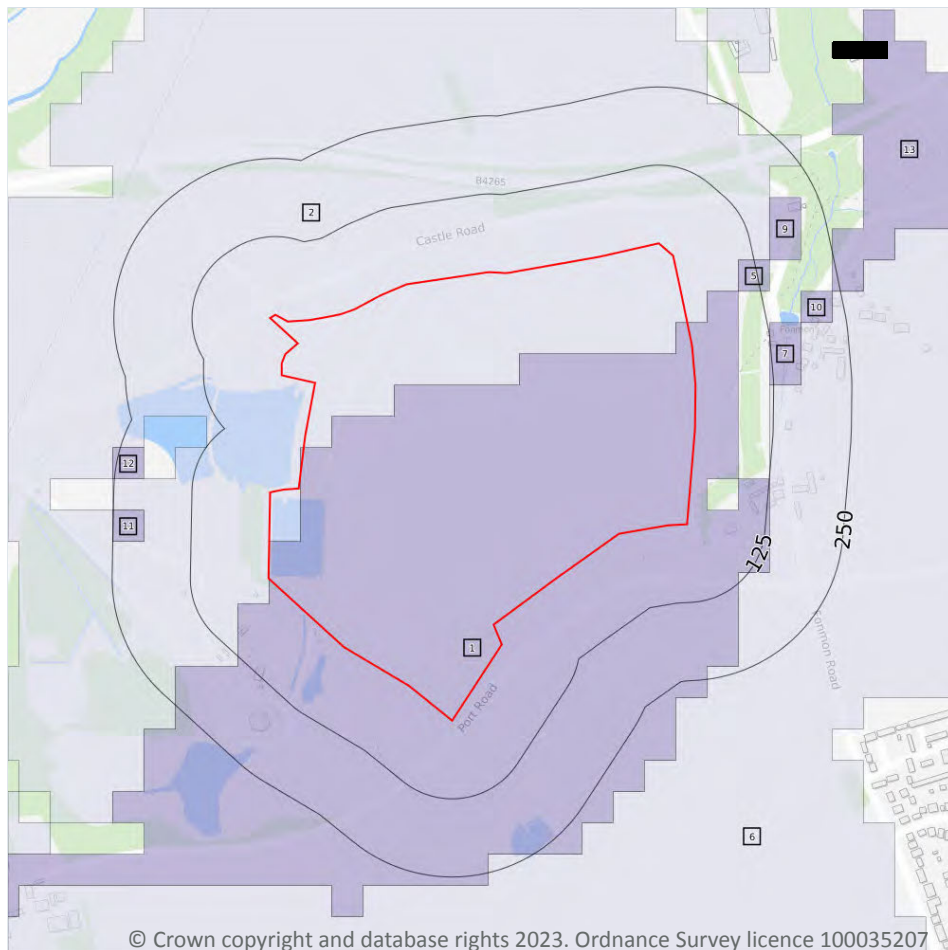
Features are displayed on the Visual and cultural designations map on **page 66**

ID	Location	Name	Grade
2	143m NE	Fonmon Castle	
4	209m NE	Fonmon Castle	II

*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

10

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 69**

ID	Location	Classification	Description
1	On site	Grade 4	Poor quality agricultural land
2	On site	Grade 3b	Moderate quality agricultural land
5	90m NE	Grade 4	Poor quality agricultural land

ID	Location	Classification	Description
6	113m SE	Grade 3b	Moderate quality agricultural land
7	118m E	Grade 4	Poor quality agricultural land
9	149m NE	Grade 4	Poor quality agricultural land
10	178m E	Grade 4	Poor quality agricultural land
11	200m W	Grade 4	Poor quality agricultural land
12	203m W	Grade 4	Poor quality agricultural land
13	237m NE	Grade 4	Poor 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

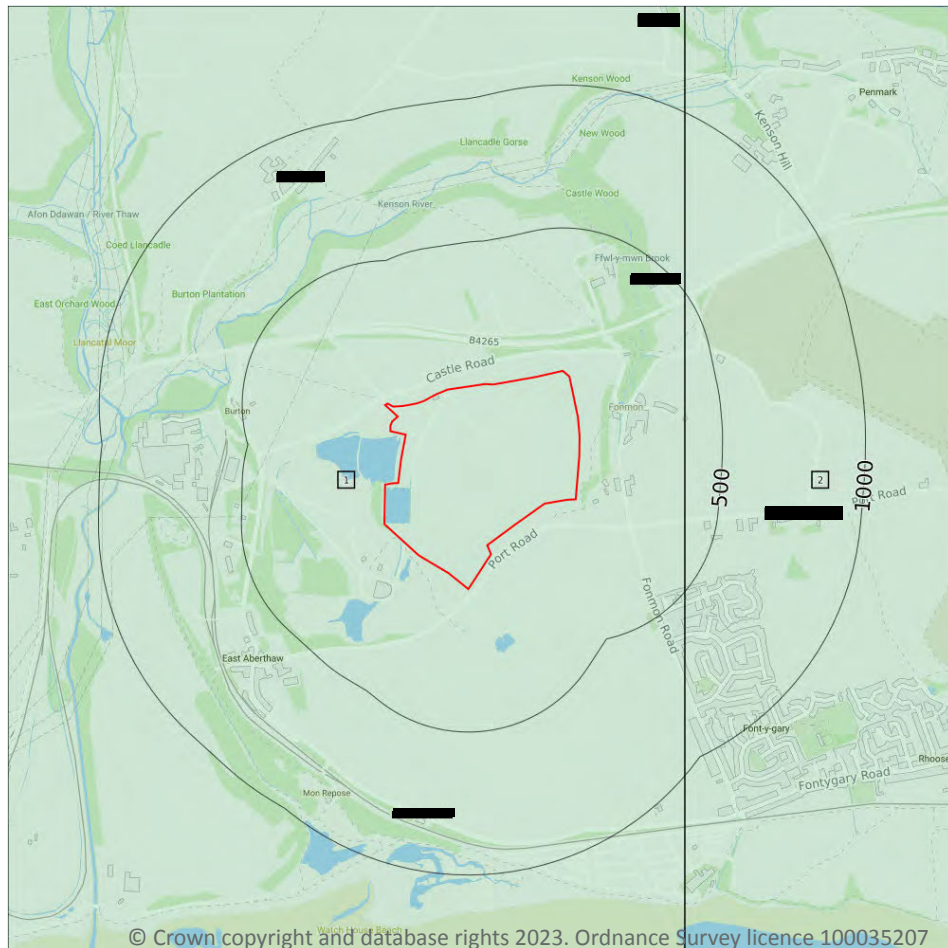
Limestone pavements are outcrops of limestone where the surface has been worn away by natural means over millennia. These rocks have the appearance of paving blocks, hence their name. Not only do they have geological interest, they also provide valuable habitats for wildlife. These habitats are threatened 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

2

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

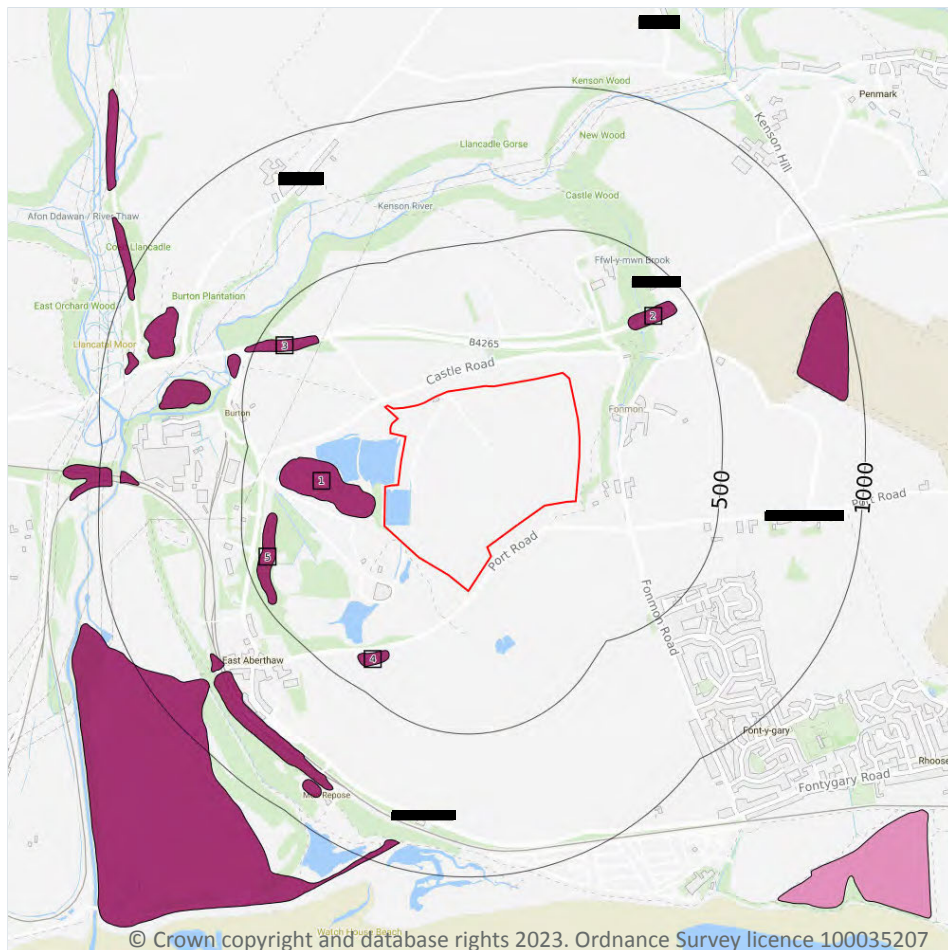
Features are displayed on the Geology 1:10,000 scale - Availability map on **page 73**

ID	Location	Artificial	Superficial	Bedrock	Mass movement	Sheet No.
1	On site	Full	Full	Full	No coverage	ST06NW
2	368m E	Full	Full	Full	Full	ST06NE

*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

5

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 74**

ID	Location	LEX Code	Description	Rock description
1	33m W	MGR-ARTDP	Made Ground (Undivided)	Artificial Deposit
2	278m NE	MGR-ARTDP	Made Ground (Undivided)	Artificial Deposit
3	324m NW	MGR-ARTDP	Made Ground (Undivided)	Artificial Deposit
4	337m SW	MGR-ARTDP	Made Ground (Undivided)	Artificial Deposit

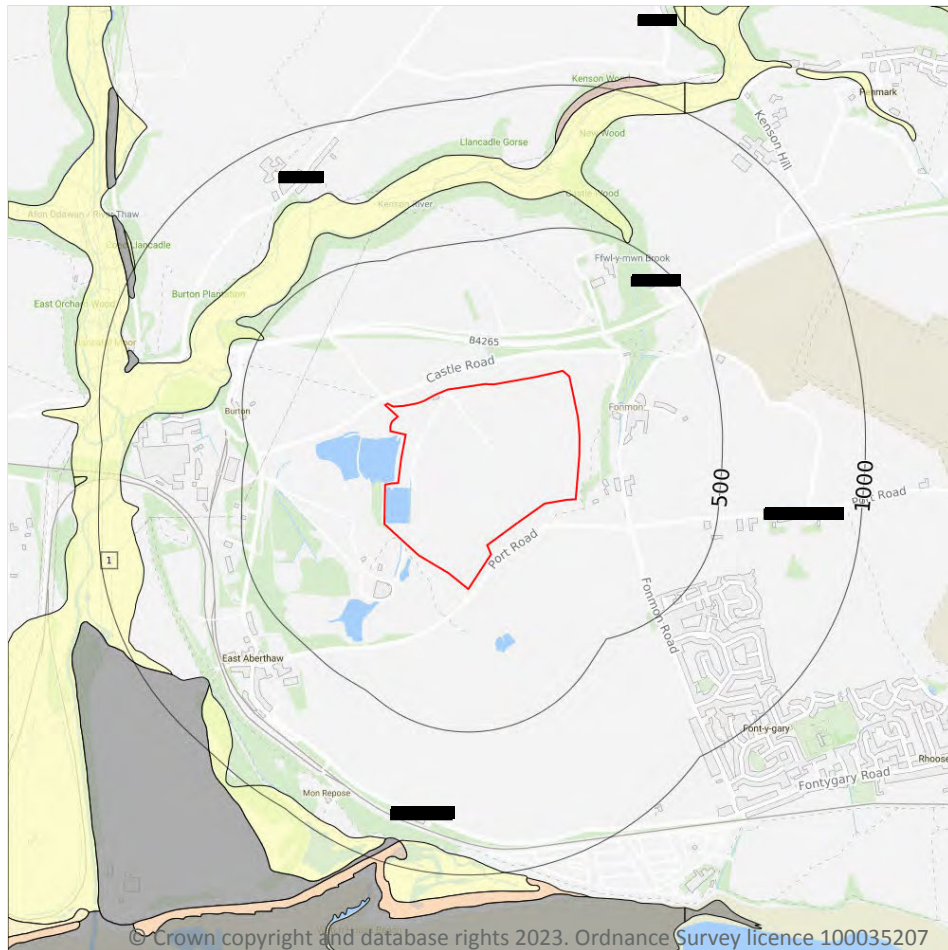


ID	Location	LEX Code	Description	Rock description
5	375m W	MGR-ARTDP	Made Ground (Undivided)	Artificial Deposit

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



## Geology 1:10,000 scale - Superficial



**Site Outline**

Search buffers in metres (m)

**Landslip (10k)**

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

### 14.3 Superficial geology (10k)

#### Records within 500m

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 76**

ID	Location	LEX Code	Description	Rock description
1	483m NW	ALV-XCZSV	Alluvium - Clay, Silt, Sand And Gravel	Clay, Silt, Sand And Gravel

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



## 14.4 Landslip (10k)

Records within 500m

0

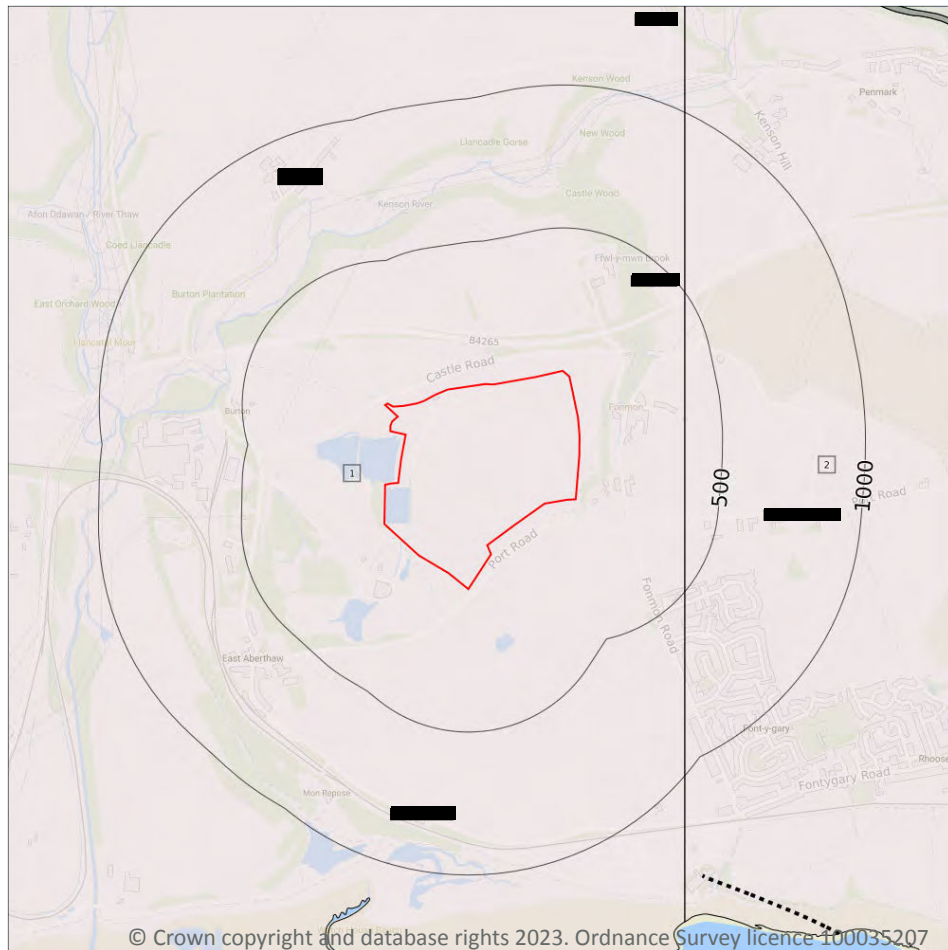
Mass movement deposits on BGS geological maps at 1:10,000 scale. Primarily superficial deposits that have moved down slope under gravity to form landslips. These affect bedrock, other superficial deposits and artificial ground.

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





## Geology 1:10,000 scale - Bedrock



**— Site Outline**

**Search buffers in metres (m)**

**.... Bedrock faults and other linear features (10k)**

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

### 14.5 Bedrock geology (10k)

#### Records within 500m

2

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 78**

ID	Location	LEX Code	Description	Rock age
1	On site	PO-LSMD	Porthkerry Member - Interbedded Limestone And Mudstone	Sinemurian Age - Hettangian Age
2	368m E	PO-LSMD	Porthkerry Member - Interbedded Limestone And Mudstone	Sinemurian Age - Hettangian Age

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





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

Records within 500m

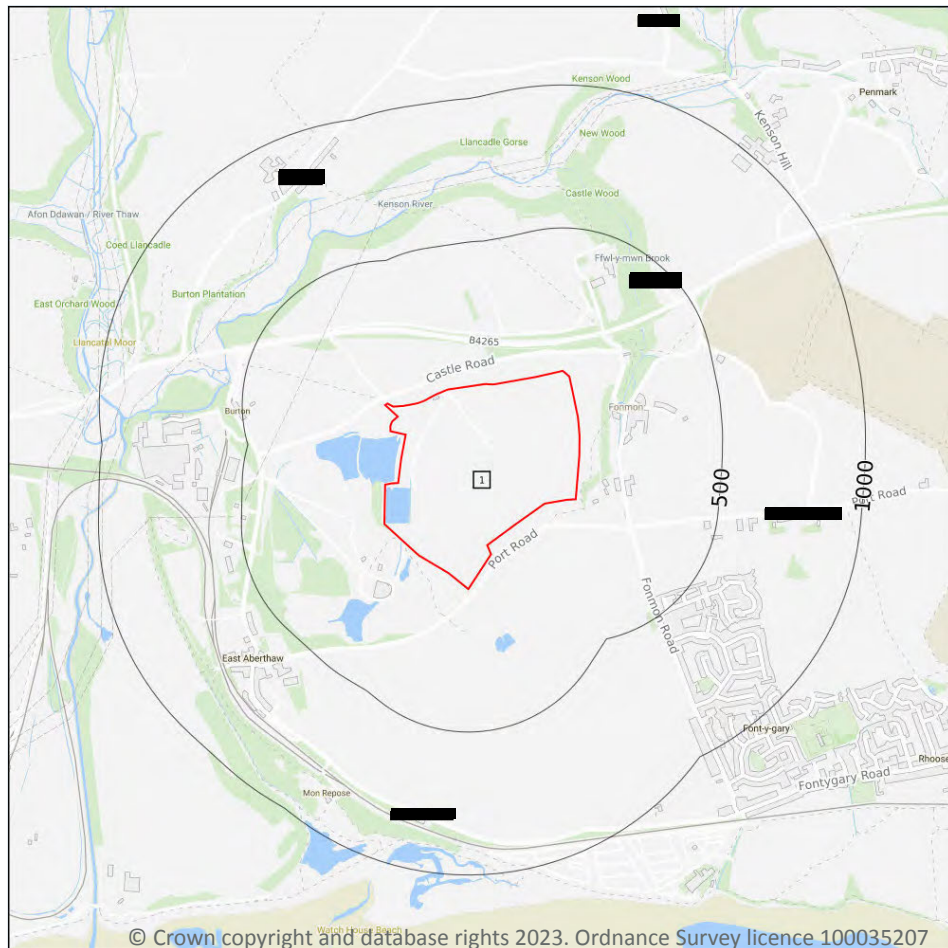
0

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

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



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



— 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 80**

ID	Location	Artificial	Superficial	Bedrock	Mass movement	Sheet No.
1	On site	Full	Full	Full	Full	EW261_262_sker_point_and_bridgend_v4

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



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

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

Records within 500m

0

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

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

### 15.3 Artificial ground permeability (50k)

Records within 50m

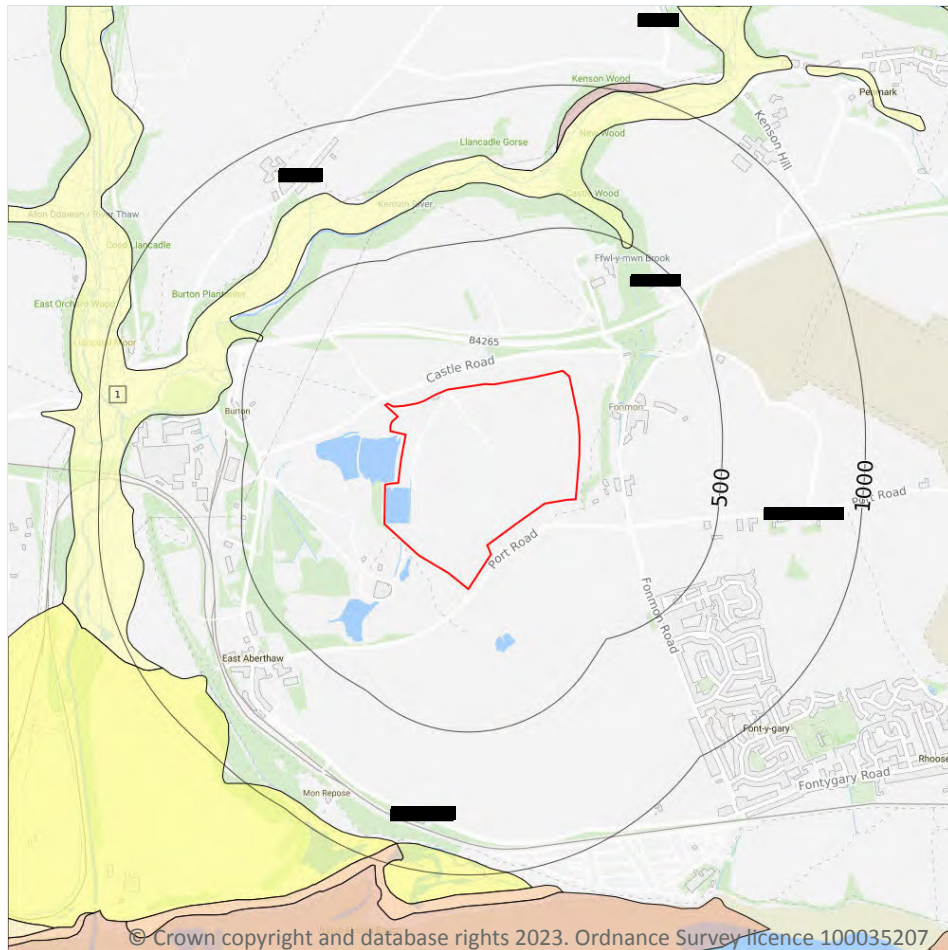
0

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

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



## Geology 1:50,000 scale - Superficial



### 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 82**

ID	Location	LEX Code	Description	Rock description
1	482m NE	ALV-XCZSV	ALLUVIUM	CLAY, SILT, SAND AND GRAVEL

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



## 15.5 Superficial permeability (50k)

Records within 50m

0

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).

*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

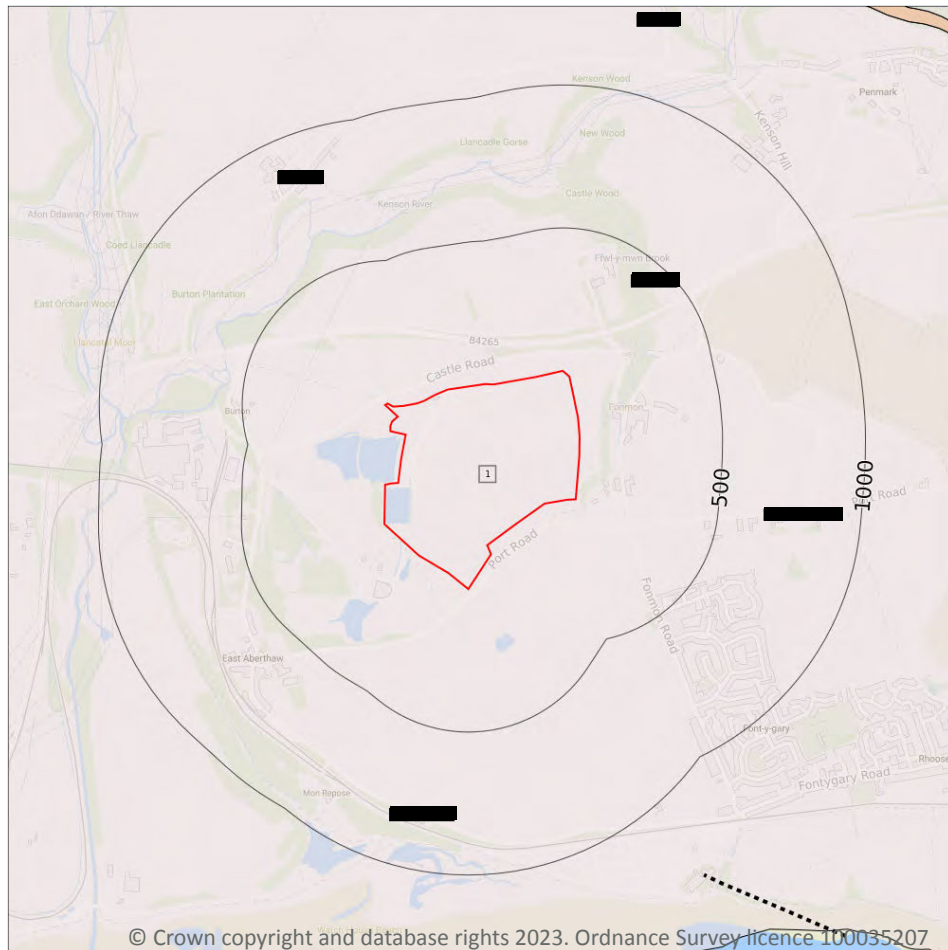
0

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

1

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 84**

ID	Location	LEX Code	Description	Rock age
1	On site	PO-LSMD	PORTKERRY MEMBER - LIMESTONE AND MUDSTONE, INTERBEDDED	HETTANGIAN

*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	Very High	Low

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

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

### Records within 500m

**0**

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.

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



## 16 Boreholes

### 16.1 BGS Boreholes

Records within 250m

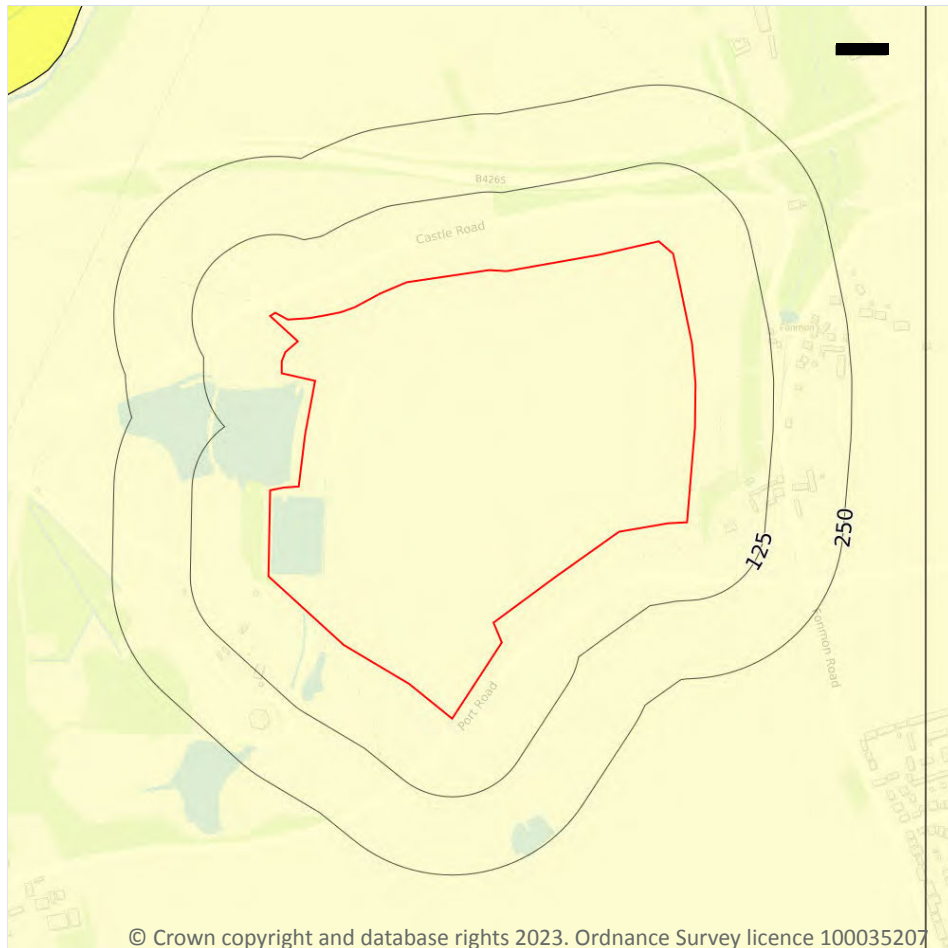
0

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.

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



## 17 Natural ground subsidence - Shrink swell clays



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

### 17.1 Shrink swell clays

#### Records within 50m

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).

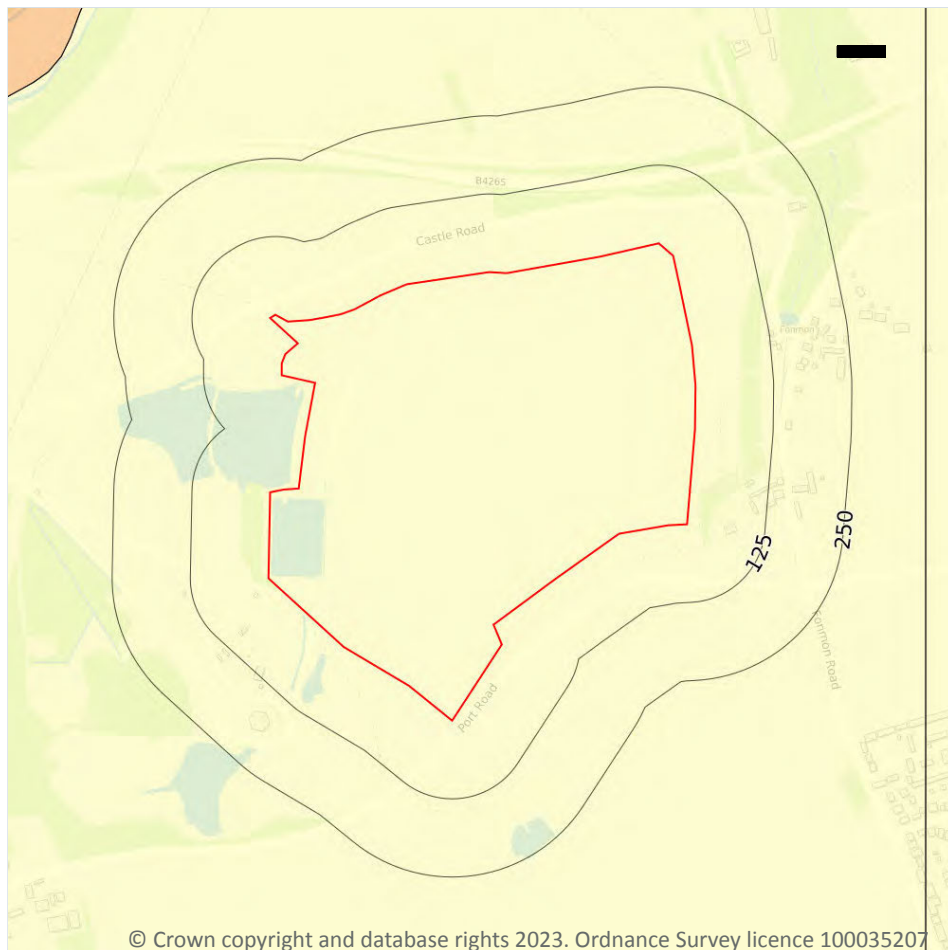
Features are displayed on the Natural ground subsidence - Shrink swell clays map on **page 87**

Location	Hazard rating	Details
On site	Negligible	Ground conditions predominantly non-plastic.

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



## Natural ground subsidence - Running sands



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

### 17.2 Running sands

#### Records within 50m

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.

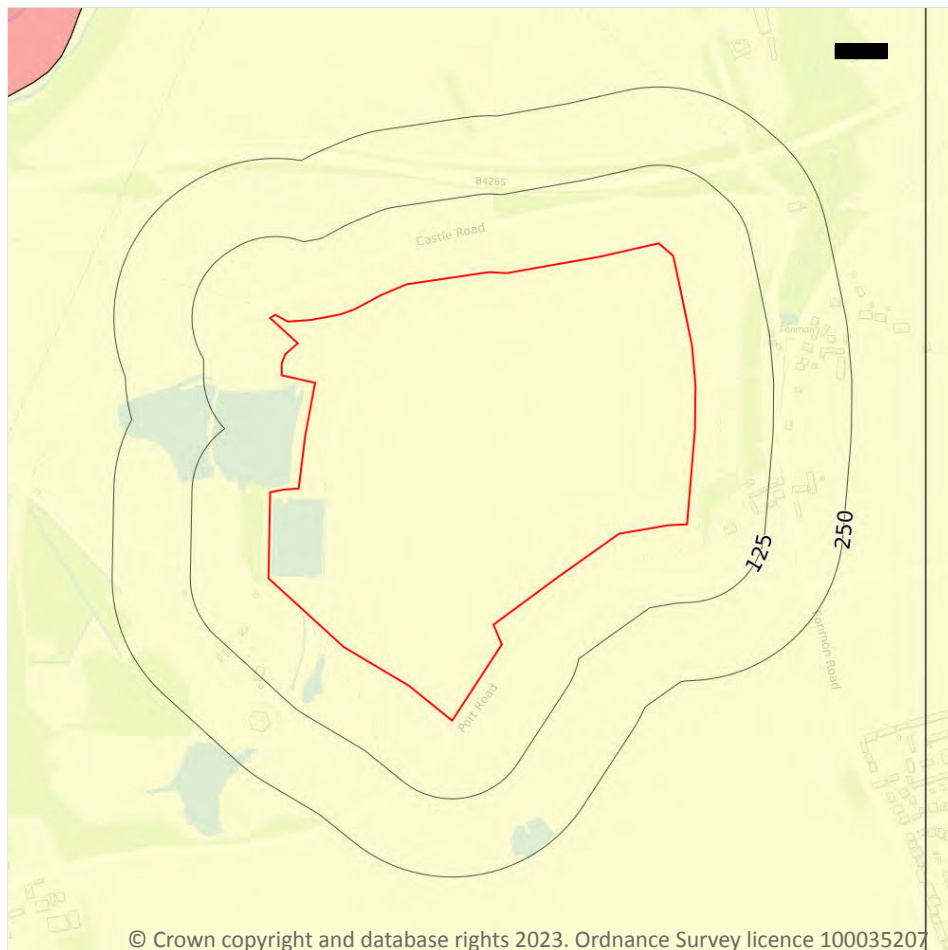
Features are displayed on the Natural ground subsidence - Running sands map on **page 88**

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

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



## Natural ground subsidence - Compressible deposits



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

### 17.3 Compressible deposits

#### Records within 50m

1

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

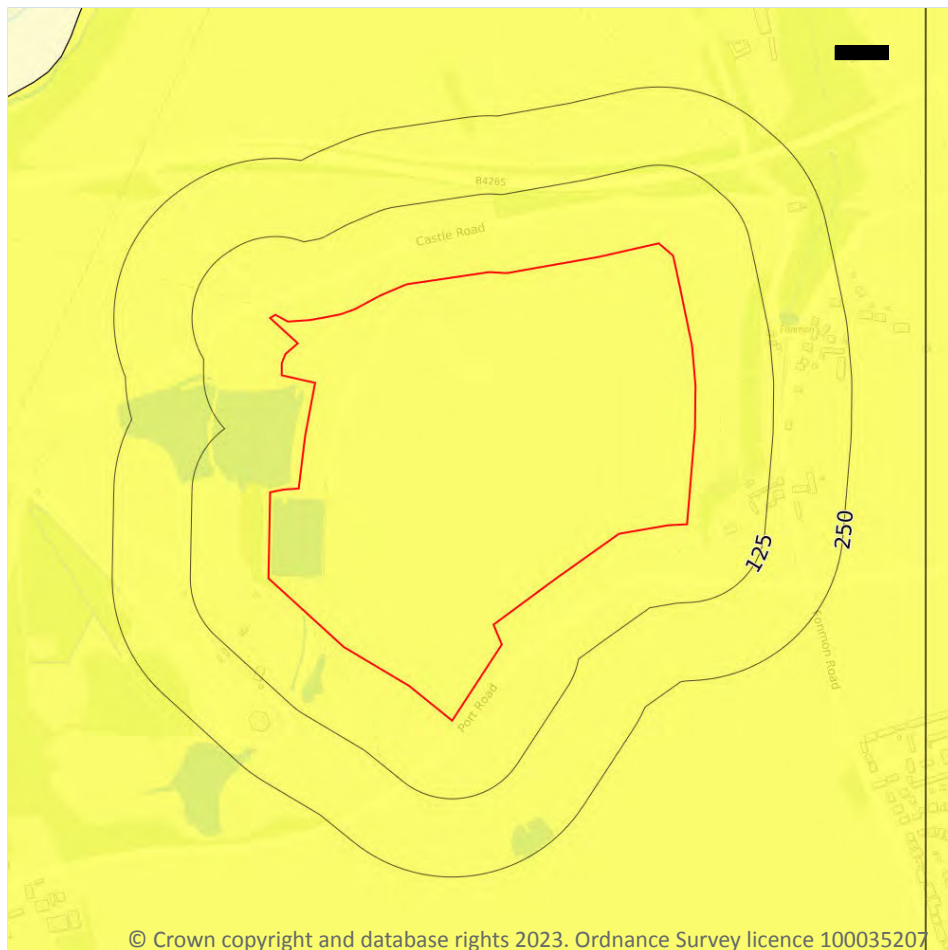
Features are displayed on the Natural ground subsidence - Compressible deposits map on **page 89**

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

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



## Natural ground subsidence - Collapsible deposits



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

### 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 90**

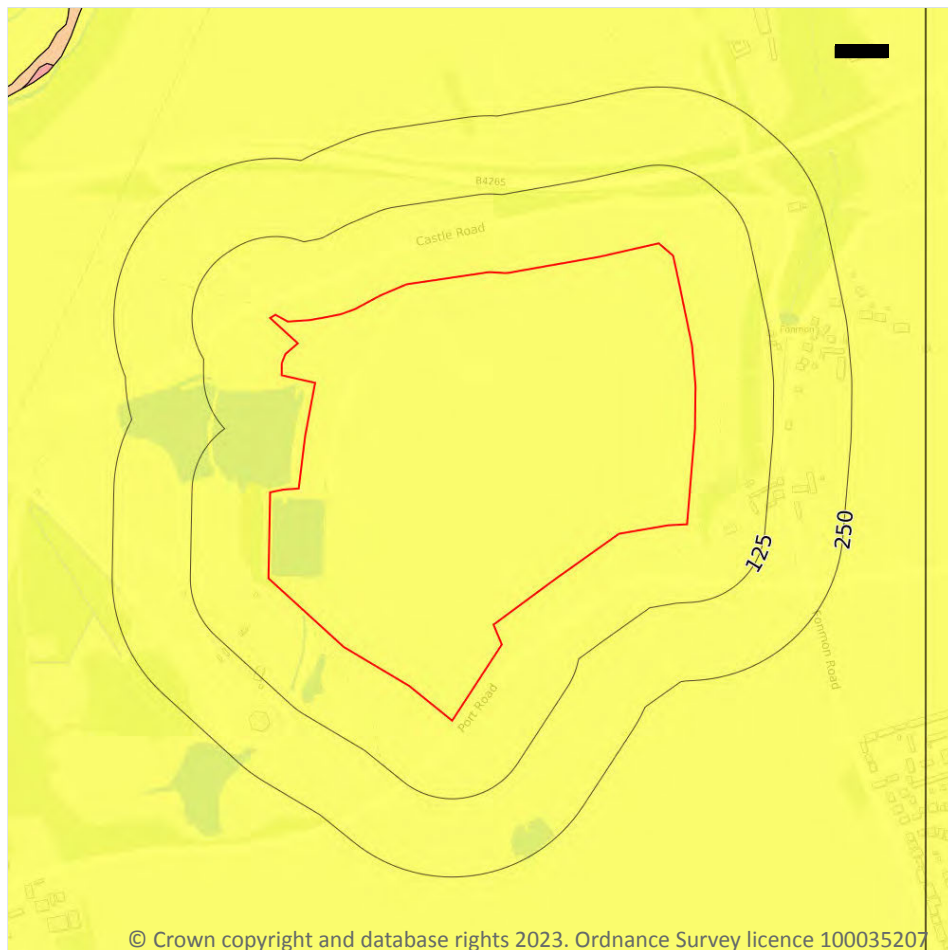
Location	Hazard rating	Details
On site	Very low	Deposits with potential to collapse when loaded and saturated are unlikely to be present.

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





## Natural ground subsidence - Landslides



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

### 17.5 Landslides

#### Records within 50m

1

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

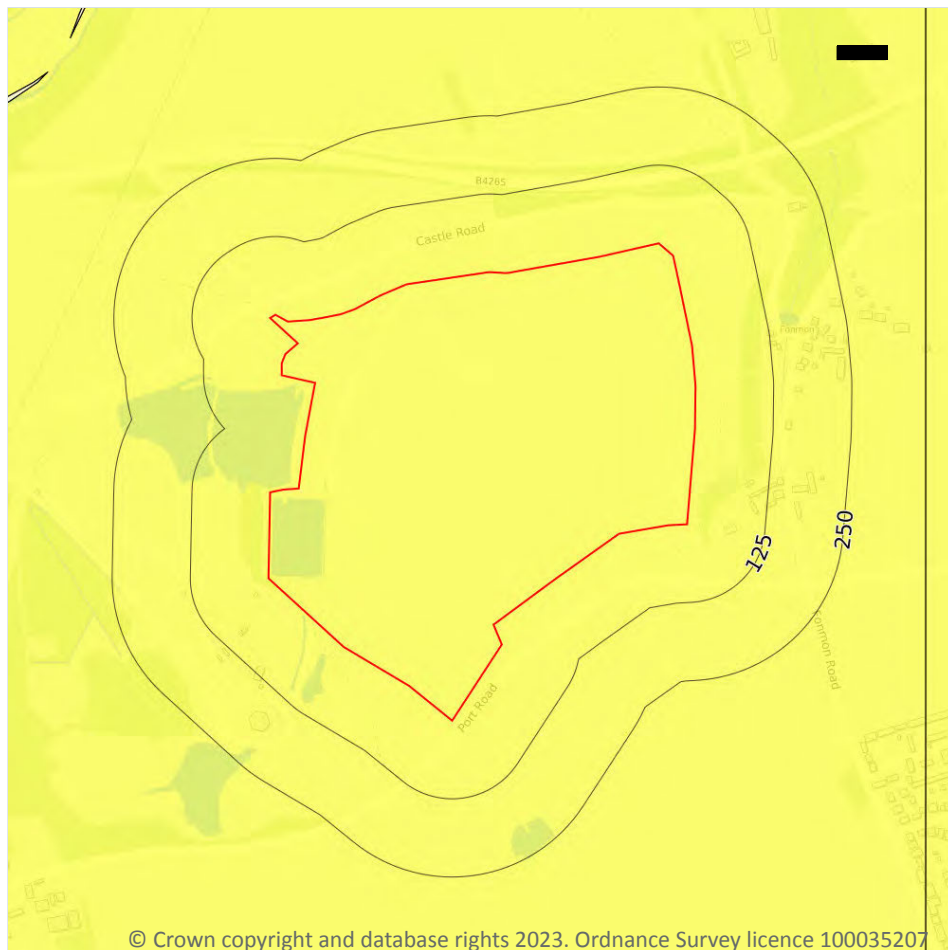
Features are displayed on the Natural ground subsidence - Landslides map on **page 91**

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

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



## Natural ground subsidence - Ground dissolution of soluble rocks



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

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### 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 92**

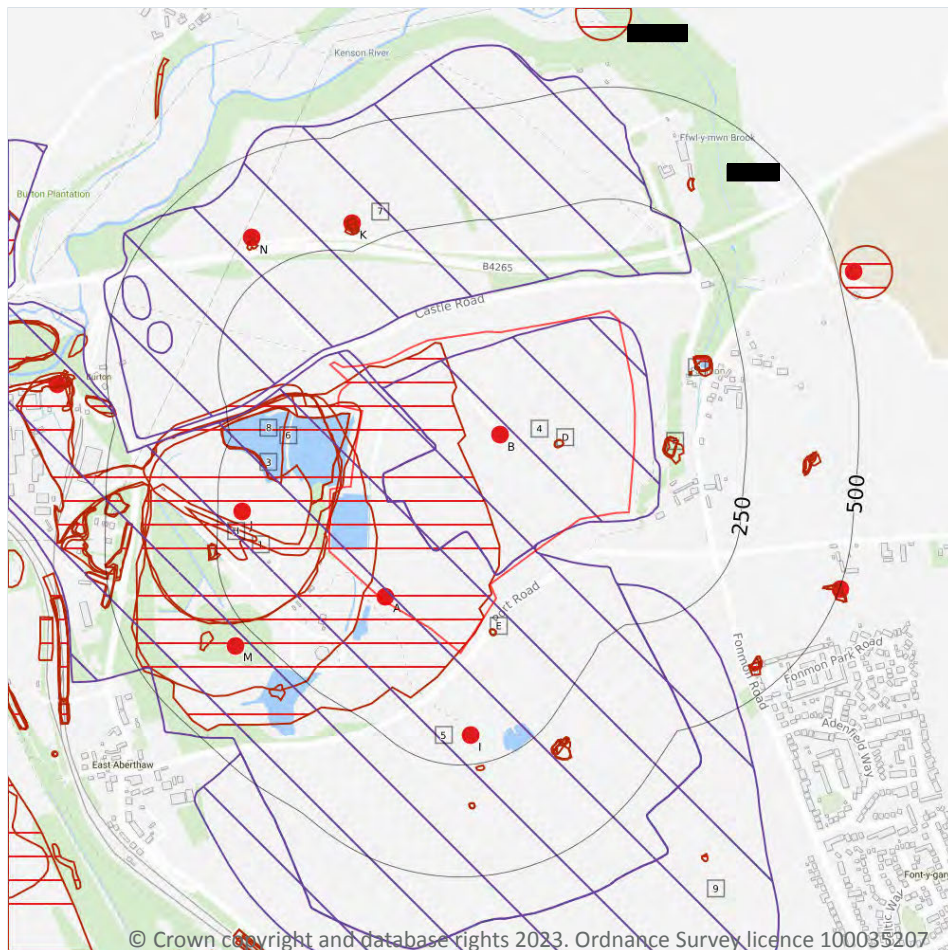
Location	Hazard rating	Details
On site	Very low	Soluble rocks are present within the ground. Few dissolution features are likely to be present. Potential for difficult ground conditions or localised subsidence are at a level where they need not be considered.



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



## 18 Mining, ground workings and natural cavities



- Site Outline
- Search buffers in metres (m)
- Natural cavities (Area)
- Natural cavities (Point)
- BritPits
- Surface ground workings
- Underground workings
- Historical Mineral Planning Areas
- Mining Cavities
- 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 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.*

## 18.2 BritPits

### Records within 500m

12

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, ground workings and natural cavities map on **page 94**

ID	Location	Details	Description
A	On site	<b>Name:</b> Aberthaw Quarry <b>Address:</b> East Aberthaw, BARRY, Glamorgan <b>Commodity:</b> Clay & Shale <b>Status:</b> Inactive	<b>Type:</b> A surface mineral working. It may be termed Quarry, Sand Pit, Clay Pit or Opencast Coal Site <b>Status description:</b> Site which, at date of entry, is not extracting minerals, but which still has a valid planning permission to do so, and can restart at any time. May be considered Mothballed by operator. May be considered to have Active or Dormant planning permission
A	On site	<b>Name:</b> Aberthaw Quarry <b>Address:</b> East Aberthaw, BARRY, Glamorgan <b>Commodity:</b> Limestone <b>Status:</b> Inactive	<b>Type:</b> A surface mineral working. It may be termed Quarry, Sand Pit, Clay Pit or Opencast Coal Site <b>Status description:</b> Site which, at date of entry, is not extracting minerals, but which still has a valid planning permission to do so, and can restart at any time. May be considered Mothballed by operator. May be considered to have Active or Dormant planning permission
B	On site	<b>Name:</b> Aberthaw Quarry <b>Address:</b> East Aberthaw, BARRY, Glamorgan <b>Commodity:</b> Clay & Shale <b>Status:</b> Inactive	<b>Type:</b> A surface mineral working. It may be termed Quarry, Sand Pit, Clay Pit or Opencast Coal Site <b>Status description:</b> Site which, at date of entry, is not extracting minerals, but which still has a valid planning permission to do so, and can restart at any time. May be considered Mothballed by operator. May be considered to have Active or Dormant planning permission
B	On site	<b>Name:</b> Aberthaw Quarry <b>Address:</b> East Aberthaw, BARRY, Glamorgan <b>Commodity:</b> Limestone <b>Status:</b> Inactive	<b>Type:</b> A surface mineral working. It may be termed Quarry, Sand Pit, Clay Pit or Opencast Coal Site <b>Status description:</b> Site which, at date of entry, is not extracting minerals, but which still has a valid planning permission to do so, and can restart at any time. May be considered Mothballed by operator. May be considered to have Active or Dormant planning permission
I	184m S	<b>Name:</b> Aberthaw Quarry, South <b>Address:</b> East Aberthaw, BARRY, Glamorgan <b>Commodity:</b> Clay & Shale <b>Status:</b> Active	<b>Type:</b> A surface mineral working. It may be termed Quarry, Sand Pit, Clay Pit or Opencast Coal Site <b>Status description:</b> Site which is actively extracting mineral products, or in the case of wharfs and rail depots, is actively handing minerals



ID	Location	Details	Description
I	184m S	Name: Aberthaw Quarry, South Address: East Aberthaw, BARRY, Glamorgan Commodity: Limestone Status: Active	Type: A surface mineral working. It may be termed Quarry, Sand Pit, Clay Pit or Opencast Coal Site Status description: Site which is actively extracting mineral products, or in the case of wharfs and rail depots, is actively handing minerals
J	195m W	Name: Aberthaw Quarry Address: East Aberthaw, BARRY, Glamorgan Commodity: Clay & Shale Status: Ceased	Type: A surface mineral working. It may be termed Quarry, Sand Pit, Clay Pit or Opencast Coal Site Status description: Site which, at date of entry, has ceased to extract minerals. May be considered as Closed by operator. May be considered to have Active, Dormant or Expired planning permissions by Mineral Planning Authority
J	195m W	Name: Aberthaw Quarry Address: East Aberthaw, BARRY, Glamorgan Commodity: Limestone Status: Ceased	Type: A surface mineral working. It may be termed Quarry, Sand Pit, Clay Pit or Opencast Coal Site Status description: Site which, at date of entry, has ceased to extract minerals. May be considered as Closed by operator. May be considered to have Active, Dormant or Expired planning permissions by Mineral Planning Authority
M	297m SW	Name: Aberthaw Quarry Address: East Aberthaw, BARRY, Glamorgan Commodity: Clay & Shale Status: Inactive	Type: A surface mineral working. It may be termed Quarry, Sand Pit, Clay Pit or Opencast Coal Site Status description: Site which, at date of entry, is not extracting minerals, but which still has a valid planning permission to do so, and can restart at any time. May be considered Mothballed by operator. May be considered to have Active or Dormant planning permission
M	297m SW	Name: Aberthaw Quarry Address: East Aberthaw, BARRY, Glamorgan Commodity: Limestone Status: Inactive	Type: A surface mineral working. It may be termed Quarry, Sand Pit, Clay Pit or Opencast Coal Site Status description: Site which, at date of entry, is not extracting minerals, but which still has a valid planning permission to do so, and can restart at any time. May be considered Mothballed by operator. May be considered to have Active or Dormant planning permission
K	307m NW	Name: Burton Bridge Address: St Athan, BARRY, South Glamorgan Commodity: Limestone Status: Ceased	Type: A surface mineral working. It may be termed Quarry, Sand Pit, Clay Pit or Opencast Coal Site Status description: Site which, at date of entry, has ceased to extract minerals. May be considered as Closed by operator. May be considered to have Active, Dormant or Expired planning permissions by Mineral Planning Authority





ID	Location	Details	Description
N	332m NW	Name: Burton Bridge Address: St Athan, BARRY, South Glamorgan Commodity: Limestone Status: Ceased	Type: A surface mineral working. It may be termed Quarry, Sand Pit, Clay Pit or Opencast Coal Site Status description: Site which, at date of entry, has ceased to extract minerals. May be considered as Closed by operator. May be considered to have Active, Dormant or Expired planning permissions by Mineral Planning Authority

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

### 18.3 Surface ground workings

<b>Records within 250m</b>	<b>28</b>
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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, ground workings and natural cavities map on **page 94**

ID	Location	Land Use	Year of mapping	Mapping scale
1	On site	Limestone Quarry	1984	1:10000
2	On site	Limestone Quarry	1989	1:10000
3	On site	Unspecified Disused Quarry	1989	1:10000
C	On site	Unspecified Quarry	1947	1:10560
C	On site	Unspecified Quarry	1948	1:10560
D	On site	Pond	1947	1:10560
D	On site	Pond	1914	1:10560
6	13m W	Ponds	1989	1:10000
E	27m S	Pond	1947	1:10560
E	27m S	Pond	1914	1:10560
F	64m E	Unspecified Pit	1948	1:10560
F	68m E	Unspecified Pit	1947	1:10560
F	68m E	Unspecified Pit	1914	1:10560
F	68m E	Unspecified Pit	1921	1:10560
F	72m E	Unspecified Quarry	1878	1:10560
8	111m W	Pond	1984	1:10000



ID	Location	Land Use	Year of mapping	Mapping scale
G	130m NE	Reservoir	1878	1:10560
G	145m NE	Pool	1984	1:10000
G	145m NE	Pond	1989	1:10000
G	145m NE	Pool	1948	1:10560
G	148m NE	Pool	1947	1:10560
G	148m NE	Pool	1914	1:10560
G	148m NE	Pool	1878	1:10560
G	148m NE	Pool	1921	1:10560
G	149m NE	Pool	1898	1:10560
H	162m W	Pond	1989	1:10000
H	243m W	Unspecified Quarry	1878	1:10560
H	250m W	Unspecified Old Quarry	1898	1:10560

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

## 18.4 Underground workings

**Records within 1000m**

**0**

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

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

## 18.5 Historical Mineral Planning Areas

**Records within 500m**

**4**

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.

Features are displayed on the Mining, ground workings and natural cavities map on **page 94**

ID	Location	Site Name	Mineral	Type	Planning Status	Planning Status Date
4	On site	Aberthaw	Not available	Not available	Not available	Not available
5	On site	Aberthaw	Not available	Not available	Not available	Not available



ID	Location	Site Name	Mineral	Type	Planning Status	Planning Status Date
7	33m NW	St.Athan Road	Not available	Not available	Not available	Not available
9	156m SE	Aberthaw	Not available	Not available	Not available	Not available

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

## 18.6 Non-coal mining

**Records within 1000m**

**0**

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).

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

## 18.7 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.*

## 18.8 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.*

## 18.9 Coal mining

**Records on site**

**0**

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

*This data is sourced from the Coal Authority.*



## 18.10 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.*

## 18.11 Gypsum areas

Records on site	0
-----------------	---

Generalised areas that may be affected by gypsum extraction.

*This data is sourced from British Gypsum.*

## 18.12 Tin mining

Records on site	0
-----------------	---

Generalised areas that may be affected by historical tin mining.

*This data is sourced from Groundsure.*

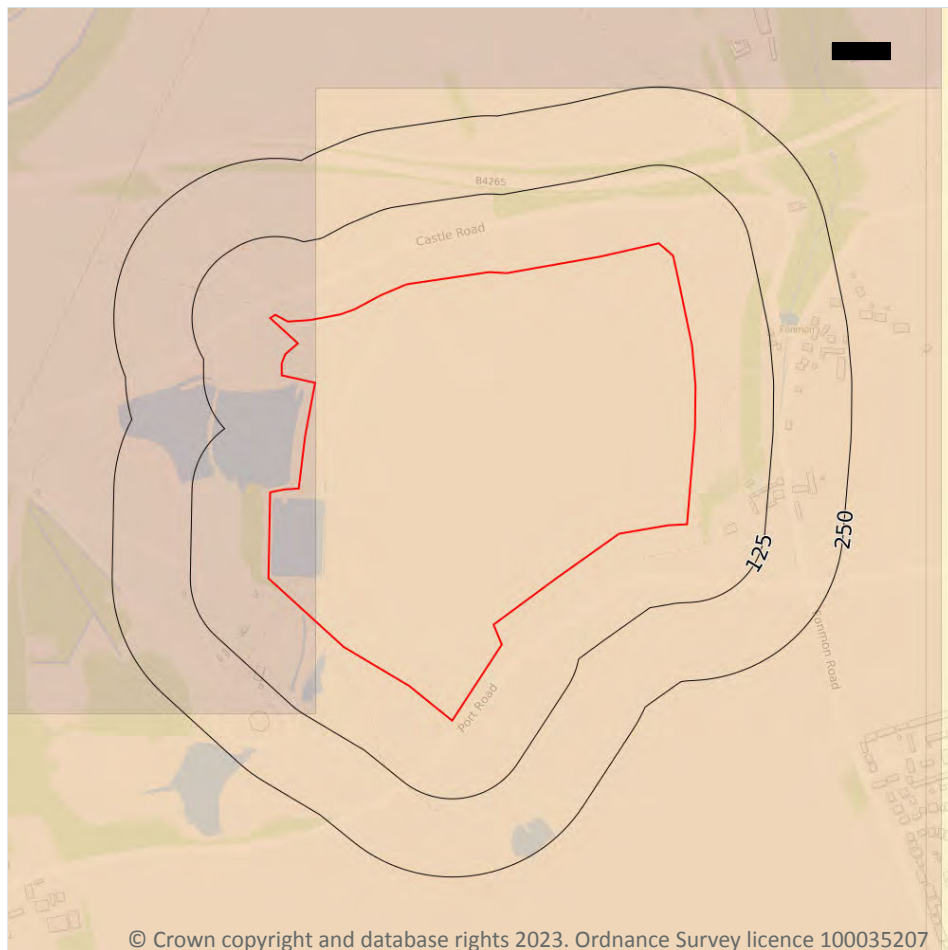
## 18.13 Clay mining

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 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%

### 19.1 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 101**

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



Location	Estimated properties affected	Radon Protection Measures required
On site	Between 10% and 30%	Full

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





## 20 Soil chemistry

### 20.1 BGS Estimated Background Soil Chemistry

Records within 50m

9

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

Location	Arsenic	Bioaccessible Arsenic	Lead	Bioaccessible Lead	Cadmium	Chromium	Nickel
On site	15 mg/kg	No data	100 mg/kg	60 mg/kg	1.8 mg/kg	40 - 60 mg/kg	30 - 45 mg/kg
On site	15 mg/kg	No data	100 mg/kg	60 mg/kg	1.8 mg/kg	40 - 60 mg/kg	30 - 45 mg/kg
On site	15 mg/kg	No data	100 mg/kg	60 mg/kg	1.8 mg/kg	40 - 60 mg/kg	30 - 45 mg/kg
On site	15 mg/kg	No data	100 mg/kg	60 mg/kg	1.8 mg/kg	60 - 90 mg/kg	30 - 45 mg/kg
On site	15 mg/kg	No data	100 mg/kg	60 mg/kg	1.8 mg/kg	60 - 90 mg/kg	30 - 45 mg/kg
On site	15 mg/kg	No data	100 mg/kg	60 mg/kg	1.8 mg/kg	60 - 90 mg/kg	30 - 45 mg/kg
On site	15 mg/kg	No data	100 mg/kg	60 mg/kg	1.8 mg/kg	60 - 90 mg/kg	30 - 45 mg/kg
On site	15 mg/kg	No data	100 mg/kg	60 mg/kg	1.8 mg/kg	60 - 90 mg/kg	30 - 45 mg/kg
On site	15 mg/kg	No data	100 mg/kg	60 mg/kg	1.8 mg/kg	60 - 90 mg/kg	30 - 45 mg/kg

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

### 20.2 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<sup>2</sup>).

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



## 20.3 BGS Measured Urban Soil Chemistry

Records within 50m

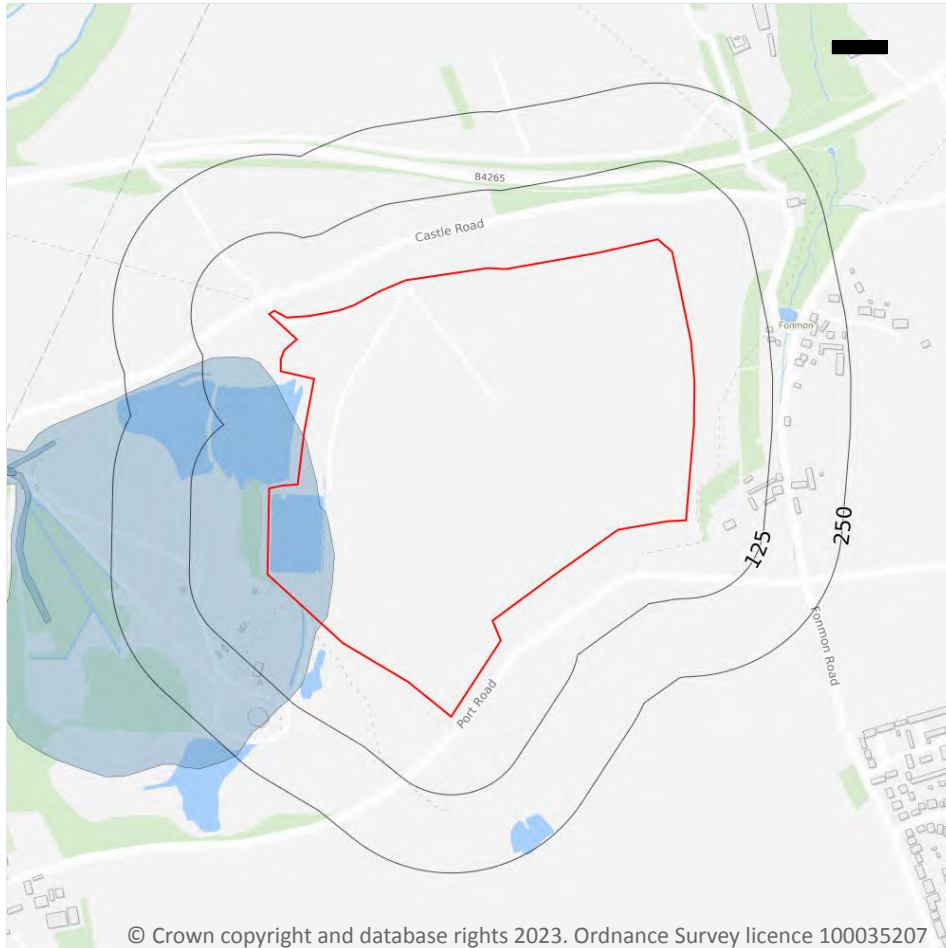
0

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<sup>2</sup>.

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



## 21 Railway infrastructure and projects



- Site Outline
- Search buffers in metres (m)
- C1 Crossrail 1 Stations
- Crossrail 1 Route
- C2 Crossrail 2 Stations
- Crossrail 2 Route
- Crossrail 2 Worksites
- Crossrail 2 Safeguarding
- Crossrail 2 Headhouses
- Railway stations
- Active railways
- Active tunnels
- Abandoned railways
- Historic railways
- Historic tunnels
- Underground stations
- Underground Lines
- Royal Mail tunnels
- HS2 optimised route
- HS2 Stations
- HS2 Depots
- HS2 Surface Safeguarding
- HS2 Subsurface Safeguarding

### 21.1 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.*

### 21.2 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.*

### 21.3 Railway tunnels

Records within 250m

0

Railway tunnels taken from contemporary Ordnance Survey mapping.

*This data is sourced from the Ordnance Survey.*

### 21.4 Historical railway and tunnel features

Records within 250m

1

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 105**

Location	Land Use	Year of mapping	Mapping scale
On site	Mineral Railway Sidings	1984	10000

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

### 21.5 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.*

### 21.6 Historical railways

Records within 250m

0

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

*This data is sourced from OpenStreetMap.*



## 21.7 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.*

## 21.8 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.*

## 21.9 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.*

## 21.10 HS2

Records within 500m

0

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

*This data is sourced from HS2 Ltd.*

## Data providers

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

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