WJ UK

Expert in Water Management

Hydrogeological Impact Appraisal

Project Name: WEPA Paper Mill, Bridgend

Client: Andrew Scott

Project No.: P2764

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WJ Document Control				
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P2764-AS-HIA-01 Revision 0	18th December 2020	U Markowicz	Dr G Holmes	Dr G Holmes

Amendment Record			
Date:	**Section No:**	**Change Description:**	**Changed By:**

TABLE OF CONTENTS

1. THE SITE

Introduction

The main contract works involve the redevelopment of the site, including construction of several new structures on site. In particular, Department B and Department C will be constructed as follows:

- Department B: lower level excavation over a plan size of 60m by 25m. The existing ground level at the site varies between 81 mOD to the south and the east of the proposed building down to 77 mOD to the north and west, with the excavation down to 74.0 mOD. The excavation side support is by a combination of contiguous piles along the higher ground (installed from 81.0 mOD) and battered side slopes where the ground slopes down. The piling platform within Department B will be constructed at two levels: upper platform at 81.05 mOD and lower platform at 75.0 mOD.
- Department C: is approximately 95 m by 45m in plan size. The existing ground level at the site varies between 83 mOD to the south and the west of the proposed building, down to 75.0 mOD to the east and south. The proposed excavation formation is at 73.0 mOD. The excavation side support is by a combination of the contiguous piles along the higher ground (installed from 80.6 mOD) and battered side slopes where the ground slopes down. Piling platform within Department C will be constructed at two levels: upper platform at 80.55 mOD and lower platform at 74.1 mOD.

Both basements will be founded within superficial clay/ clayey gravels. Some groundwater inflows may be evident during the excavation and will have to be controlled during the excavation. Due to variable nature of these deposits, with the interlayered sands, gravels, and gravelly clays evident, the inflows into the excavation will be controlled using conventional sump pumping techniques.

At depth, the site is underlain by the Coal Measures comprising mudstone/ sandstone with coal seams. Groundwater levels in the Coal Measures are above the excavation formation level at both departments. The risk of uplift has been estimated using Euro Code 7 and this indicates that groundwater levels in the rock will need to be lowered in order to prevent the risk of base heave during the excavation. This will be achieved using a ring of pumped wells installed around each department to lower groundwater levels in the bedrock below the excavation.

The site is located at the existing WEPA Paper Mill, Llangynwyd, Maesteg, CF34 9RS.

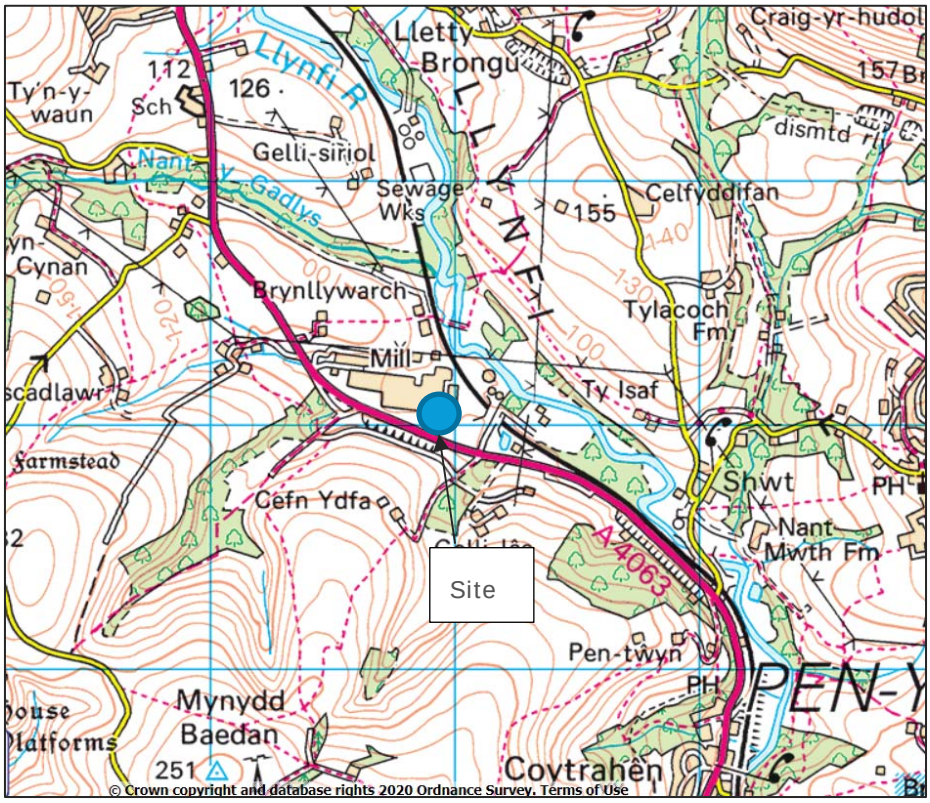


Figure 1 Site location plan (from OS Maps)

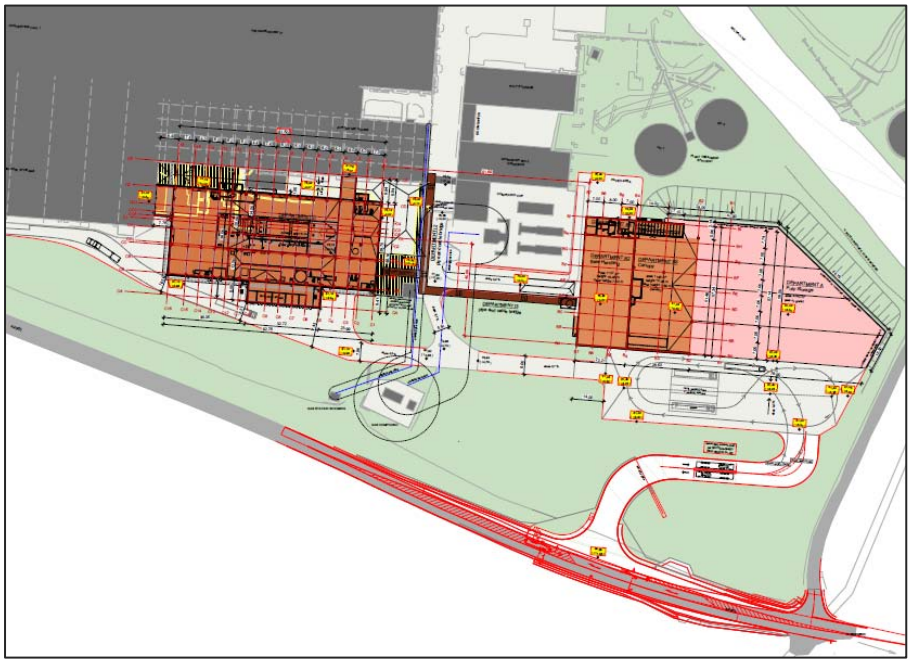


Figure 2 Extent of proposed works (Adapted from drawing 51300_OVE_2001_mill-site-layout_FC_07)

Further details of the proposed excavations are included within Appendix A: Client Drawings.

2. HYDROGEOLOGICAL IMPACT APPRAISAL

In the development of this Hydrogeological Impact Appraisal (HIA) we have undertaken a desk study of the readily available information. This information is provided by a variety of sources including the Groundsure Service, available Site Investigation reports (GI), The British Geological Survey (BGS), Environment Agency (EA) and Ordnance Survey (OS). These documents are included, for reference, in Appendix C: Groundsure Report.

Step 1 - Regional Water Resource Status

The site lies within the South Wales Central Natural Resources Wales (NRW) Operational Area, Western Wales River Basin District, and the Llynfi to Llety Bringu STW Water Body Catchment of the Tawe to Cadoxton Water Framework Directive (WFD) Management Catchment. The site does not lie within a Drinking Water Protective Area (Water Watch Wales website accessed 15th December 2020: https://waterwatchwales.naturalresourceswales.gov.uk/en/)

The site is located some 200 m from the Llynfi River. Manmade ponds were identified within the site, while a number of tributaries and streams were identified within 1 km of the site. Further details of these water features are included within Appendix D: Water Features Survey.

Groundwater bodies within the site are identified as Swansea Carboniferous Coal Measures within the Water Framework Directive. The chemical rating of the groundwater body is poor, while the quantitative rating is good. The overall rating of the groundwater body is poor.

Step 2 - Conceptual Model

A conceptual model has been developed based upon the site investigation information and the Groundsure Reports as follows:

Step 2.1 - Geology

The site investigation information (12495/RB/20/FSI-A,B,C,T issued February 2020) provided by Integral Geotechnique indicates the following sequence of stratification:

	Department B		Department C	
Unit	Top Level (mOD)	Depth (mbgl)	Top Level (mOD)	Depth (mbgl)
Made Ground	80.2 to 80.9	0.0	75.3 to 82.7	0.0
Silty sandy gravelly Clay (not observed in all boreholes)	78.1	2.6	74.6 to 77.7	1.3 to 5.0
Sand and Gravel	75.6 to 79.8	0.4 to 5.1	73.0 to 76.7	2.9 to 6.0

	Department B		Department C	
Gravelly Clay (not observed in all boreholes)	72.3 to 75.0	5.5 to 8.4	67.9 to 72.9	8.0 to 9.8
Coal measures	70.4 to 73.5	6.7 to 10.5	65.7 to 69.8	10.2 to 12.9

The Groundsure Report indicates that within the site, the superficial geology comprises of Devensian Till. The Till is unsorted and unstratified drift, generally overconsolidated, deposited directly by and underneath a glacier without subsequent reworking by water from the glacier. It consists of a heterogenous mixture of clay, sand, gravel, and boulders varying widely in size and shape (diamicton) (British Geological Survey website accessed 15 December 2020: https://webapps.bgs.ac.uk/lexicon/lexicon.cfm?pub=TILL).

There are no landslips recorded within 1km of the site. The risk of landslide occurring on site has been estimated as very low to moderate.

The bedrock geology, as reported by the Groundsure Report, comprises of Brithdir Sandstone Member of Westphalian age of the South Wales Upper Coal Measures Formation. The rock is a green-grey, lithic arenites with conglomerate lenses at bases of units; thin mudstone/siltstone and seatearth interbeds and mainly thin coals.

There are no known geological faults within 1 km of the site, however a coal seam has been recorded within 200 m of the site.

The Groundsure Report indicates that these are no natural cavities within 1 km of the site, however 33 No of manmade surface ground and underground workings have been identified within 1 km of the site. These include man made ponds, cuttings, pits, and mine shafts. One manmade pond has been identified within the site, while other features have been identified outside the site.

For more details see Appendix B: WJ Groundwater Drawings (P2764-005 Rev0 WEPA Paper Mill, Bridgend Cross Section), and Appendix C: Groundsure Report.

Step 2.2 - Groundwater

Groundwater is present in several horizons:

- Granular superficial deposits: with groundwater levels largely following the slope of the ground; varying between 75.0 mOD within the Department C excavation and 79.3 mOD within the Department B.
- Coal measures are water bearing with a standing groundwater level indicated to be at up to approximately 77.5 mOD within the Department C and up to 78.5 mOD within the Department B.

The superficial deposits on site are considered a Secondary Undifferentiated Aquifer. The Groundsure Report states this designation is assigned to variable deposits, where it was not possible to attribute either an ‘A’ or

'B' category. Permeability of the till deposits can vary between low to high, as it will be dependent on the presence/ absence of granular layers. The superficial aquifer has been assessed to have a medium groundwater vulnerability to pollution.

The bedrock is considered a Secondary A aquifer. A secondary aquifer is defined as permeable layers capable of transmitting water on a local rather than a strategic scale and in some cases forming base flow to rivers. As reported in Groundsure Report, the bedrock permeability is variable, moderate to high and flow is transmitted via fractures. The bedrock aquifer has been designated as highly vulnerable to groundwater pollution.

Step 2.3 - Proposed Construction Dewatering

Superficial Deposits

Groundwater inflows from the superficial sands and gravels will have to be controlled during the excavation. Due to variable nature of the deposits, with the interlayered sands, gravels and gravelly clays, the inflows into the excavation will be controlled using conventional sump pumping techniques. Sump pumping operations will require a system of drains installed around the perimeter to collect groundwater inflows as it enters the excavation. The drains should be connected to feed into one or more sumps, usually located at the deepest point of the excavation. Groundwater from the sump pumping system will be pumped through the lamella plate tanks prior to discharge.

Coal Measures

Groundwater levels in the Coal Measures are above the excavation formation level at both departments and could lead to base heave during the excavation if not sufficiently controlled. Groundwater levels vary across the site between 74.6mOD (0.4 m below ground level) and 77.5 mOD (2.5 m above ground level) recorded near the Department C and up to 78.5 mOD recorded near Department B.

Groundwater levels in the bedrock will need to be lowered in order to prevent the risk of base heave during the excavation. The water strikes in the Coal Measures were encountered at various horizons, probably associated with the fractured zones. The risk of an uplift pressure in the Coal Measures has been estimated using the BS EN 1997-1:2004 2.2.7.4 + A1 2013 (Euro Code 7) which requires that the reduced groundwater pressure multiplied by 1.1 be less than the overburden pressure multiplied by a partial factor of 0.9. In other words the groundwater pressure needs to be reduced to less than 0.82 times the overburden pressure at every level below the base, as follows:

	Department B	Department C
Maximum GWL (mOD)	78.5	77.5
Dig level (mOD)	74.0	73.0
Base of plug (mOD)	70.0	70.6

	Department B	Department C
Plug thickness (m)	4.0	2.4
Assumed soil bulk density (kg/m3)	2,000	2,000
Overburden pressure (kPa)	78.5	47.9
Allowable uplift pressure (kPa)	64.3	39.2
Uplift pressure (no dewatering) (kPa)	83.4	68.1
Target GWL (mOD)	76.6	74.6
Drawdown required (m)	1.9	2.9

The above calculations indicate that 2.9 m of drawdown is required within the Department C and 1.9 m of drawdown is required at Department B in order to prevent the risk of base heave. This will be achieved using a ring of pumped wells to lower groundwater levels below the excavation.

Proposed dewatering system

In order to control groundwater levels within the Coal Measures to prevent the risk of base heave, an array of pumped external wells would be installed to the following outline specification:

Well Detail	Department B	Department C
No. of Pumping Wells	8 No.	12 No.
Well Location	Equally spaced around the external perimeter of the excavation	Equally spaced around the external perimeter of the excavation
Installation Level	Piling platform between 81mOD and 75.0 mOD	Piling platform between 80.6mOD and 74.0 mOD
Depth	15 to 21 m depth (toe to 60 mOD)	14 to 21 m depth (toe to 60 mOD)
Bore Size	250 mm nominal	250 mm nominal
Liner Size	140 mm nominal	140 mm nominal
Pump size	2.2 kw	2.2 kw

The pumps would be powered from a central control cabin with power cables generally following the line of the discharge pipework. The pumps would feed to a 150 mm main which would discharge at the specified location via a discharge tank. The v-notch tank allows monitoring of flows and a visual assessment of water quality.

For more details see Appendix B: WJ Groundwater Drawings (P2764-006 Rev0 WEPA Paper Mill, Bridgend Dewatering Layout).

Step 3 - Water Features Susceptible to Flow Impacts

There are over 40 no surface water features identified within the 1 km of the site. These include Nant Gwyn, a small inland river located just to the north of the site, partially flowing on the surface and partially culverted. Nant Cefnydfa, an inland river, and a lake, are located to the south east of the site. River Llynfi

(Afon Llynfi) is located approximately 200 m from the boundary of the site, to the east and north east. This is a Water Framework Directive designated river.

15 No. historical and active surface water abstractions are recorded within 1km of the site, associated with the River Llynfi and Nant Gwyn.

There are no groundwater abstractions within 1 km of the site.

Step 4 – Likely Flow Impacts to Water Features

Groundwater control within the superficial deposits will be undertaken using localised sump pumping techniques, with drainage trenches connected to sumps on site. These activities will be limited to the site only and therefore are unlikely to influence the rivers near the site.

The active dewatering will target the underlying bedrock. The bedrock has a different groundwater level than the superficial deposits, with groundwater pressures above the ground level on site. This means that it is unlikely that the bedrock is well connected to the river network. Therefore any dewatering activities within the bedrock should not affect the surface water features in the vicinity of the site. There are no groundwater abstractions within 1 km of the site therefore flow impacts are considered minimal.

Step 5 - Measures Taken to Mitigate the Impact of Flow Impacts

It is anticipated that abstracted groundwater will be discharged into the existing drainage network on site, which feeds into the site treatment plant. Water will then be discharged to the Ilynfi River, with no consumptive use. Although the groundwater is not being discharged back into the ground, it will be returned into the surface water system. Because of the temporary nature of the abstraction process the long-term, wider impact of the dewatering is anticipated to be minimal.

Step 6 – Significance of net flow impacts

The abstracted groundwater will be discharged into the Ilynfi River and therefore returned into groundwater/surface water system. Therefore, the net flow impacts are thought to be insignificant.

Step 7 – Search Area for Drawdown Impacts

There is limited flow data available for the site, however, based upon the ground investigation information, the zone of influence for the dewatering works is anticipated to be between 100 and 200 m.

Step 8 – Water Features susceptible to drawdown impacts

There are no groundwater abstractions within 1km of the site and the site is not located within the Source Protection Zones (SPZ) and there are no Site of Special Scientific Interest (SSSI) within 2 km of the site.

Step 9 – Predicted maximum drawdown impacts

Groundwater levels in the bedrock will need to be lowered in order to prevent the risk of base heave during the excavation. 3 m of drawdown is required within the Department C and 2 m of drawdown is required at Department B. These requirements are within the excavations only, and the drawdown outside the excavation will decrease with the distance. The predicted distance of influence is between 100 and 200 m, therefore any impact on groundwater levels in the bedrock should be limited within the site boundaries.

Step 10 – Mitigation of drawdown impacts

The impact of drawdown has not been formally mitigated against during the development of the dewatering proposals. The required drawdown is up to 3.0 m. There are no groundwater abstractions within 1 km of the site and drawdown impact will be limited to the site boundaries. Moreover, dewatering activities are temporary and therefore any impact is anticipated to be minimal.

Step 11 – Significance of drawdown impacts

Due to the temporary nature of the dewatering the impacts of groundwater drawdown is anticipated to be minimal.

Step 12 - Water Quality

The site is occupied by a working Paper Mill and the site is located within a larger industrial area. Historically, a power plant and a landfill were located to the south east of the site. There are currently eight licensed waste sites within 1km of the site, however all of them are located at least 180 m of the site.

A groundwater sample was taken on site from the bedrock and the results were reported as follows:

Parameter	Form	Unit	Result
Total nitrogen	N	mg/l	0.792
Nitrates	NO3-N	mg/l	0.089
Ammonia	NH3-N	mg/l	0.15
Total phosphorus	P	mg/l	0.065
Phosphates	PO4-P	mg/l	0.06
COD	O2	mg/l	9.84
BOD	O2	mg/l	1.16
Chlorides	CL	mg/l	12
Suspended solids	-	mg/l	104

There is a slightly elevated suspended solids content, potentially associated with the cleaning out the well which is likely to improve once the actively pumped system is operational. Therefore, there was no indication of any significant contamination in this groundwater sample.

In addition to this the issue of silt entrainment in the discharged water should be addressed. Dewatering will be undertaken via a deepwell dewatering system (as outlined within Step 2.3), and then passed through a monitoring tank prior to discharge. The dewatering wells will be installed with a slotted liner and filter material appropriate to the geology it is installed in. This will reduce the risk of silt contamination during discharge as it will eliminate the removal of fines from the ground during pumping. Groundwater from the sump pumping operations within the superficial soils will be discharge through a lamella plate tank in order to remove any fines before the discharge.

Step 13 – Redesign mitigation measures

Not necessary.

Step 14 - Monitoring Strategy

All groundwater monitoring would be undertaken in accordance with the terms of any abstraction or discharge permits issued for the works.

Four piezometers have been installed as part of the ground investigation on site and these will be used to record groundwater levels as a result of the dewatering programme (See Appendix B: WJ Groundwater Drawings).

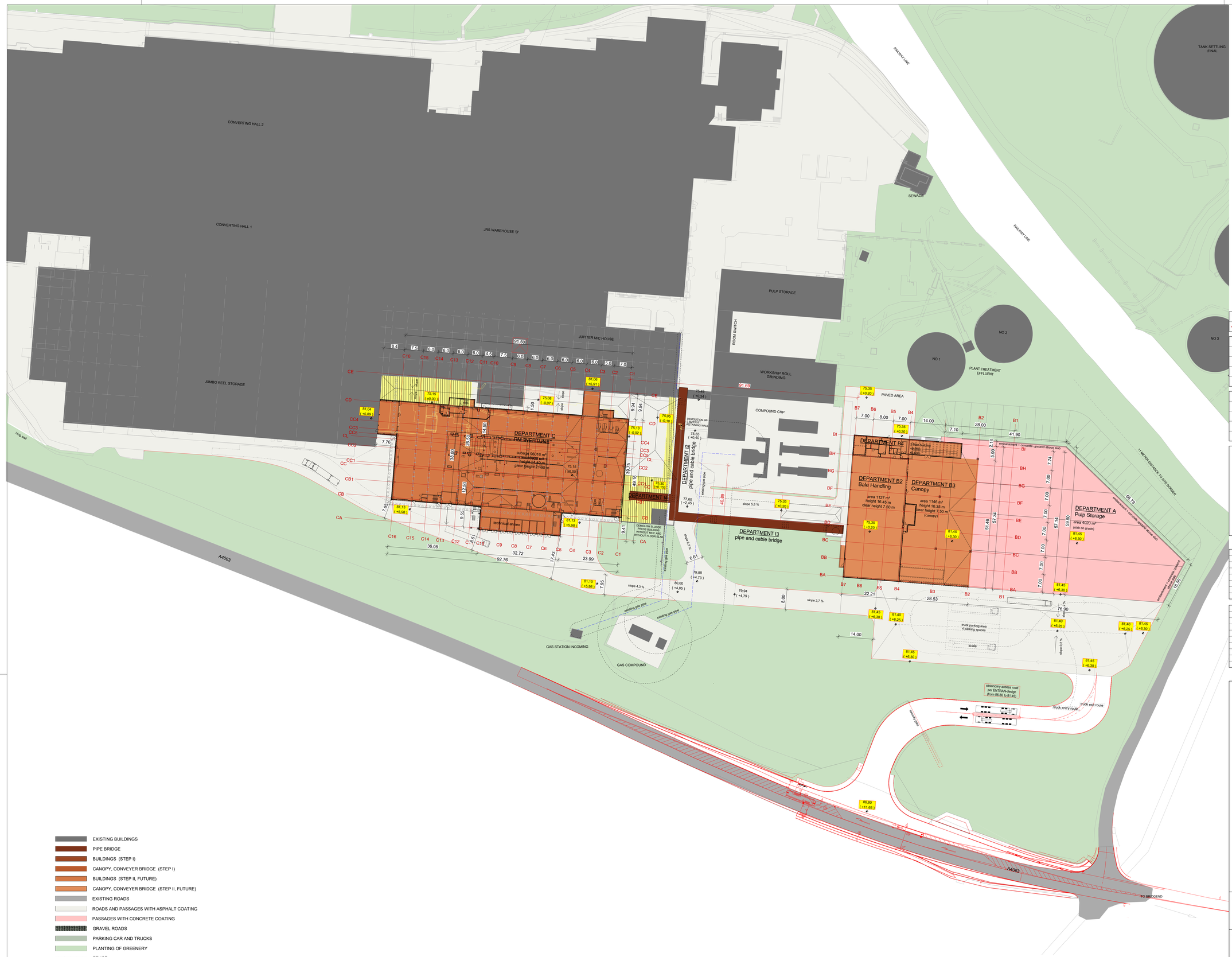
Visual inspections of the v-notch tank would ensure that no problems were developing with regards to silt mobilisation, and visual or olfactory contaminants.

It is anticipated that groundwater levels would recover upon the cessation of pumping, once construction has been completed, and therefore no long-term groundwater monitoring should be required.

2. Water Features Survey

A desk study water features survey has been carried out on features within 1000m of the site, and is included within Appendix D.

APPENDIX A: CLIENT DRAWINGS



EXISTING BUILDINGS
PIPE BRIDGE
BUILDINGS (STEP I)
CANOPY, CONVEYER BRIDGE (STEP I)
BUILDINGS (STEP II, FUTURE)
CANOPY, CONVEYER BRIDGE (STEP II, FUTURE)
EXISTING ROADS
ROADS AND PASSAGES WITH ASPHALT COATING
PASSAGES WITH CONCRETE COATING
GRAVEL ROADS
PARKING CAR AND TRUCKS
PLANTING OF GREENERY
FENCE

KEY FIRE COMPARTMENTS

FIRE MAIN COMPARTMENT	FIRE SUB COMPARTMENT	SMOKE COMPARTMENT

KEY MATERIALS

REINFORCED CONCRETE	PRECAST CONCRETE ELEMENT	HEAT INSULATION SOFT
BRICKWORK	PRECAST CONCRETE ELEMENT	SANDWICH PANEL
PLASTERBOARD	HEAT INSULATION RIGID	GLASS
EXISTING BUILDING	DEMOLITION	

KEY ROOM

TFF	= TOP FINISH FLOOR	RH	= ROOM HEIGHT	TL	= TOP LEVEL
TRS	= TOP ROUGH SLAB	CH	= CLEAR HEIGHT	BL	= BOTTOM LEVEL
A	= AREA	TLP	= TOP LEVEL PARAPETE		
P	= PERIMETER	BLL	= BOTTOM LEVEL LINTEL		

11816-0020 D	CRADDYS, secondary access road, 17.02.2020
NW / 001-011 / G	QUOROM Consulting, topographical survey, 28.11.2019
REFERENCE DOCUMENT	

INDEX	DATE	DRAWN	CHECKED	MODIFICATION
09				
08				
07	01.09.2020	SSC		general update
06	08.06.2020	MJo/EWO		roads and ramp changed; pipe bridge I1 removed and position changed; general modifications;
05	06.03.2020	ED		2nd site access road has changed
04	19.02.2020	ED		cable ducts - dept. A
03	10.02.2020	ED		new sludge press building - dept. B1
02	05.02.2020	SSC		2nd site access road has changed
01	23.01.2020	ED		changed above sea level from 75.35 to 75.15

MILL SITE ±0.00m = 75.15 AOD (above ordnance datum)

PROJECT: WEPA UK BRIDGEND

CONTENT OF PLAN: MILL SITE LAYOUT

PHASE: FOR CONSTRUCTION

PROJECT NO.	SCALE	DRAWN	DATE
119003	1:500	ED	13.12.2019
PLAN NO. 51300_OVE_2001	INDEX 07	CHECKED -	SIZE 1189x841
PLAN NO. EXT.			

BHM INGENIEURE - ENGINEERING & CONSULTING GMBH
Runastraße 90, 6800 Feldkirch, Austria, Telefon +43 / 5522 / 46101
Fax +43 / 5522 / 46104, office@bhm-ing.com, www.bhm-ing.com
BHM INGENIEURE

FOUNDATION OVERVIEW

1:100

MILL SITE ±0.00m = 75.15 AOD (above ordnance datum)

PLANNER: BHM INGENIEURE | Evans & Langford LLP | Quorum Consulting Engineers | R Plant | entran

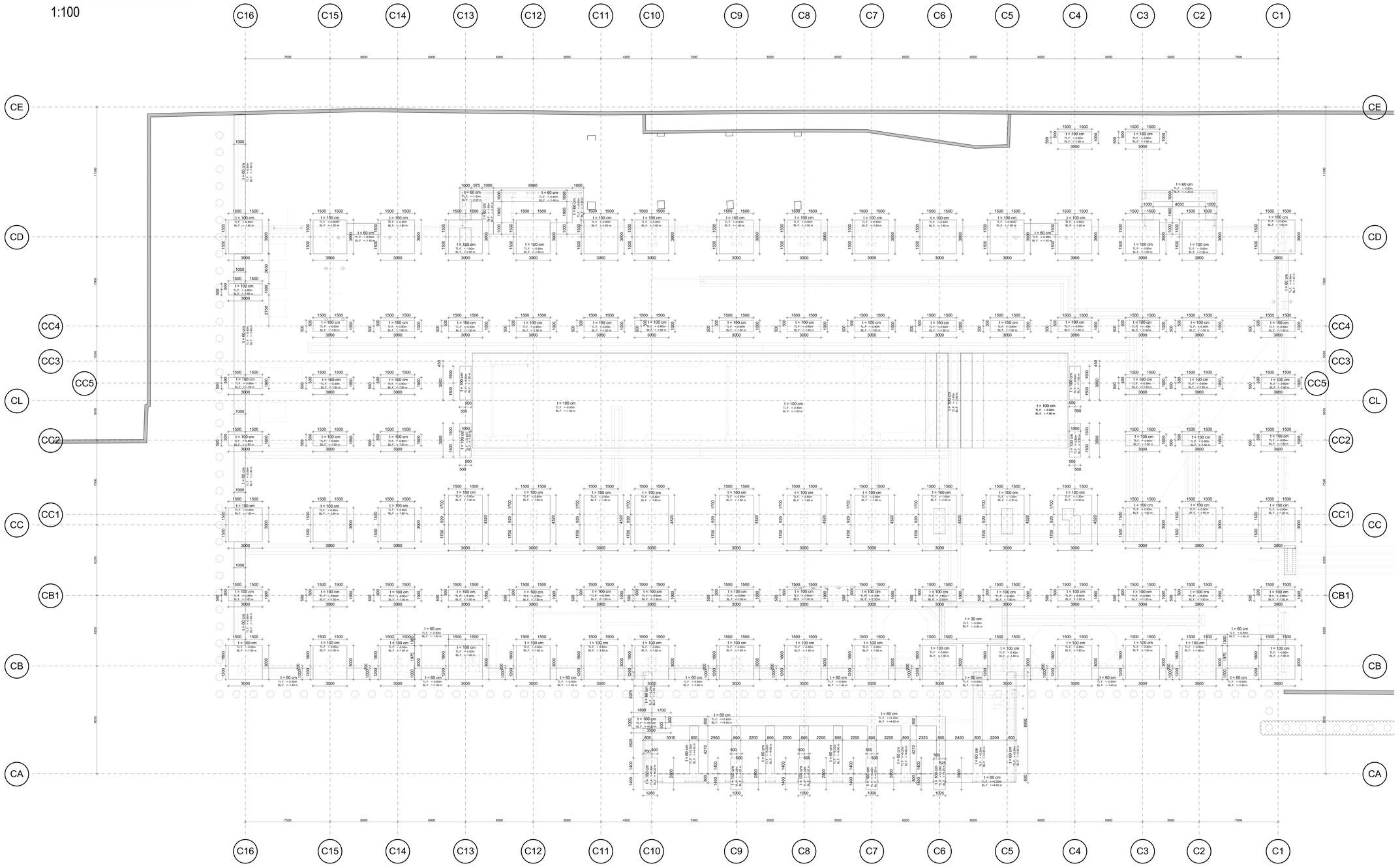
PROJECT	WEPA UK BRIDGEND
CONTENT OF PLAN	DEPT. A+B bale handling + pulp storage foundation overview level ±0.00 + level +6.00
PHASE	RFT

PROJECT NO.	119003	SCALE 1:100	DRAWN gr	DATE 12.03.2020
PLAN NO.	52202_OVE_3500	INDEX 00	CHECKED AS	SIZE 1489x841mm
PLAN NO. EXT.				

BHM INGENIEURE - ENGINEERING & CONSULTING GMBH
Runastraße 90, 6800 Feldkirch, Austria, Telefon +43 / 5522 / 46101
Fax +43 / 5522 / 46104, office@bhm-ing.com, www.bhm-ing.com

FOUNDATION OVERVIEW

1:100



KEY FIRE COMPARTMENTS

FIRE MAIN COMPARTMENT	FIRE SUB COMPARTMENT	SMOKE COMPARTMENT

KEY MATERIALS

REINFORCED CONCRETE		PRECAST CONCRETE ELEMENT		HEAT INSULATION SOFT	
BRICKWORK		PRECAST CONCRETE ELEMENT		SANDWICH PANEL	
PLASTERBOARD		HEAT INSULATION RIGID		GLASS	
EXISTING BUILDING		DEMOLITION			

KEY ROOM

TFF = TOP FINISH FLOOR		RH = ROOM HEIGHT		TL = TOP LEVEL	
TRS = TOP ROUGH SLAB		CH = CLEAR HEIGHT		BL = BOTTOM LEVEL	
A = AREA		TLP = TOP LEVEL PARAPETE			
P = PERIMETER		BLL = BOTTOM LEVEL LINTEL			

ALL DIMENSIONS MUST BE CHECKED ON SITE.
MATARIASE SIND VOR ORT ZU PRÜFEN.

FIRE PROTECTION - SEE FIRE PROTECTION LIST.
BRANDSCHUTZANGABEN SIND DEN BRANDSCHUTZPLÄNEN ZU ENTNEHMEN.

NOTE: PROCESS LAYOUT IS SHOWN FOR REFERENCE ONLY
NOTE: PROZESS LAYOUT IST NUR FÜR REFERENZ ZWECKE DARGESTELLT

51203_SEC_2304	C cross-sections-_RFT_00
51203_SEC_2303	C cross-sections-_RFT_01
51203_LAY_2301	C ground+view--basement-and-machine-floor_RFT_01
REFERENCE DOCUMENT	

INDEX	DATE	DRAWN	CHECKED	MODIFICATION
09				
08				
07				
06				
05				
04				
03				
02				
01				

OVERVIEW:

MILL SITE ±0.00m = 75.15 AOD (above ordnance datum)

PLANNER

BHM INGENIEURE | Evans & Langford LLP | Quorum | Plant | entran

PROJECT: WEPA UK BRIDGEND

CONTENT OF PLAN: DEPT. C
paper machine building
foundation overview
level ±0.00 = level +6.00

PHASE: RFT

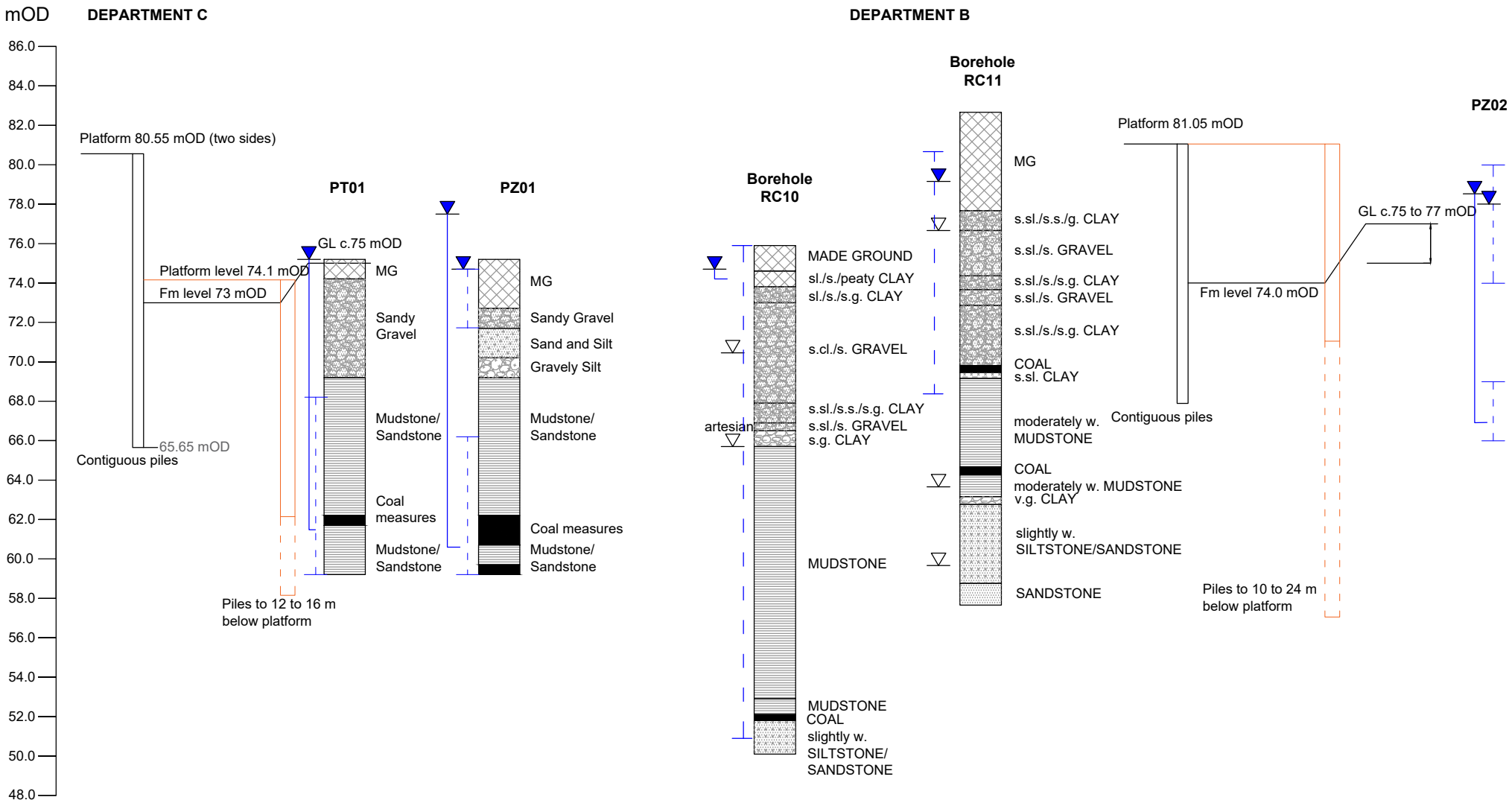
PROJECT NO.	SCALE	DRAWN	DATE
119003	1:100	gr	12.03.2020
PLAN NO. 52203_OVE_4000	INDEX 00	CHECKED AS	SIZE 1480x841mm

PLAN NO. EXT.:

BHM INGENIEURE - ENGINEERING & CONSULTING GMBH
Runastraße 90, 6800 Feldkirch, Austria, Telefon +43 / 5522 / 46101
Fax +43 / 5522 / 46104, office@bhm-ing.com, www.bhm-ing.com

BHM INGENIEURE

APPENDIX B: WJ GROUNDWATER DRAWINGS



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Expert in Water Management

Notes:

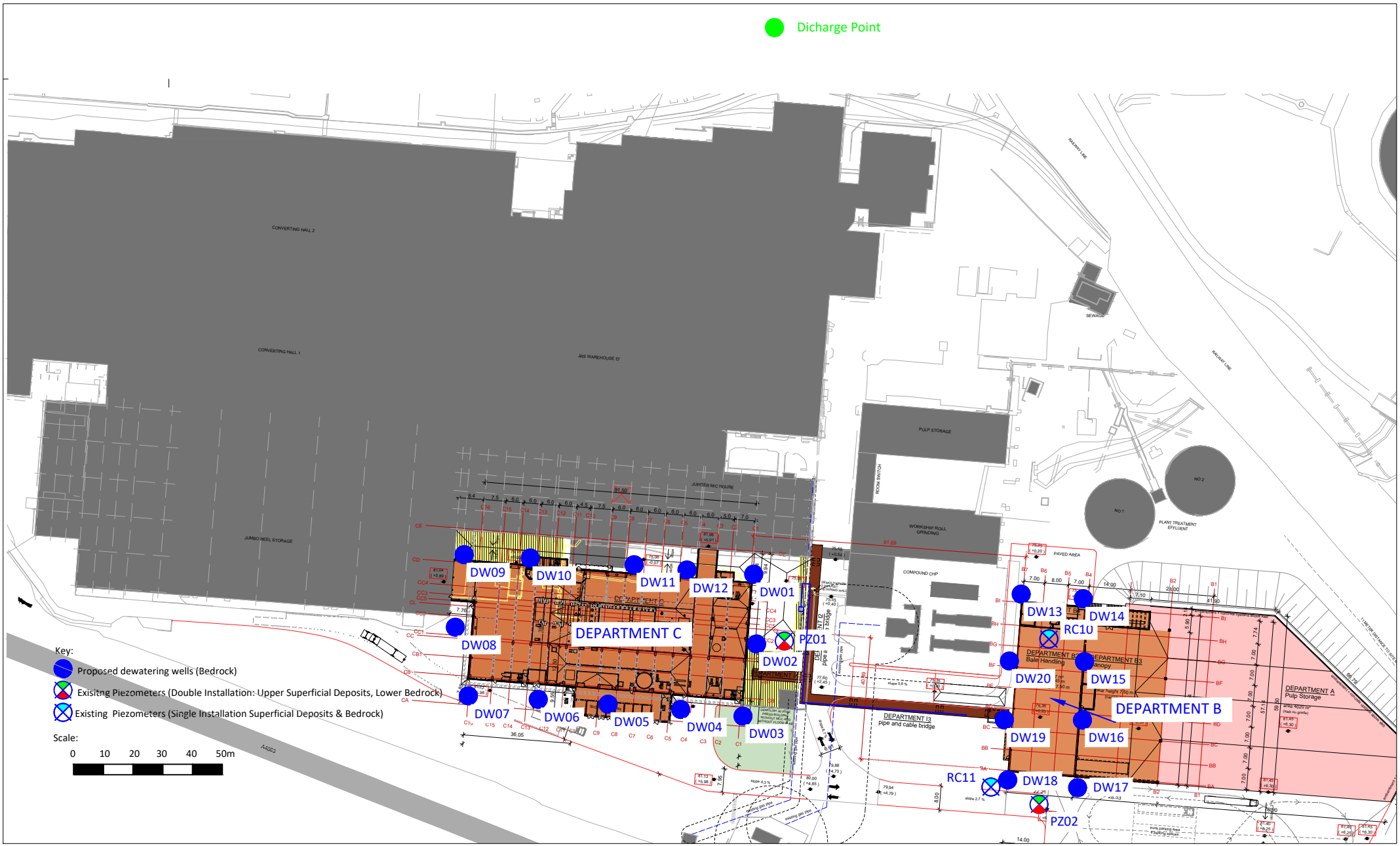
1) Well installation and location details are for indicative purposes only.
2) Others to check that indicated locations are free from services and underground structures.
3) Water levels shown as encountered during pumping test Oct 2020

Rev No	Drawn by	Check by	Date	Reason for revision
00	UM	NC	23/10/2020	Issue for review

Project Name: A38 Derby Pumping Test

Drawing Title: Cross-section

Drawing No: Q8539/005 | Scale:NTS



Notes:

1) Well installation and location details are for indicative purposes only.
2) Others to check that indicated locations are free from services and underground structures.

Rev No	Drawn by	Check by	Date	Reason for revision
00	UM	NC	06/10/2020	Issue for review

Project Name:
WEPA Paper Mill, Bridgend

Drawing Title:
Proposed Dewatering Layout

Drawing No: P2764/006 | Scale:As Shown

APPENDIX C: GROUNDSURE REPORT

Groundsure
LOCATION INTELLIGENCE

Enviro
Insight

S C A HYGIENE PRODUCTS TISSUE LTD, BRIDGEND PAPER MILLS, A4063 NICHOLLS ROAD COYTRAHEN TO BRIDGEND ROAD LLANGYNWYD, COYTRAHEN, MAESTEG, CF34 9RS

Order Details

Date: 16/09/2020

Your ref: Q8633_WEPA_Paper_Mill_Bridgend

Our Ref: GS-7058289

Client: WJ Groundwater Limited

Site Details

Location: 287956 187036

Area: 2.54 ha

Authority: Pen-y-bont ar Ogwr - Bridgend County Borough Council

Contact us with any questions at:
info@groundsure.com
08444 159 000

Summary of findings

Page	Section	Past land use	On site	0-50m	50-250m	250-500m	500-2000m
12	1.1	Historical industrial land uses	2	3	26	32	-
15	1.2	Historical tanks	4	4	5	10	-
16	1.3	Historical energy features	0	0	5	0	-
17	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
18	2.1	Historical industrial land uses	2	4	35	47	-
22	2.2	Historical tanks	4	6	7	19	-
23	2.3	Historical energy features	0	0	6	0	-
24	2.4	Historical petrol stations	0	0	0	0	-
24	2.5	Historical garages	0	0	0	0	-
Page	Section	Waste and landfill	On site	0-50m	50-250m	250-500m	500-2000m
25	3.1	Active or recent landfill	0	0	0	0	-
25	3.2	Historical landfill (BGS records)	0	0	0	0	-
26	3.3	Historical landfill (LA/mapping records)	0	0	0	0	-
26	3.4	Historical landfill (EA/NRW records)	0	1	0	0	-
26	3.5	Historical waste sites	0	0	1	0	-
27	3.6	Licensed waste sites	0	0	8	0	-
29	3.7	Waste exemptions	0	0	0	13	-
Page	Section	Current industrial land use	On site	0-50m	50-250m	250-500m	500-2000m
31	4.1	Recent industrial land uses	2	2	16	-	-
33	4.2	Current or recent petrol stations	0	0	0	0	-
33	4.3	Electricity cables	0	0	0	0	-
33	4.4	Gas pipelines	0	0	0	0	-
33	4.5	Sites determined as Contaminated Land	0	0	0	0	-

33	4.6	Control of Major Accident Hazards (COMAH)	0	0	0	0	-
34	4.7	Regulated explosive sites	0	0	0	0	-
34	4.8	Hazardous substance storage/usage	0	0	0	0	-
34	4.9	Historical licensed industrial activities (IPC)	0	0	0	0	-
34	**4.10**	**Licensed industrial activities (Part A(1))**	0	3	35	0	-
40	4.11	Licensed pollutant release (Part A(2)/B)	0	0	0	0	-
40	4.12	Radioactive Substance Authorisations	0	0	0	0	-
40	**4.13**	**Licensed Discharges to controlled waters**	0	2	7	0	-
42	4.14	Pollutant release to surface waters (Red List)	0	0	0	0	-
42	4.15	Pollutant release to public sewer	0	0	0	0	-
42	4.16	List 1 Dangerous Substances	0	0	0	0	-
42	4.17	List 2 Dangerous Substances	0	0	0	0	-
43	**4.18**	**Pollution Incidents (EA/NRW)**	0	0	8	4	-
44	4.19	Pollution inventory substances	0	0	0	0	-
44	4.20	Pollution inventory waste transfers	0	0	0	0	-
45	4.21	Pollution inventory radioactive waste	0	0	0	0	-

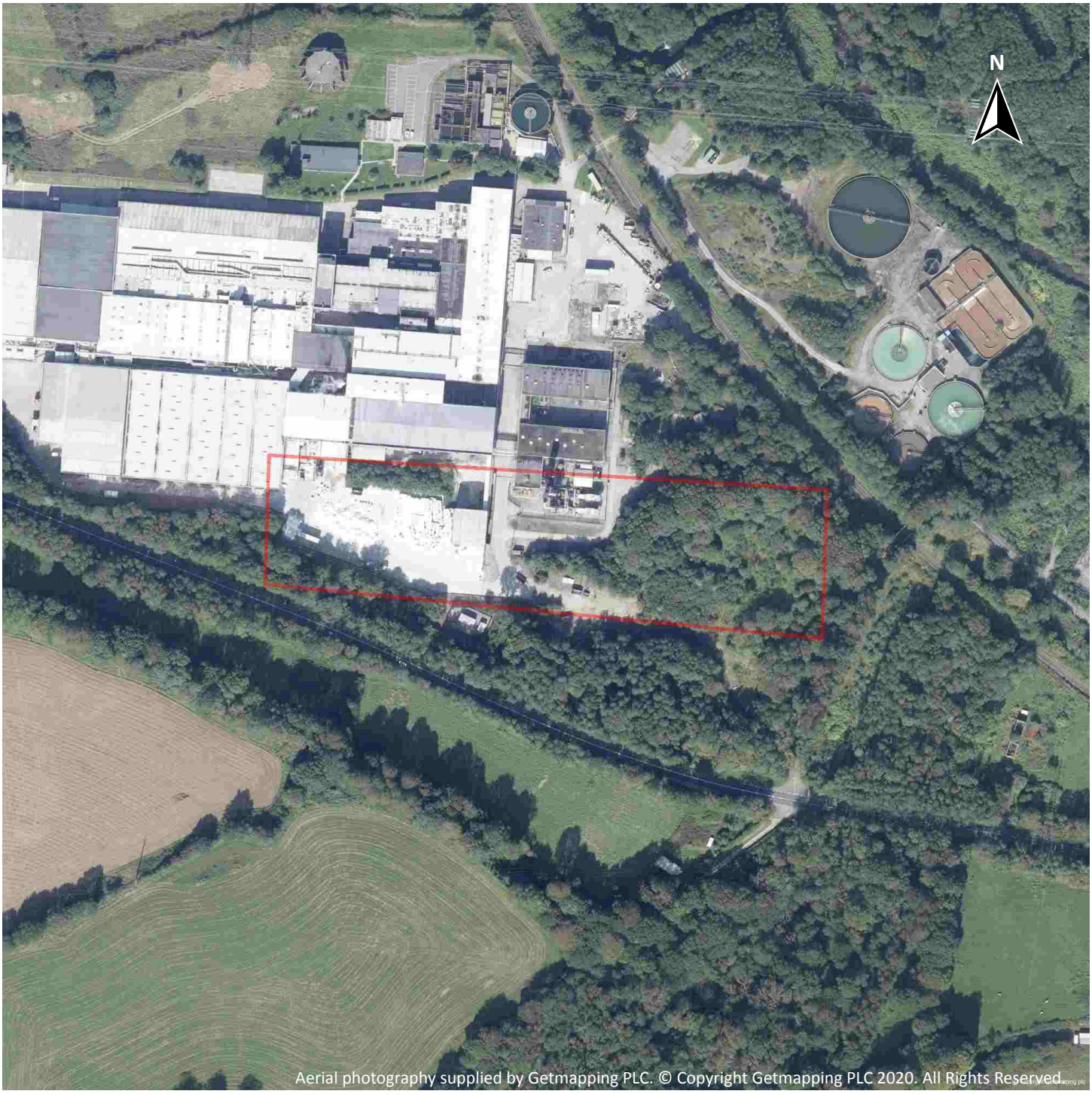
Page	Section	Geology (basic)	
46	**5.1**	**Superficial geology (625k)**	Identified (within 500m)
46	**5.2**	**Bedrock geology (625k)**	Identified (within 500m)

Page	Section	Hydrogeology	On site	0-50m	50-250m	250-500m	500-2000m
47	**6.1**	**Superficial aquifer**	Identified (within 500m)				
49	**6.2**	**Bedrock aquifer**	Identified (within 500m)				
50	**6.3**	**Groundwater vulnerability**	Identified (within 50m)				
52	6.4	Groundwater vulnerability- soluble rock risk	None (within 0m)				
52	6.5	Groundwater vulnerability- local information	None (within 0m)				
53	6.6	Groundwater abstractions	0	0	0	0	0
54	**6.7**	**Surface water abstractions**	0	0	15	0	0
57	6.8	Potable abstractions	0	0	0	0	0
57	6.9	Source Protection Zones	0	0	0	0	-

57	6.10	Source Protection Zones (confined aquifer)	0	0	0	0	-
Page	Section	Hydrology	On site	0-50m	50-250m	250-500m	500-2000m
58	**7.1**	**Water Network (OS MasterMap)**	0	2	41	-	-
62	**7.2**	**Surface water features**	0	1	16	-	-
62	**7.3**	**WFD Surface water body catchments**	1	-	-	-	-
63	**7.4**	**WFD Surface water bodies**	0	0	1	-	-
63	**7.5**	**WFD Groundwater bodies**	1	-	-	-	-
Page	Section	River and coastal flooding	On site	0-50m	50-250m	250-500m	500-2000m
64	8.1	Risk of Flooding from Rivers and Sea (RoFRaS)	None (within 50m)				
64	8.2	Historical Flood Events	0	0	0	-	-
64	8.3	Flood Defences	0	0	0	-	-
64	8.4	Areas Benefiting from Flood Defences	0	0	0	-	-
65	8.5	Flood Storage Areas	0	0	0	-	-
66	8.6	Flood Zone 2	None (within 50m)				
66	8.7	Flood Zone 3	None (within 50m)				
Page	Section	Surface water flooding					
67	**9.1**	**Surface water flooding**	1 in 30 year, Greater than 1.0m (within 50m)				
Page	Section	Groundwater flooding					
69	**10.1**	**Groundwater flooding**	Low (within 50m)				
Page	Section	Environmental designations	On site	0-50m	50-250m	250-500m	500-2000m
70	11.1	Sites of Special Scientific Interest (SSSI)	0	0	0	0	0
71	11.2	Conserved wetland sites (Ramsar sites)	0	0	0	0	0
71	11.3	Special Areas of Conservation (SAC)	0	0	0	0	0
71	11.4	Special Protection Areas (SPA)	0	0	0	0	0
71	11.5	National Nature Reserves (NNR)	0	0	0	0	0
72	11.6	Local Nature Reserves (LNR)	0	0	0	0	0
72	**11.7**	**Designated Ancient Woodland**	0	0	4	8	51
74	11.8	Biosphere Reserves	0	0	0	0	0
75	11.9	Forest Parks	0	0	0	0	0

75	11.10	Marine Conservation Zones	0	0	0	0	0
75	11.11	Green Belt	0	0	0	0	0
75	11.12	Proposed Ramsar sites	0	0	0	0	0
75	11.13	Possible Special Areas of Conservation (pSAC)	0	0	0	0	0
76	11.14	Potential Special Protection Areas (pSPA)	0	0	0	0	0
76	11.15	Nitrate Sensitive Areas	0	0	0	0	0
76	11.16	Nitrate Vulnerable Zones	0	0	0	0	0
77	11.17	SSSI Impact Risk Zones	0	-	-	-	-
77	11.18	SSSI Units	0	0	0	0	0
Page	Section	Visual and cultural designations	On site	0-50m	50-250m	250-500m	500-2000m
78	12.1	World Heritage Sites	0	0	0	-	-
78	12.2	Area of Outstanding Natural Beauty	0	0	0	-	-
78	12.3	National Parks	0	0	0	-	-
78	12.4	Listed Buildings	0	0	0	-	-
79	12.5	Conservation Areas	0	0	0	-	-
79	12.6	Scheduled Ancient Monuments	0	0	0	-	-
79	12.7	Registered Parks and Gardens	0	0	0	-	-
Page	Section	Agricultural designations	On site	0-50m	50-250m	250-500m	500-2000m
80	**13.1**	**Agricultural Land Classification**	Grade 3b (within 250m)				
81	13.2	Open Access Land	0	0	0	-	-
81	13.3	Tree Felling Licences	0	0	0	-	-
81	13.4	Environmental Stewardship Schemes	0	0	0	-	-
82	13.5	Countryside Stewardship Schemes	0	0	0	-	-
Page	Section	Habitat designations	On site	0-50m	50-250m	250-500m	500-2000m
83	14.1	Priority Habitat Inventory	0	0	0	-	-
83	14.2	Habitat Networks	0	0	0	-	-
83	14.3	Open Mosaic Habitat	0	0	0	-	-
83	14.4	Limestone Pavement Orders	0	0	0	-	-

Recent aerial photograph



Capture Date: 19/09/2019

Site Area: 2.54ha

Recent site history - 2017 aerial photograph

Capture Date: 26/05/2017

Site Area: 2.54ha

Recent site history - 2012 aerial photograph

Capture Date: 26/05/2012

Site Area: 2.54ha

Recent site history - 2001 aerial photograph

Capture Date: 27/08/2001

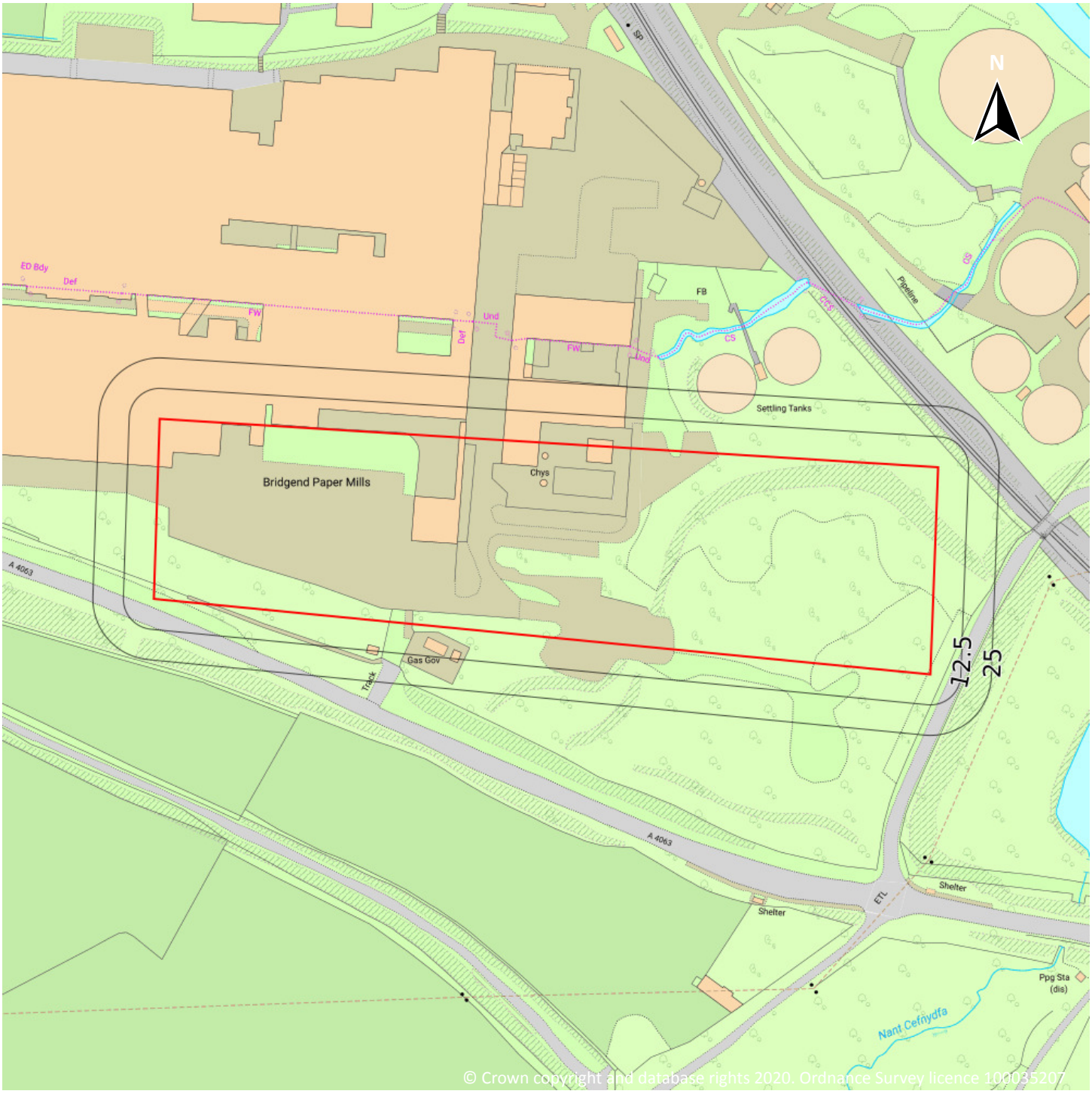
Site Area: 2.54ha

Recent site history - 2000 aerial photograph

Capture Date: 17/06/2000

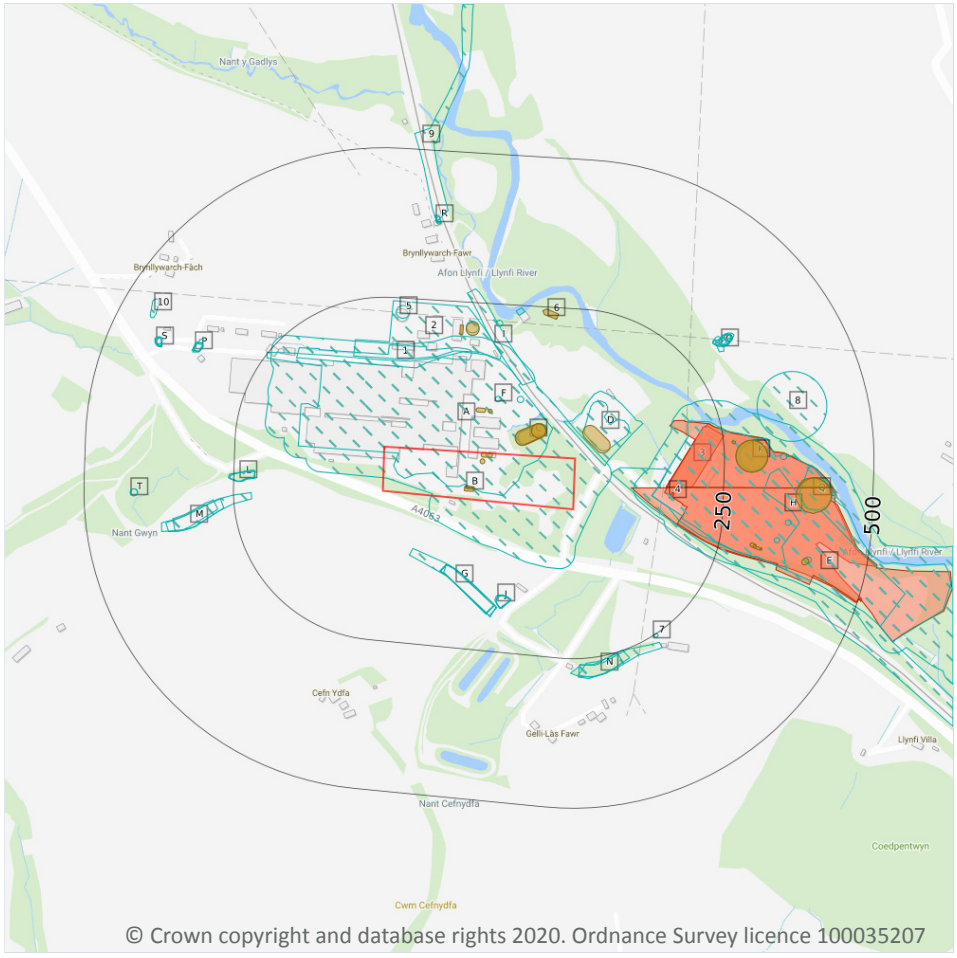
Site Area: 2.54ha

OS MasterMap site plan



Site Area: 2.54ha

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	63

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

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

ID	Location	Land use	Dates present	Group ID
A	**On site**	**Paper Mills**	**1985**	**321093**

ID	Location	Land use	Dates present	Group ID
A	**On site**	**Unspecified Mill**	**1970**	**328964**
C	19m N	Unspecified Tanks	1970 - 1985	363571
D	28m NE	Unspecified Commercial/Industrial	1985	331176
D	40m NE	Unspecified Tanks	1985	328453
E	61m E	Railway Sidings	1970	362067
F	87m N	Chimney	1970	331682
F	88m N	Unspecified Tank	1985	320171
G	91m S	Cuttings	1876	344362
H	100m E	Unspecified Commercial/Industrial	1985	331175
G	112m S	Cuttings	1914 - 1921	367079
G	112m S	Cuttings	1947	369405
G	113m S	Cuttings	1938	368483
G	113m S	Cuttings	1948	372340
I	117m N	Cuttings	1876	336952
H	131m E	Unspecified Works	1970	320945
1	135m N	Railway Sidings	1948	337637
2	148m N	Unspecified Commercial/Industrial	1985	331177
J	154m S	Unspecified Pit	1938	373348
J	154m S	Unspecified Pit	1947 - 1948	343228
J	156m S	Unspecified Pit	1897 - 1921	361972
I	199m N	Unspecified Tank	1985	320169
I	213m N	Unspecified Tank	1970	320170
L	215m W	Unspecified Quarry	1947	369699
L	215m W	Unspecified Quarry	1914 - 1921	372249
L	215m W	Unspecified Quarry	1938	350632
5	216m N	Unspecified Tank	1985	320168
M	220m W	Cuttings	1876	348816
I	233m N	Pump House	1985	322070

ID	Location	Land use	Dates present	Group ID
7	249m SE	Unspecified Disused Kiln	1985	321998
N	250m S	Cuttings	1897 - 1948	343055
N	251m S	Cuttings	1876	375243
N	252m S	Cuttings	1970 - 1985	367386
M	268m W	Cuttings	1897	365658
K	275m E	Unspecified Tanks	1970 - 1985	352863
M	278m W	Cuttings	1914 - 1948	361045
O	300m NE	Unspecified Pit	1876	335912
O	300m NE	Unspecified Old Level	1938	370279
O	301m NE	Unspecified Old Level	1914 - 1921	367200
O	301m NE	Unspecified Old Level	1947	374903
O	306m NE	Unspecified Ground Workings	1897	334374
O	309m NE	Unspecified Old Level	1948	348455
8	315m E	Disused Power Station	1985	319016
O	320m NE	Unspecified Disused Level	1985	318905
H	340m E	Chimneys	1970	328589
K	343m E	Unspecified Tank	1970 - 1985	360010
P	346m NW	Unspecified Old Level	1947	331565
P	346m NW	Unspecified Old Levels	1914 - 1921	378926
P	347m NW	Unspecified Old Levels	1948	346844
P	348m NW	Unspecified Old Levels	1938	372078
H	356m E	Chimneys	1970	328590
R	377m N	Railway Building	1948	371609
Q	378m E	Unspecified Tanks	1970	328454
R	379m N	Railway Building	1938	369344
9	381m N	Railway Sidings	1876	337638
E	397m E	Unspecified Tank	1985	320174
S	408m NW	Unspecified Old Levels	1947	342556

ID	Location	Land use	Dates present	Group ID
S	408m NW	Unspecified Old Levels	1914 - 1921	361989
S	409m NW	Unspecified Old Levels	1938	368008
S	409m NW	Unspecified Old Levels	1948	359346
T	410m W	Unspecified Disused Shaft	1970	337229
T	410m W	Disused Air Shaft	1985	339157
10	442m NW	Refuse Heap	1876	339064

This data is sourced from Ordnance Survey / Groundsure.

1.2 Historical tanks

Records within 500m **23**

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

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

ID	Location	Land use	Dates present	Group ID
B	**On site**	**Unspecified Tank**	**1963**	**38668**
B	**On site**	**Tanks**	**1963**	**39684**
B	**On site**	**Tanks**	**1963**	**39685**
B	**On site**	**Tanks**	**1989**	**39686**
C	16m N	Settling Tanks	1969	41278
C	17m N	Settling Tanks	1962 - 1980	40786
C	31m N	Settling Tanks	1962	41975
D	36m NE	Settling Tanks	1969 - 1980	43168
F	67m N	Unspecified Tank	1963	38666
F	68m N	Tanks	1963	42672
I	195m N	Unspecified Tank	1963	38667
I	196m N	Unspecified Tank	1963	38669

ID	Location	Land use	Dates present	Group ID
6	231m N	Settling Tank	1969 - 1980	42118
K	264m E	Unspecified Tank	1962 - 1980	44681
K	269m E	Unspecified Tank	1962 - 1969	44452
K	269m E	Unspecified Tank	1980	42436
H	302m E	Tanks	1973 - 1985	44550
H	307m E	Unspecified Tank	1962	38660
H	320m E	Unspecified Tank	1962 - 1973	41457
Q	371m E	Unspecified Tank	1962 - 1985	39991
Q	373m E	Unspecified Tank	1980	41418
Q	376m E	Unspecified Tank	1962 - 1969	43607
E	392m E	Unspecified Tank	1973 - 1985	41465

This data is sourced from Ordnance Survey / Groundsure.

1.3 Historical energy features

Records within 500m	**5**

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

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

ID	Location	Land use	Dates present	Group ID
H	96m E	Disused Power Station	1985	19680
H	152m E	Power Station	1969 - 1973	22881
3	154m E	Electricity Substation	1980	19508
K	154m E	Disused Power Station	1980	19679
4	161m E	Electricity Substation	1985	19510

This data is sourced from Ordnance Survey / Groundsure.

1.4 Historical petrol stations

Records within 500m	0

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

This data is sourced from Ordnance Survey / Groundsure.

1.5 Historical garages

Records within 500m	0

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

This data is sourced from Ordnance Survey / Groundsure.

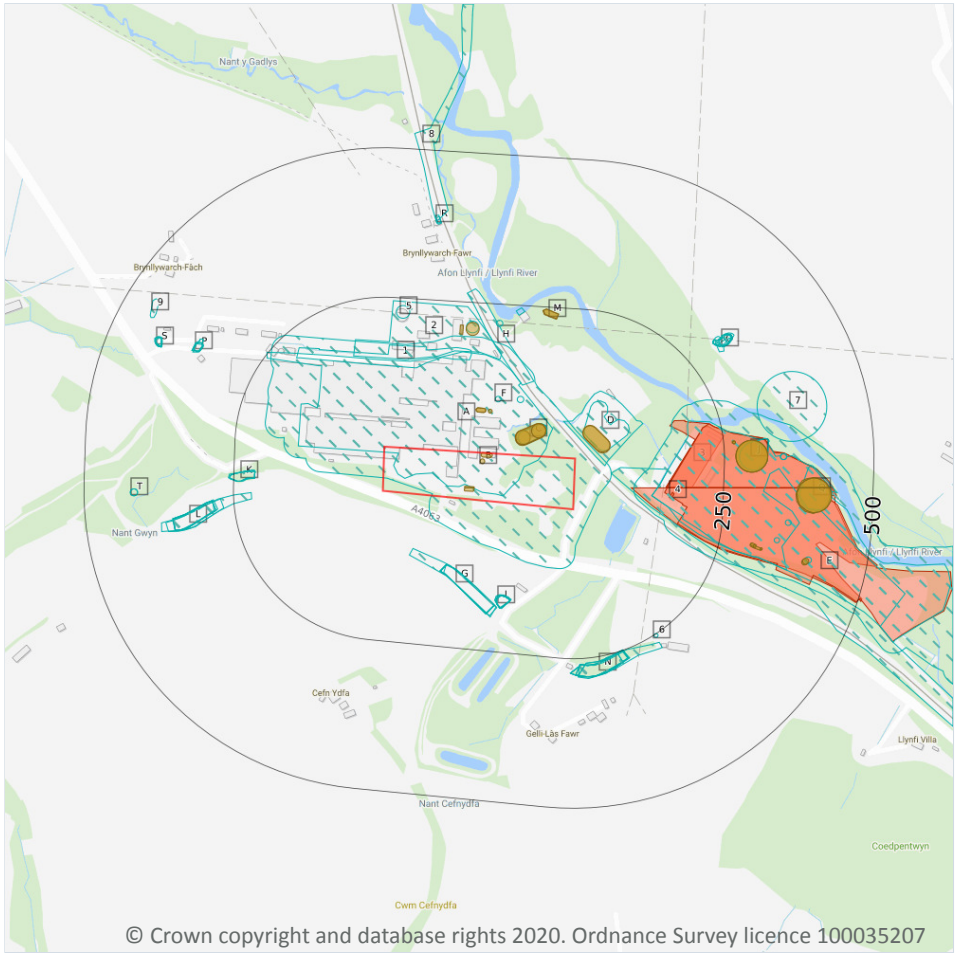
1.6 Historical military land

Records within 500m	0

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

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

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	88

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
A	**On site**	**Paper Mills**	**1985**	**321093**
A	**On site**	**Unspecified Mill**	**1970**	**328964**
C	19m N	Unspecified Tanks	1985	363571

ID	Location	Land Use	Date	Group ID
C	19m N	Unspecified Tanks	1970	363571
D	28m NE	Unspecified Commercial/Industrial	1985	331176
D	40m NE	Unspecified Tanks	1985	328453
E	61m E	Railway Sidings	1970	362067
F	87m N	Chimney	1970	331682
F	88m N	Unspecified Tank	1985	320171
G	91m S	Cuttings	1876	344362
E	100m E	Unspecified Commercial/Industrial	1985	331175
G	112m S	Cuttings	1921	367079
G	112m S	Cuttings	1947	369405
G	112m S	Cuttings	1914	367079
G	113m S	Cuttings	1938	368483
G	113m S	Cuttings	1948	372340
H	117m N	Cuttings	1876	336952
E	131m E	Unspecified Works	1970	320945
1	135m N	Railway Sidings	1948	337637
2	148m N	Unspecified Commercial/Industrial	1985	331177
I	154m S	Unspecified Pit	1938	373348
I	154m S	Unspecified Pit	1938	373348
I	154m S	Unspecified Pit	1948	343228
I	156m S	Unspecified Pit	1921	361972
I	156m S	Unspecified Pit	1947	343228
I	156m S	Unspecified Pit	1914	361972
I	156m S	Unspecified Pit	1897	361972
H	199m N	Unspecified Tank	1985	320169
H	213m N	Unspecified Tank	1970	320170
K	215m W	Unspecified Quarry	1921	372249
K	215m W	Unspecified Quarry	1947	369699

ID	Location	Land Use	Date	Group ID
K	215m W	Unspecified Quarry	1914	372249
K	215m W	Unspecified Quarry	1938	350632
5	216m N	Unspecified Tank	1985	320168
L	220m W	Cuttings	1876	348816
H	233m N	Pump House	1985	322070
6	249m SE	Unspecified Disused Kiln	1985	321998
N	250m S	Cuttings	1921	343055
N	250m S	Cuttings	1947	343055
N	250m S	Cuttings	1914	343055
N	250m S	Cuttings	1897	343055
N	251m S	Cuttings	1938	343055
N	251m S	Cuttings	1948	343055
N	251m S	Cuttings	1876	375243
N	252m S	Cuttings	1985	367386
N	252m S	Cuttings	1970	367386
L	268m W	Cuttings	1897	365658
J	275m E	Unspecified Tanks	1985	352863
J	275m E	Unspecified Tanks	1970	352863
L	278m W	Cuttings	1948	361045
L	281m W	Cuttings	1921	361045
L	281m W	Cuttings	1947	361045
L	281m W	Cuttings	1914	361045
L	284m W	Cuttings	1938	361045
O	300m NE	Unspecified Pit	1876	335912
O	300m NE	Unspecified Old Level	1938	370279
O	300m NE	Unspecified Old Level	1938	370279
O	301m NE	Unspecified Old Level	1921	367200
O	301m NE	Unspecified Old Level	1947	374903

ID	Location	Land Use	Date	Group ID
O	301m NE	Unspecified Old Level	1914	367200
O	306m NE	Unspecified Ground Workings	1897	334374
O	309m NE	Unspecified Old Level	1948	348455
7	315m E	Disused Power Station	1985	319016
O	320m NE	Unspecified Disused Level	1985	318905
E	340m E	Chimneys	1970	328589
J	343m E	Unspecified Tank	1985	360010
J	343m E	Unspecified Tank	1970	360010
P	346m NW	Unspecified Old Levels	1921	378926
P	346m NW	Unspecified Old Level	1947	331565
P	346m NW	Unspecified Old Levels	1914	378926
P	347m NW	Unspecified Old Levels	1948	346844
P	348m NW	Unspecified Old Levels	1938	372078
P	348m NW	Unspecified Old Levels	1938	372078
E	356m E	Chimneys	1970	328590
R	377m N	Railway Building	1948	371609
Q	378m E	Unspecified Tanks	1970	328454
R	379m N	Railway Building	1938	369344
8	381m N	Railway Sidings	1876	337638
E	397m E	Unspecified Tank	1985	320174
S	408m NW	Unspecified Old Levels	1921	361989
S	408m NW	Unspecified Old Levels	1947	342556
S	408m NW	Unspecified Old Levels	1914	361989
S	409m NW	Unspecified Old Levels	1938	368008
S	409m NW	Unspecified Old Levels	1938	368008
S	409m NW	Unspecified Old Levels	1948	359346
T	410m W	Disused Air Shaft	1985	339157
T	410m W	Unspecified Disused Shaft	1970	337229

ID	Location	Land Use	Date	Group ID
9	442m NW	Refuse Heap	1876	339064

This data is sourced from Ordnance Survey / Groundsure.

2.2 Historical tanks

Records within 500m	**36**

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	**On site**	**Tanks**	**1963**	**39684**
B	**On site**	**Tanks**	**1963**	**39685**
B	**On site**	**Unspecified Tank**	**1963**	**38668**
B	**On site**	**Tanks**	**1989**	**39686**
C	16m N	Settling Tanks	1969	41278
C	17m N	Settling Tanks	1962	40786
C	18m N	Settling Tanks	1980	40786
C	31m N	Settling Tanks	1962	41975
D	36m NE	Settling Tanks	1969	43168
D	36m NE	Settling Tanks	1980	43168
F	67m N	Unspecified Tank	1963	38666
F	68m N	Tanks	1963	42672
F	68m N	Tanks	1963	42672
H	195m N	Unspecified Tank	1963	38667
H	196m N	Unspecified Tank	1963	38669
M	231m N	Settling Tank	1969	42118
M	231m N	Settling Tank	1980	42118
J	264m E	Unspecified Tank	1980	44681
J	265m E	Unspecified Tank	1962	44681

ID	Location	Land Use	Date	Group ID
J	265m E	Unspecified Tank	1969	44681
J	269m E	Unspecified Tank	1962	44452
J	269m E	Unspecified Tank	1969	44452
J	269m E	Unspecified Tank	1980	42436
E	302m E	Tanks	1985	44550
E	302m E	Tanks	1973	44550
E	307m E	Unspecified Tank	1962	38660
E	320m E	Unspecified Tank	1973	41457
E	320m E	Unspecified Tank	1962	41457
Q	371m E	Unspecified Tank	1985	39991
Q	373m E	Unspecified Tank	1980	41418
Q	373m E	Unspecified Tank	1973	39991
Q	373m E	Unspecified Tank	1962	39991
Q	376m E	Unspecified Tank	1962	43607
Q	376m E	Unspecified Tank	1969	43607
E	392m E	Unspecified Tank	1985	41465
E	393m E	Unspecified Tank	1973	41465

This data is sourced from Ordnance Survey / Groundsure.

2.3 Historical energy features

Records within 500m **6**

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	96m E	Disused Power Station	1985	19680
E	152m E	Power Station	1973	22881
3	154m E	Electricity Substation	1980	19508

ID	Location	Land Use	Date	Group ID
J	154m E	Disused Power Station	1980	19679
J	156m E	Power Station	1969	22881
4	161m E	Electricity Substation	1985	19510

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)

Historical landfill (EA/NRW)

Historical waste sites

Licensed waste sites

Waste exemptions

3.1 Active or recent landfill

Records within 500m	0

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

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

3.2 Historical landfill (BGS records)

Records within 500m	0

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

This data is sourced from the British Geological Survey.

3.3 Historical landfill (LA/mapping records)

Records within 500m	0

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

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

3.4 Historical landfill (EA/NRW records)

Records within 500m	1

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 25**

ID	Location	Details		
1	1m SE	Site Address: Old Lynfi Power Station Licence Holder Address: National House, Santon, Isle of Man	Waste Licence: Yes Site Reference: 27, SWW-71-L, W759 Waste Type: Inert Environmental Permitting Regulations (Waste) Reference: WV1/L/MOR001 Licence Issue: 20/04/1993 Licence Surrender: -	Operator: Morgan Credit Limited Licence Holder: Morgan Credit Limited First Recorded - Last Recorded: -

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

3.5 Historical waste sites

Records within 500m	1

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

Features are displayed on the Waste and landfill map on **page 25**

ID	Location	Address	Further Details	Date
2	214m E	Site Address: Lynfi Biomass Power Station Nr, Bridgend Road, Llangynwyd, Maesteg, Mid Glamorgan, CF34	Type of Site: Waste Transfer Station Planning application reference: P/15/807/FUL Description: Scheme comprises temporary delivery & permanent storage of up to 15,000 tonnes of uncovered clean wood chip Data source: Historic Planning Application Data Type: Point	-

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

3.6 Licensed waste sites

Records within 500m **8**

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

Features are displayed on the Waste and landfill map on **page 25**

ID	Location	Details		
A	178m E	Site Name: Old Lynfi Power Station Site Address: - Correspondence Address: National House, Stanton, Isle Of Man, IM41 2HF	Type of Site: Landfill taking Non-Biodegradeable Wastes Size: Unknown Environmental Permitting Regulations (Waste) Licence Number: MOR001 EPR reference: - Operator: Morgan Credit Ltd Waste Management licence No: 34063 Annual Tonnage: 0	Issue Date: 20/04/1993 Effective Date: - Modified:: - Surrendered Date: - Expiry Date: - Cancelled Date: - Status: Expired
A	178m E	Site Name: - Site Address: Old Lynfi Power Station, Bridgend, Bridgend Correspondence Address: -	Type of Site: - Size: Unknown Environmental Permitting Regulations (Waste) Licence Number: SP3798FR EPR reference: - Operator: Morgan Credit Ltd Waste Management licence No: 0 Annual Tonnage: 0	Issue Date: 20/04/1993 Effective Date: 20/04/1993 Modified:: - Surrendered Date: - Expiry Date: - Cancelled Date: - Status: Expired
A	178m E	Site Name: Old Lynfi Power Station Site Address: Lynfi Power Station, Bridgend, Glamorgan Correspondence Address: -	Type of Site: Landfill taking Non-Biodegradeable Wastes Size: 25000 tonnes Environmental Permitting Regulations (Waste) Licence Number: MOR001 EPR reference: EA/EPR/SP3798FR/A001 Operator: Morgan Credit Ltd Waste Management licence No: 34063 Annual Tonnage: 150000	Issue Date: 20/04/1993 Effective Date: - Modified:: - Surrendered Date: - Expiry Date: - Cancelled Date: - Status: Expired

ID	Location	Details		
A	178m E	Site Name: Old Lynfi Power Station Site Address: Lynfi Power Station, Bridgend, Glamorgan Correspondence Address: -	Type of Site: Landfill taking Non-Biodegradeable Wastes Size: >= 75000 tonnes Environmental Permitting Regulations (Waste) Licence Number: MOR001 EPR reference: SP3798FR/A001 Operator: Morgan Credit Ltd Waste Management licence No: 34063 Annual Tonnage: 150000	Issue Date: 20/04/1993 Effective Date: - Modified:: - Surrendered Date: 0 Expiry Date: 0 Cancelled Date: 0 Status: Expired
A	178m E	Site Name: - Site Address: Old Lynfi Power Station, Bridgend, Glamorgan Correspondence Address: -	Type of Site: Landfill taking Non-Biodegradeable Wastes Size: Unknown Environmental Permitting Regulations (Waste) Licence Number: SP3798FR EPR reference: - Operator: - Waste Management licence No: 34063 Annual Tonnage: 0	Issue Date: 20/04/1993 Effective Date: 20/04/1993 Modified:: - Surrendered Date: - Expiry Date: 11/08/2009 Cancelled Date: - Status: Expired
A	178m E	Site Name: - Site Address: Old Lynfi Power Station, Bridgend, Glamorga Correspondence Address: -	Type of Site: Landfill taking Non-Biodegradeable Wastes Size: - Environmental Permitting Regulations (Waste) Licence Number: SP3798FR EPR reference: - Operator: Morgan Credit Ltd Waste Management licence No: 34063 Annual Tonnage: 0	Issue Date: 20/04/1993 Effective Date: 20/04/1993 Modified:: - Surrendered Date: - Expiry Date: 11/08/2009 Cancelled Date: - Status: Expired
A	178m E	Site Name: - Site Address: Old Lynfi Power Station, Glamorgan, Bridgend, Bridgend Correspondence Address: -	Type of Site: - Size: Unknown Environmental Permitting Regulations (Waste) Licence Number: SP3798FR EPR reference: - Operator: Morgan Credit Ltd Waste Management licence No: 34063 Annual Tonnage: 0	Issue Date: 20/04/1993 Effective Date: 20/04/1993 Modified:: - Surrendered Date: - Expiry Date: 11/08/2009 Cancelled Date: - Status: Expired

ID	Location	Details		
A	178m E	Site Name: - Site Address: Old Lynfi Power Station, Bridgend, Glamorga Correspondence Address: -	Type of Site: Landfill taking Non-Biodegradeable Wastes Size: - Environmental Permitting Regulations (Waste) Licence Number: SP3798FR EPR reference: - Operator: Morgan Credit Ltd Waste Management licence No: 34063 Annual Tonnage: 0	Issue Date: 20/04/1993 Effective Date: 20/04/1993 Modified:: - Surrendered Date: - Expiry Date: 11/08/2009 Cancelled Date: - Status: Expired

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

3.7 Waste exemptions

Records within 500m **13**

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.

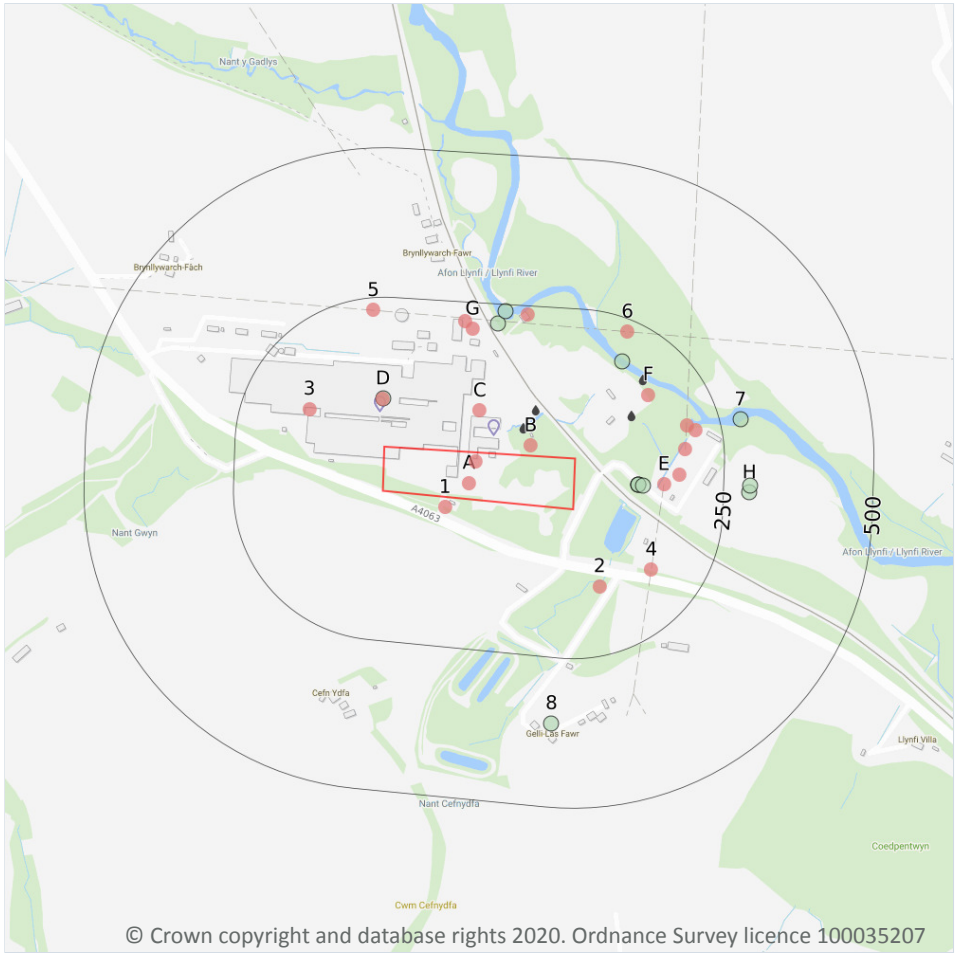
Features are displayed on the Waste and landfill map on **page 25**

ID	Location	Site	Reference	Category	Sub-Category	Description
B	377m S	Llynfi Biomass Power Station, Near Llangwynyd, Maesteg, CF32 OEG	WEX023997	Treating waste exemption	Not on a farm	Screening and blending of waste
B	377m S	South Wales Wood Recycling Ltd, Llynfi Biomass Power Station, Near Llangwynyd, Maesteg, Bridgend, CF32OEG	NRW-WME005121	Storing waste exemption	Not on a farm	Storage of waste in a secure place
B	377m S	South Wales Wood Recycling Ltd, Llynfi Biomass Power Station, Near Llangwynyd, Maesteg, Bridgend, CF32OEG	NRW-WME005121	Treating waste exemption	Not on a farm	Treatment of waste wood and waste plant matter by chipping, shredding, cutting or pulverising

ID	Location	Site	Reference	Category	Sub-Category	Description
B	377m S	South Wales Wood Recycling Ltd, Llynfi Biomass Power Station, Near Llangwynyd, Maesteg, Bridgend, CF32OEG	NRW-WME005121	Using waste exemption	Not on a farm	Use of waste in construction
C	464m NW	Brynsiriol Farm, Llangynwyd, Maesteg, Pen-y-bont ar Ogwr, CF349RR	NRW-WME015540	Using waste exemption	On a farm	Incorporation of ash into soil
C	464m NW	Brynsiriol Farm, Llangynwyd, Maesteg, Pen-y-bont ar Ogwr, CF349RR	NRW-WME015540	Using waste exemption	On a farm	Spreading waste on agricultural land to confer benefit
C	464m NW	Brynsiriol Farm, Llangynwyd, Maesteg, Pen-y-bont ar Ogwr, CF349RR	NRW-WME015540	Disposing of waste exemption	On a farm	Burning waste in the open
C	464m NW	Brynsiriol Farm, Llangynwyd, Maesteg, Pen-y-bont ar Ogwr, CF349RR	NRW-WME015540	Treating waste exemption	On a farm	Aerobic composting and associated prior treatment
C	464m NW	Brynsiriol Farm, Llangynwyd, Maesteg, Pen-y-bont ar Ogwr, CF349RR	NRW-WME015540	Using waste exemption	On a farm	Use of waste in construction
C	464m NW	DMG, B & R M Millichap, Brynllwarch Farm, Llangynwyd, Maesteg, Pen-y-bont ar Ogwr, CF349RR	NRW-WME020613	Disposing of waste exemption	On a farm	Deposit of waste from dredging of inland waters
C	464m NW	DMG, B & R M Millichap, Brynllwarch Farm, Llangynwyd, Maesteg, Pen-y-bont ar Ogwr, CF349RR	NRW-WME020613	Using waste exemption	On a farm	Use of waste for a specified purpose
C	464m NW	DMG, B & R M Millichap, Brynllwarch Farm, Llangynwyd, Maesteg, Pen-y-bont ar Ogwr, CF349RR	NRW-WME020613	Disposing of waste exemption	On a farm	Burning waste in the open
C	464m NW	DMG, B & R M Millichap, Brynllwarch Farm, Llangynwyd, Maesteg, Pen-y-bont ar Ogwr, CF349RR	NRW-WME020613	Treating waste exemption	On a farm	Treatment of waste wood and waste plant matter by chipping, shredding, cutting or pulverising

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	20

Current potentially contaminative industrial sites.

Features are displayed on the Current industrial land use map on **page 31**

ID	Location	Company	Address	Activity	Category
A	**On site**	**Tank**	**Mid Glamorgan, CF34**	**Tanks (Generic)**	**Industrial Features**
A	**On site**	**Chimneys**	**Mid Glamorgan, CF34**	**Chimneys**	**Industrial Features**
1	17m S	Gas Governor	Mid Glamorgan, CF34	Gas Features	Infrastructure and Facilities

ID	Location	Company	Address	Activity	Category
B	17m N	Settling Tanks	Mid Glamorgan, CF34	Waste Storage, Processing and Disposal	Infrastructure and Facilities
C	70m N	Tank	Mid Glamorgan, CF34	Tanks (Generic)	Industrial Features
D	81m N	Northwood & Wepa	Bridgend Paper Mills, Llangynwyd, Maesteg, Mid Glamorgan, CF34 9RS	Bathroom Fixtures, Fittings and Sanitary Equipment	Consumer Products
2	136m S	Pumping Station	Mid Glamorgan, CF32	Water Pumping Stations	Industrial Features
3	140m NW	Silo	Mid Glamorgan, CF34	Hoppers and Silos	Farming
E	150m E	Pylon	Mid Glamorgan, CF32	Electrical Features	Infrastructure and Facilities
F	162m NE	Pump House	Mid Glamorgan, CF32	Water Pumping Stations	Industrial Features
4	165m SE	Pylon	Mid Glamorgan, CF32	Electrical Features	Infrastructure and Facilities
E	175m E	Electricity Sub Station	Mid Glamorgan, CF32	Electrical Features	Infrastructure and Facilities
E	185m E	Pylon	Mid Glamorgan, CF32	Electrical Features	Infrastructure and Facilities
E	196m E	Electricity Poles	Mid Glamorgan, CF32	Electrical Features	Infrastructure and Facilities
G	206m N	Tank	Mid Glamorgan, CF34	Tanks (Generic)	Industrial Features
E	207m E	Pylon	Mid Glamorgan, CF32	Electrical Features	Infrastructure and Facilities
G	218m N	Tank	Mid Glamorgan, CF34	Tanks (Generic)	Industrial Features
5	229m N	Pylon	Mid Glamorgan, CF34	Electrical Features	Infrastructure and Facilities
6	230m N	Pylon	Mid Glamorgan, CF32	Electrical Features	Infrastructure and Facilities
G	235m N	Pumping Station	Mid Glamorgan, CF32	Water Pumping Stations	Industrial Features

This data is sourced from Ordnance Survey.

4.2 Current or recent petrol stations

Records within 500m	0

Open, closed, under development and obsolete petrol stations.

This data is sourced from Experian.

4.3 Electricity cables

Records within 500m	0

High voltage underground electricity transmission cables.

This data is sourced from National Grid.

4.4 Gas pipelines

Records within 500m	0

High pressure underground gas transmission pipelines.

This data is sourced from National Grid.

4.5 Sites determined as Contaminated Land

Records within 500m	0

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

This data is sourced from Local Authority records.

4.6 Control of Major Accident Hazards (COMAH)

Records within 500m	0

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

This data is sourced from the Health and Safety Executive.

4.7 Regulated explosive sites

Records within 500m	0

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

This data is sourced from the Health and Safety Executive.

4.8 Hazardous substance storage/usage

Records within 500m	0

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

This data is sourced from Local Authority records.

4.9 Historical licensed industrial activities (IPC)

Records within 500m	0

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

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

4.10 Licensed industrial activities (Part A(1))

Records within 500m	38

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 31**

ID	Location	Details	
C	42m N	Operator: NPOWER COGEN LIMITED Installation Name: BRIDGEND PAPER MILLS Process: COMBUSTION; ANY FUEL =>20MW BUT 50MW (UNLESS 1.1 A(1) B) Permit Number: BK6122IE Original Permit Number: BK6122IE	EPR Reference: - Issue Date: 15/11/2001 Effective Date: 15/11/2001 Last date noted as effective: 17/11/2015 Status: SUPERCEDED

ID	Location	Details	
C	42m N	Operator: NPOWER COGEN LTD Installation Name: - Process: COMBUSTION; ANY FUEL =>20MW BUT 50MW (UNLESS 1.1 A(1) B) Permit Number: BT9470 Original Permit Number: BK6122	EPR Reference: - Issue Date: 12/12/2002 Effective Date: 12/12/2002 Last date noted as effective: 01/10/2004 Status: SUPERSEDED BY PAS
C	42m N	Operator: NPOWER COGEN LTD Installation Name: - Process: COMBUSTION; ANY FUEL =>20MW BUT 50MW (UNLESS 1.1 A(1) B) Permit Number: BK6122 Original Permit Number: BK6122	EPR Reference: - Issue Date: - Effective Date: 15/11/2001 Last date noted as effective: 03/10/2005 Status: SUPERSEDED BY VARIATION
D	71m N	Operator: SCA HYGIENE PRODUCTS TISSUE LIMITED Installation Name: BRIDGEND PAPER MILLS Process: CREATED BY IED - DISPOSAL OF > 50 T/D NON-HAZARDOUS WASTE (> 100 T/D IF ONLY AD) INVOLVING BIOLOGICAL TREATMENT Permit Number: PP3437ZJ Original Permit Number: SP3431CN	EPR Reference: - Issue Date: 25/03/2013 Effective Date: 25/03/2013 Last date noted as effective: 01/07/2013 Status: EFFECTIVE
D	71m N	Operator: MORGAN CREDIT ENERGY (WALES) LIMITED Installation Name: LLYNFI BIOMASS POWER STATION Process: COMBUSTION; ANY FUEL =>50MW Permit Number: HP3933FD Original Permit Number: HP3933FD	EPR Reference: - Issue Date: - Effective Date: - Last date noted as effective: 01/01/2012 Status: DETERMINATION
D	71m N	Operator: NORTHWOOD & WEPA LTD Installation Name: BRIDGEND PAPER MILL EPR/EP3738NG Process: ASSOCIATED PROCESS Permit Number: EP3238EC Original Permit Number: EP3738NG	EPR Reference: - Issue Date: 24/02/2014 Effective Date: 24/02/2014 Last date noted as effective: 17/11/2015 Status: EFFECTIVE
D	71m N	Operator: NORTHWOOD & WEPA LTD Installation Name: BRIDGEND PAPER MILL EPR/EP3738NG Process: COMBUSTION; ANY FUEL =>20MW BUT 50MW (UNLESS 1.1 A(1) B) Permit Number: EP3238EC Original Permit Number: EP3738NG	EPR Reference: - Issue Date: 24/02/2014 Effective Date: 24/02/2014 Last date noted as effective: 17/11/2015 Status: EFFECTIVE
D	71m N	Operator: NORTHWOOD & WEPA LTD Installation Name: BRIDGEND PAPER MILL EPR/EP3738NG Process: DISPOSAL OF > 50 T/D NON-HAZARDOUS WASTE (> 100 T/D IF ONLY AD) INVOLVING BIOLOGICAL TREATMENT Permit Number: EP3238EC Original Permit Number: EP3738NG	EPR Reference: - Issue Date: 24/02/2014 Effective Date: 24/02/2014 Last date noted as effective: 17/11/2015 Status: EFFECTIVE

ID	Location	Details	
D	71m N	Operator: NORTHWOOD & WEPA LTD Installation Name: BRIDGEND PAPER MILL EPR/EP3738NG Process: PAPER, PULP AND BOARD; PRODUCING PAPER/BOARD >20T/D Permit Number: EP3238EC Original Permit Number: EP3738NG	EPR Reference: - Issue Date: 24/02/2014 Effective Date: 24/02/2014 Last date noted as effective: 17/11/2015 Status: EFFECTIVE
D	71m N	Operator: NORTHWOOD & WEPA LTD Installation Name: BRIDGEND PAPER MILLS Process: COMBUSTION; ANY FUEL =>20MW BUT 50MW (UNLESS 1.1 A(1) B) Permit Number: EP3738NG Original Permit Number: EP3738NG	EPR Reference: - Issue Date: 18/06/2013 Effective Date: 18/06/2013 Last date noted as effective: 17/11/2015 Status: SUPERCEDED
D	71m N	Operator: NORTHWOOD & WEPA LTD Installation Name: BRIDGEND PAPER MILLS Process: DISPOSAL OF > 50 T/D NON-HAZARDOUS WASTE (> 100 T/D IF ONLY AD) INVOLVING BIOLOGICAL TREATMENT Permit Number: EP3738NG Original Permit Number: EP3738NG	EPR Reference: - Issue Date: 18/06/2013 Effective Date: 18/06/2013 Last date noted as effective: 17/11/2015 Status: SUPERCEDED
D	71m N	Operator: NORTHWOOD & WEPA LTD Installation Name: BRIDGEND PAPER MILLS Process: PAPER, PULP AND BOARD; PRODUCING PAPER/BOARD >20T/D Permit Number: EP3738NG Original Permit Number: EP3738NG	EPR Reference: - Issue Date: 18/06/2013 Effective Date: 18/06/2013 Last date noted as effective: 17/11/2015 Status: SUPERCEDED
D	71m N	Operator: NPOWER COGEN LIMITED Installation Name: BRIDGEND PAPER MILLS Process: COMBUSTION; ANY FUEL =>20MW BUT 50MW (UNLESS 1.1 A(1) B) Permit Number: BT9470IR Original Permit Number: BK6122IE	EPR Reference: - Issue Date: 12/12/2002 Effective Date: 12/12/2002 Last date noted as effective: 17/11/2015 Status: SUPERCEDED
D	71m N	Operator: NPOWER COGEN LIMITED Installation Name: BRIDGEND PAPER MILLS Process: ASSOCIATED PROCESS Permit Number: LP3930BN Original Permit Number: BK6122IE	EPR Reference: - Issue Date: 18/10/2004 Effective Date: 18/10/2004 Last date noted as effective: 17/11/2015 Status: SUPERCEDED
D	71m N	Operator: NPOWER COGEN LIMITED Installation Name: BRIDGEND PAPER MILLS Process: COMBUSTION; ANY FUEL =>20MW BUT 50MW (UNLESS 1.1 A(1) B) Permit Number: LP3930BN Original Permit Number: BK6122IE	EPR Reference: - Issue Date: 18/10/2004 Effective Date: 18/10/2004 Last date noted as effective: 17/11/2015 Status: SUPERCEDED

ID	Location	Details	
D	71m N	Operator: SCA HYGIENE PRODUCTS TISSUE LIMITED Installation Name: BRIDGEND PAPER MILLS Process: ASSOCIATED PROCESS Permit Number: PP3437ZJ Original Permit Number: SP3431CN	EPR Reference: - Issue Date: 25/03/2013 Effective Date: 25/03/2013 Last date noted as effective: 17/11/2015 Status: SUPERCEDED
D	71m N	Operator: SCA HYGIENE PRODUCTS TISSUE LIMITED Installation Name: BRIDGEND PAPER MILLS Process: COMBUSTION; ANY FUEL =>20MW BUT 50MW (UNLESS 1.1 A(1) B) Permit Number: PP3437ZJ Original Permit Number: SP3431CN	EPR Reference: - Issue Date: 25/03/2013 Effective Date: 25/03/2013 Last date noted as effective: 17/11/2015 Status: SUPERCEDED
D	71m N	Operator: SCA HYGIENE PRODUCTS TISSUE LIMITED Installation Name: BRIDGEND PAPER MILLS Process: DISPOSAL OF > 50 T/D NON-HAZARDOUS WASTE (> 100 T/D IF ONLY AD) INVOLVING BIOLOGICAL TREATMENT Permit Number: PP3437ZJ Original Permit Number: SP3431CN	EPR Reference: - Issue Date: 25/03/2013 Effective Date: 25/03/2013 Last date noted as effective: 17/11/2015 Status: SUPERCEDED
D	71m N	Operator: SCA HYGIENE PRODUCTS TISSUE LIMITED Installation Name: BRIDGEND PAPER MILLS Process: PAPER, PULP AND BOARD; PRODUCING PAPER/BOARD >20T/D Permit Number: PP3437ZJ Original Permit Number: SP3431CN	EPR Reference: - Issue Date: 25/03/2013 Effective Date: 25/03/2013 Last date noted as effective: 17/11/2015 Status: SUPERCEDED
D	71m N	Operator: SCA HYGIENE PRODUCTS TISSUE LIMITED Installation Name: BRIDGEND PAPER MILLS Process: PAPER, PULP AND BOARD; PRODUCING PAPER/BOARD >20T/D Permit Number: SP3431CN Original Permit Number: SP3431CN	EPR Reference: - Issue Date: 19/07/2012 Effective Date: 19/07/2012 Last date noted as effective: 17/11/2015 Status: SUPERCEDED
D	71m N	Operator: GEORGIA PACIFIC GB LTD Installation Name: - Process: PAPER, PULP & BOARD; PRODUCING PAPER/BOARD >20T/D Permit Number: BR8042 Original Permit Number: BJ5805	EPR Reference: - Issue Date: 29/04/2002 Effective Date: 06/05/2002 Last date noted as effective: 01/10/2004 Status: SUPERSEDED BY PAS
D	71m N	Operator: GEORGIA-PACIFIC GB LIMITED Installation Name: BRIDGEND PAPER MILLS Process: PAPER, PULP AND BOARD; PRODUCING PAPER/BOARD >20T/D Permit Number: EP3639GP Original Permit Number: BJ5805IX	EPR Reference: EA/EPR/BJ5805IX/V004 Issue Date: 31/03/2010 Effective Date: 31/03/2010 Last date noted as effective: 08/02/2011 Status: EFFECTIVE

ID	Location	Details	
D	71m N	Operator: NORTHWOOD & WEPA LTD Installation Name: BRIDGEND PAPER MILL EPR/EP3738NG Process: - Permit Number: EP3738NG Original Permit Number: -	EPR Reference: - Issue Date: 31/03/2016 Effective Date: 31/03/2016 Last date noted as effective: 01/04/2017 Status: ISSUED
D	71m N	Operator: NORTHWOOD & WEPA LTD Installation Name: BRIDGEND PAPER MILL EPR/EP3738NG Process: - Permit Number: EP3738NG Original Permit Number: EP3238EC	EPR Reference: - Issue Date: 31/03/2016 Effective Date: 31/03/2016 Last date noted as effective: 01/04/2018 Status: EFFECTIVE
D	71m N	Operator: NORTHWOOD & WEPA LTD Installation Name: BRIDGEND PAPER MILL EPR/EP3738NG Process: - Permit Number: EP3738NG Original Permit Number: EP3238EC	EPR Reference: - Issue Date: 31/03/2016 Effective Date: 31/03/2016 Last date noted as effective: 01/04/2018 Status: EFFECTIVE
D	71m N	Operator: GEORGIA-PACIFIC GB LIMITED Installation Name: BRIDGEND PAPER MILLS Process: PAPER, PULP AND BOARD; PRODUCING PAPER/BOARD >20T/D Permit Number: BJ5805IX Original Permit Number: BJ5805IX	EPR Reference: - Issue Date: 27/11/2001 Effective Date: 27/11/2001 Last date noted as effective: 17/11/2015 Status: SUPERCEDED
D	71m N	Operator: GEORGIA-PACIFIC GB LIMITED Installation Name: BRIDGEND PAPER MILLS Process: PAPER, PULP AND BOARD; PRODUCING PAPER/BOARD >20T/D Permit Number: BR8042IG Original Permit Number: BJ5805IX	EPR Reference: - Issue Date: 29/04/2002 Effective Date: 06/05/2002 Last date noted as effective: 17/11/2015 Status: SUPERCEDED
D	71m N	Operator: GEORGIA PACIFIC GB LTD Installation Name: - Process: PAPER, PULP & BOARD; PRODUCING PAPER/BOARD >20T/D Permit Number: BJ5805 Original Permit Number: BJ5805	EPR Reference: - Issue Date: - Effective Date: 27/11/2001 Last date noted as effective: 03/10/2005 Status: SUPERSEDED BY VARIATION
D	71m N	Operator: NORTHWOOD & WEPA LTD Installation Name: BRIDGEND PAPER MILL EPR/EP3738NG Process: - Permit Number: EP3738NG Original Permit Number: EP3238EC	EPR Reference: - Issue Date: 31/03/2016 Effective Date: 31/03/2016 Last date noted as effective: 15/05/2020 Status: EFFECTIVE

ID	Location	Details	
D	71m N	Operator: NORTHWOOD & WEPA LTD Installation Name: BRIDGEND PAPER MILL EPR/EP3738NG Process: - Permit Number: EP3738NG Original Permit Number: EP3238EC	EPR Reference: - Issue Date: 31/03/2016 Effective Date: 31/03/2016 Last date noted as effective: 15/05/2020 Status: EFFECTIVE
D	71m N	Operator: NORTHWOOD & WEPA LTD Installation Name: BRIDGEND PAPER MILL EPR/EP3738NG Process: - Permit Number: EP3738NG Original Permit Number: EP3238EC	EPR Reference: - Issue Date: 31/03/2016 Effective Date: 31/03/2016 Last date noted as effective: 15/05/2020 Status: EFFECTIVE
D	71m N	Operator: NORTHWOOD & WEPA LTD Installation Name: BRIDGEND PAPER MILL EPR/EP3738NG Process: DISPOSAL OF NON-HAZARDOUS WASTE WITH A CAPACITY EXCEEDING 50 TONNES PER DAY (OR ... Permit Number: EP3738NG Original Permit Number: EP3238EC	EPR Reference: - Issue Date: 31/03/2016 Effective Date: 31/03/2016 Last date noted as effective: 15/05/2020 Status: EFFECTIVE
D	71m N	Operator: GEORGIA-PACIFIC GB LIMITED Installation Name: BRIDGEND PAPER MILLS Process: PAPER, PULP AND BOARD; PRODUCING PAPER/BOARD >20T/D Permit Number: NP3330FK Original Permit Number: BJ5805IX	EPR Reference: - Issue Date: 28/10/2011 Effective Date: 28/10/2011 Last date noted as effective: 17/11/2015 Status: SUPERCEDED
D	71m N	Operator: NORTHWOOD & WEPA LTD Installation Name: BRIDGEND PAPER MILL EPR/EP3738NG Process: - Permit Number: EP3738NG Original Permit Number: EP3238EC	EPR Reference: - Issue Date: 31/03/2016 Effective Date: 31/03/2016 Last date noted as effective: 01/04/2018 Status: EFFECTIVE
D	71m N	Operator: NORTHWOOD & WEPA LTD Installation Name: BRIDGEND PAPER MILL EPR/EP3738NG Process: - Permit Number: EP3738NG Original Permit Number: EP3238EC	EPR Reference: - Issue Date: 31/03/2016 Effective Date: 31/03/2016 Last date noted as effective: 01/04/2018 Status: EFFECTIVE
D	71m N	Operator: GEORGIA-PACIFIC GB LIMITED Installation Name: BRIDGEND PAPER MILLS Process: ASSOCIATED PROCESS Permit Number: SP3639KA Original Permit Number: SP3639KA	EPR Reference: - Issue Date: 23/07/2009 Effective Date: 28/07/2009 Last date noted as effective: 17/11/2015 Status: SUPERCEDED

ID	Location	Details	
D	71m N	Operator: GEORGIA-PACIFIC GB LIMITED Installation Name: BRIDGEND PAPER MILLS Process: COMBUSTION; ANY FUEL =>20MW BUT 50MW (UNLESS 1.1 A(1) B) Permit Number: SP3639KA Original Permit Number: SP3639KA	EPR Reference: - Issue Date: 23/07/2009 Effective Date: 28/07/2009 Last date noted as effective: 17/11/2015 Status: SUPERCEDED
D	71m N	Operator: GEORGIA-PACIFIC GB LIMITED Installation Name: BRIDGEND PAPER MILLS Process: PAPER, PULP AND BOARD; PRODUCING PAPER/BOARD >20T/D Permit Number: XP3235SE Original Permit Number: BJ5805IX	EPR Reference: - Issue Date: 29/04/2005 Effective Date: 03/05/2005 Last date noted as effective: 17/11/2015 Status: SUPERCEDED

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

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

Records within 500m	0

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

This data is sourced from Local Authority records.

4.12 Radioactive Substance Authorisations

Records within 500m	0

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

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

4.13 Licensed Discharges to controlled waters

Records within 500m	9

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 31**

ID	Location	Address	Details	
B	45m N	BRIDGEND PAPER MILLS LLANGYNWYD, BRIDGEND PAPER MILLS LLANGYNWY, LLANGYNWYD	Effluent Type: TRADE DISCHARGES - UNSPECIFIED Permit Number: BA2000201 Permit Version: 1 Receiving Water: RIVER LLYNFI	Status: REVOKED - UNSPECIFIED Issue date: 04/08/1965 Effective Date: 04/08/1965 Revocation Date: 20/03/1986
B	45m N	BRIDGEND PAPER MILLS LLANGYNWYD, BRIDGEND PAPER MILLS LLANGYNWY, LLANGYNWYD	Effluent Type: TRADE DISCHARGES - UNSPECIFIED Permit Number: BA2000201 Permit Version: 2 Receiving Water: RIVER LLYNFI	Status: REVOKED - UNSPECIFIED Issue date: 21/03/1986 Effective Date: 21/03/1986 Revocation Date: 30/05/1990
B	76m N	BRIDGEND PAPER MILLS LLANGYNWYD, BRIDGEND PAPER MILLS LLANGYNWY, LLANGYNWYD	Effluent Type: SEWAGE DISCHARGES - FINAL/TREATED EFFLUENT - NOT WATER COMPANY Permit Number: BA2000203 Permit Version: 1 Receiving Water: NANT GWYN	Status: NEW CONSENT (WRA 91, S88 & SCHED 10 AS AMENDED BY Issue date: 04/08/1965 Effective Date: 04/08/1965 Revocation Date: 01/07/1991
F	117m NE	BRIDGEND, BRIDGEND PAPER MILLS, LLANGYMWYD, MID GLAMORGAN	Effluent Type: SEWAGE DISCHARGES - FINAL/TREATED EFFLUENT - NOT WATER COMPANY Permit Number: BA2000202 Permit Version: 1 Receiving Water: NANT GWYN	Status: REVOKED - UNSPECIFIED Issue date: 04/08/1965 Effective Date: 04/08/1965 Revocation Date: 20/03/1986
F	117m NE	BRIDGEND, BRIDGEND PAPER MILLS, LLANGYMWYD, MID GLAMORGAN	Effluent Type: TRADE DISCHARGES - UNSPECIFIED Permit Number: BA2000202 Permit Version: 2 Receiving Water: NANT GWYN	Status: NEW CONSENT (WRA 91, S88 & SCHED 10 AS AMENDED BY Issue date: 21/03/1986 Effective Date: 21/03/1986 Revocation Date: 20/05/1991
F	173m NE	BRIDGEND PAPER MILLS LLANGYNWYD, BRIDGEND PAPER MILLS LLANGYNWY, LLANGYNWYD	Effluent Type: TRADE DISCHARGES - UNSPECIFIED Permit Number: BP0169201 Permit Version: 3 Receiving Water: AFON LLYNFI	Status: REVOKED (WRA 91, S88 & SCHED 10 AS AMENDED BY ENV Issue date: 13/11/1991 Effective Date: 13/11/1991 Revocation Date: 18/01/2002
F	173m NE	BRIDGEND PAPER MILLS LLANGYNWYD, BRIDGEND PAPER MILLS LLANGYNWY, LLANGYNWYD	Effluent Type: UNSPECIFIED Permit Number: BP0169201 Permit Version: 1 Receiving Water: AFON LLYNFI	Status: REVOKED - UNSPECIFIED Issue date: 01/07/1991 Effective Date: 01/07/1991 Revocation Date: 12/11/1991
F	173m NE	BRIDGEND PAPER MILLS LLANGYNWYD, BRIDGEND PAPER MILLS LLANGYNWY, LLANGYNWYD	Effluent Type: TRADE DISCHARGES - UNSPECIFIED Permit Number: BA2000201 Permit Version: 3 Receiving Water: RIVER LLYNFI	Status: REVOKED - UNSPECIFIED Issue date: 31/05/1990 Effective Date: 31/05/1990 Revocation Date: 19/05/1991

ID	Location	Address	Details	
F	173m NE	BRIDGEND PAPER MILLS LLANGYNWYD, BRIDGEND PAPER MILLS LLANGYNWY, LLANGYNWYD	Effluent Type: UNSPECIFIED Permit Number: BA2000201 Permit Version: 4 Receiving Water: RIVER LLYNFI	Status: NEW CONSENT (WRA 91, S88 & SCHED 10 AS AMENDED BY Issue date: 20/05/1991 Effective Date: 20/05/1991 Revocation Date: 01/07/1991

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

4.14 Pollutant release to surface waters (Red List)

Records within 500m	**0**

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

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

4.15 Pollutant release to public sewer

Records within 500m	**0**

Discharges of Special Category Effluents to the public sewer.

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

4.16 List 1 Dangerous Substances

Records within 500m	**0**

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

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

4.17 List 2 Dangerous Substances

Records within 500m	**0**

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

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

4.18 Pollution Incidents (EA/NRW)

Records within 500m	**12**

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 31**

ID	Location	Details	
D	80m N	Incident Date: 18/04/2003 Incident Identification: 152391 Pollutant: Contaminated Water Pollutant Description: Firefighting Run-Off	Water Impact: Category 3 (Minor) Land Impact: Category 4 (No Impact) Air Impact: Category 3 (Minor)
E	107m E	Incident Date: 31/01/2002 Incident Identification: 55649 Pollutant: Specific Waste Materials:Specific Waste Materials Pollutant Description: Household Waste:Tyres	Water Impact: Category 4 (No Impact) Land Impact: Category 3 (Minor) Air Impact: Category 4 (No Impact)
E	107m E	Incident Date: 31/01/2002 Incident Identification: 55649 Pollutant: Specific Waste Materials Pollutant Description: Household Waste	Water Impact: Category 4 (No Impact) Land Impact: Category 3 (Minor) Air Impact: Category 4 (No Impact)
E	107m E	Incident Date: 31/01/2002 Incident Identification: 55649 Pollutant: Specific Waste Materials Pollutant Description: Tyres	Water Impact: Category 4 (No Impact) Land Impact: Category 3 (Minor) Air Impact: Category 4 (No Impact)
E	115m E	Incident Date: 17/10/2001 Incident Identification: 37274 Pollutant: Specific Waste Materials Pollutant Description: Tyres	Water Impact: Category 4 (No Impact) Land Impact: Category 3 (Minor) Air Impact: Category 4 (No Impact)
F	180m NE	Incident Date: 18/06/2013 Incident Identification: 1123401 Pollutant: Inorganic Chemicals/Products Pollutant Description: Ammonia Solutions	Water Impact: Category 1 (Major) Land Impact: Category 4 (No Impact) Air Impact: Category 4 (No Impact)
G	216m N	Incident Date: 12/10/2015 Incident Identification: 1380120 Pollutant: Contaminated Water Pollutant Description: Other Contaminated Water	Water Impact: - Land Impact: Category 4 (No Impact) Air Impact: Category 4 (No Impact)
G	239m N	Incident Date: 21/07/2001 Incident Identification: 18111 Pollutant: Pollutant Not Identified Pollutant Description: Not Identified	Water Impact: Category 3 (Minor) Land Impact: Category 4 (No Impact) Air Impact: Category 4 (No Impact)

ID	Location	Details	
7	284m E	Incident Date: 24/07/2001 Incident Identification: 18802 Pollutant: Pollutant Not Identified Pollutant Description: Not Identified	Water Impact: Category 2 (Significant) Land Impact: Category 4 (No Impact) Air Impact: Category 4 (No Impact)
H	293m E	Incident Date: 11/12/2015 Incident Identification: 1393941 Pollutant: Inert Materials and Wastes Pollutant Description: Other Inert Material or Waste	Water Impact: Category 4 (No Impact) Land Impact: Category 2 (Significant) Air Impact: Category 4 (No Impact)
H	295m E	Incident Date: 08/01/2016 Incident Identification: 1401472 Pollutant: Inert Materials and Wastes Pollutant Description: Other Inert Material or Waste	Water Impact: - Land Impact: Category 4 (No Impact) Air Impact: Category 3 (Minor)
8	359m S	Incident Date: 02/03/2016 Incident Identification: 1600609 Pollutant: Atmospheric Pollutants and Effects Pollutant Description: Smoke	Water Impact: No Details Land Impact: No Details Air Impact: Category 2 (Significant)

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 Geology (basic)

5.1 Superficial geology (625k)

Records within 500m	2

Generalised geology data based on BGS's published poster maps of the UK (North and South). Superficial related themes digitised from 1977 first edition Quaternary map (North and South).

Location	Lex code	Description	Rock type
On site	**ALV-CLSS**	**ALLUVIUM**	**CLAY, SILT AND SAND**
On site	**TILL-DMTN**	**TILL**	**DIAMICTON**

This data is sourced from the British Geological Survey.

5.2 Bedrock geology (625k)

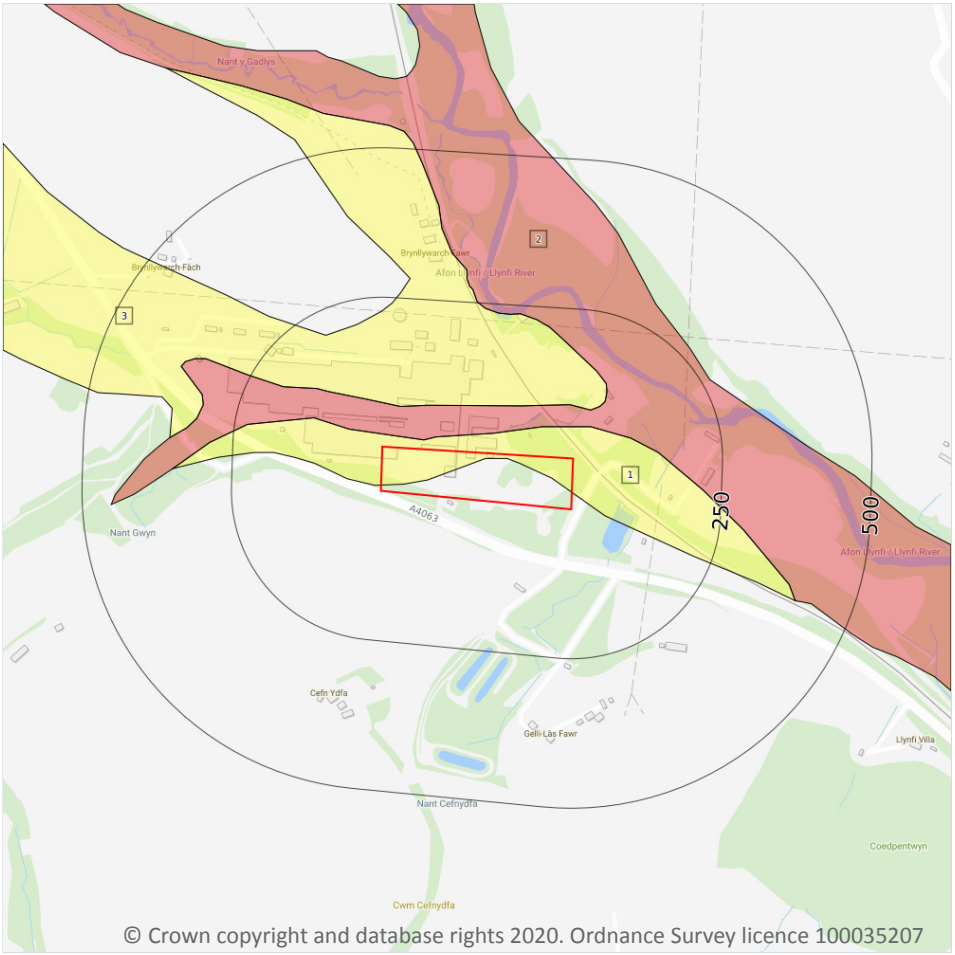
Records within 500m	1

Generalised geology data based on BGS's published poster maps of the UK (North and South). Bedrock related themes created through generalisation of 1:50,000 data.

Location	Lex code	Description	Rock type
On site	**SWUCM-MSCI**	**SOUTH WALES UPPER COAL MEASURES FORMATION**	**MUDSTONE, SILTSTONE, SANDSTONE, COAL, IRONSTONE AND FERRICRETE**

This data is sourced from the British Geological Survey.

6 Hydrogeology - Superficial aquifer



Site Outline

Search buffers in metres (m)

- Principal
- Secondary A
- Secondary B
- Secondary Undifferentiated
- Unproductive
- Unknown

6.1 Superficial aquifer

Records within 500m	3

Aquifer status of groundwater held within superficial geology.

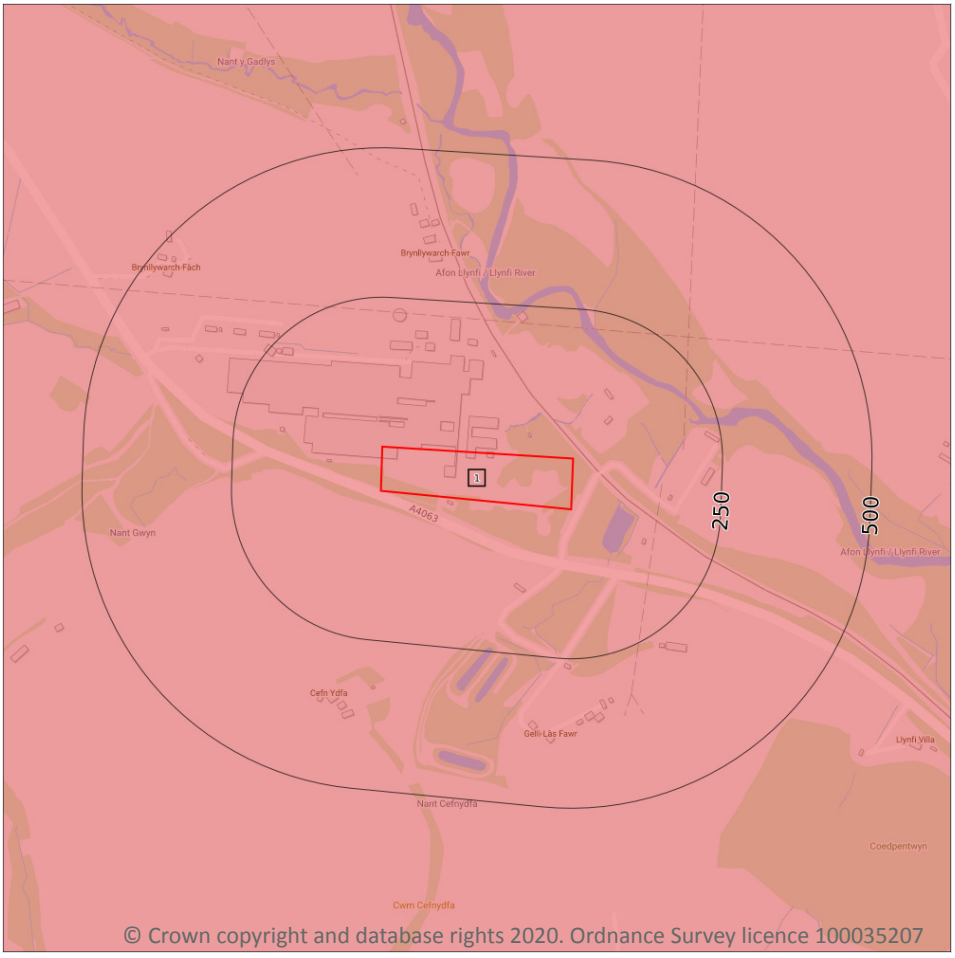
Features are displayed on the Hydrogeology map on **page 47**

ID	Location	Designation	Description
1	**On site**	**Secondary Undifferentiated**	**Assigned where it is not possible to attribute either category A or B to a rock type. In general these layers have previously been designated as both minor and non-aquifer in different locations due to the variable characteristics of the rock type**
2	16m N	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

ID	Location	Designation	Description
3	69m N	Secondary Undifferentiated	Assigned where it is not possible to attribute either category A or B to a rock type. In general these layers have previously been designated as both minor and non-aquifer in different locations due to the variable characteristics of the rock type

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

Bedrock aquifer



Site Outline

Search buffers in metres (m)

- Principal
- Secondary A
- Secondary B
- Secondary Undifferentiated
- Unproductive

6.2 Bedrock aquifer

Records within 500m	1

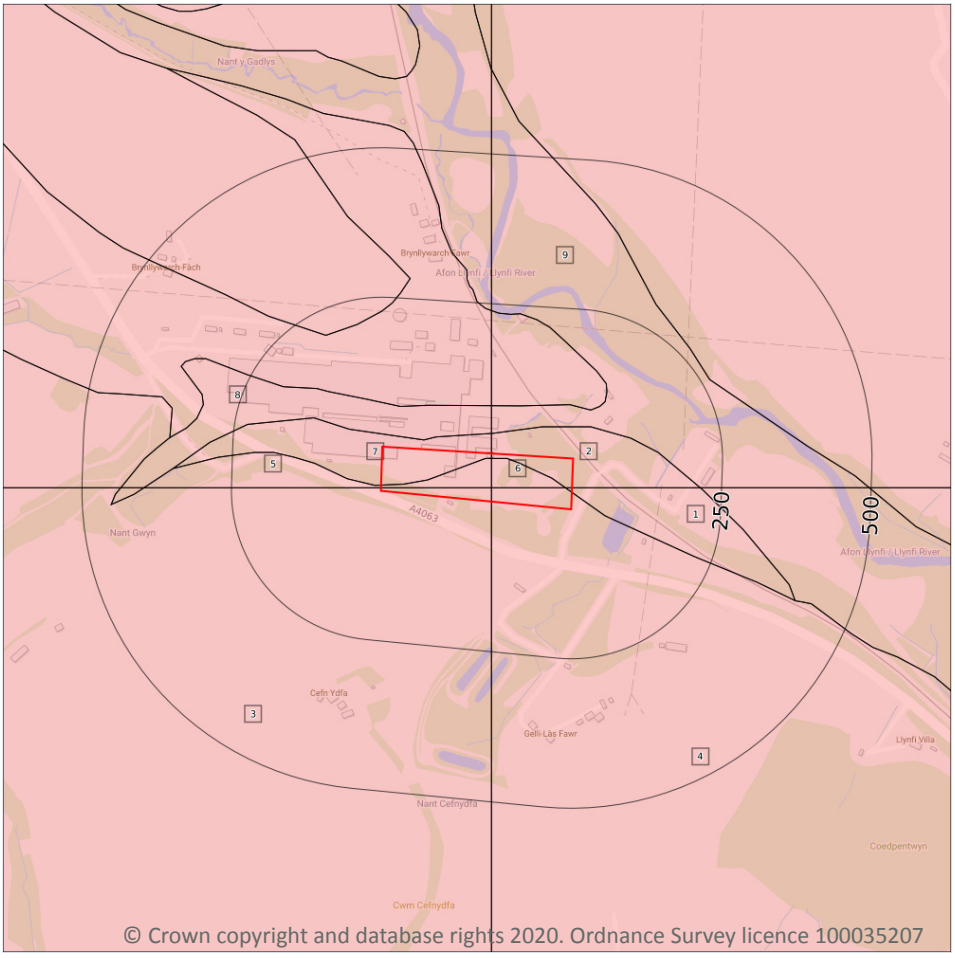
Aquifer status of groundwater held within bedrock geology.

Features are displayed on the Bedrock aquifer map on **page 49**

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

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

Groundwater vulnerability



Site Outline

Search buffers in metres (m)

Superficial vulnerability
- Principal superficial aquifer, high vulnerability
- Secondary superficial aquifer, high vulnerability
- Principal superficial aquifer, medium vulnerability
- Secondary superficial aquifer, medium vulnerability
- Principal superficial aquifer, low vulnerability
- Secondary superficial aquifer, low vulnerability

Bedrock vulnerability
- Principal bedrock aquifer, high vulnerability
- Secondary bedrock aquifer, high vulnerability
- Principal bedrock aquifer, medium vulnerability
- Secondary bedrock aquifer, medium vulnerability
- Principal bedrock aquifer, low vulnerability
- Secondary bedrock aquifer, low vulnerability

Other information
- Unproductive aquifer
- Soluble rock risk
- Local information

6.3 Groundwater vulnerability

Records within 50m	9

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 50**

ID	Location	Summary	Soil / surface	Superficial geology	Bedrock geology
1	On site	Summary Classification: Secondary bedrock aquifer - High Vulnerability Combined classification: Productive Bedrock Aquifer, Productive Superficial Aquifer	Leaching class: High Infiltration value: 40-70% Dilution value: >550mm/year	Vulnerability: Medium Aquifer type: Secondary Thickness: <3m Patchiness value: <90% Recharge potential: High	Vulnerability: High Aquifer type: Secondary Flow mechanism: Well connected fractures
2	On site	Summary Classification: Secondary bedrock aquifer - High Vulnerability Combined classification: Productive Bedrock Aquifer, Productive Superficial Aquifer	Leaching class: High Infiltration value: 40-70% Dilution value: >550mm/year	Vulnerability: Medium Aquifer type: Secondary Thickness: <3m Patchiness value: <90% Recharge potential: No Data	Vulnerability: High Aquifer type: Secondary Flow mechanism: Well connected fractures
3	On site	Summary Classification: Secondary bedrock aquifer - High Vulnerability Combined classification: Productive Bedrock Aquifer, No Superficial Aquifer	Leaching class: High Infiltration value: 40-70% Dilution value: >550mm/year	Vulnerability: - Aquifer type: - Thickness: <3m Patchiness value: <90% Recharge potential: No Data	Vulnerability: High Aquifer type: Secondary Flow mechanism: Well connected fractures
4	On site	Summary Classification: Secondary bedrock aquifer - High Vulnerability Combined classification: Productive Bedrock Aquifer, No Superficial Aquifer	Leaching class: High Infiltration value: 40-70% Dilution value: >550mm/year	Vulnerability: - Aquifer type: - Thickness: <3m Patchiness value: <90% Recharge potential: High	Vulnerability: High Aquifer type: Secondary Flow mechanism: Well connected fractures
5	On site	Summary Classification: Secondary bedrock aquifer - High Vulnerability Combined classification: Productive Bedrock Aquifer, No Superficial Aquifer	Leaching class: High Infiltration value: 40-70% Dilution value: >550mm/year	Vulnerability: - Aquifer type: - Thickness: <3m Patchiness value: <90% Recharge potential: Medium	Vulnerability: High Aquifer type: Secondary Flow mechanism: Well connected fractures
6	On site	Summary Classification: Secondary bedrock aquifer - High Vulnerability Combined classification: Productive Bedrock Aquifer, No Superficial Aquifer	Leaching class: High Infiltration value: 40-70% Dilution value: >550mm/year	Vulnerability: - Aquifer type: - Thickness: <3m Patchiness value: <90% Recharge potential: No Data	Vulnerability: High Aquifer type: Secondary Flow mechanism: Well connected fractures
7	On site	Summary Classification: Secondary bedrock aquifer - High Vulnerability Combined classification: Productive Bedrock Aquifer, Productive Superficial Aquifer	Leaching class: High Infiltration value: 40-70% Dilution value: >550mm/year	Vulnerability: Medium Aquifer type: Secondary Thickness: <3m Patchiness value: <90% Recharge potential: Medium	Vulnerability: High Aquifer type: Secondary Flow mechanism: Well connected fractures

ID	Location	Summary	Soil / surface	Superficial geology	Bedrock geology
8	15m N	Summary Classification: Secondary bedrock aquifer - High Vulnerability Combined classification: Productive Bedrock Aquifer, Productive Superficial Aquifer	Leaching class: High Infiltration value: 40-70% Dilution value: >550mm/year	Vulnerability: Medium Aquifer type: Secondary Thickness: <3m Patchiness value: <90% Recharge potential: Medium	Vulnerability: High Aquifer type: Secondary Flow mechanism: Well connected fractures
9	33m N	Summary Classification: Secondary bedrock aquifer - High Vulnerability Combined classification: Productive Bedrock Aquifer, Productive Superficial Aquifer	Leaching class: High Infiltration value: 40-70% Dilution value: >550mm/year	Vulnerability: Medium Aquifer type: Secondary 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.

6.4 Groundwater vulnerability- soluble rock risk

Records on site	**0**

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

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

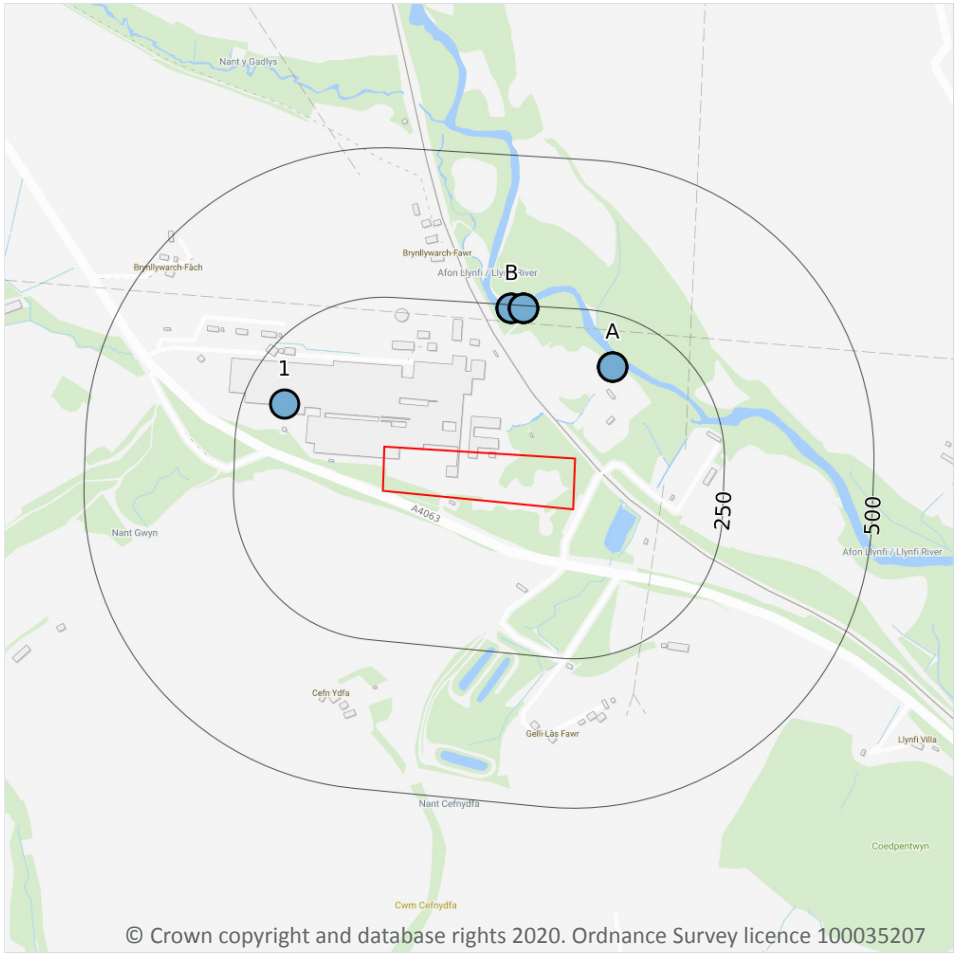
6.5 Groundwater vulnerability- local information

Records on site	**0**

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

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

Abstractions and Source Protection Zones



Site Outline

Search buffers in metres (m)

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

6.6 Groundwater abstractions

Records within 2000m	0

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.

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

6.7 Surface water abstractions

Records within 2000m	**15**

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 53**

ID	Location	Details	
A	165m N	Status: Historical Licence No: 21/58/41/0015 Details: Non-Evaporative Cooling Direct Source: EAW Surface Water Point: NANT GWYN Data Type: Point Name: Northwood & Wepa Ltd Easting: 288199 Northing: 187202	Annual Volume (m^3): 2,102,400 Max Daily Volume (m^3): 12000 Original Application No: - Original Start Date: 04/04/1991 Expiry Date: - Issue No: 105 Version Start Date: 24/06/2013 Version End Date: -
A	165m N	Status: Historical Licence No: 21/58/41/0015 Details: Process Water Direct Source: EAW Surface Water Point: NANT GWYN Data Type: Point Name: Northwood & Wepa Ltd Easting: 288199 Northing: 187202	Annual Volume (m^3): 2,102,400 Max Daily Volume (m^3): 12000 Original Application No: - Original Start Date: 04/04/1991 Expiry Date: - Issue No: 105 Version Start Date: 24/06/2013 Version End Date: -
A	165m N	Status: Active Licence No: 21/58/41/0015 Details: Process Water - Medium Direct Source: Afon Llynfi Point: - Data Type: Point Name: - Easting: 288199 Northing: 187202	Annual Volume (m^3): 2,277,600 Max Daily Volume (m^3): 6,240 Original Application No: - Original Start Date: Jul 25 2018 12:00AM Expiry Date: - Issue No: - Version Start Date: - Version End Date: -
A	165m N	Status: Active Licence No: 21/58/41/0015 Details: Non Evaporative Cooling - Low Direct Source: Afon Llynfi Point: - Data Type: Point Name: - Easting: 288199 Northing: 187202	Annual Volume (m^3): 2,102,400 Max Daily Volume (m^3): 5,760 Original Application No: - Original Start Date: Jul 25 2018 12:00AM Expiry Date: - Issue No: - Version Start Date: - Version End Date: -

ID	Location	Details	
1	181m NW	Status: Active Licence No: 21/58/41/0016 Details: Unknown (Impounding) - Direct Source: - Point: - Data Type: Point Name: - Easting: 287650 Northing: 187140	Annual Volume (m^3): 0 Max Daily Volume (m^3): - Original Application No: - Original Start Date: Nov 4 1998 12:00AM Expiry Date: - Issue No: - Version Start Date: - Version End Date: -
B	244m N	Status: Historical Licence No: 21/58/41/0015 Details: Non-Evaporative Cooling Direct Source: EAW Surface Water Point: AFON LLYNFI Data Type: Point Name: Northwood & Wepa Ltd Easting: 288030 Northing: 187300	Annual Volume (m^3): 2,102,400 Max Daily Volume (m^3): 12000 Original Application No: - Original Start Date: 04/04/1991 Expiry Date: - Issue No: 105 Version Start Date: 24/06/2013 Version End Date: -
B	244m N	Status: Historical Licence No: 21/58/41/0015 Details: Process Water Direct Source: EAW Surface Water Point: AFON LLYNFI Data Type: Point Name: Northwood & Wepa Ltd Easting: 288030 Northing: 187300	Annual Volume (m^3): 2,102,400 Max Daily Volume (m^3): 12000 Original Application No: - Original Start Date: 04/04/1991 Expiry Date: - Issue No: 105 Version Start Date: 24/06/2013 Version End Date: -
B	244m N	Status: Active Licence No: 21/58/41/0015 Details: Process Water - Medium Direct Source: Afon Llynfi Point: - Data Type: Point Name: - Easting: 288030 Northing: 187300	Annual Volume (m^3): 2,277,600 Max Daily Volume (m^3): 6,240 Original Application No: - Original Start Date: Jul 25 2018 12:00AM Expiry Date: - Issue No: - Version Start Date: - Version End Date: -
B	244m N	Status: Active Licence No: 21/58/41/0015 Details: Non Evaporative Cooling - Low Direct Source: Afon Llynfi Point: - Data Type: Point Name: - Easting: 288030 Northing: 187300	Annual Volume (m^3): 2,102,400 Max Daily Volume (m^3): 5,760 Original Application No: - Original Start Date: Jul 25 2018 12:00AM Expiry Date: - Issue No: - Version Start Date: - Version End Date: -

ID	Location	Details	
B	245m N	Status: Historical Licence No: 21/58/41/0015 Details: Process Water Direct Source: EAW Surface Water Point: NANT GWYN Data Type: Point Name: Georgia-Pacific GB Limited Easting: 288050 Northing: 187300	Annual Volume (m^3): 2,102,400 Max Daily Volume (m^3): 36368 Original Application No: - Original Start Date: - Expiry Date: - Issue No: 101 Version Start Date: 01/04/2007 Version End Date: -
B	245m N	Status: Historical Licence No: 21/58/41/0015 Details: General Cooling (Existing Licences Only) (Low Loss) Direct Source: EAW Surface Water Point: NANT GWYN Data Type: Point Name: Georgia-Pacific GB Limited Easting: 288050 Northing: 187300	Annual Volume (m^3): 2,102,400 Max Daily Volume (m^3): 36368 Original Application No: - Original Start Date: - Expiry Date: - Issue No: 101 Version Start Date: 01/04/2007 Version End Date: -
B	245m N	Status: Historical Licence No: 21/58/41/0015 Details: General Cooling (Existing Licences Only) (Low Loss) Direct Source: EAW Surface Water Point: RIVER LLYNFI Data Type: Point Name: SCA Hygiene Products Tissue Limited Easting: 288050 Northing: 187300	Annual Volume (m^3): 2,102,400 Max Daily Volume (m^3): 12000 Original Application No: - Original Start Date: 04/04/1991 Expiry Date: - Issue No: 103 Version Start Date: 22/08/2012 Version End Date: -
B	245m N	Status: Historical Licence No: 21/58/41/0015 Details: Process Water Direct Source: EAW Surface Water Point: NANT GWYN Data Type: Point Name: SCA Hygiene Products Tissue Limited Easting: 288050 Northing: 187300	Annual Volume (m^3): 2,102,400 Max Daily Volume (m^3): 12000 Original Application No: - Original Start Date: 04/04/1991 Expiry Date: - Issue No: 103 Version Start Date: 22/08/2012 Version End Date: -
B	245m N	Status: Historical Licence No: 21/58/41/0015 Details: General Cooling (Existing Licences Only) (Low Loss) Direct Source: EAW Surface Water Point: NANT GWYN Data Type: Point Name: SCA Hygiene Products Tissue Limited Easting: 288050 Northing: 187300	Annual Volume (m^3): 2,102,400 Max Daily Volume (m^3): 12000 Original Application No: - Original Start Date: 04/04/1991 Expiry Date: - Issue No: 103 Version Start Date: 22/08/2012 Version End Date: -

ID	Location	Details	
B	245m N	Status: Historical Licence No: 21/58/41/0015 Details: Process Water Direct Source: EAW Surface Water Point: RIVER LLYNFI Data Type: Point Name: SCA Hygiene Products Tissue Limited Easting: 288050 Northing: 187300	Annual Volume (m^3): 2,102,400 Max Daily Volume (m^3): 12000 Original Application No: - Original Start Date: 04/04/1991 Expiry Date: - Issue No: 103 Version Start Date: 22/08/2012 Version End Date: -

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

6.8 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.

6.9 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.

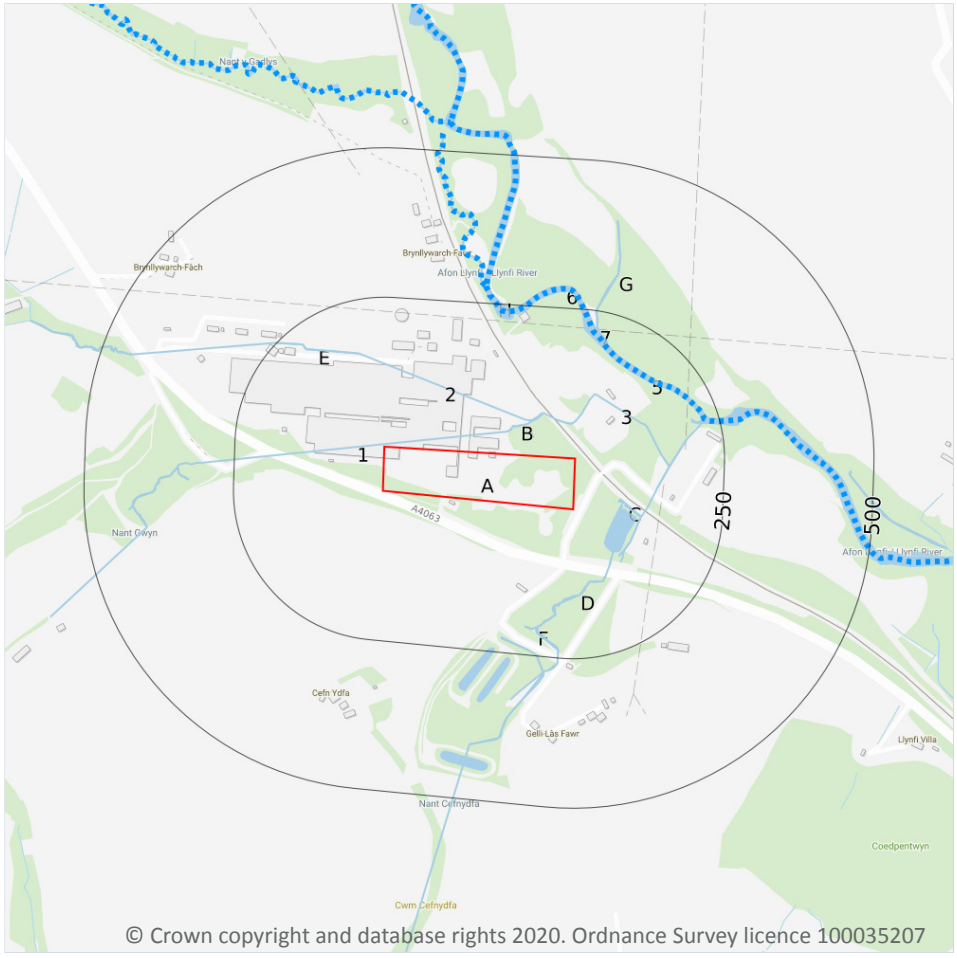
6.10 Source Protection Zones (confined aquifer)

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.

7 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

7.1 Water Network (OS MasterMap)

Records within 250m	43

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 58**

ID	Location	Type of water feature	Ground level	Permanence	Name
1	4m N	Inland river not influenced by normal tidal action.	On ground surface	Watercourse contains water year round (in normal circumstances)	Nant Gwyn

ID	Location	Type of water feature	Ground level	Permanence	Name
B	37m N	Inland river not influenced by normal tidal action.	On ground surface	Watercourse contains water year round (in normal circumstances)	Nant Gwyn
B	58m N	Inland river not influenced by normal tidal action.	On ground surface	Watercourse contains water year round (in normal circumstances)	Nant Gwyn
B	58m N	Inland river not influenced by normal tidal action.	On ground surface	Watercourse contains water year round (in normal circumstances)	-
B	58m N	Inland river not influenced by normal tidal action.	On ground surface	Watercourse contains water year round (in normal circumstances)	Nant Gwyn
2	59m N	Inland river not influenced by normal tidal action.	Underground	Watercourse contains water year round (in normal circumstances)	-
B	63m N	Inland river not influenced by normal tidal action.	Underground	Watercourse contains water year round (in normal circumstances)	Nant Gwyn
C	76m E	Inland river not influenced by normal tidal action.	On ground surface	Watercourse contains water year round (in normal circumstances)	Nant Cefnydfa
C	78m E	Lake, loch or reservoir.	On ground surface	Watercourse contains water year round (in normal circumstances)	Nant Cefnydfa
D	99m SE	Inland river not influenced by normal tidal action.	On ground surface	Watercourse contains water year round (in normal circumstances)	Nant Cefnydfa
C	109m SE	Inland river not influenced by normal tidal action.	On ground surface	Watercourse contains water year round (in normal circumstances)	-
C	109m SE	Inland river not influenced by normal tidal action.	On ground surface	Watercourse contains water year round (in normal circumstances)	-
3	109m NE	Inland river not influenced by normal tidal action.	On ground surface	Watercourse contains water year round (in normal circumstances)	Nant Gwyn
C	109m SE	Inland river not influenced by normal tidal action.	Underground	Watercourse contains water year round (in normal circumstances)	-

ID	Location	Type of water feature	Ground level	Permanence	Name
C	113m E	Inland river not influenced by normal tidal action.	On ground surface	Watercourse contains water year round (in normal circumstances)	-
C	114m E	Inland river not influenced by normal tidal action.	On ground surface	Watercourse contains water year round (in normal circumstances)	Nant Cefnydfa
C	117m SE	Inland river not influenced by normal tidal action.	On ground surface	Watercourse contains water year round (in normal circumstances)	-
C	117m E	Inland river not influenced by normal tidal action.	Underground	Watercourse contains water year round (in normal circumstances)	Nant Cefnydfa
C	120m E	Inland river not influenced by normal tidal action.	On ground surface	Watercourse contains water year round (in normal circumstances)	Nant Cefnydfa
C	126m NE	Inland river not influenced by normal tidal action.	On ground surface	Watercourse contains water year round (in normal circumstances)	Nant Gwyn
C	145m E	Inland river not influenced by normal tidal action.	Underground	Watercourse contains water year round (in normal circumstances)	Nant Gwyn
C	146m E	Inland river not influenced by normal tidal action.	On ground surface	Watercourse contains water year round (in normal circumstances)	Nant Gwyn
C	158m E	Inland river not influenced by normal tidal action.	On ground surface	Watercourse contains water year round (in normal circumstances)	Nant Cefnydfa
E	161m N	Inland river not influenced by normal tidal action.	On ground surface	Watercourse contains water year round (in normal circumstances)	-
5	178m NE	Inland river not influenced by normal tidal action.	On ground surface	Watercourse contains water year round (in normal circumstances)	Afon Llynfi
C	190m E	Inland river not influenced by normal tidal action.	Underground	Watercourse contains water year round (in normal circumstances)	Nant Cefnydfa
F	201m S	Inland river not influenced by normal tidal action.	On ground surface	Watercourse contains water year round (in normal circumstances)	Nant Cefnydfa

ID	Location	Type of water feature	Ground level	Permanence	Name
F	201m S	Inland river not influenced by normal tidal action.	On ground surface	Watercourse contains water year round (in normal circumstances)	-
C	204m E	Inland river not influenced by normal tidal action.	On ground surface	Watercourse contains water year round (in normal circumstances)	-
6	211m N	Inland river not influenced by normal tidal action.	On ground surface	Watercourse contains water year round (in normal circumstances)	Afon Llynfi
7	211m N	Inland river not influenced by normal tidal action.	On ground surface	Watercourse contains water year round (in normal circumstances)	-
F	213m S	Inland river not influenced by normal tidal action.	On ground surface	Watercourse contains water year round (in normal circumstances)	-
F	213m S	Inland river not influenced by normal tidal action.	On ground surface	Watercourse contains water year round (in normal circumstances)	Nant Cefnydfa
C	215m E	Inland river not influenced by normal tidal action.	On ground surface	Watercourse contains water year round (in normal circumstances)	Nant Cefnydfa
C	221m E	Inland river not influenced by normal tidal action.	On ground surface	Watercourse contains water year round (in normal circumstances)	Nant Cefnydfa
F	224m S	Inland river not influenced by normal tidal action.	On ground surface	Watercourse contains water year round (in normal circumstances)	-
G	224m N	Inland river not influenced by normal tidal action.	On ground surface	Watercourse contains water year round (in normal circumstances)	-
C	228m E	Inland river not influenced by normal tidal action.	On ground surface	Watercourse contains water year round (in normal circumstances)	Afon Llynfi
H	235m N	Inland river not influenced by normal tidal action.	On ground surface	Watercourse contains water year round (in normal circumstances)	Afon Llynfi
H	237m N	Inland river not influenced by normal tidal action.	On ground surface	Watercourse contains water year round (in normal circumstances)	-

ID	Location	Type of water feature	Ground level	Permanence	Name
F	242m S	Inland river not influenced by normal tidal action.	Underground	Watercourse contains water year round (in normal circumstances)	-
F	246m S	Lake, loch or reservoir.	On ground surface	Watercourse contains water year round (in normal circumstances)	-
F	248m S	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.

7.2 Surface water features

Records within 250m	**17**

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 58**

This data is sourced from the Ordnance Survey.

7.3 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 58**

ID	Location	Type	Water body catchment	Water body ID	Operational catchment	Management catchment
A	**On site**	**River WB catchment**	**Llynfi - Lletty Brongu STW to conf with Ogmore**	**GB110058026332**	**Ogmore**	**Tawe to Cadoxton**

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

7.4 WFD Surface water bodies

Records identified	1

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

Features are displayed on the Hydrology map on **page 58**

ID	Location	Type	Name	Water body ID	Overall rating	Chemical rating	Ecological rating	Year
C	178m NE	River	Llynfi - Lletty Brongu STW to conf with Ogmore	GB110058026332	Moderate	Good	Moderate	2016

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

7.5 WFD Groundwater bodies

Records on site	1

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

Features are displayed on the Hydrology map on **page 58**

ID	Location	Name	Water body ID	Overall rating	Chemical rating	Quantitative	Year
A	**On site**	**Swansea Carboniferous Coal Measures**	**GB41002G201000**	**Poor**	**Poor**	**Good**	**2016**

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

8 River and coastal flooding

8.1 Risk of Flooding from Rivers and Sea (RoFRaS)

Records within 50m	0

The chance of flooding from rivers and/or the sea in any given year, based on cells of 50m. Each cell is allocated one of four flood risk categories, taking into account flood defences and their condition; 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).

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

8.2 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.

8.3 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.

8.4 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.

8.5 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

8.6 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.

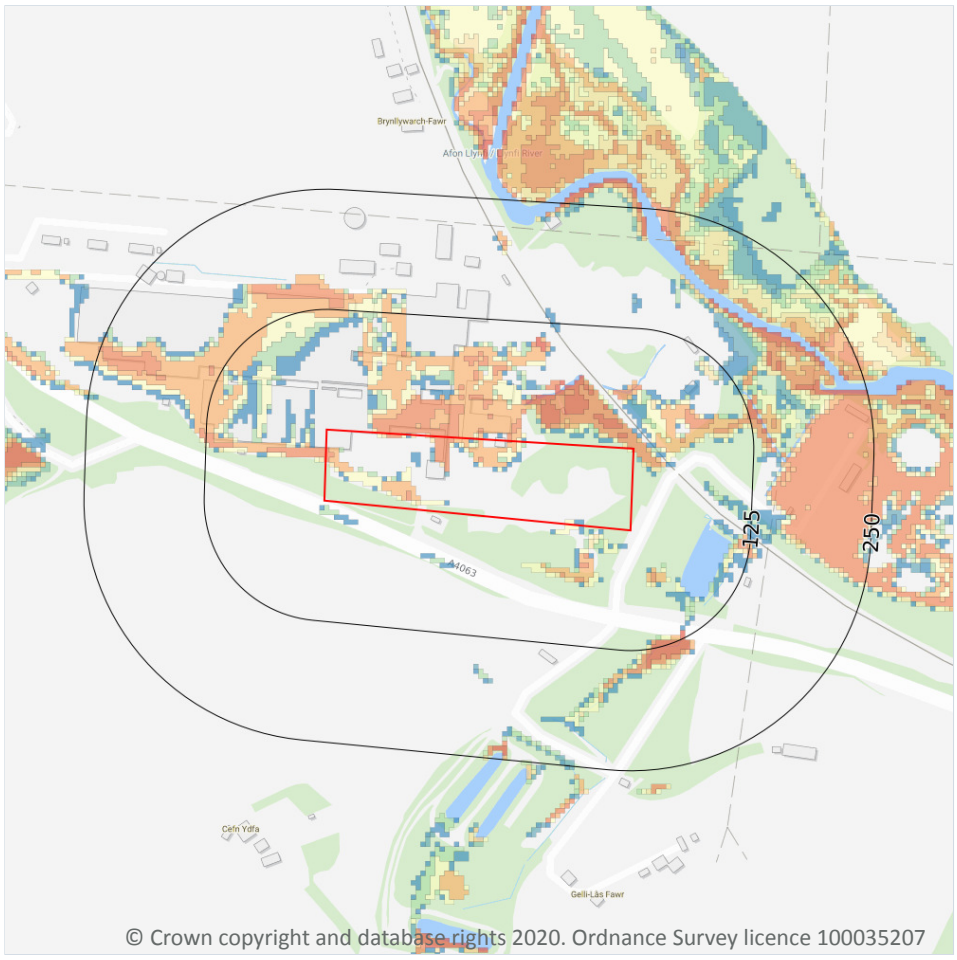
8.7 Flood Zone 3

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.

9 Surface water flooding



Site Outline
Search buffers in metres (m)

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

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

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

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

9.1 Surface water flooding

Highest risk on site	**1 in 30 year, 0.3m - 1.0m**
Highest risk within 50m	**1 in 30 year, Greater than 1.0m**

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

Features are displayed on the Surface water flooding map on **page 67**

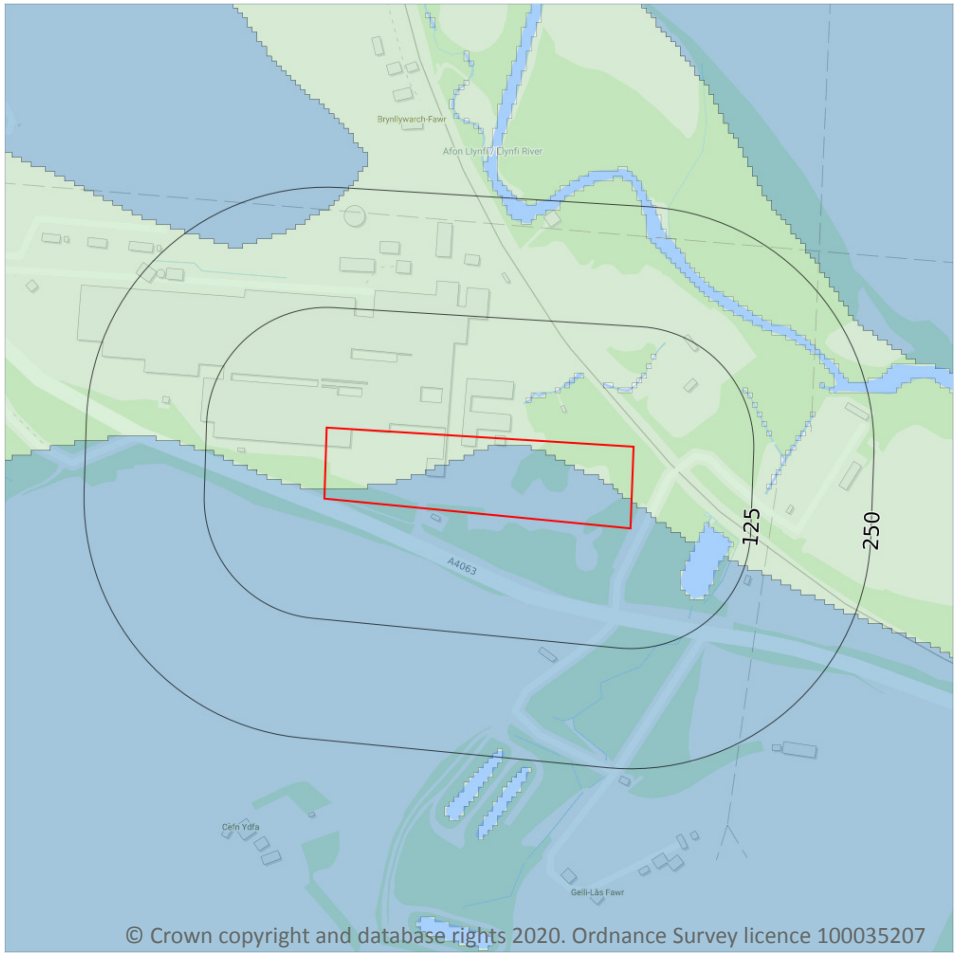
The data shown on the map and in the table above shows the highest likelihood of flood events happening at the site. Lower likelihood events may have greater flood depths and hence a greater potential impact on a site.

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 Ambiental Risk Analytics.

10 Groundwater flooding



Site Outline

Search buffers in metres (m)

High

Moderate - High

Moderate

Low

Negligible

10.1 Groundwater flooding

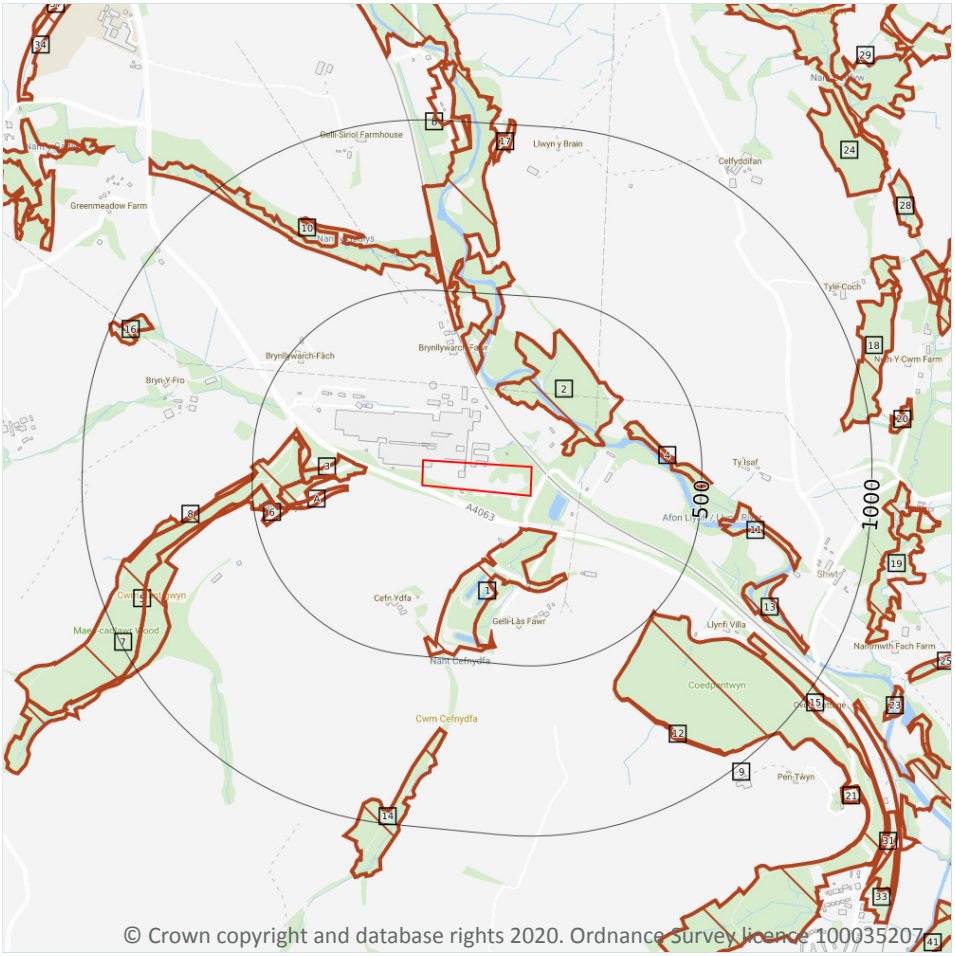
Highest risk on site	**Low**
Highest risk within 50m	**Low**

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

Features are displayed on the Groundwater flooding map on **page 69**

This data is sourced from Ambiental Risk Analytics.

11 Environmental designations



Site Outline

Search buffers in metres (m)

Designated Ancient Woodland

11.1 Sites of Special Scientific Interest (SSSI)

Records within 2000m	0

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

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

11.2 Conserved wetland sites (Ramsar sites)

Records within 2000m	0

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

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

11.3 Special Areas of Conservation (SAC)

Records within 2000m	0

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

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

11.4 Special Protection Areas (SPA)

Records within 2000m	0

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

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

11.5 National Nature Reserves (NNR)

Records within 2000m	0

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

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

11.6 Local Nature Reserves (LNR)

Records within 2000m	0

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

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

11.7 Designated Ancient Woodland

Records within 2000m	63

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 70**

ID	Location	Name	Woodland Type
1	98m S	Unknown	Restored Ancient Woodland Site
2	102m NE	Unknown	Ancient Semi Natural Woodland
3	168m W	Unknown	Ancient Semi Natural Woodland
A	221m W	Unknown	Ancient Semi Natural Woodland
A	257m W	Unknown	Ancient Semi Natural Woodland
B	269m N	Unknown	Ancient Semi Natural Woodland
4	299m NE	Unknown	Ancient Semi Natural Woodland
5	347m W	Unknown	Ancient Semi Natural Woodland
6	405m W	Unknown	Ancient Semi Natural Woodland
7	439m W	Unknown	Ancient Semi Natural Woodland
8	489m W	Unknown	Ancient Semi Natural Woodland
9	498m SE	Unknown	Restored Ancient Woodland Site
10	524m N	Unknown	Ancient Semi Natural Woodland
11	561m E	Unknown	Ancient Semi Natural Woodland
12	656m SE	Unknown	Restored Ancient Woodland Site
13	683m SE	Unknown	Ancient Semi Natural Woodland

ID	Location	Name	Woodland Type
14	708m S	Unknown	Restored Ancient Woodland Site
15	768m SE	Unknown	Restored Ancient Woodland Site
16	885m NW	Unknown	Ancient Semi Natural Woodland
17	887m N	Unknown	Ancient Semi Natural Woodland
B	912m N	Unknown	Ancient Woodland Site of Unknown Category
18	921m E	Unknown	Ancient Semi Natural Woodland
B	943m N	Unknown	Ancient Woodland Site of Unknown Category
19	1037m E	Unknown	Ancient Semi Natural Woodland
20	1059m E	Unknown	Ancient Semi Natural Woodland
21	1094m SE	Unknown	Restored Ancient Woodland Site
22	1132m SE	Unknown	Ancient Semi Natural Woodland
23	1210m SE	Unknown	Ancient Semi Natural Woodland
24	1225m NE	Unknown	Ancient Semi Natural Woodland
25	1228m SE	Unknown	Ancient Semi Natural Woodland
26	1259m NW	Unknown	Ancient Semi Natural Woodland
27	1265m E	Unknown	Ancient Semi Natural Woodland
28	1297m NE	Unknown	Ancient Semi Natural Woodland
29	1362m NE	Unknown	Ancient Semi Natural Woodland
-	1363m N	Unknown	Ancient Semi Natural Woodland
31	1403m SE	Unknown	Ancient Semi Natural Woodland
-	1457m S	Unknown	Restored Ancient Woodland Site
-	1494m N	Unknown	Ancient Semi Natural Woodland
33	1499m SE	Unknown	Ancient Semi Natural Woodland
34	1565m NW	Unknown	Ancient Semi Natural Woodland
-	1591m N	Unknown	Ancient Semi Natural Woodland
-	1650m NE	Unknown	Ancient Semi Natural Woodland
-	1663m S	Unknown	Restored Ancient Woodland Site
37	1691m NW	Unknown	Ancient Semi Natural Woodland

ID	Location	Name	Woodland Type
D	1692m SE	Unknown	Restored Ancient Woodland Site
-	1706m W	Unknown	Ancient Semi Natural Woodland
-	1708m N	Unknown	Ancient Semi Natural Woodland
-	1728m NE	Unknown	Ancient Semi Natural Woodland
41	1730m SE	Unknown	Ancient Semi Natural Woodland
-	1744m N	Unknown	Ancient Semi Natural Woodland
-	1765m SE	Unknown	Restored Ancient Woodland Site
-	1782m S	Unknown	Ancient Semi Natural Woodland
-	1794m S	Unknown	Ancient Semi Natural Woodland
-	1803m NE	Unknown	Ancient Semi Natural Woodland
-	1814m S	Unknown	Ancient Semi Natural Woodland
-	1834m SE	Unknown	Ancient Semi Natural Woodland
-	1837m N	Unknown	Ancient Semi Natural Woodland
-	1859m N	Unknown	Ancient Semi Natural Woodland
-	1861m NW	Unknown	Ancient Semi Natural Woodland
-	1933m SE	Unknown	Ancient Semi Natural Woodland
-	1943m NE	Unknown	Ancient Semi Natural Woodland
-	1959m NE	Unknown	Ancient Semi Natural Woodland
-	1996m S	Unknown	Ancient Semi Natural Woodland

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

11.8 Biosphere Reserves

Records within 2000m	0

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

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

11.9 Forest Parks

Records within 2000m	0

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

This data is sourced from the Forestry Commission.

11.10 Marine Conservation Zones

Records within 2000m	0

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

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

11.11 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.

11.12 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.

11.13 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.

11.14 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.

11.15 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.

11.16 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

11.17 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.

11.18 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.

12 Visual and cultural designations

12.1 World Heritage Sites

Records within 250m	0

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

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

12.2 Area of Outstanding Natural Beauty

Records within 250m	0

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

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

12.3 National Parks

Records within 250m	0

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

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

12.4 Listed Buildings

Records within 250m	0

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

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

12.5 Conservation Areas

Records within 250m	0

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

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

12.6 Scheduled Ancient Monuments

Records within 250m	0

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

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

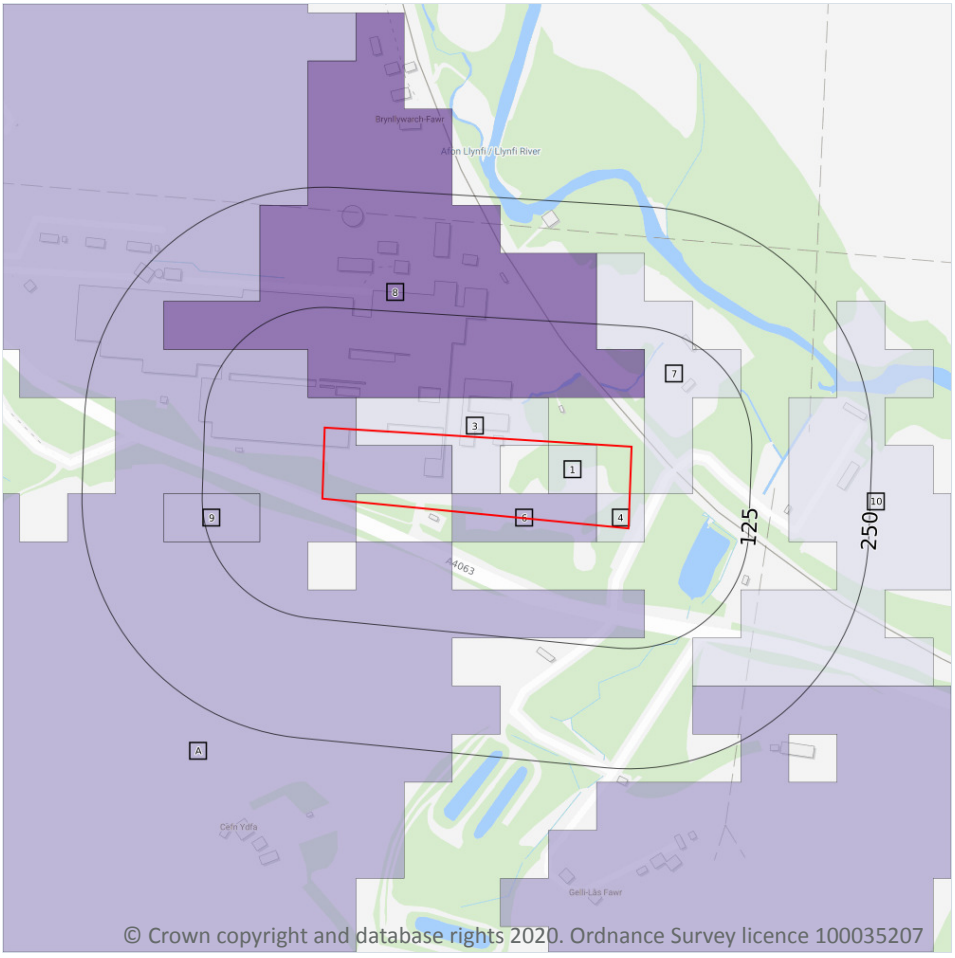
12.7 Registered Parks and Gardens

Records within 250m	0

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

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

13 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

13.1 Agricultural Land Classification

Records within 250m	9

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 80**

ID	Location	Classification	Description
1	**On site**	**Grade 3b**	**Moderate quality agricultural land**
3	**On site**	**Grade 3b**	**Moderate quality agricultural land**
4	**On site**	**Grade 3b**	**Moderate quality agricultural land**

ID	Location	Classification	Description
6	**On site**	**Grade 4**	**Poor quality agricultural land**
A	**On site**	**Grade 4**	**Poor quality agricultural land**
7	14m E	Grade 3b	Moderate quality agricultural land
8	31m N	Grade 5	Very poor quality agricultural land
9	65m W	Grade 4	Poor quality agricultural land
10	132m SE	Grade 3b	Moderate quality agricultural land

This data is sourced from Natural Resources Wales.

13.2 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.

13.3 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.

13.4 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.

This data is sourced from Natural England.

13.5 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.

14 Habitat designations

14.1 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.

14.2 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.

14.3 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.

14.4 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.

Data providers

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

Terms and conditions

Groundsure's Terms and Conditions can be accessed at this link: https://www.groundsure.com/terms-and-conditions-jan-2020/.

Groundsure LOCATION INTELLIGENCE

Geo Insight

S C A HYGIENE PRODUCTS TISSUE LTD, BRIDGEND PAPER MILLS, A4063 NICHOLLS ROAD COYTRAHEN TO BRIDGEND ROAD LLANGYNWYD, COYTRAHEN, MAESTEG, CF34 9RS

Order Details

Date: 16/09/2020

Your ref: Q8633_WEPA_Paper_Mill_Bridgend

Our Ref: GS-7058290

Client: WJ Groundwater Limited

Site Details

Location: 287956 187036

Area: 2.54 ha

Authority: Pen-y-bont ar Ogwr - Bridgend County Borough Council

Contact us with any questions at:
info@groundsure.com
08444 159 000

Summary of findings

Page	Section	Geology 1:10,000 scale	On site	0-50m	50-250m	250-500m	500-2000m
11	1.1	10k Availability	Identified (within 500m)				
12	1.2	Artificial and made ground (10k)	0	0	0	0	-
13	1.3	Superficial geology (10k)	0	0	0	0	-
13	1.4	Landslip (10k)	0	0	0	0	-
14	1.5	Bedrock geology (10k)	0	0	0	0	-
14	1.6	Bedrock faults and other linear features (10k)	0	0	0	0	-
Page	Section	Geology 1:50,000 scale	On site	0-50m	50-250m	250-500m	500-2000m
15	2.1	50k Availability	Identified (within 500m)				
16	2.2	Artificial and made ground (50k)	0	0	0	0	-
16	2.3	Artificial ground permeability (50k)	0	0	-	-	-
17	2.4	Superficial geology (50k)	1	1	1	0	-
18	2.5	Superficial permeability (50k)	Identified (within 50m)				
18	2.6	Landslip (50k)	0	0	0	0	-
18	2.7	Landslip permeability (50k)	None (within 50m)				
19	2.8	Bedrock geology (50k)	1	0	3	0	-
20	2.9	Bedrock permeability (50k)	Identified (within 50m)				
20	2.10	Bedrock faults and other linear features (50k)	0	0	1	0	-
Page	Section	Boreholes	On site	0-50m	50-250m	250-500m	500-2000m
21	3.1	BGS Boreholes	1	0	16	-	-
Page	Section	Natural ground subsidence					
23	4.1	Shrink swell clays	Very low (within 50m)				
24	4.2	Running sands	Low (within 50m)				
26	4.3	Compressible deposits	Moderate (within 50m)				
28	4.4	Collapsible deposits	Very low (within 50m)				
29	4.5	Landslides	Moderate (within 50m)				
31	4.6	Ground dissolution of soluble rocks	Negligible (within 50m)				

Page	Section	Mining, ground workings and natural cavities	On site	0-50m	50-250m	250-500m	500-2000m
32	5.1	Natural cavities	0	0	0	0	-
33	5.2	BritPits	0	0	0	0	-
33	**5.3**	**Surface ground workings**	1	1	31	-	-
34	**5.4**	**Underground workings**	0	0	0	17	17
36	5.5	Historical Mineral Planning Areas	0	0	0	0	-
36	5.6	Non-coal mining	0	0	0	0	0
36	5.7	Mining cavities	0	0	0	0	0
36	5.8	JPB mining areas	None (within 0m)				
37	**5.9**	**Coal mining**	Identified (within 0m)				
37	5.10	Brine areas	None (within 0m)				
37	5.11	Gypsum areas	None (within 0m)				
37	5.12	Tin mining	None (within 0m)				
37	5.13	Clay mining	None (within 0m)				

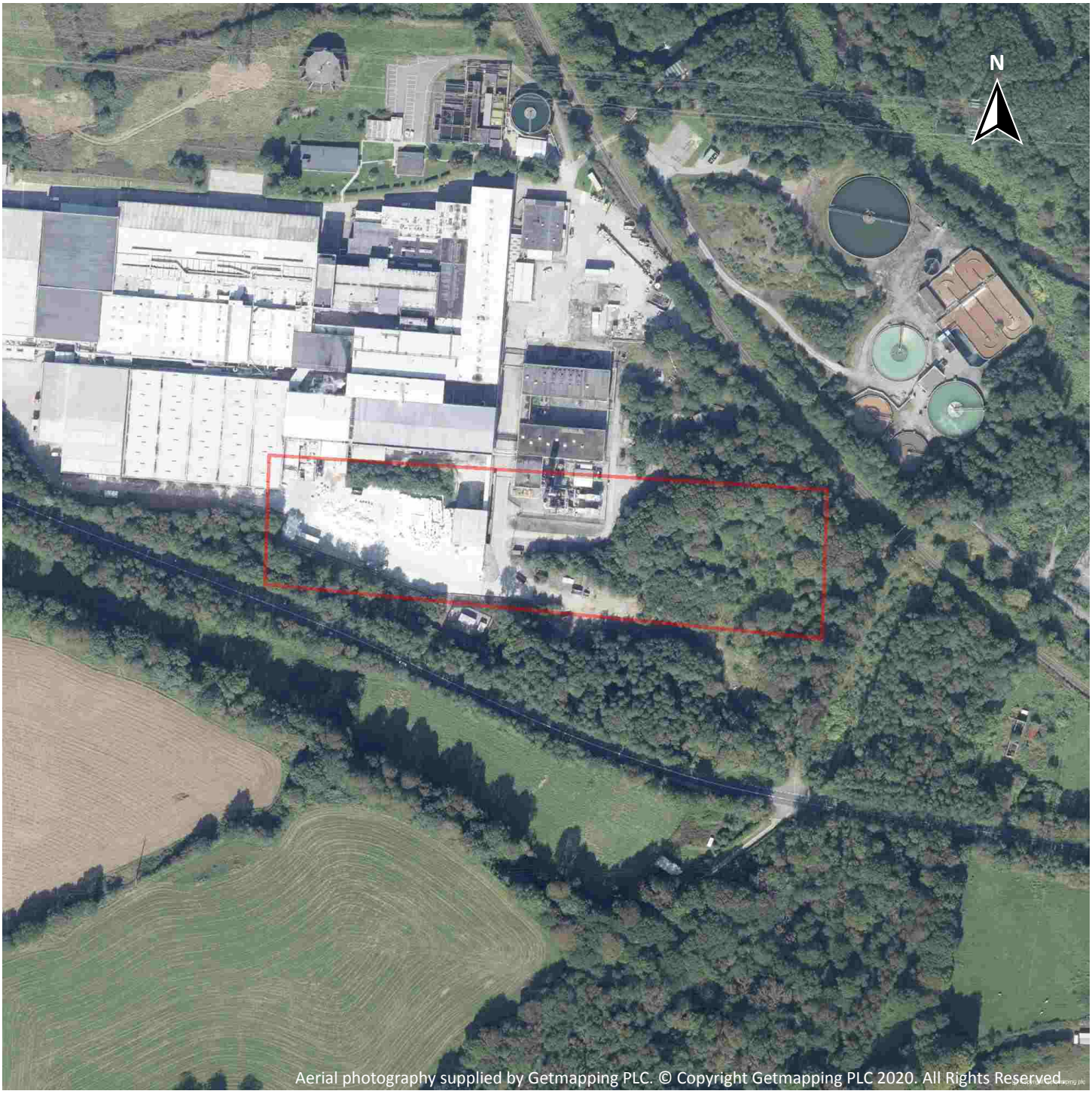
Page	Section	Radon	
38	**6.1**	**Radon**	Less than 1% (within 0m)

Page	Section	Soil chemistry	On site	0-50m	50-250m	250-500m	500-2000m
39	**7.1**	**BGS Estimated Background Soil Chemistry**	10	3	-	-	-
40	7.2	BGS Estimated Urban Soil Chemistry	0	0	-	-	-
40	7.3	BGS Measured Urban Soil Chemistry	0	0	-	-	-

Page	Section	Railway infrastructure and projects	On site	0-50m	50-250m	250-500m	500-2000m
41	8.1	Underground railways (London)	0	0	0	-	-
41	8.2	Underground railways (Non-London)	0	0	0	-	-
42	8.3	Railway tunnels	0	0	0	-	-
42	**8.4**	**Historical railway and tunnel features**	0	0	11	-	-
43	8.5	Royal Mail tunnels	0	0	0	-	-
43	8.6	Historical railways	0	0	0	-	-
43	**8.7**	**Railways**	0	4	4	-	-
44	8.8	Crossrail 1	0	0	0	0	-

44	8.9	Crossrail 2	0	0	0	0	-
44	8.10	HS2	0	0	0	0	-

Recent aerial photograph



Capture Date: 19/09/2019

Site Area: 2.54ha

Recent site history - 2017 aerial photograph

Capture Date: 26/05/2017

Site Area: 2.54ha

Recent site history - 2012 aerial photograph

Capture Date: 26/05/2012

Site Area: 2.54ha

Recent site history - 2001 aerial photograph

Capture Date: 27/08/2001

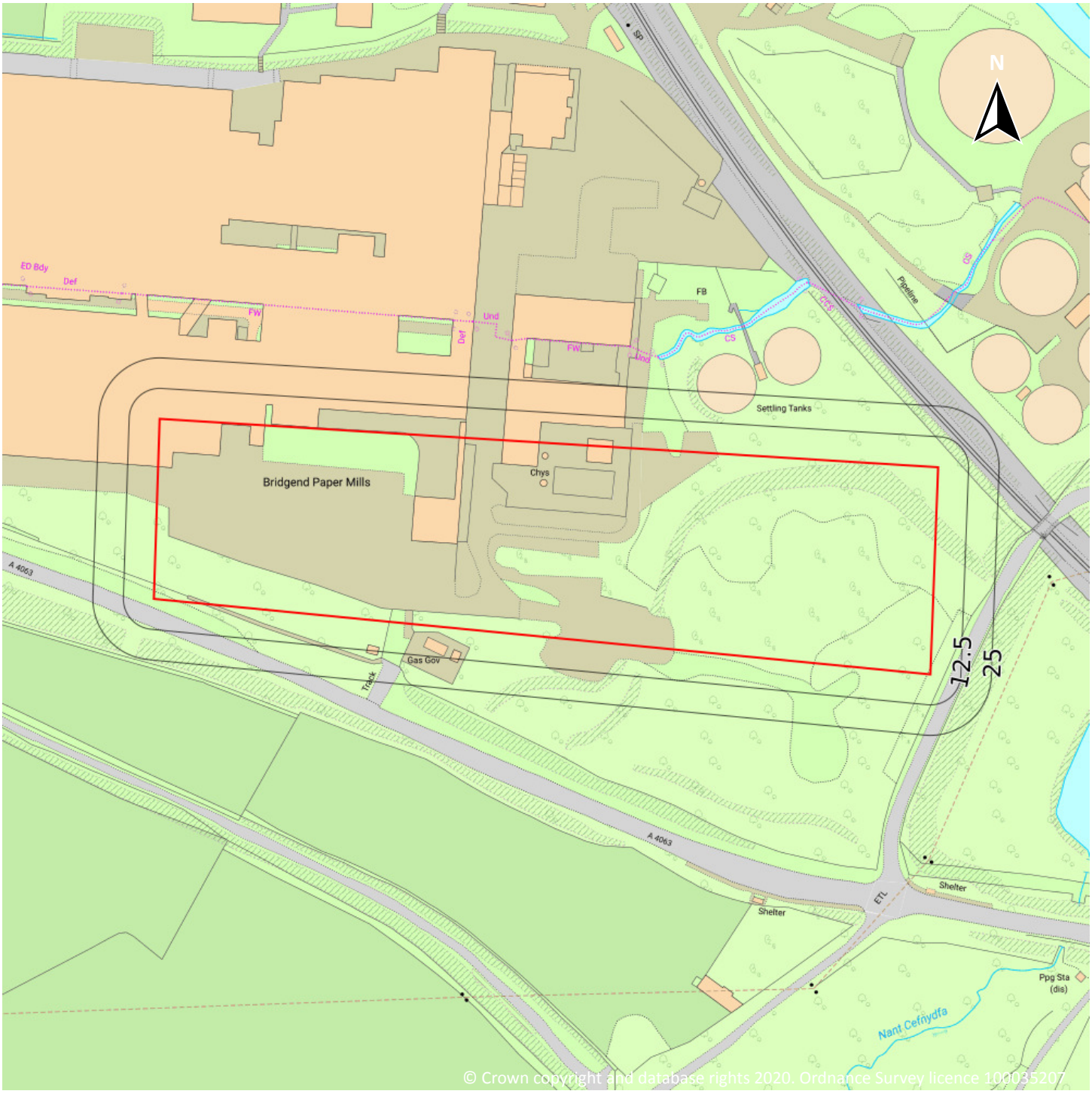
Site Area: 2.54ha

Recent site history - 2000 aerial photograph

Capture Date: 06/10/2000

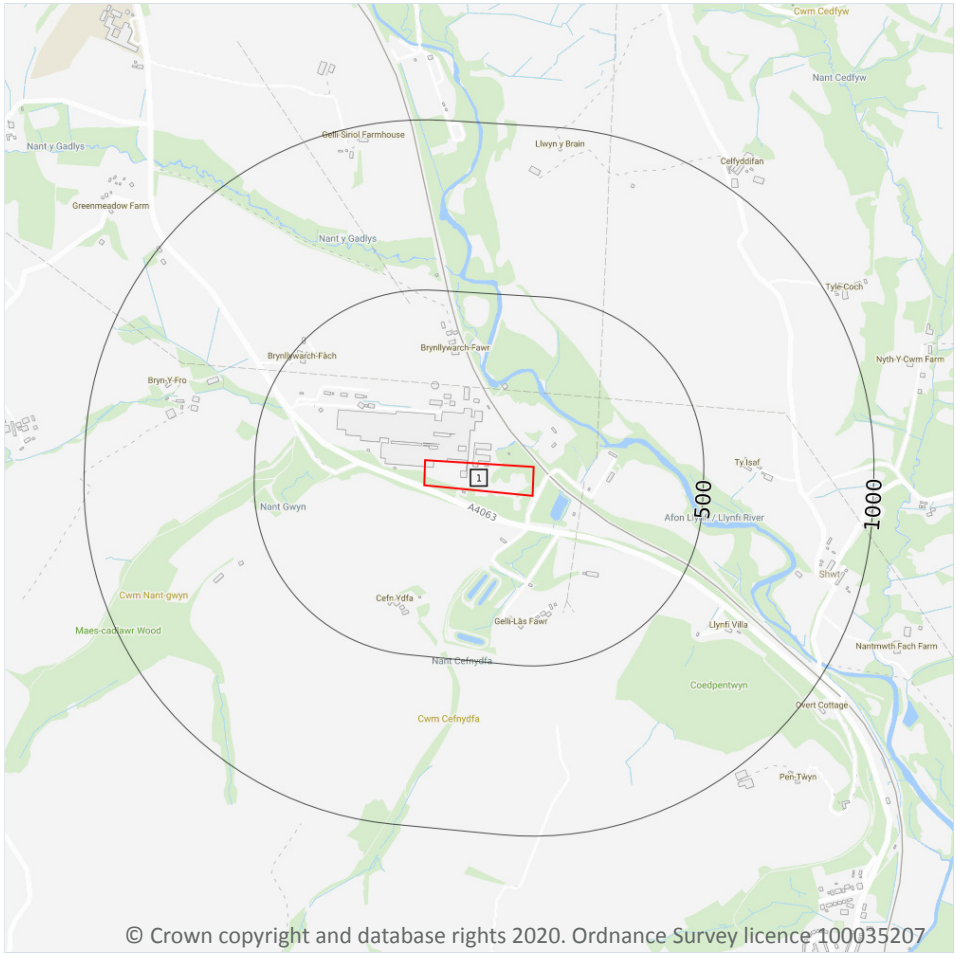
Site Area: 2.54ha

OS MasterMap site plan



Site Area: 2.54ha

1 Geology 1:10,000 scale - Availability



Site Outline

Search buffers in metres (m)

Full coverage

Partial coverage

No coverage

1.1 10k Availability

Records within 500m	1

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

Features are displayed on the Geology 1:10,000 scale - Availability map on **page 11**

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

This data is sourced from the British Geological Survey.

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

1.2 Artificial and made ground (10k)

Records within 500m	0

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

This data is sourced from the British Geological Survey.

Geology 1:10,000 scale - Superficial

1.3 Superficial geology (10k)

Records within 500m	0

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

This data is sourced from the British Geological Survey.

1.4 Landslip (10k)

Records within 500m	0

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

This data is sourced from the British Geological Survey.

Geology 1:10,000 scale - Bedrock

1.5 Bedrock geology (10k)

Records within 500m	0

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

This data is sourced from the British Geological Survey.

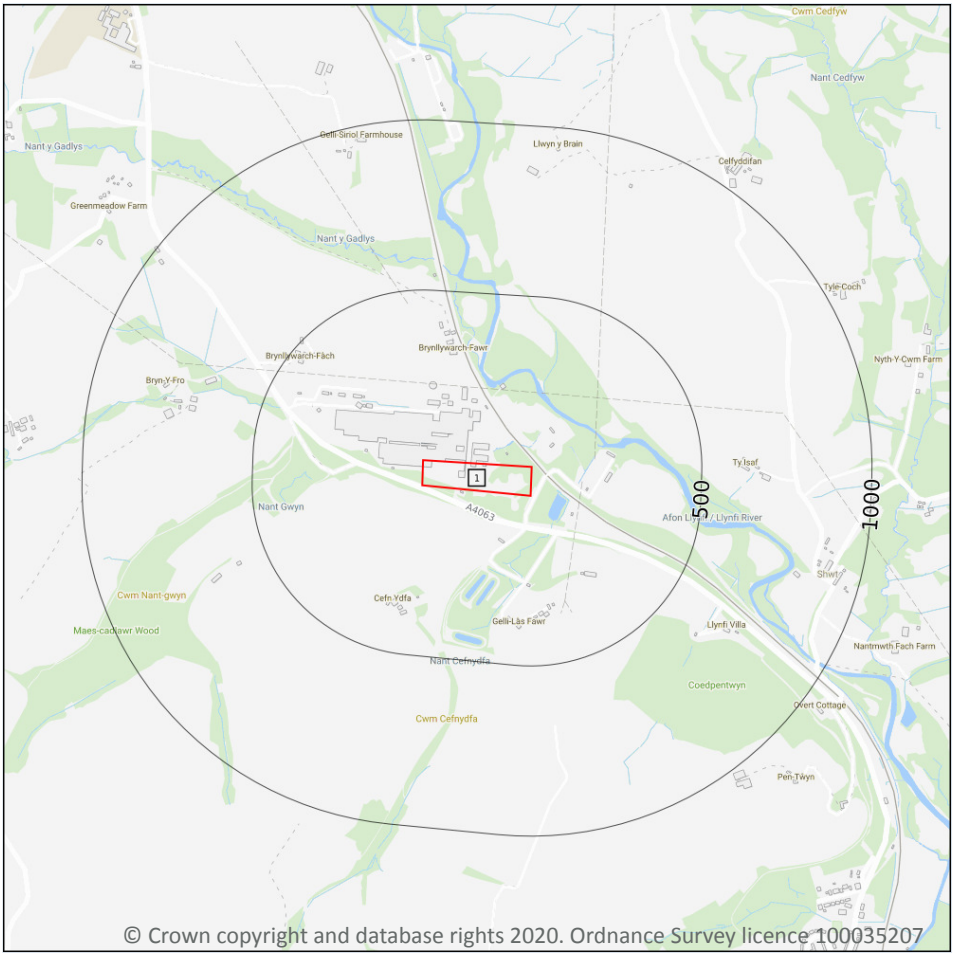
1.6 Bedrock faults and other linear features (10k)

Records within 500m	0

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

This data is sourced from the British Geological Survey.

2 Geology 1:50,000 scale - Availability



Site Outline

Search buffers in metres (m)

Geological map tile

2.1 50k Availability

Records within 500m	1

An indication on the coverage of 1:50,000 scale geology data for the site. Either 'Full' or 'No coverage' for each geological theme. 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 15**

ID	Location	Artificial	Superficial	Bedrock	Mass movement	Sheet No.
1	**On site**	**No coverage**	**Full**	**Full**	**Full**	**EW248_pontypridd_v4**

This data is sourced from the British Geological Survey.

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

2.2 Artificial and made ground (50k)

Records within 500m	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.

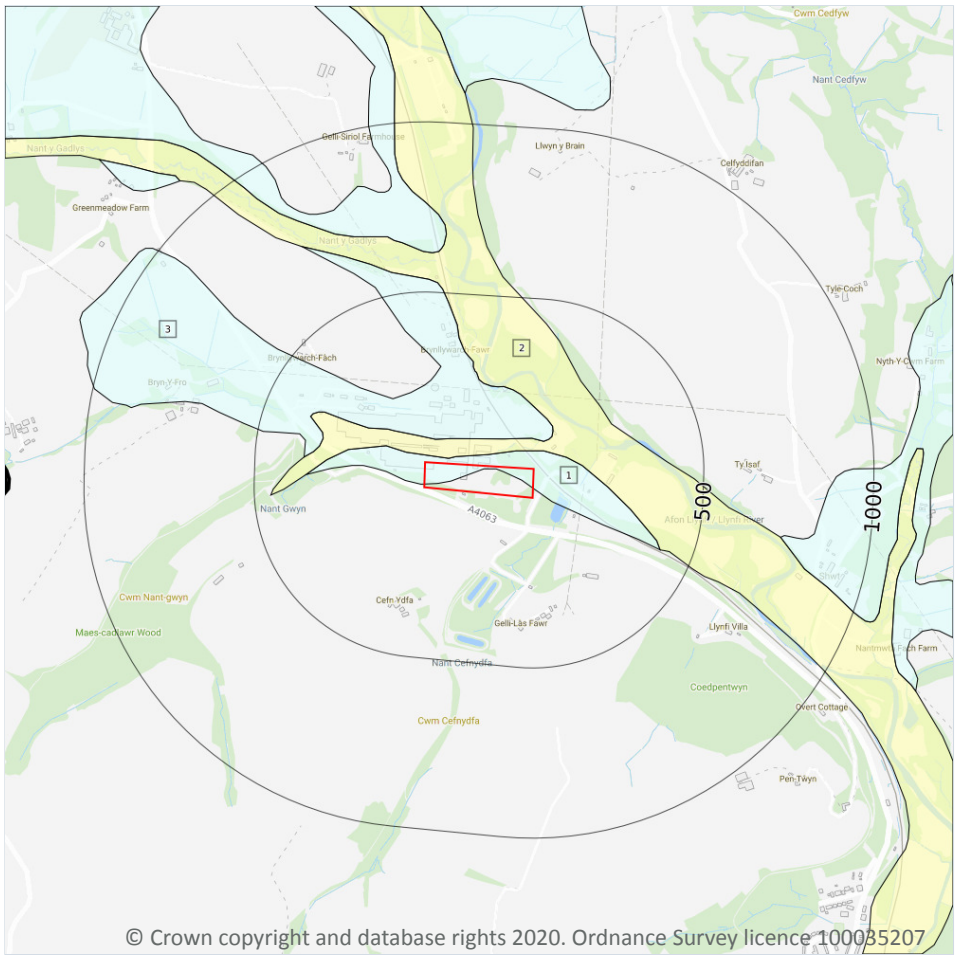
2.3 Artificial ground permeability (50k)

Records within 50m	0

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

This data is sourced from the British Geological Survey.

Geology 1:50,000 scale - Superficial



Site Outline

Search buffers in metres (m)

Landslip (50k)

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

2.4 Superficial geology (50k)

Records within 500m **3**

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 17**

ID	Location	LEX Code	Description	Rock description
1	**On site**	**TILLD-DMTN**	**TILL, DEVENSIAN**	**DIAMICTON**
2	16m N	ALV-XCZSV	ALLUVIUM	CLAY, SILT, SAND AND GRAVEL
3	69m N	TILLD-DMTN	TILL, DEVENSIAN	DIAMICTON

This data is sourced from the British Geological Survey.

2.5 Superficial permeability (50k)

Records within 50m	2

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

Location	Flow type	Maximum permeability	Minimum permeability
On site	**Mixed**	**High**	**Low**
16m N	Intergranular	High	Very Low

This data is sourced from the British Geological Survey.

2.6 Landslip (50k)

Records within 500m	0

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

This data is sourced from the British Geological Survey.

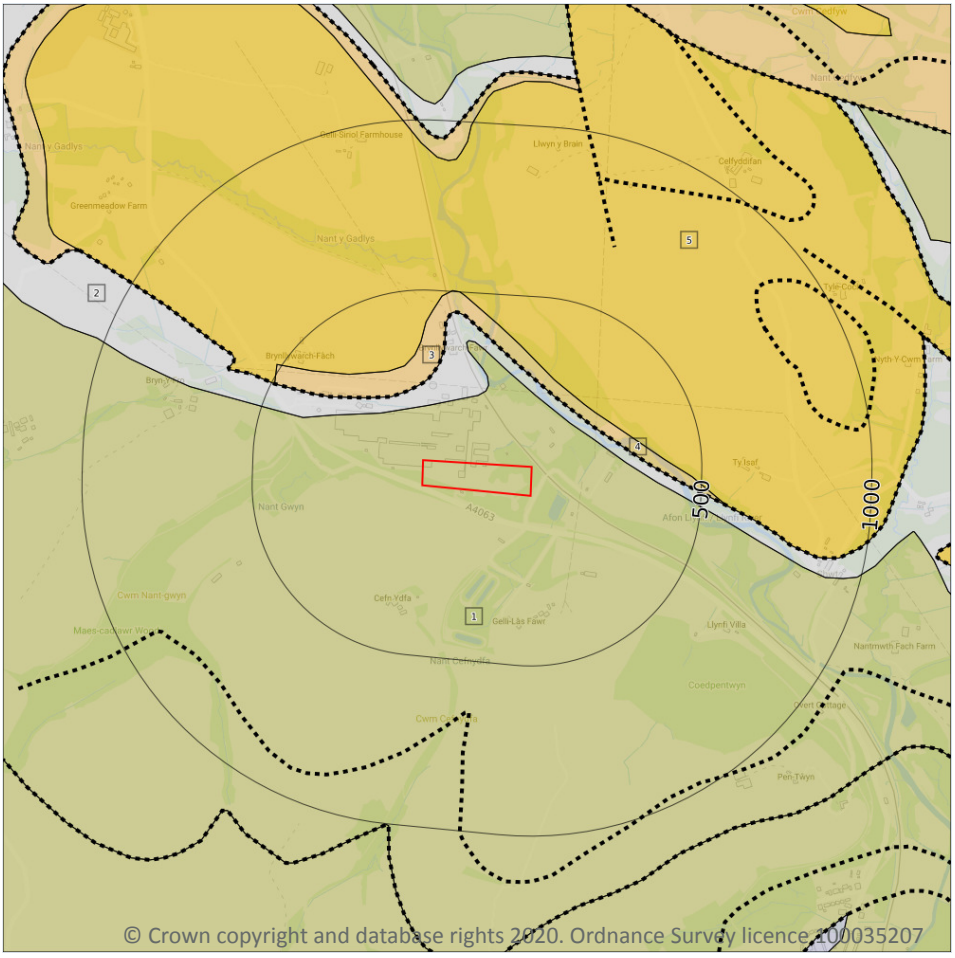
2.7 Landslip permeability (50k)

Records within 50m	0

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

This data is sourced from the British Geological Survey.

Geology 1:50,000 scale - Bedrock



Site Outline

Search buffers in metres (m)

Bedrock faults and other linear features (50k)

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

2.8 Bedrock geology (50k)

Records within 500m **4**

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 19**

ID	Location	LEX Code	Description	Rock age
1	**On site**	**BD-SDST**	**BRITHDIR MEMBER - SANDSTONE**	**WESTPHALIAN**
2	157m N	BD-MDSS	BRITHDIR MEMBER - MUDSTONE, SILTSTONE AND SANDSTONE	WESTPHALIAN
3	205m NE	H-MDSS	HUGHES MEMBER - MUDSTONE, SILTSTONE AND SANDSTONE	WESTPHALIAN

ID	Location	LEX Code	Description	Rock age
5	240m NE	H-SDST	HUGHES MEMBER - SANDSTONE	WESTPHALIAN

This data is sourced from the British Geological Survey.

2.9 Bedrock permeability (50k)

Records within 50m	**1**

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

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

This data is sourced from the British Geological Survey.

2.10 Bedrock faults and other linear features (50k)

Records within 500m	**1**

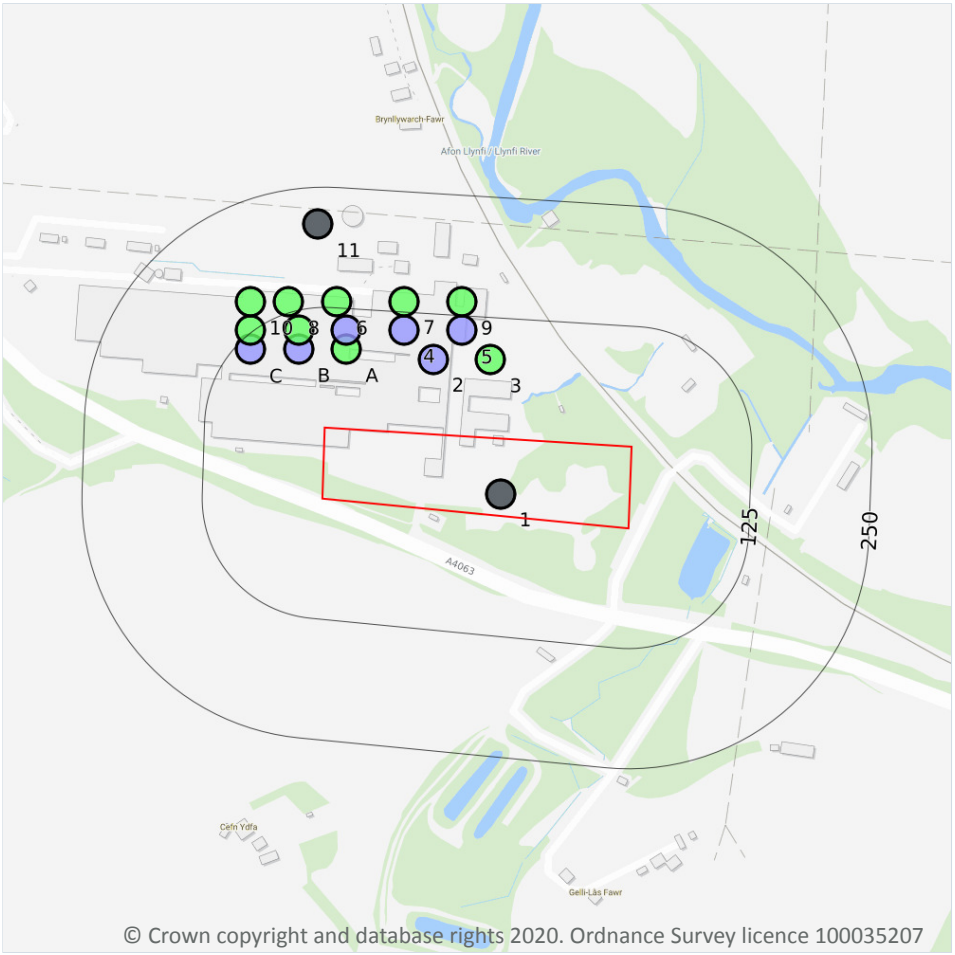
Linear features at the ground or bedrock surface at 1:50,000 scale of six main types; rock, fault, fold axis, mineral vein, alteration area or landform. Features are either observed or inferred, and relate primarily to bedrock.

Features are displayed on the Geology 1:50,000 scale - Bedrock map on **page 19**

ID	Location	Category	Description
4	205m NE	ROCK	Coal seam, inferred

This data is sourced from the British Geological Survey.

3 Boreholes



Site Outline

Search buffers in metres (m)

Confidential

0 - 10m

10 - 30m

30m+

Unknown

3.1 BGS Boreholes

Records within 250m	17

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

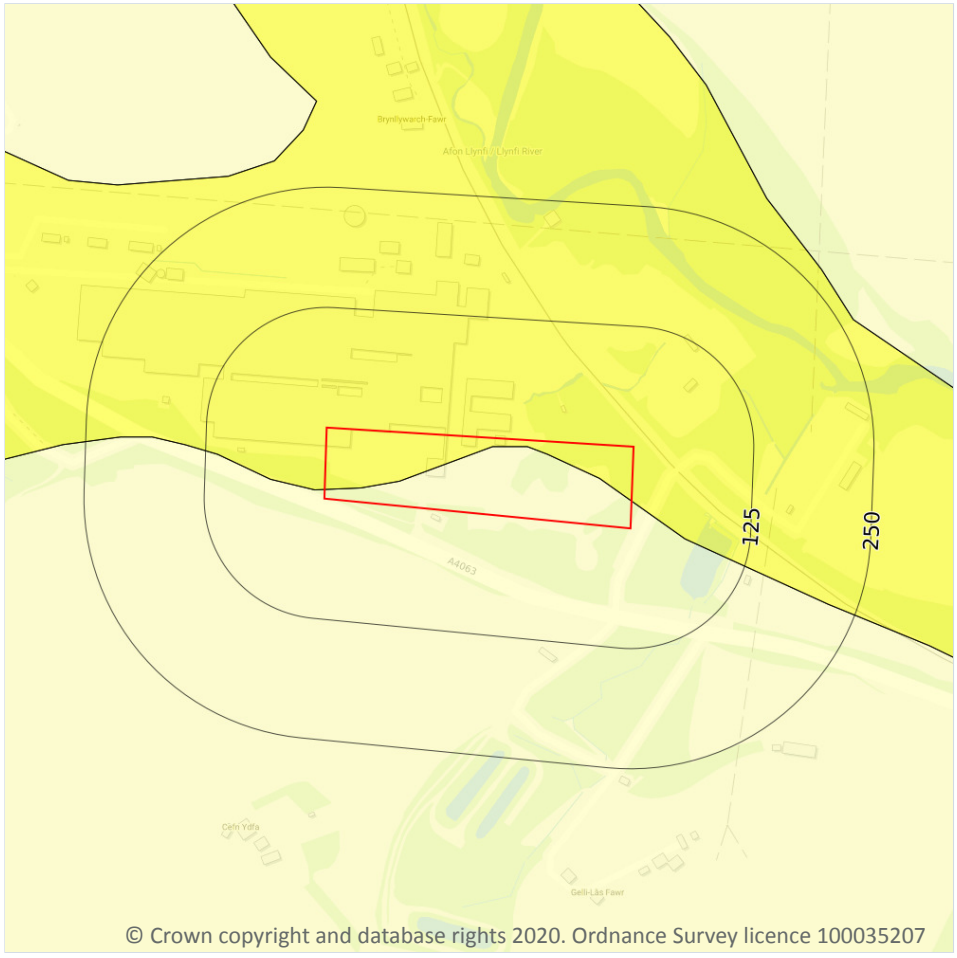
Features are displayed on the Boreholes map on **page 21**

ID	Location	Grid reference	Name	Length	Confidential	Web link
1	**On site**	**288000 187000**	**LLYNFI. 132/66KV SUB-STATION**	**-**	**Y**	**N/A**
2	78m N	287930 187140	LLYNFI 12	9.14	N	372603
3	82m N	287990 187140	LLYNFI 11	10.67	N	372602

ID	Location	Grid reference	Name	Length	Confidential	Web link
A	83m N	287840 187150	LLYNFI PROPOSED PAPER MILL 13	10.06	N	372589
B	86m N	287790 187150	LLYNFI PROPOSED PAPER MILL 4	9.14	N	372590
A	103m N	287840 187170	LLYNFI 5	9.14	N	372601
B	105m N	287790 187170	LLYNFI 3	10.67	N	372599
4	106m N	287900 187170	LLYNFI PROPOSED PAPER MILL 7	8.53	N	372593
5	110m N	287960 187170	LLYNFI PROPOSED PAPER MILL 9	9.14	N	372595
C	112m NW	287740 187150	LLYNFI PROPOSED PAPER MILL 15	9.14	N	372591
C	128m NW	287740 187170	LLYNFI 2	13.72	N	372598
6	132m N	287830 187200	LLYNFI PROPOSED PAPER MILL 6	10.06	N	372592
7	136m N	287900 187200	LLYNFI PROPOSED PAPER MILL 8	10.67	N	372594
8	137m N	287780 187200	LLYNFI 4	10.67	N	372600
9	140m N	287960 187200	LLYNFI PROPOSED PAPER MILL 10	10.67	N	372596
10	152m NW	287740 187200	LLYNFI 1	12.19	N	372597
11	211m N	287810 187280	SOUTH WALES PYLONS 96	-	Y	N/A

This data is sourced from the British Geological Survey.

4 Natural ground subsidence - Shrink swell clays



Site Outline

Search buffers in metres (m)

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

4.1 Shrink swell clays

Records within 50m	2

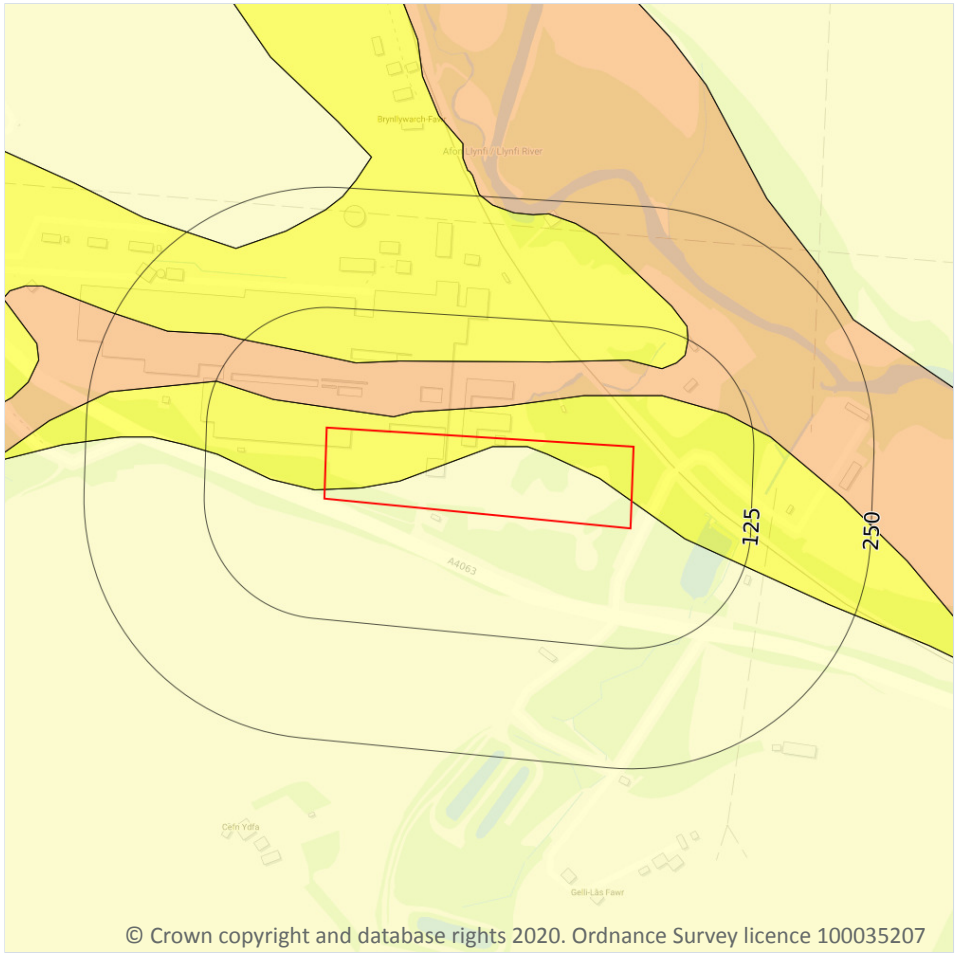
The potential hazard presented by soils that absorb water when wet (making them swell), and lose water as they dry (making them shrink). This shrink-swell behaviour is controlled by the type and amount of clay in the soil, and by seasonal changes in the soil moisture content (related to rainfall and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

Features are displayed on the Natural ground subsidence - Shrink swell clays map on **page 23**

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

This data is sourced from the British Geological Survey.

Natural ground subsidence - Running sands



Site Outline

Search buffers in metres (m)

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

4.2 Running sands

Records within 50m	3

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

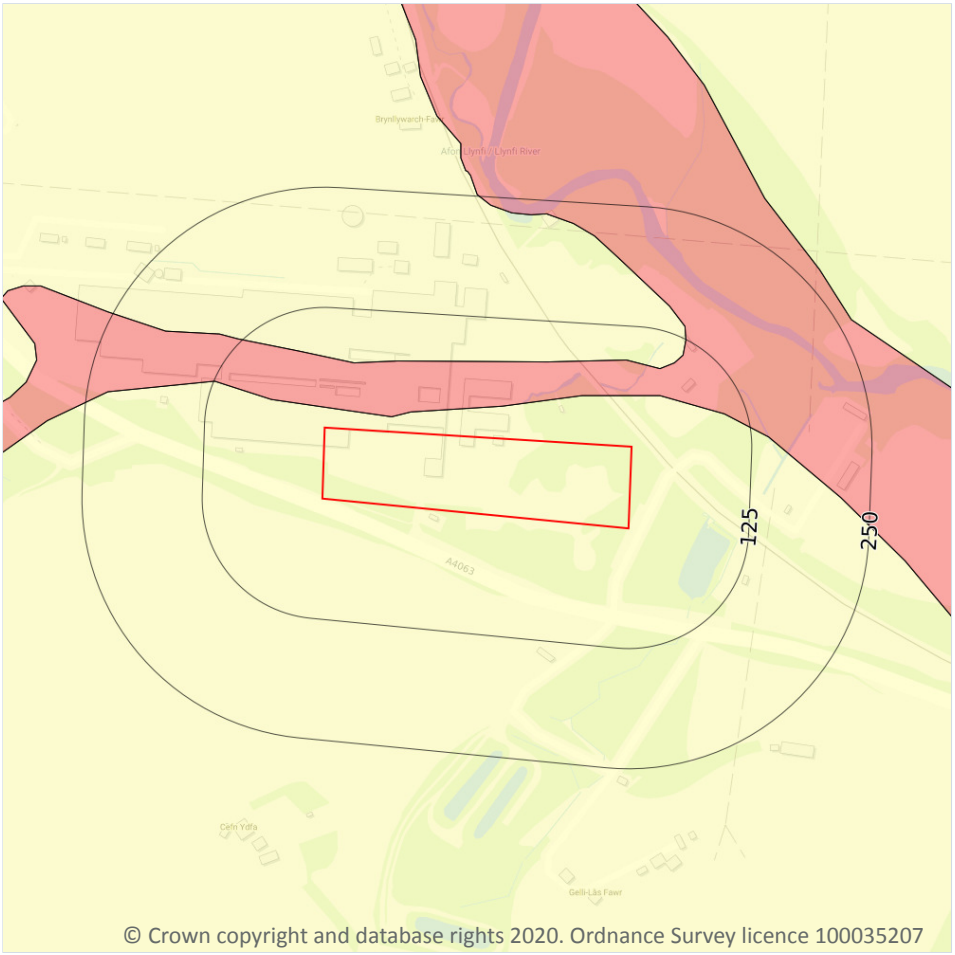
Features are displayed on the Natural ground subsidence - Running sands map on **page 24**

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

Location	Hazard rating	Details
On site	**Very low**	**Running sand conditions are unlikely. No identified constraints on land use due to running conditions unless water table rises rapidly.**
16m N	Low	Running sand conditions may be present. Constraints may apply to land uses involving excavation or the addition or removal of water.

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

4.3 Compressible deposits

Records within 50m	2

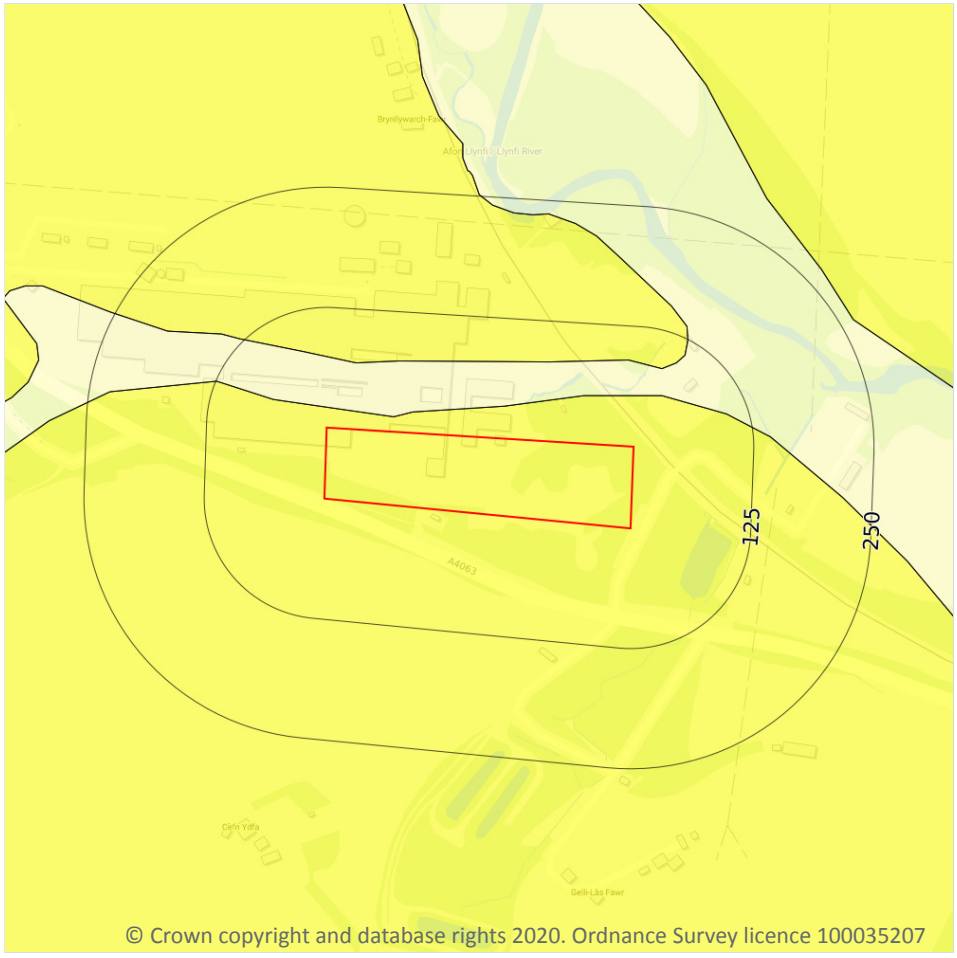
The potential hazard presented by types of ground that may contain layers of very soft materials like clay or peat and may compress if loaded by overlying structures, or if the groundwater level changes, potentially resulting in depression of the ground and disturbance of foundations.

Features are displayed on the Natural ground subsidence - Compressible deposits map on **page 26**

Location	Hazard rating	Details
On site	**Negligible**	**Compressible strata are not thought to occur.**
16m N	Moderate	Compressibility and uneven settlement hazards are probably present. Land use should consider specifically the compressibility and variability of the site.

This data is sourced from the British Geological Survey.

Natural ground subsidence - Collapsible deposits



Site Outline

Search buffers in metres (m)

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

4.4 Collapsible deposits

Records within 50m	2

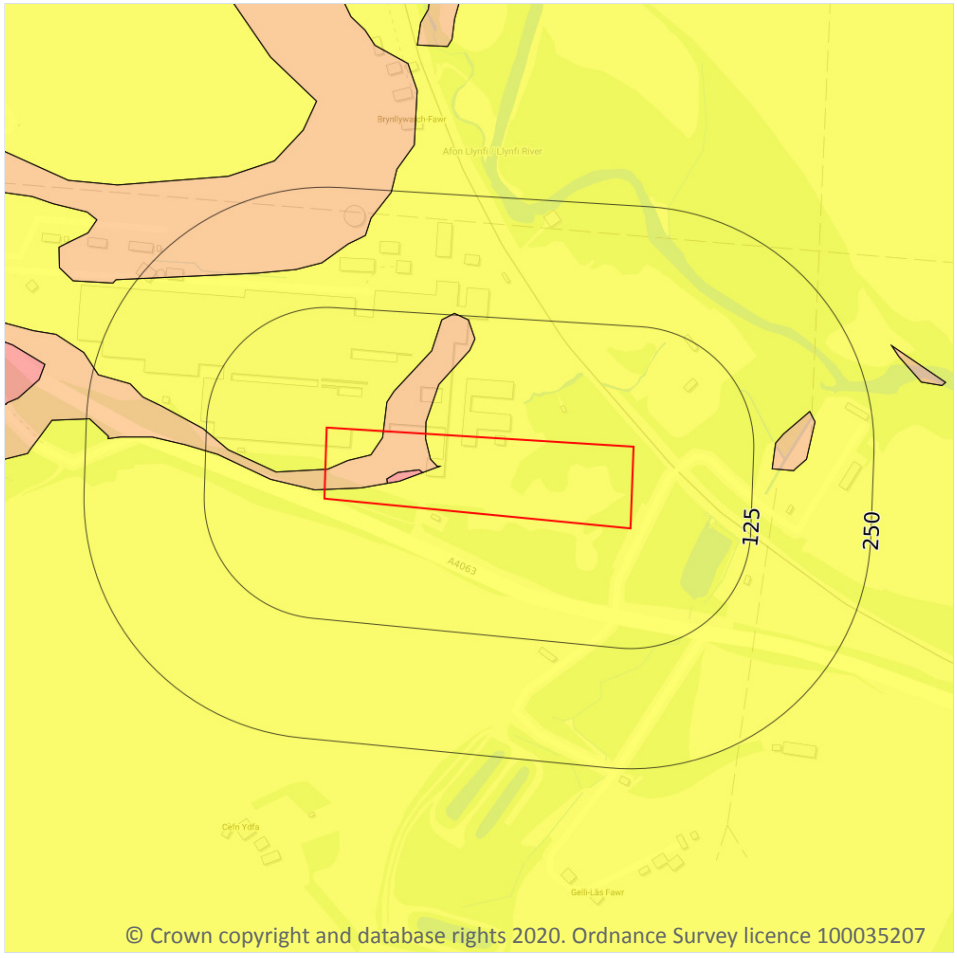
The potential hazard presented by natural deposits that could collapse when a load (such as a building) is placed on them or they become saturated with water.

Features are displayed on the Natural ground subsidence - Collapsible deposits map on **page 28**

Location	Hazard rating	Details
On site	**Very low**	**Deposits with potential to collapse when loaded and saturated are unlikely to be present.**
16m N	Negligible	Deposits with potential to collapse when loaded and saturated are believed not to be present.

This data is sourced from the British Geological Survey.

Natural ground subsidence - Landslides



Site Outline

Search buffers in metres (m)

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

4.5 Landslides

Records within 50m	3

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.

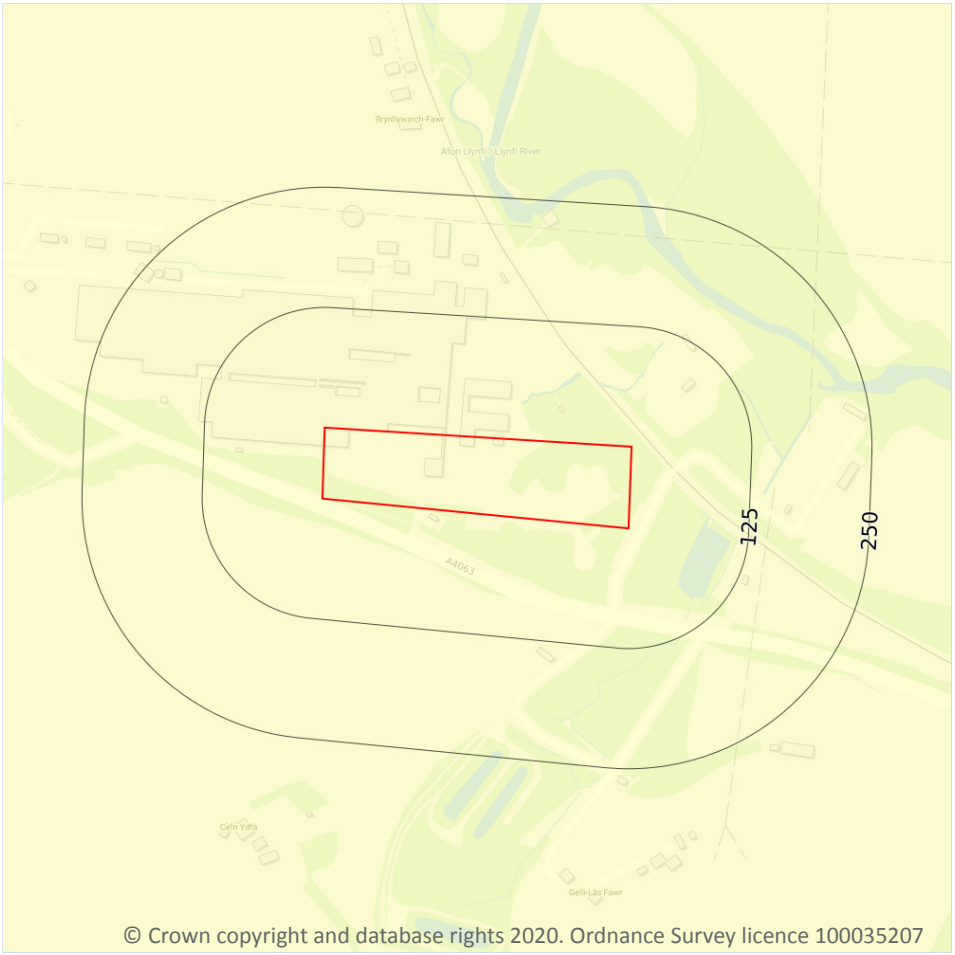
Features are displayed on the Natural ground subsidence - Landslides map on **page 29**

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

Location	Hazard rating	Details
On site	**Low**	**Slope instability problems may be present or anticipated. Site investigation should consider specifically the slope stability of the site.**
On site	**Moderate**	**Slope instability problems are probably present or have occurred in the past. Land use should consider specifically the stability of the site.**

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

4.6 Ground dissolution of soluble rocks

Records within 50m	1

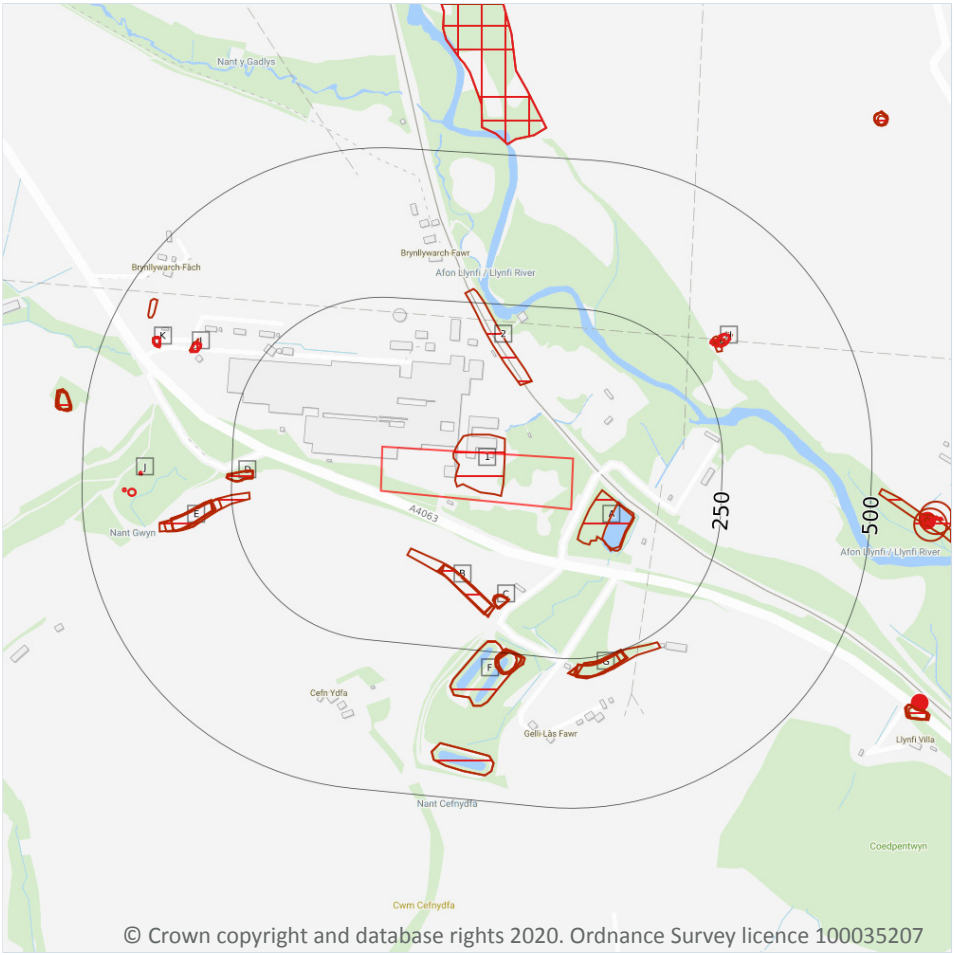
The potential hazard presented by ground dissolution, which occurs when water passing through soluble rocks produces underground cavities and cave systems. These cavities reduce support to the ground above and can cause localised collapse of the overlying rocks and deposits.

Features are displayed on the Natural ground subsidence - Ground dissolution of soluble rocks map on **page 31**

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

This data is sourced from the British Geological Survey.

5 Mining, 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

5.1 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 Peter Brett Associates (PBA).

5.2 BritPits

Records within 500m	0

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.

This data is sourced from the British Geological Survey.

5.3 Surface ground workings

Records within 250m	33

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 32**

ID	Location	Land Use	Year of mapping	Mapping scale
1	**On site**	**Pond**	**1970**	**1:10560**
A	28m SE	Ponds	1970	1:10560
A	66m SE	Pond	1985	1:10000
B	91m S	Cuttings	1876	1:10560
B	112m S	Cuttings	1921	1:10560
B	112m S	Cuttings	1947	1:10560
B	112m S	Cuttings	1914	1:10560
B	113m S	Cuttings	1938	1:10560
B	113m S	Cuttings	1948	1:10560
2	117m N	Cuttings	1876	1:10560
C	154m S	Unspecified Pit	1938	1:10560
C	154m S	Unspecified Pit	1938	1:10560
C	154m S	Unspecified Pit	1948	1:10560
C	156m S	Unspecified Pit	1921	1:10560
C	156m S	Unspecified Pit	1947	1:10560
C	156m S	Unspecified Pit	1914	1:10560
C	156m S	Unspecified Pit	1897	1:10560

ID	Location	Land Use	Year of mapping	Mapping scale
D	215m W	Unspecified Quarry	1921	1:10560
D	215m W	Unspecified Quarry	1947	1:10560
D	215m W	Unspecified Quarry	1914	1:10560
D	215m W	Unspecified Quarry	1938	1:10560
E	220m W	Cuttings	1876	1:10560
F	232m S	Ponds	1985	1:10000
F	232m S	Ponds	1970	1:10560
F	243m S	Pond	1938	1:10560
F	244m S	Pond	1914	1:10560
F	245m S	Pond	1897	1:10560
F	245m S	Pond	1921	1:10560
F	246m S	Pond	1876	1:10560
G	250m S	Cuttings	1921	1:10560
G	250m S	Cuttings	1947	1:10560
G	250m S	Cuttings	1914	1:10560
G	250m S	Cuttings	1897	1:10560

This is data is sourced from Ordnance Survey/Groundsure.

5.4 Underground workings

Records within 1000m	**34**

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

Features are displayed on the Mining, ground workings and natural cavities map on **page 32**

ID	Location	Land Use	Year of mapping	Mapping scale
H	301m NE	Unspecified Old Level	1921	1:10560
H	301m NE	Unspecified Old Level	1947	1:10560
H	301m NE	Unspecified Old Level	1914	1:10560
H	309m NE	Unspecified Old Level	1948	1:10560

ID	Location	Land Use	Year of mapping	Mapping scale
H	320m NE	Unspecified Disused Level	1985	1:10000
I	346m NW	Unspecified Old Levels	1921	1:10560
I	346m NW	Unspecified Old Level	1947	1:10560
I	346m NW	Unspecified Old Levels	1914	1:10560
I	347m NW	Unspecified Old Levels	1948	1:10560
J	400m W	Air Shaft	1921	1:10560
K	408m NW	Unspecified Old Levels	1921	1:10560
K	408m NW	Unspecified Old Levels	1947	1:10560
K	408m NW	Unspecified Old Levels	1914	1:10560
K	409m NW	Unspecified Old Levels	1948	1:10560
J	410m W	Unspecified Disused Shaft	1970	1:10560
J	410m W	Disused Air Shaft	1985	1:10000
J	426m W	Air Shaft	1876	1:10560
4	518m N	Colliery	1876	1:10560
M	595m E	Old Coal Level	1921	1:10560
M	608m E	Unspecified Old Level	1948	1:10560
M	611m E	Unspecified Old Level	1948	1:10560
-	825m N	Disused Colliery	1921	1:10560
-	825m N	Disused Colliery	1947	1:10560
-	843m N	Unspecified Shaft	1897	1:10560
-	845m N	Unspecified Shaft	1876	1:10560
-	857m N	Unspecified Disused Shaft	1985	1:10000
-	857m N	Unspecified Disused Shaft	1970	1:10560
-	926m N	Unspecified Old Level	1921	1:10560
-	926m N	Unspecified Old Level	1947	1:10560
-	926m N	Unspecified Old Level	1914	1:10560
-	930m N	Unspecified Level	1876	1:10560
-	958m N	Unspecified Disused Mine	1948	1:10560

ID	Location	Land Use	Year of mapping	Mapping scale
-	980m N	Unspecified Old Level	1897	1:10560
-	994m N	Unspecified Old Level	1948	1:10560

This is data is sourced from Ordnance Survey/Groundsure.

5.5 Historical Mineral Planning Areas

Records within 500m	**0**

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

This data is sourced from the British Geological Survey.

5.6 Non-coal mining

Records within 1000m	**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.

5.7 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 Peter Brett Associates (PBA).

5.8 JPB mining areas

Records on site	**0**

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

This data is sourced from Johnson Poole and Bloomer.

5.9 Coal mining

Records on site	1

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

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

This data is sourced from the Coal Authority.

5.10 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.

5.11 Gypsum areas

Records on site	0

Generalised areas that may be affected by gypsum extraction.

This data is sourced from British Gypsum.

5.12 Tin mining

Records on site	0

Generalised areas that may be affected by historical tin mining.

This data is sourced from Mining Searches UK.

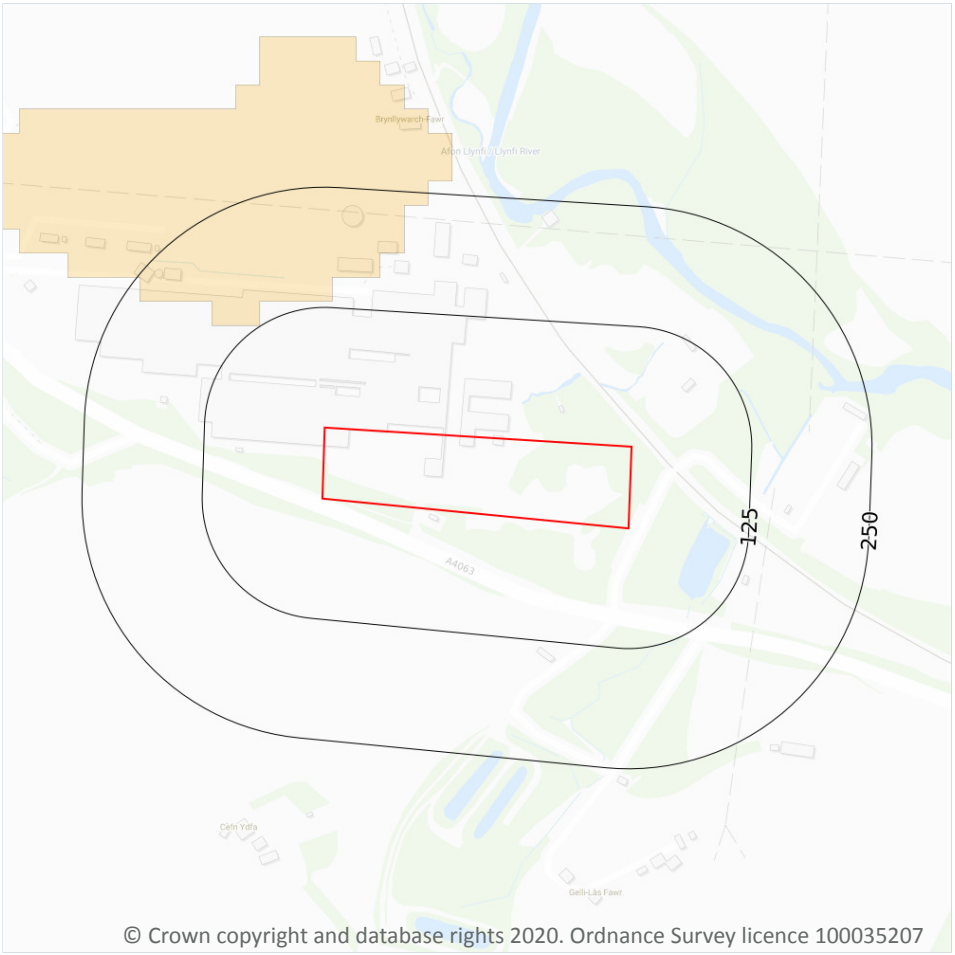
5.13 Clay mining

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).

6 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%

6.1 Radon

Records on site	1

Estimated percentage of dwellings exceeding the Radon Action Level. This data is the highest resolution radon dataset available for the UK and is produced to a 75m level of accuracy to allow for geological data accuracy and a 'residential property' buffer. The findings of this section should supersede any estimations derived from the Indicative Atlas of Radon in Great Britain. The data was derived from both geological assessments and long term measurements of radon in more than 479,000 households.

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

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

This data is sourced from the British Geological Survey and Public Health England.

7 Soil chemistry

7.1 BGS Estimated Background Soil Chemistry

Records within 50m **13**

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

Location	Arsenic	Bioaccessible Arsenic	Lead	Bioaccessible Lead	Cadmium	Chromium	Nickel
On site	**15 - 25 mg/kg**	**No data**	**100 mg/kg**	**60 mg/kg**	**1.8 mg/kg**	**60 - 90 mg/kg**	**15 - 30 mg/kg**
On site	**15 - 25 mg/kg**	**No data**	**100 mg/kg**	**60 mg/kg**	**1.8 mg/kg**	**60 - 90 mg/kg**	**15 - 30 mg/kg**
On site	**15 - 25 mg/kg**	**No data**	**100 mg/kg**	**60 mg/kg**	**1.8 mg/kg**	**60 - 90 mg/kg**	**15 - 30 mg/kg**
On site	**15 - 25 mg/kg**	**No data**	**100 mg/kg**	**60 mg/kg**	**1.8 mg/kg**	**60 - 90 mg/kg**	**15 - 30 mg/kg**
On site	**15 mg/kg**	**No data**	**100 mg/kg**	**60 mg/kg**	**1.8 mg/kg**	**60 - 90 mg/kg**	**15 - 30 mg/kg**
On site	**15 mg/kg**	**No data**	**100 mg/kg**	**60 mg/kg**	**1.8 mg/kg**	**60 - 90 mg/kg**	**15 - 30 mg/kg**
On site	**15 mg/kg**	**No data**	**100 mg/kg**	**60 mg/kg**	**1.8 mg/kg**	**60 - 90 mg/kg**	**15 - 30 mg/kg**
On site	**15 mg/kg**	**No data**	**100 mg/kg**	**60 mg/kg**	**1.8 mg/kg**	**60 - 90 mg/kg**	**15 - 30 mg/kg**
On site	**15 mg/kg**	**No data**	**100 mg/kg**	**60 mg/kg**	**1.8 mg/kg**	**60 - 90 mg/kg**	**15 - 30 mg/kg**
On site	**15 mg/kg**	**No data**	**100 mg/kg**	**60 mg/kg**	**1.8 mg/kg**	**60 - 90 mg/kg**	**15 - 30 mg/kg**
16m NW	15 - 25 mg/kg	No data	100 mg/kg	60 mg/kg	1.8 mg/kg	60 - 90 mg/kg	15 - 30 mg/kg
33m N	15 - 25 mg/kg	No data	100 mg/kg	60 mg/kg	1.8 mg/kg	60 - 90 mg/kg	15 - 30 mg/kg

Location	Arsenic	Bioaccessible Arsenic	Lead	Bioaccessible Lead	Cadmium	Chromium	Nickel
33m NE	15 - 25 mg/kg	No data	100 mg/kg	60 mg/kg	1.8 mg/kg	60 - 90 mg/kg	15 - 30 mg/kg

This data is sourced from the British Geological Survey.

7.2 BGS Estimated Urban Soil Chemistry

Records within 50m	0

Estimated topsoil chemistry of Arsenic, Cadmium, Chromium, Copper, Nickel, Lead, Tin and Zinc and bioaccessible Arsenic and Lead in 23 urban centres across Great Britain. These estimates are derived from interpolation of the measured urban topsoil data referred to above and provide information across each city between the measured sample locations (4 per km^2).

This data is sourced from the British Geological Survey.

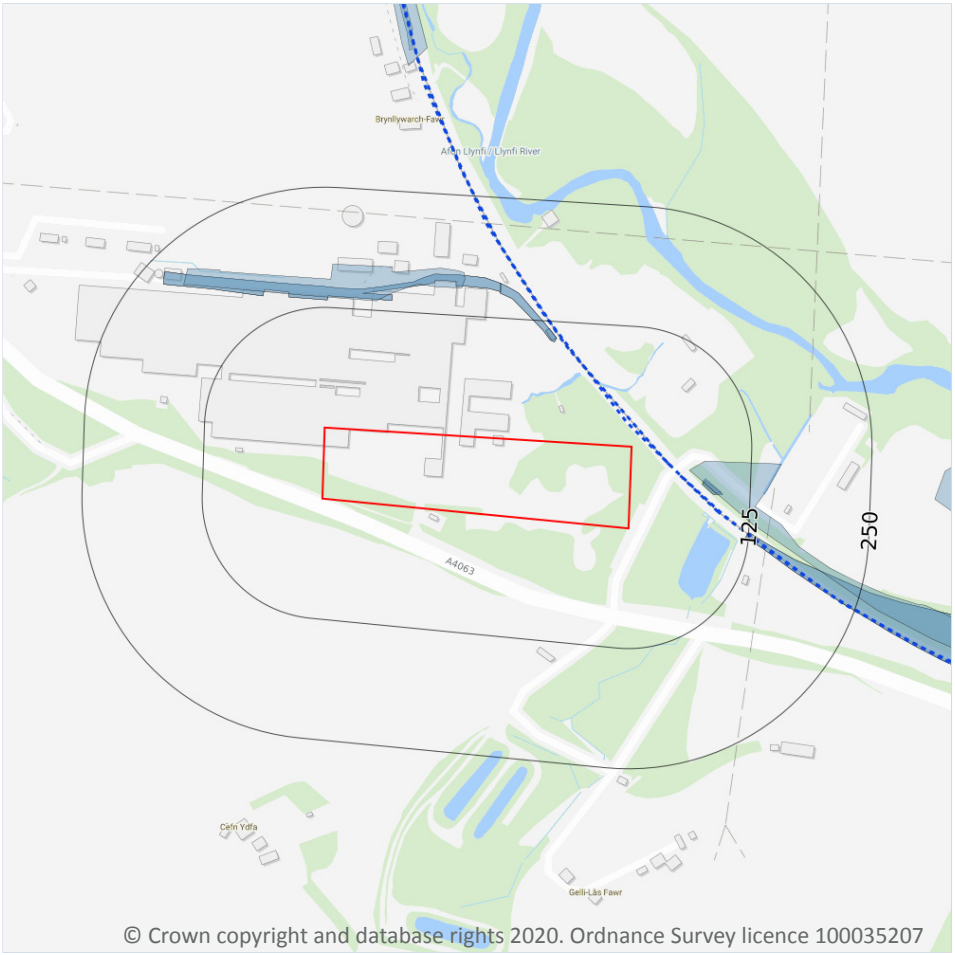
7.3 BGS Measured Urban Soil Chemistry

Records within 50m	0

The locations and measured total concentrations (mg/kg) of Arsenic, Cadmium, Chromium, Copper, Nickel, Lead, Tin and Zinc in urban topsoil samples from 23 urban centres across Great Britain. These are collected at a sample density of 4 per km^2.

This data is sourced from the British Geological Survey.

8 Railway infrastructure and projects



Site Outline

Search buffers in metres (m)

- Crossrail 1 Stations
- Crossrail 1 Route
- Crossrail 1 Worksites
- 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

8.1 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.

8.2 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.

8.3 Railway tunnels

Records within 250m	0

Railway tunnels taken from contemporary Ordnance Survey mapping.

This data is sourced from the Ordnance Survey.

8.4 Historical railway and tunnel features

Records within 250m	11

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 41**

Location	Land Use	Year of mapping	Mapping scale
61m E	Railway Sidings	1970	10560
75m E	Railway Sidings	1962	2500
75m E	Railway Sidings	1969	2500
75m E	Railway Sidings	1980	2500
104m N	Railway Sidings	1962	2500
104m N	Railway Sidings	1969	2500
106m N	Mineral Railway Sidings	1980	2500
122m E	Railway Sidings	1973	2500
122m E	Railway Sidings	1962	2500
133m N	Railway Sidings	1963	2500
135m N	Railway Sidings	1948	10560

This data is sourced from Ordnance Survey/Groundsure.

8.5 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.

8.6 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.

8.7 Railways

Records within 250m	8

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

Features are displayed on the Railway infrastructure and projects map on **page 41**

Location	Name	Type
15m NE	Maesteg Line	rail
17m NE	Not given	Single Track
38m E	Not given	Single Track
48m E	Not given	Single Track
92m E	Not given	Single Track
97m N	Not given	Single Track
111m N	Not given	Single Track
236m E	Not given	Single Track

This data is sourced from Ordnance Survey and OpenStreetMap.

8.8 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.

8.9 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.

8.10 HS2

Records within 500m	0

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

This data is sourced from HS2 ltd.

Data providers

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

Terms and conditions

Groundsure's Terms and Conditions can be accessed at this link: https://www.groundsure.com/terms-and-conditions-jan-2020/.

APPENDIX D: WATER FEATURES SURVEY

Water Features Survey

Date(s) of survey: 21/09/2020 to 22/09/2020

Completed by: Harry Lee

Survey sheet number 1 of 18		Water feature (borehole, well, pond, spring, adit, seepage, wetland, lake, watercourse, or other)	Use (e.g. agricultural, drinking water, disused)	Alternative supplies available (e.g. mains water)	Diameter (millimetres)	Depth to bottom (metres)	Depth to rest water level (metres)	Depth to pumped water level (metres)	Name, address and telephone number of occupier and owner
Site reference 1	National Grid Reference (12 digit): *SS 87414 86940* Distance from source (metres): *430* Licence serial number: N/A	*Spring*	*Altered Spring/Stream*	*No*	*Unable to establish*	*Unknown*	*Unknown*	*Unknown*	*Unknown*
Site reference 2	National Grid Reference (12 digit): *SS 87038 86734* Distance from source (metres): *850* Licence serial number: N/A	*Bog*	*Nature Bog*	*No*	*Unknown*	*Unknown*	*Unknown*	*Unknown*	*Unknown*
Site reference 3	National Grid Reference (12 digit): *SS 86931 86460* Distance from source (metres): 1,050 Licence serial number: N/A	*Stream into bog*	*Nature Stream*	*No*	*Unknown*	*Unknown*	*Unknown*	*Unknown*	*Unknown*

Survey sheet number 2 of 18		Water feature (borehole, well, pond, spring, adit, seepage, wetland, lake, watercourse, or other)	Use (e.g. agricultural, drinking water, disused)	Alternative supplies available (e.g. mains water)	Diameter (millimetres)	Depth to bottom (metres)	Depth to rest water level (metres)	Depth to pumped water level (metres)	Name, address and telephone number of occupier and owner
Site reference 4	National Grid Reference (12 digit): *SS 86628 86208*	*Spring*	*Nature Spring*	*No*	*Unknown*	*Unknown*	*Unknown*	*Unknown*	*Unknown*
	Distance from source (metres): *1,450*								
	Licence serial number: N/A								
Site reference 5	National Grid Reference (12 digit): *SS 87232 86248*	*Spring & Stream*	*Nature Spring & Stream*	*No*	*Unknown*	*Unknown*	*Unknown*	*Unknown*	*Unknown*
	Distance from source (metres): *990*								
	Licence serial number: N/A								
Site reference 6	National Grid Reference (12 digit): *SS 87707 85969*	*Spring & Stream*	*Nature Spring & Stream*	*No*	*Unknown*	*Unknown*	*Unknown*	*Unknown*	*Unknown*
	Distance from source (metres): *1,000*								
	Licence serial number: N/A								

Survey sheet number 3 of 18		Water feature (borehole, well, pond, spring, adit, seepage, wetland, lake, watercourse, or other)	Use (e.g. agricultural, drinking water, disused)	Alternative supplies available (e.g. mains water)	Diameter (millimetres)	Depth to bottom (metres)	Depth to rest water level (metres)	Depth to pumped water level (metres)	Name, address and telephone number of occupier and owner
Site reference 7	National Grid Reference (12 digit): SS 87991 86680	*Man Made Pond*	*Unknown*	*No*	*Unknown*	*Unknown*	*Unknown*	*Unknown*	*Unknown*
	Distance from source (metres): *380*								
	Licence serial number: N/A								
Site reference 8	National Grid Reference (12 digit): *SS 88106 86738*	*Stream emerging from under trackway*	*Nature Stream*	*No*	*Unknown*	*Unknown*	*Unknown*	*Unknown*	*Unknown*
	Distance from source (metres): *300*								
	Licence serial number: N/A								
Site reference 9	National Grid Reference (12 digit): *SS 88178 86851*	*Stream going below road*	*Nature Stream*	*No*	*Unknown*	*Unknown*	*Unknown*	*Unknown*	*Unknown*
	Distance from source (metres): 250								
	Licence serial number: N/A								

Survey sheet number 4 of 18		Water feature (borehole, well, pond, spring, adit, seepage, wetland, lake, watercourse, or other)	Use (e.g. agricultural, drinking water, disused)	Alternative supplies available (e.g. mains water)	Diameter (millimetres)	Depth to bottom (metres)	Depth to rest water level (metres)	Depth to pumped water level (metres)	Name, address and telephone number of occupier and owner
Site reference 10	National Grid Reference (12 digit): *SS 88223 86936* Distance from source (metres): 230 Licence serial number: N/A	*Pond*	*Unknown*	*No*	*Unknown*	*Unknown*	*Unknown*	*Unknown*	*Unknown*
Site reference 11	National Grid Reference (12 digit): *SS 87530 87036* Distance from source (metres): *200* Licence serial number: N/A	*Stream running into tunnel below A4063*	*Nature Stream*	*No*	*Unknown*	*Unknown*	*Unknown*	*Unknown*	*Unknown*
Site reference 12	National Grid Reference (12 digit): *SS 87218 87324* Distance from source (metres): 650 Licence serial number: N/A	*Stream running under track*	*Nature Stream*	*No*	*Unknown*	*Unknown*	*Unknown*	*Unknown*	*Unknown*

Survey sheet number 5 of 18		Water feature (borehole, well, pond, spring, adit, seepage, wetland, lake, watercourse, or other)	Use (e.g. agricultural, drinking water, disused)	Alternative supplies available (e.g. mains water)	Diameter (millimetres)	Depth to bottom (metres)	Depth to rest water level (metres)	Depth to pumped water level (metres)	Name, address and telephone number of occupier and owner
Site reference 13	National Grid Reference (12 digit): *SS 87105 87231* Distance from source (metres): *750* Licence serial number: N/A	*Stream*	*Nature Stream*	*No*	*Unknown*	*Unknown*	*Unknown*	*Unknown*	*Unknown*
Site reference 14	National Grid Reference (12 digit): *SS 86822 87171* Distance from source (metres): 980 Licence serial number: N/A	*Stream*	*Nature Stream*	*No*	*Unknown*	*Unknown*	*Unknown*	*Unknown*	*Unknown*
Site reference 15	National Grid Reference (12 digit): *SS 86483 87049* Distance from source (metres): 1.350 Licence serial number: N/A	*Stream*	*Nature Stream*	*No*	*Unknown*	*Unknown*	*Unknown*	*Unknown*	*Unknown*

Survey sheet number 6 of 18		Water feature (borehole, well, pond, spring, adit, seepage, wetland, lake, watercourse, or other)	Use (e.g. agricultural, drinking water, disused)	Alternative supplies available (e.g. mains water)	Diameter (millimetres)	Depth to bottom (metres)	Depth to rest water level (metres)	Depth to pumped water level (metres)	Name, address and telephone number of occupier and owner
Site reference 16	National Grid Reference (12 digit): *SS 86329 88030* Distance from source (metres): *1,760* Licence serial number: N/A	*River*	*Nature River*	*No*	*Unknown*	*Unknown*	*Unknown*	*Unknown*	*Unknown*
Site reference 17	National Grid Reference (12 digit): *SS 86598 88089* Distance from source (metres): unknown *1,560* Licence serial number: N/A	*Stream*	*Small stream diverted through duct under road*	*No*	*Unknown*	*Unknown*	*Unknown*	*Unknown*	*Unknown*
Site reference 18	National Grid Reference (12 digit): *SS 86702 87999* Distance from source (metres): 1,400 Licence serial number: N/A	*River*	*Nature River*	*No*	*Unknown*	*Unknown*	*Unknown*	*Unknown*	*Unknown*

Survey sheet number 7 of 18		Water feature (borehole, well, pond, spring, adit, seepage, wetland, lake, watercourse, or other)	Use (e.g. agricultural, drinking water, disused)	Alternative supplies available (e.g. mains water)	Diameter (millimetres)	Depth to bottom (metres)	Depth to rest water level (metres)	Depth to pumped water level (metres)	Name, address and telephone number of occupier and owner
Site reference 19	National Grid Reference (12 digit): *SS 86827 88109* Distance from source (metres): 1,400 Licence serial number: N/A	*Drainage*	*Drainage under B Road*	*No*	*Unknown*	*Unknown*	*Unknown*	*Unknown*	*Unknown*
Site reference 20	National Grid Reference (12 digit) *SS 87009 87938* Distance from source (metres): *1,200* Licence serial number: *Unknown*	*River*	*Nature River*	*No*	*Unknown*	*Unknown*	*Unknown*	*Unknown*	*Unknown*
Site reference 21	National Grid Reference (12 digit): *SS 88008 86989* Distance from source (metres): On site Licence serial number: *N/A*	*Borehole (RC11)*	*Monitoring*	*No*	*50 mm*	*14.56 mbgl*	*3.52 mbgl*	*N/A*	*WEPA*

Survey sheet number 8 of 18		Water feature (borehole, well, pond, spring, adit, seepage, wetland, lake, watercourse, or other)	Use (e.g. agricultural, drinking water, disused)	Alternative supplies available (e.g. mains water)	Diameter (millimetres)	Depth to bottom (metres)	Depth to rest water level (metres)	Depth to pumped water level (metres)	Name, address and telephone number of occupier and owner
Site reference 22	National Grid Reference (12 digit): *SS 87880 87020* Distance from source (metres): On site Licence serial number: N/A	*Borehole (RC07)*	*Monitoring*	*No*	Unknown	Unknown	Unknown	*N/A*	*WEPA*
Site reference 23	National Grid Reference (12 digit): *SS 87831 87040* Distance from source (metres): On site Licence serial number: N/A	*Borehole (RC06)*	*Monitoring*	*No*	*50 mm*	*14.83 m*	*1.67 m at 14:43*	*N/A*	*WEPA*
Site reference 24	National Grid Reference (12 digit): *SS 87919 87021* Distance from source (metres): On site Licence serial number: N/A	*Borehole (RC08)*	*Monitoring*	*No*	*50 mm*	*14.84*	*2.17 mbgl at 14:52*	*N/A*	*WEPA*

Survey sheet number 9 of 18		Water feature (borehole, well, pond, spring, adit, seepage, wetland, lake, watercourse, or other)	Use (e.g. agricultural, drinking water, disused)	Alternative supplies available (e.g. mains water)	Diameter (millimetres)	Depth to bottom (metres)	Depth to rest water level (metres)	Depth to pumped water level (metres)	Name, address and telephone number of occupier and owner
Site reference 25	National Grid Reference (12 digit): *SS 87893 86998* Distance from source (metres): On site Licence serial number: N/A	*Borehole (RC9)*	*Monitoring*	*No*	Unknown	Unknown	Unknown	*N/A*	*WEPA*
Site reference 26	National Grid Reference (12 digit): *SS 88016 87125* Distance from source (metres): On site Licence serial number: N/A	*Borehole (unknown ID)*	*Monitoring*	*No*	*50 mm*	*4.2 mbgl*	*2.23 mbgl at 15:00*	*N/A*	*WEPA*
Site reference 27	National Grid Reference (12 digit): *SS 88019 87125* Distance from source (metres): On site Licence serial number: N/A	*Discharge Point B*	*Discharge Point*	*No*	*Unknown*	*Unknown*	*Unknown*	*Unknown*	*WEPA*

Survey sheet number 10 of 18		Water feature (borehole, well, pond, spring, adit, seepage, wetland, lake, watercourse, or other)	Use (e.g. agricultural, drinking water, disused)	Alternative supplies available (e.g. mains water)	Diameter (millimetres)	Depth to bottom (metres)	Depth to rest water level (metres)	Depth to pumped water level (metres)	Name, address and telephone number of occupier and owner
Site reference 28	National Grid Reference (12 digit): *SS 88027 87110* Distance from source (metres): On site Licence serial number: N/A	*Borehole 3*	*Monitoring*	*No*	*50 mm*	*14.7 mbgl*	*1.95 mbgl at 15:07*	*N/A*	*WEPA*
Site reference 29	National Grid Reference (12 digit): *SS 88020 87093* Distance from source (metres): On site Licence serial number: N/A	*Stream / Discharge Point*	*Diverted Stream*	*No*	*N/A*	*N/A*	*N/A*	*N/A*	*WEPA*
Site reference 30	National Grid Reference (12 digit): *SS 88039 87158* Distance from source (metres): On site Licence serial number: N/A	*Unknown water processor*	*Unknown*	*Unknown*	*N/A*	*N/A*	*N/A*	*N/A*	*WEPA*

Survey sheet number 11 of 18		Water feature (borehole, well, pond, spring, adit, seepage, wetland, lake, watercourse, or other)	Use (e.g. agricultural, drinking water, disused)	Alternative supplies available (e.g. mains water)	Diameter (millimetres)	Depth to bottom (metres)	Depth to rest water level (metres)	Depth to pumped water level (metres)	Name, address and telephone number of occupier and owner
Site reference 31	National Grid Reference (12 digit): *SS 87984 87122* Distance from source (metres): On site Licence serial number: N/A	*Borehole (RC13)*	*Monitoring*	*No*	*50 mm*	*14.9 mbgl*	*1.19 mbgl at 15:36*	*N/A*	*WEPA*
Site reference 32	National Grid Reference (12 digit): *SS 87975 87134* Distance from source (metres): On site Licence serial number: N/A	*Borehole (RC12)*	*Monitoring*	*No*	*50 mm*	*14.41 mbgl*	*1.04 mbgl at 15:38*	*N/A*	*WEPA*
Site reference 33	National Grid Reference (12 digit): *SS 88025 87040* Distance from source (metres): On site Licence serial number: N/A	*Borehole (RC10)*	*Monitoring*	*No*	*50 mm*	*24.38 mbgl*	*0.91 mbgl*	*N/A*	*WEPA*

Survey sheet number 12 of 18		Water feature (borehole, well, pond, spring, adit, seepage, wetland, lake, watercourse, or other)	Use (e.g. agricultural, drinking water, disused)	Alternative supplies available (e.g. mains water)	Diameter (millimetres)	Depth to bottom (metres)	Depth to rest water level (metres)	Depth to pumped water level (metres)	Name, address and telephone number of occupier and owner
Site reference 34	National Grid Reference (12 digit): *SS 88049 87288* Distance from source (metres): On site Licence serial number: N/A	*Abstraction Building*	*Abstraction*	*No*	*N/A*	*N/A*	*N/A*	*N/A*	*WEPA*
Site reference 35	National Grid Reference (12 digit): *SS 88090 87239* Distance from source (metres): On site Licence serial number: N/A	*Borehole 4*	*Monitoring*	*No*	*50 mm*	*7.31 mbgl*	*3.93 mbg at 16:00*	*N/a*	*WEPA*
Site reference 36	National Grid Reference (12 digit): *SS 88172 87189* Distance from source (metres): On site Licence serial number: N/A	*Abstraction Point A and Discharge Point F*	*Abstraction & Discharge Points*	*N/A*	*N/A*	*N/A*	*N/A*	*N/A*	*WEPA*

Survey sheet number 13 of 18		Water feature (borehole, well, pond, spring, adit, seepage, wetland, lake, watercourse, or other)	Use (e.g. agricultural, drinking water, disused)	Alternative supplies available (e.g. mains water)	Diameter (millimetres)	Depth to bottom (metres)	Depth to rest water level (metres)	Depth to pumped water level (metres)	Name, address and telephone number of occupier and owner
Site reference 37	National Grid Reference (12 digit): *SS 88171 87159* Distance from source (metres): On site Licence serial number: N/A	*Stream going into tunnel*	*Natural Stream*	*No*	*N/A*	*N/A*	*N/A*	*N/A*	*WEPA*
Site reference 38	National Grid Reference (12 digit): *SS 88202 87209* Distance from source (metres): On site Licence serial number: N/A	*Stream discharging into River*	*Stream discharge*	*No*	*N/A*	*N/A*	*N/A*	*N/A*	*WEPA*
Site reference 39	National Grid Reference (12 digit): *SS 87629 87102* Distance from source (metres): On site Licence serial number: N/A	*Borehole 5*	*Monitoring*	*No*	*20 mm*	*4.40 mbgl*	*1.05 mbgl at 08:18*	*N/A*	*WEPA*

Survey sheet number 14 of 18		Water feature (borehole, well, pond, spring, adit, seepage, wetland, lake, watercourse, or other)	Use (e.g. agricultural, drinking water, disused)	Alternative supplies available (e.g. mains water)	Diameter (millimetres)	Depth to bottom (metres)	Depth to rest water level (metres)	Depth to pumped water level (metres)	Name, address and telephone number of occupier and owner
Site reference 40	National Grid Reference (12 digit): *SS 87602 87143* Distance from source (metres): On site Licence serial number: N/A	*Abstraction Point 1*	*Abstraction Point*	*No*	*N/A*	*N/A*	*N/A*	*N/A*	*WEPA*
Site reference 41	National Grid Reference (12 digit): *SS 87581 87120* Distance from source (metres): On site Licence serial number: N/A	*Borehole 1*	*Monitoring*	*No*	*50 mm*	*4.40 mbgl*	*1.32 mbgl a 08:31t*	*N/A*	*WEPA*
Site reference 42	National Grid Reference (12 digit): *SS 87550 87146* Distance from source (metres): On site Licence serial number: N/A	*Borehole (unnamed)*	*Monitroing*	*NO*	*20 mm*	*4.1 mbgl*	*0.0 mbgl at 08:33*	*N/A*	*WEPA*

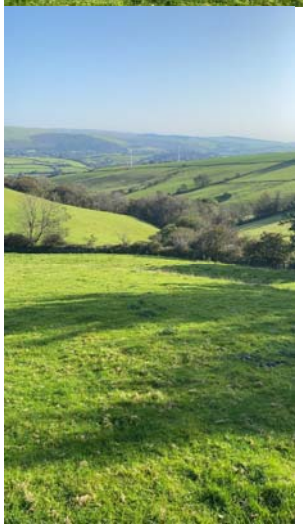
Survey sheet number 15 of 18		Water feature (borehole, well, pond, spring, adit, seepage, wetland, lake, watercourse, or other)	Use (e.g. agricultural, drinking water, disused)	Alternative supplies available (e.g. mains water)	Diameter (millimetres)	Depth to bottom (metres)	Depth to rest water level (metres)	Depth to pumped water level (metres)	Name, address and telephone number of occupier and owner
Site reference 43	National Grid Reference (12 digit): *SS 87978 87429* Distance from source (metres): 360 Licence serial number: N/A	*Stream*	*Nature Stream*	*No*	*N/A*	*N/A*	*N/A*	*N/A*	*Unknown*
Site reference 44	National Grid Reference (12 digit): *SS 88008 87418* Distance from source (metres): 360 Licence serial number: N/A	*River*	*Nature River*	*No*	*N/A*	*N/A*	*N/A*	*N/A*	*Unknown*
Site reference 45	National Grid Reference (12 digit): *SS 88116 87553* Distance from source (metres): 550 Licence serial number: N/A	*Dyke*	*Draining*	*No*	*N/A*	*N/A*	*N/A*	*N/A*	*Unknown*

Survey sheet number 16 of 18		Water feature (borehole, well, pond, spring, adit, seepage, wetland, lake, watercourse, or other)	Use (e.g. agricultural, drinking water, disused)	Alternative supplies available (e.g. mains water)	Diameter (millimetres)	Depth to bottom (metres)	Depth to rest water level (metres)	Depth to pumped water level (metres)	Name, address and telephone number of occupier and owner
Site reference 46	National Grid Reference (12 digit): *SS 88234 87359* Distance from source (metres): 430 Licence serial number: N/A	*Stream*	*Natural Stream*	*No*	*N/A*	*N/A*	*N/A*	*N/A*	*Unknown*
Site reference 47	National Grid Reference (12 digit): *SS 88965 86482* Distance from source (metres): 1,160 Licence serial number: *Unknown*	*Pipe coming out of river wall*	*Pipe in river bank*	*No*	*Approx 0.3 m diameter*	*N/A*	*N/A*	*N/A*	*Unknown*
Site reference 48	National Grid Reference (12 digit): *SS 88912 86593* Distance from source (metres): 1,000 Licence serial number: *Unknown*	*Water Works*	*Unknown Status*	*No*	*N/A*	*N/A*	*N/A*	*N/A*	*Unknown*

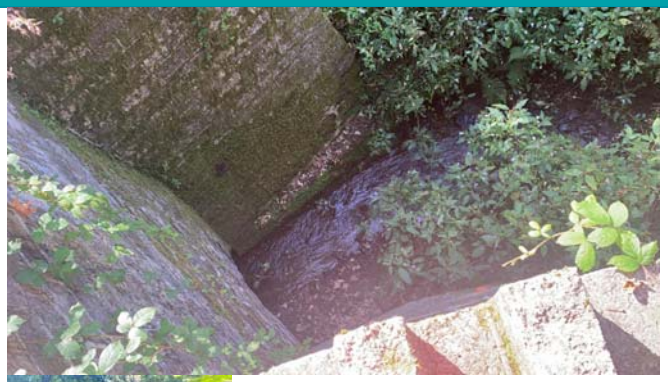
Survey sheet number 17 of 18		Water feature (borehole, well, pond, spring, adit, seepage, wetland, lake, watercourse, or other)	Use (e.g. agricultural, drinking water, disused)	Alternative supplies available (e.g. mains water)	Diameter (millimetres)	Depth to bottom (metres)	Depth to rest water level (metres)	Depth to pumped water level (metres)	Name, address and telephone number of occupier and owner
Site reference 49	National Grid Reference (12 digit): *SS 89163 86609* Distance from source (metres): 1,200 Licence serial number: N/A	*Stream*	*Nature Stream*	*No*	*N/A*	*N/A*	*N/A*	*N/A*	*Unknown*
Site reference 50	National Grid Reference (12 digit): *SS 89180 86437* Distance from source (metres): 1,300 Licence serial number: N/A	*Tributary (Stream joining River)*	*Nature Stream /River*	*No*	*N/A*	*N/A*	*N/A*	*N/A*	*Unknown*
Site reference 51	National Grid Reference (12 digit): SS 89241 86352 Distance from source (metres): 1,400 Licence serial number: N/A	*Man-made lake*	*Unknown. Presume agricultural*	*No*	*N/A*	*N/A*	*N/A*	*N/A*	*Unknown*

Survey sheet number 18 of 18		Water feature (borehole, well, pond, spring, adit, seepage, wetland, lake, watercourse, or other)	Use (e.g. agricultural, drinking water, disused)	Alternative supplies available (e.g. mains water)	Diameter (millimetres)	Depth to bottom (metres)	Depth to rest water level (metres)	Depth to pumped water level (metres)	Name, address and telephone number of occupier and owner
Site reference 52	National Grid Reference (12 digit): SS 87795 88309 Distance from source (metres): 1,100 Licence serial number: N/A	*Water Treatment Works*	*Water Treatment*	*No*	*N/A*	*N/A*	*N/A*	*N/A*	*Unknown*

Site reference 1	Site reference 2	Site reference 3
 Pipe emerging from ground causing waterfall of water into stream below. Direction of flowing water towards East. Photo taken looking north. Expected that it is linked to Cwn Nant Gwyn.	 Boggy area on flat ground. Water saturated ground.	 Stream running into boggy area. Very low flow.
Access: Open / Sealed / Permission Refused	Access: Open / Sealed / Permission Refused	Access: Open / Sealed / Permission Refused

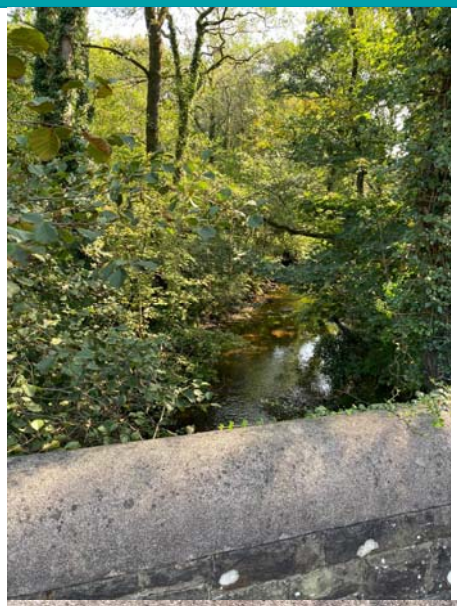
Site reference 4	Site reference 5	Site reference 6
 Start of stream emerging from boggy ground located at the top of woods in valley.	  Map indicates stream in valley below. Valley bottom is treed and fenced making access not possible. No access to be able to see water feature.	  View down to valley containing Nant Cefnydfa but not access to water feature.
Access: Open / Sealed / Permission Refused	Access: Open / Sealed / Permission Refused	Access: Open / Sealed / Permission Refused

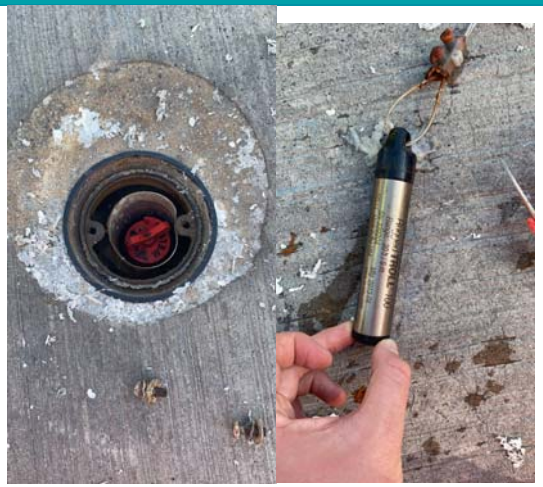
Site reference 7	Site reference 8	Site reference 9
  Dense woodland where 3no. man made ponds are indicated on OS Maps. No access into woods so cannot confirm water feature	 Fast flowing stream approximately 50 m below drop. Unable to see source point but must be coming from below track way.  Stream is found on the left side of the phot below a drop.	 Unable to reach river side due to dense vegetation. Exact point where stream goes under the road (A4063) is unclear. Stream is fats flowing and approx. 2 m wide.
Access: Open / Sealed / Permission Refused	Access: Open / Sealed / Permission Refused	Access: Open / Sealed / Permission Refused

Site reference 10	Site reference 11	Site reference 12
  Ponds indicated on multiple maps. Ponds are not visible from road and unable to enter area due to fences and dense vegetation.	  River approx. 2 m wide and fast flowing runs into brick built tunnel. Photos taken from track above tunnel. River flowing towards the East.	 Stream flowing through 300 mm duct under track. Stream diameter approx. 1 m and moderate flow.
Access: Open / Sealed / Permission Refused	Access: Open / Sealed / Permission Refused	Access: Open / Sealed / Permission Refused

Site reference 13	Site reference 14	Site reference 15
 Wide shallow stream that crosses over trackway. Low flow. Flowing eastwards	 Low flow river in river bed that appears to accommodate greater volume of water. Flow towards East	 River at furthest west point that has access. River diameter approx 0.3 m – more narrow than downstream but flow appears to be faster
Access: Open / Sealed / Permission Refused	Access: Open / Sealed / Permission Refused	Access: Open / Sealed / Permission Refused

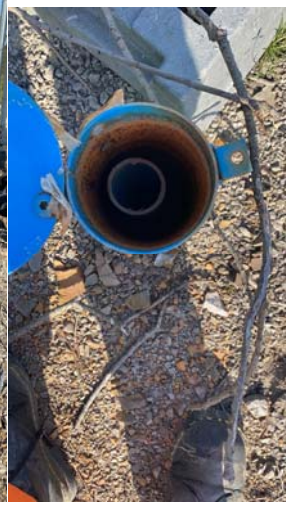
Site reference 16	Site reference 17	Site reference 18
 Photo looking up stream Nat y Gaeltach. River runs through 3no. Ducts whilst passing under farm track. River diameter approx. 6 m. Moderate Flow	 Small stream (width – 0.2 m) with very little water running underneath B road near to Gadlys Farm.	 Foot bridge over Nat y Gaeltach
Access: Open / Sealed / Permission Refused	Access: Open / Sealed / Permission Refused	Access: Open / Sealed / Permission Refused

Site reference 19	Site reference 20	Site reference 21
 Man made water drainage underneath B road. Very little water	  A4063 bridge running over Nat y Gaeltach	  BH RC11. Upstand 0.39 m, two divers installed.
Access: Open / Sealed / Permission Refused	Access: Open / Sealed / Permission Refused	Access: Open / Sealed / Permission Refused

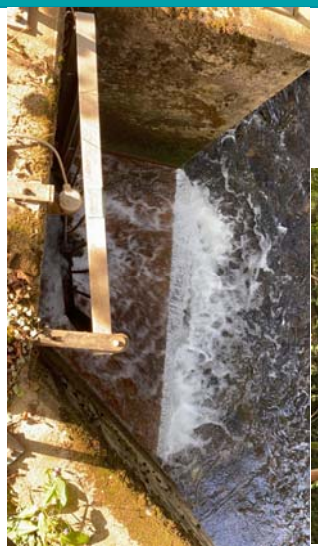
Site reference 22	Site reference 23	Site reference 24
 Location found but cover is damaged and could not be opened. RC07	 RC06 – 50 mm diameter, depth of BH = 14.83 mbgl m, water level 1.67 mbgl at 14:43. 1no. diver installed.	 RC08 – 50 mm diameter, depth = 14.84 m, dip at 14:52 =2.17 mbgl. No diver or bung in borehole.
Access: Open / Sealed / Permission Refused	Access: Open / Sealed / Permission Refused	Access: Open / Sealed / Permission Refused

Site reference 25	Site reference 26	Site reference 27
 Borehole RC09 could not be found and presumed to be beneath piles of paper waste shown in image abobe.	 Borehole not on maps and has no idea. Contained gas release bung and plastic tube within. Diameter 50 mm, Depth =4.2 mbgl and water level 2.23 mbgl at 15:00.	  Discharge Point B.
Access: Open / Sealed / Permission Refused	Access: Open / Sealed / Permission Refused	Access: Open / Sealed / Permission Refused

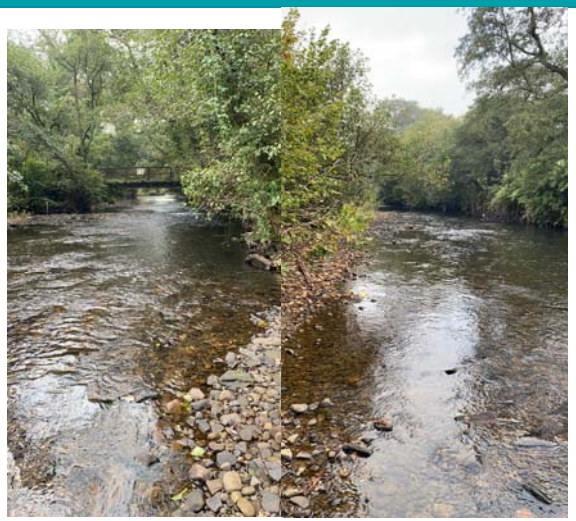
Site reference 28	Site reference 29	Site reference 30
  Borehole with sign close by ‘Borehole 3). Depth of well – 4.70 mbgl Depth of water -1.95 mbgl at 15:07 Upstand – 0.25 m	 Water flowing from pipe coming from WEPA factory and flowing east towards main river	 Unknown water processor.
Access: Open / Sealed / Permission Refused	Access: Open / Sealed / Permission Refused	Access: Open / Sealed / Permission Refused

Site reference 31	Site reference 32	Site reference 33
  RC13 Upstand – 0.41 m Well Depth -14.9 mbgl Water depth – 1.19 mbgl at 15:36	  RC12 Upstand – 0.29 m Well depth -14.41 mbgl Water depth – 1.04 mbgl at 15:38	   RC10 Upstand – 0.29 m Well depth – 24.38 mbgl Water depth – 0.91 mbgl at 15:45
Access: Open / Sealed / Permission Refused	Access: Open / Sealed / Permission Refused	Access: Open / Sealed / Permission Refused

Site reference 34	Site reference 35	Site reference 36
   Abstraction Point A – not signed but presume building is abstracting water.	 Borehole 4 Upstand – 0.29 m Well depth – 7.31 mbgl Water depth – 3.93 mbgl at 16:00	 Abstraction Point A and Discharge point F somewhere within sewage treatment works but exact locations could not be identified.
Access: Open / Sealed / Permission Refused	Access: Open / Sealed / Permission Refused	Access: Open / Sealed / Permission Refused

Site reference 37	Site reference 38	Site reference 39
 Stream (identified in Site Reference 29) going into tunnel underneath the sewage works).	 Tunnel with water discharging through -lines up with site reference 37. Water flowing into river that is approximately 8 m wide and has a moderate flow.	 Borehole 5 Diameter 0.02 m Depth of borehole = 4.4 mbgl Depth of water = 1.05 m at 08:18
Access: Open / Sealed / Permission Refused	Access: Open / Sealed / Permission Refused	Access: Open / Sealed / Permission Refused

Site reference 40	Site reference 41	Site reference 42
  Location of Abstraction point no. 1 No obvious signs signalling Abstraction but photos are from location.	  Borehole 1 Depth – 4.40 mbgl Water depth – 1.32 mbgl at 08:31 Diameter – 50 mm Excess soil inside borehole cover	  Borehole had no ID Contaminates surrounding BH reported to Mike Hughes (WEPA). BH Depth – 4.1 mbgl Water level – 0.0 mbgl at 08:33
Access: Open / Sealed / Permission Refused	Access: Open / Sealed / Permission Refused	Access: Open / Sealed / Permission Refused

Site reference 43	Site reference 44	Site reference 45
 Low velocity stream approx. 2 m width.	 Fast flowing river approx 50 cm deep in middle and 8 m wide	 Dyke along edge of field. Very little water and no flow. Width approx. 1 m .
Access: Open / Sealed / Permission Refused	Access: Open / Sealed / Permission Refused	Access: Open / Sealed / Permission Refused

Site reference 46	Site reference 47	Site reference 48
 Stream running under temporary road surace. Low velocity and draining towards main river.	  River going under bridge. 10 m upstream from brige is a pipe coming out of the western river wall that appears to be a water discahrge pipe. f	 Fence is distance makes a cluster of buildings. Location same as workworks that is marked on OS map. Unable to get any closer to buildings on public footpath Does not appear to be a working site.
Access: Open / Sealed / Permission Refused	Access: Open / Sealed / Permission Refused	Access: Open / Sealed / Permission Refused

Site reference 49	Site reference 50	Site reference 51
 Stream approximately 3 m wide with fast velocity. Flowing south towards big river.	 Stream tributary into main river. Same stream as crossed in Site Reference 49	  Large agricultural pond fed by a man-made trench. Pond and trench appear to be hand dug
Access: Open / Sealed / Permission Refused	Access: Open / Sealed / Permission Refused	Access: Open / Sealed / Permission Refused

Site reference 52	Site reference 11	Site reference 12
  Entrance to water treatment plant. Entrance is over a bridge crossing the main river. Unable to get into site or around the perimeter.		
Access: Open / Sealed / Permission Refused	Access: Open / Sealed / Permission Refused	Access: Open / Sealed / Permission Refused

WJ UK
Expert in Water Management

Notes:

1) Well installation and location details are for indicative purposes only.
2) Others to check that indicated locations are free from services and underground structures.

Rev No	Drawn by	Check by	Date	Reason for revision	Project Name: WEPA Paper Mill	
00	EJ	UM	09/11/20	Issue for review		
					Drawing Title: Water Feature Survey	
					Drawing No: P2764/007	Scale:NTS

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Notes:

1) Well installation and location details are for indicative purposes only.
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Rev No	Drawn by	Check by	Date	Reason for revision
00	EJ	UM	09/11/20	Issue for review

Project Name: WEPA Paper Mill

Drawing Title: Water Feature Survey Zoomed

Drawing No: P2764/007 | Scale:NTS