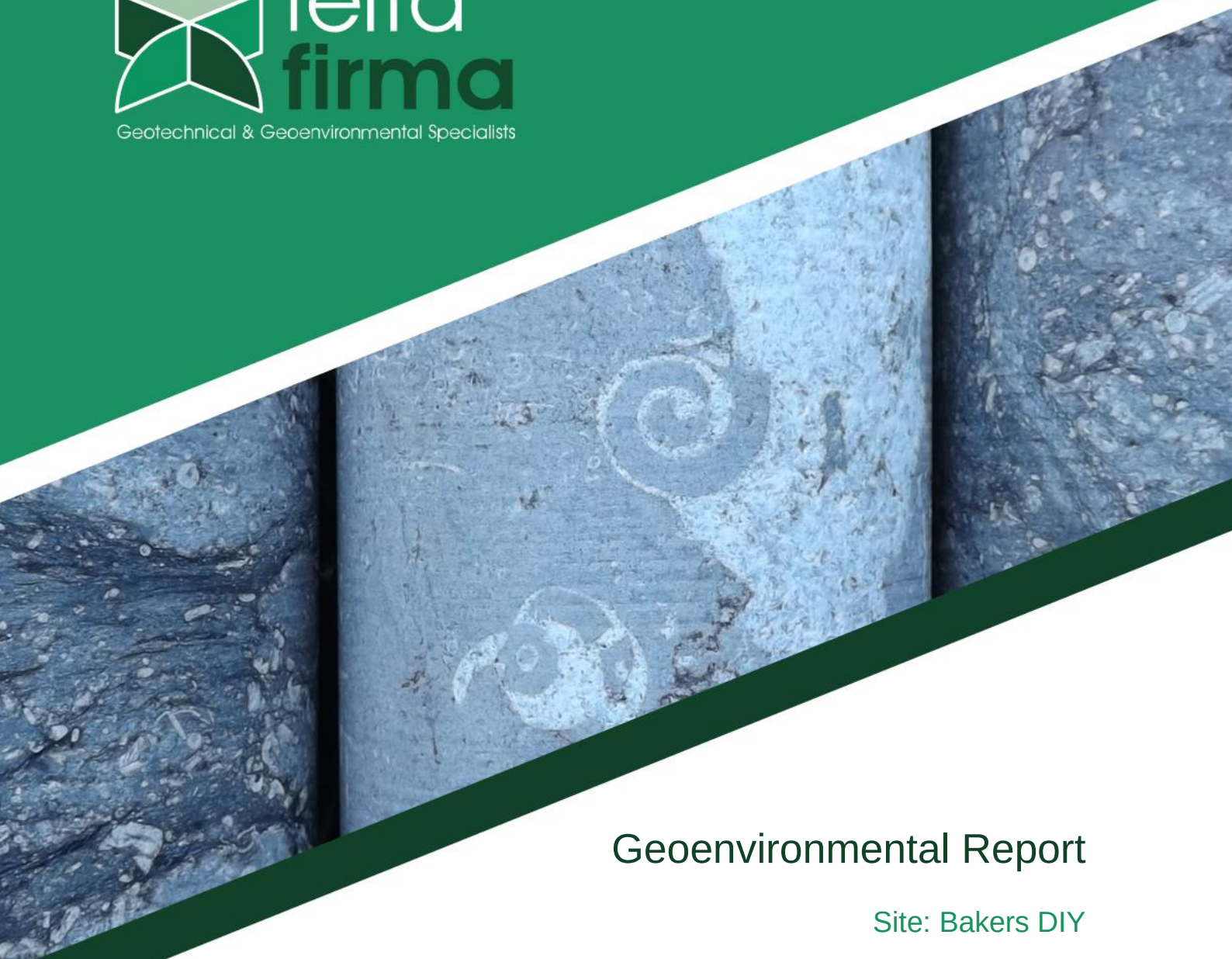




Geoenvironmental Report

Site: Bakers DIY

Prepared For: Afan Valley Holidays Ltd

Issue Date: July 2023

Job No: 17782

REPORT TITLE : **Geoenvironmental Report: Proposed Development, Bakers DIY, Brytwn Road, Duffryn Rhondda**

JOB NUMBER : **17782**

ISSUE DATE : **July 2023**

REPORT REFERENCE : **170723-17782-ISSUE02**

Document Revision Record

Issue Number	Date	Revision Details
01	28/06/2023	Draft report
02	17/07/2023	Final report

	Name	Signature
Prepared	Chris Pilkington BSc (Hons). FGS	
Checked	Alan Beattie M.Sci (Hons), FGS	
Approved	Gwyn Lake BSc (Hons). PhD, CGeol, FGS	



Executive Summary

Site Location and Proposed Development	Afan Valley Holidays Ltd (the Client) is proposing the development of an apartment hotel at the current Bakers DIY store off Brytwn Road, Duffryn Rhondda. The development site is irregular in shape and centres on an approximate National Grid Reference of 284350, 195670, occupying a plan area of approximately 0.18 Hectares. The site is currently occupied by the Former Bakers DIY store, comprising a single storey building.			
Site History	Since the earliest map edition available, the site had remained as open unused land. From 1889 onwards, development of tramways and railways within the local area started, associated with a Brickworks east of the site, and the Dyffryn Rhondda Colliery from 1900 onwards. Various tramways were situated on-site until 1962, when two buildings were constructed. From 1987 onwards the main larger building situated centrally within the site was labelled as Afan Workshops, likely to be the current building. The Dyffryn Rhondda Colliery further developed north of the site, alongside the Gas Works. From 1987 onwards, the Mine and Gasworks are no longer mapped.			
Geology	The 1:50,000 scale British Geological Map of the area (Sheet 248) was consulted for geology underlying the site. The site is shown to be underlain by the Brithdir Member. Superficial deposits are recorded as Devensian Diamicton till. Made ground to a depth of 0.5-1.0m is anticipated at the site. Strata are typically dipping 14° to the north in the local area.			
Radon	The Envirocheck Report (Annex A) details that no radon protective measures are required for new developments on the investigation site.			
Coal Mining Risk Assessment	The Coal Authority Report states that the property is within a surface area that is affected by past underground mining by several seams. The shallowest seam the report records the No.2 Rhondda at a depth of 140mbgl. The Wernddu and Field Vein seam are also collectively known as the No.2 Rhondda. In the probable unrecorded shallow workings section of the report, it is confirmed that there are none. No spine roadways are recorded at shallow depth. The Coal Authority is not aware of any damage due to geological faults or other lines of weakness that have been affected by coal mining at the site. The Coal Authority has not received a damage notice or claim for the subject property, or any property within 50 metres of the enquiry boundary, since 31 October 1994. There is no current Stop Notice delaying the start of remedial works or repairs to the property. The Coal Authority is not aware of any request having been made to carry out preventive works before coal is worked under section 33 of the Coal Mining Subsidence Act 1991.			
	The Coal Authority has one record of a mine gas emission requiring action, situated with the mine entries 30m east from the site.			
	Using the County 6-inch 1:10,560 geological map (Glamorgan 17SW) it can be seen that the site is situated within an area with strata dipping to the north. The nearest coal seam to the site is the No.1 Rhondda Rider, situated 160m south. Based on dip direction and local topography, this coal seam is unlikely to underlie the site at shallow depth, as shown in the cross section in Figure 2.3 . Using the stratigraphical column on the geological map, it can be seen that the next coal seam situated below the No.1 Rhondda Rider would be the No.1 Rhondda, however, based upon local boreholes/shafts, this coal seam would appear to be absent within the local area. Below this is the Wernddu or the Field Vein (also known as No.2 Rhondda) seams. Further evidence to support this is the shaft record at the Duffryn Rhondda Colliery, which noted the Wernddu seam at a depth of 160 mbgl. The next coal seam encountered in the shaft was the Tormynydd seam at a depth of 280 mbgl.			
	Based upon this information, it would be expected that the Wernddu and/or Field Vein seam would not underlie the site at a depth of less than 30mbgl. With the shaft recording the seam at 160mbgl, this would likely put the Wernddu/Field Vein seam at 140-160mbgl on site. This figure is taken from the topographical height difference of the site to the shaft record at Duffryn Colliery (roughly 10m).			
	The report records two mine entries 30m east from the site.			
Ground Conditions	WS01 and WS08			
	0.00	-	2.2/4.9	MADE GROUND: Black gravelly SAND
	2.4/4.9	-	>2.8/5.0	Firm to stiff brown gravelly sandy SILT/CLAY
	2.2	-	>5.0	Dense grey clayey gravelly SAND (WS01 ONLY)
	0.00	-	2.2/4.9	Very dense grey sandy GRAVEL (WS01 ONLY)
	WS02, WS03 and WS06			

	0.00	-	2.2/4.9	MADE GROUND: Black gravelly SAND and Black gravelly CLAY
	2.4/4.9	-	>2.8/5.0	Very dense grey sandy GRAVEL (WS02 and WS06 ONLY)
	2.2	-	>5.0	Sample not retained due to borehole collapse (WS03 ONLY)
	WS04, WS05 and WS07			
	0.00	-	0.15/0.25	MADE GROUND: Tarmac over black gravelly SAND
	0.15/0.25	-	>0.6/0.65	Firm brown gravelly sandy SILT
	0.15	-	>0.6	Very dense grey sandy GRAVEL (WS07 ONLY)
Contamination of Concern	No exceedances were encountered within soil chemical samples when compared to commercial setting guidelines.			
Recommended Further Works	An intrusive site investigation designed and justified in accordance with guidance provided in BS10175:2011+A2:2017 should be undertaken to achieve the following objectives: - Identify the potential environmental liabilities at the site associated with any gas, vapour and groundwater contamination from past site uses, to substantiate and enhance the conceptual site model, for a residential scenario with enclosed spaces. It is recommended that the following site investigation is undertaken: - Gas monitoring should be undertaken to assess the potential for the ground beneath the developments to produce ground gas and mine gas.			

TABLE OF CONTENTS

SECTION 1	Introduction and Proposed Development	1
1.1	Introduction	1
1.2	Limitations and Exceptions of Investigation	1
1.3	Quality Assurance	1
SECTION 2	Review of Existing Data	2
2.1	Physical Setting and Current Site Use	2
2.2	Site History	3
2.3	Geological Setting	4
2.3.1	Geology	4
2.3.2	BGS Borehole Information	5
2.3.3	Radon	6
2.3.4	Mining	6
2.3.5	Natural Hazards	6
2.4	Environmental Setting	7
2.4.1	Hydrogeology	7
2.4.2	Hydrology	7
2.4.3	Flooding	8
2.4.4	Waste	8
2.4.5	Pollution	8
2.4.6	Sensitive Land Use	8
2.4.7	Estimated Urban Soil Chemistry	8
2.4.8	Industrial Land Use	8
2.4.9	Infilled Land	8
2.5	Ecology	8
2.6	Archaeology	9
SECTION 3	Coal Mining Risk Assessment	10
3.1	Coal Mining Risk	10
3.1.1	Underground Mining	10
3.1.2	Shafts & Adits	11
3.1.3	Conclusion	11
3.2	Geoenvironmental Risk	11
3.2.1	Mine Gas Risk Assessment	11
SECTION 4	Preliminary Human Health and Environmental Risk Assessment	13
4.1	General	13
4.2	Potential Sources of Contamination	13
4.2.1	Omitted Potential Sources	13
4.3	Potential Pollution Pathways	13
4.4	Potential Receptors	14
4.5	Preliminary Conceptual Site Model	14
SECTION 5	Field Investigation	17
5.1	Site Works	17
5.2	Ground Conditions	17
5.3	Groundwater	18
5.4	Stability and Obstructions	18
5.5	Laboratory Chemical Testing	18
5.5.1	Sampling Strategy	18
5.5.2	Soil Laboratory Analysis	18

SECTION 6 Evaluation of Geoenvironmental Analytical Results 20

6.1	Assessment Methodology	20
6.2	Soil Test Results	20
6.2.1	Inorganics & Miscellaneous	20
6.2.2	Organics	21
6.2.3	Asbestos Testing	22

SECTION 7 Quantitative Risk Assessment 23

7.1	Contaminants of Concern	23
7.2	Mitigation and Remedial Measures	23
7.2.1	Human Health	23
7.2.1.1	Contaminated Soils	23
7.2.1.2	Ground Gas/Mine Gas	23
7.2.2	Aquatic Environment	24

SECTION 8 Recommended Further Works 25

8.1	General	25
8.1.1	Intrusive Investigation	25

Tables

Table 2.1	Historical Development from Map Information	3
Table 2.2	Detailed Stratigraphical Information	4
Table 2.3	BGS Recorded Mineral Sites	6
Table 2.4	South Wales Coalfield Landslip Survey Summary	7
Table 2.5	Potentially Infilled Land	8
Table 3.1	Mine Entries Summary	11
Table 4.1	Contamination Sources	13
Table 4.2	Omitted Contamination Sources	13
Table 4.3	Preliminary Conceptual Site Model	15
Table 5.1	Summary of Typical Ground Conditions Zone A (WS01 and WS08)	17
Table 5.2	Summary of Typical Ground Conditions Zone B (WS02, WS03 and WS06)	17
Table 5.3	Summary of Typical Ground Conditions Zone C (WS04, WS05 and WS07)	18
Table 5.4	Sample Locations, Depths and Targets	18
Table 5.5	Soil Laboratory Analysis	18
Table 6.1	Summary of Soil Chemical Test Results – Inorganics & Miscellaneous	20
Table 6.2	Summary of Soil Chemical Test Results – Speciated PAH	21
Table 6.3	Summary of Soil Chemical Test Results – Petroleum Hydrocarbons	21

Figures

Figure 2.1	Site Location	2
Figure 2.2	Glamorgan 17SW extract (Contains British Geological Survey © materials [2023])	5
Figure 2.3	Geological cross section	5
Figure 3.1	Geology and Strata Base below Ground Level	10

Annexes

Annex A	Envirocheck Report
Annex B	Risk Assessment Definitions
Annex C	Coal Authority Report and Map
Annex D	Borehole Logs
Annex E	Laboratory Soil Chemical Test Results

Drawings

Drawing 01 Exploratory Hole Locations

SECTION 1 Introduction and Proposed Development

1.1 Introduction

Afan Valley Holidays Ltd (the Client) is proposing the development of an apartment hotel at the current Bakers DIY store off Brytwn Road, Duffryn Rhondda. The proposed development comprises the redevelopment of the current on-site building to an 18 room hotel.

TFW Group Limited have been commissioned by the Client to undertake a geoenvironmental assessment investigation of the site.

The main objectives of the geoenvironmental assessment programme are:

- Investigate the potential human health and environmental liabilities at the site associated with any contamination
- Provide a summary of the human health and environmental conditions at the site, together with any necessary further intrusive works and / or remediation works to render the site fit for its intended use

In order to achieve the above objectives, TFW Group Limited carried out an assessment programme including a review of existing data, followed by a field investigation to collect geoenvironmental data from selected locations.

1.2 Limitations and Exceptions of Investigation

The Client has requested that a Geoenvironmental Site Assessment (GSA) and be performed to enable the outlined main objectives.

The GSA and GI were conducted, and this report has been prepared for the sole internal reliance of the Client and their design and construction team. This report shall not be relied upon or transferred to any other parties without the express written authorisation of TFW Group Limited. If an unauthorised third party comes into possession of this report, they rely on it at their peril and the authors owe them no duty of care and skill. The report represents the findings and opinions of experienced geoenvironmental consultants. TFW Group Limited does not provide legal advice and the advice of lawyers may be required.

The subsurface geological profiles, any contamination and other plots are generalised by necessity and have been based on the information found at the locations of the exploratory holes and depths sampled and tested.

The investigation was limited by the buried utility services.

It was beyond the remit of the site investigation to make any geotechnical recommendations.

1.3 Quality Assurance

The quality and environmental aspects of the assessment comply with Terra Firma Wales Ltd business management system which is UKAS Accredited to ISO 9001:2015 and ISO 14001:2015 standards.

SECTION 2 Review of Existing Data

2.1 Physical Setting and Current Site Use

The development site is irregular in shape and locates off Brytwn Road, Duffryn Rhondda. The site centres on an approximate National Grid Reference of 284350, 195670, occupying a plan area of approximately 0.18 Hectares.

The site is currently occupied by the Former Bakers DIY store, comprising a single storey building.

The site elevation is approximately 161m AOD sloping down to the north.

The site location can be seen on **Figure 2.1** along with the exploratory hole locations on **Drawing 01**.



Figure 2.1 Site Location

2.2 Site History

Historical maps of the site have been obtained in an Envirocheck Report, provided by Landmark Information Group. The history plans are supplied in **Annex A** of this report, and the most relevant editions are summarised in **Table 2.1**. Distances, where quoted are approximate, and any changes in-between map editions may not be recorded.

Table 2.1 Historical Development from Map Information

Map Edition & Scale	Key Features on Site	Key Features off Site
1877 1:2,500	The site is currently occupied by woodland, with no structures on site.	Much of the immediate surrounding area is also comprised of woodland and open land. The nearest structures are the Avan-vale Cottages, situated 200m north from the site. A railway is situated 210m north from the site, running E-W. Springs are located 150m and 170m southwest and southeast, respectively. A stream (Nant Tryfal) is situated immediately east from the site, running into the Afan River.
1884 1:10,560	No significant changes have been made to the site area since 1877.	No significant changes have been made within the immediate surrounding area since 1877.
1889 1:2,500	A tramway is now situated on the eastern part of the site, associated with a brick works and the Dyffryn Rhondda Colliery.	A secondary railway has been developed 15m north of the site. A brick works is situated 170m northeast from the site, with tramway and railway links. A quarry has been developed 30m southwest from the site. The Dyffryn Rhondda Colliery is now situated east from the site with the 'Clay Level' coal level located 40m away from the site. The level enters the hillside in a southerly direction.
1900 1:10,560	No significant changes have been made to the site area since 1889.	To the north of the site (500m) various coal mining features can be seen.
1918-19 1:2,500	The tram on the east of the site is no longer present. A small tramway is present on the western edge of the site. A small mound can be seen within the centre of the site, along with a small structure. Brytwn Road has also been developed immediately south of the site.	The Dyffryn Rhondda Colliery to the east has now been expanded with additional buildings. A gas works locates 55m north of the site with a large tank located 100m north. To the west of the gas works are two shafts 100m and 125m from the site. A quarry is also present 150m south west of the site.
1921 1:10,560	No significant changes have been made to the site area since 1919.	No significant changes have been made within the immediate surrounding area since 1919.
1938-51 1:10,560	Several structures can be seen on site, but the site outline boundary is not correctly positioned.	
1945-49 1:10,560 <i>Aerial</i>	No significant changes have been made to the site area since 1938-51.	
1953 1:10,560		
1962 1:2,500	Two buildings can now be seen established within the centre of the site.	Major development has taken place within the gas works, now labelled as 'Mine'. Residential development has taken place 120m west from the site. The Dyffryn

		Rhondda Colliery appears to be present but is no longer identified.
1964-65 1:10,000	No significant changes have been made to the site area since 1962.	No significant changes have been made within the immediate surrounding area since 1962.
1972 1:2,500	The main central building is now labelled as Factory. The smaller building to the east is no longer mapped.	Much of the Mine/Gas works buildings are now removed, with the mine and shafts being labelled as 'disused'. The colliery to the east has also been removed.
1982-88 1:10,000	No significant changes have been made to the site area since 1972.	No significant changes have been made within the immediate surrounding area since 1972.
1987 1:2,500	The main building on-site is now labelled as Afan Workshops.	The Mine/Gas Works are no longer present north of the site.
1993 1:2,500	No significant changes have been made to the site area since 1987.	No significant changes have been made within the immediate surrounding area since 1987.
1999 1:10,000		
2000 1:2,500		
2006 1:10,000		
2022 1:10,000		

2.3 Geological Setting

2.3.1 Geology

The 1:50,000 scale British Geological Map of the area (Sheet 248) was consulted for geology underlying the site. The site is shown to be underlain the Brithdir Member. Superficial deposits are recorded as Devensian diamicton till. Made ground to a depth of 0.5-1.0m is anticipated at the site. Detailed stratigraphical information is provided in **Table 2.2**.

Table 2.2 Detailed Stratigraphical Information

Period	Group	Formation
Recent		MADE GROUND deposits potentially comprising soft to firm sandy gravelly CLAY and/or loose to medium dense clayey SAND and GRAVEL
Quaternary		Devensian diamicton till comprising various stratum of sandy gravelly CLAY and or clayey sandy GRAVEL
Carboniferous	Pennant Sandstone Formation	Brithdir Member: Green-grey, lithic arenites ('Pennant sandstones') with conglomerate lenses at bases of units

Strata are typically dipping 14° to the north in the local area.

Using the County 6-inch 1:10,560 geological map (Glamorgan 17SW) it can be seen that the site is situated within an area with strata dipping to the north. The nearest coal seam to the site is the No.1 Rhondda Rider, situated 160m south. Based on dip direction and local topography, this coal seam is unlikely to underlie the site at shallow depth, as shown in the cross section in **Figure 2.3**. Using the stratigraphical column on the geological map, it can be seen that the next coal seam situated below the No.1 Rhondda Rider would be the No.1 Rhondda, however, based upon local boreholes/shafts, this coal seam would appear to be absent within the local area. Below this is the Wernddu or the Field Vein (also known as No.2 Rhondda coal seam). Further evidence to support this is the shaft record at the Duffryn Rhondda Colliery, which noted the Wernddu seam at a depth of 160mbgl. The next coal seam encountered in the shaft was the Tormynydd seam at a depth of 280 mbgl.

Based upon this information, it would be expected that the Wernddu and/or Field Vein seam would not underlie the site at a depth of less than 30mbgl.

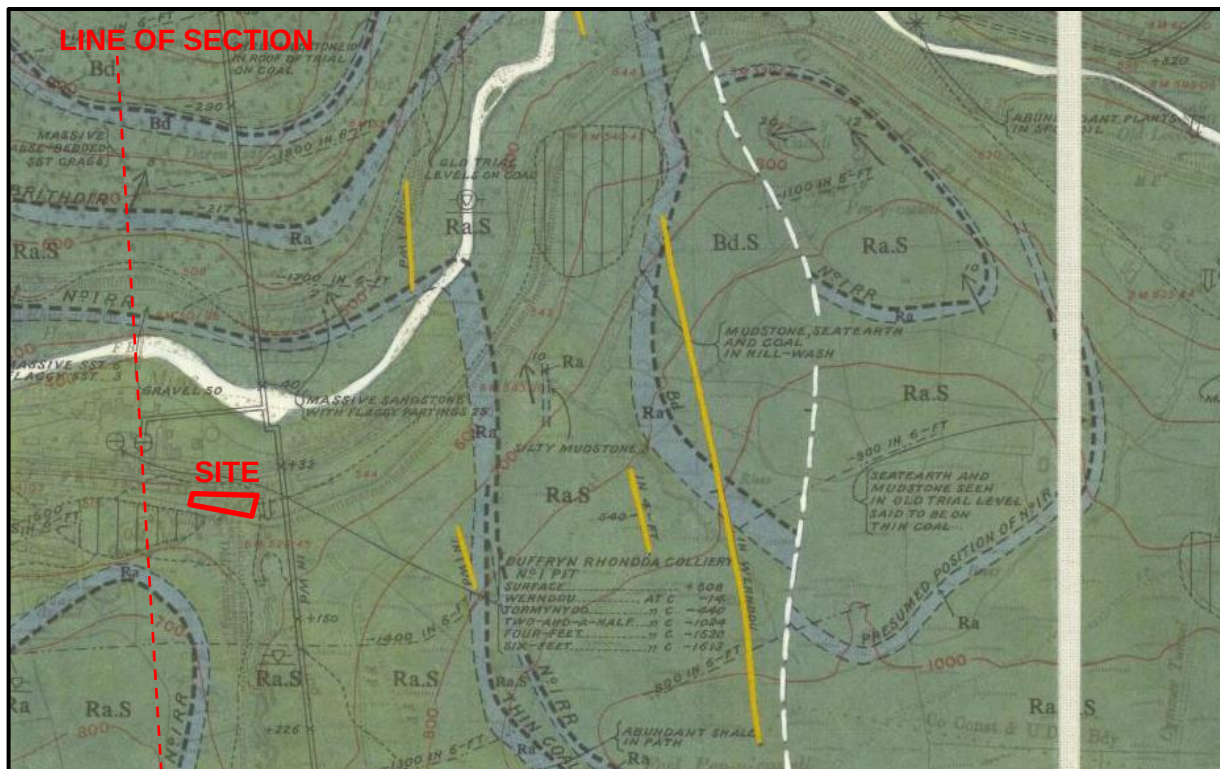


Figure 2.2 Glamorgan 17SW extract (Contains British Geological Survey © materials [2023])

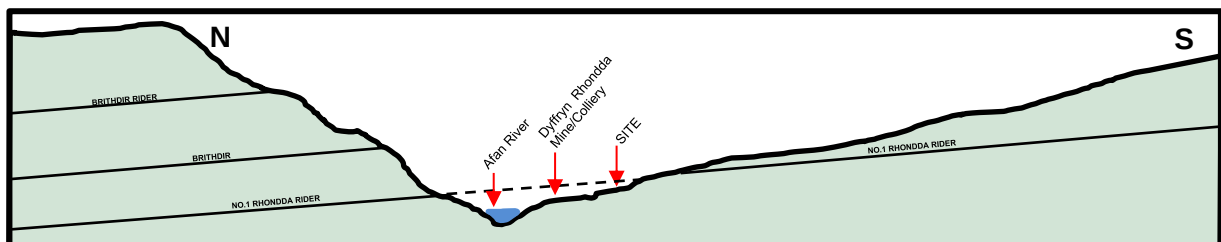


Figure 2.3 Geological cross section

2.3.2 BGS Borehole Information

Various BGS borehole records situated around the Duffryn mine records the presence of the Field Seam (No.2 Rhondda) at a depth of 137mbgl.

2.3.3 Radon

The Envirocheck Report (**Annex A**) details that no radon protective measures are required for new developments on the investigation site.

2.3.4 Mining

The site situates within the South Wales Coal Field.

The Coal Authority Report states that the property is within a surface area that is affected by past underground mining by several seams. The shallowest seam the report records is the No.2 Rhondda at a depth of 140mbgl.

In the probable unrecorded shallow workings section of the report, it is confirmed that there are none. No spine roadways are recorded at shallow depth. However, it should be noted that the Wernddu and Field Vein seam are likely to lie at shallow depth beneath the site.

The report records two mine entries 30m east from the site.

The Coal Authority is not aware of any damage due to geological faults or other lines of weakness that have been affected by coal mining at the site.

The Coal Authority has not received a damage notice or claim for the subject property, or any property within 50 metres of the enquiry boundary, since 31 October 1994. There is no current Stop Notice delaying the start of remedial works or repairs to the property. The Coal Authority is not aware of any request having been made to carry out preventive works before coal is worked under section 33 of the Coal Mining Subsidence Act 1991.

The Coal Authority has one record of a mine gas emission requiring action, situated with the mine entries 30m east from the site.

The Coal Authority Consultants Coal Mining Report is appended in (**Annex B**).

Relevant BGS mineral sites as recorded in the Envirocheck Report datasheets (**Annex A**) are summarised in **Table 2.3**.

Table 2.3 BGS Recorded Mineral Sites

Site Name	Distance/ Direction	Type	Commodity
Dyffryn Rhondda Colliery	30m, southwest	Opencast	Sandstone
Dyffryn Rhondda	52m, east	Underground	Coal – Deep
Dyffryn Rhondda Colliery	169m, southwest	Opencast	Sandstone

The Coal Authority Consultants Coal Mining Report is appended in (**Annex B**).

2.3.5 Natural Hazards

Given the steep topography towards the north of the site, there is a potential risk from slope instability.

The Envirocheck details the following hazard potentials for the site.

Ground Dissolution:	No Hazard
Collapsible Ground:	No Hazard to Very Low
Compressible Ground:	No Hazard
Landslide:	Moderate to High
Running Sand:	No Hazard to Very Low
Shrinking and Swelling Clays:	No Hazard to Very Low

An area of landslide potential is situated immediately south of the site.

Referring to the South Wales Coalfield Landslip Survey, information is provided about the landslide situated south of the site and is summarised in **Table 2.4**.

Table 2.4 South Wales Coalfield Landslip Survey Summary

Location	National Grid Reference	Summary Description	Slip Area (Hectares)
Duffryn. S side of valley above A4107 Afan Valley road immediately E of Duffryn Housing Estate	SS 842,956	Shallow, degraded, vegetated slip transitional between translational debris slide and flow in boulder clay and 'boulder clay head' overlying Rhondda sandstone below No.1 Rhondda Rider coal seam. Slip area is relatively marshy. Main interest of this location is the presence of fresh arcuate fissures below large, ungraded spoil tips on slope crest approx. 200m upslope of slip head. The fissures extend downslope to either side of housing estate along Heol-Y-Gadarn road where some dwellings have been demolished in recent years owing to cracks under foundations. The spoil tips are currently being monitored by NCB. Local information suggests fissuring has occurred since emplacement of the spoil tip. The slip is designated as active .	2

2.4 Environmental Setting

The following sections have been compiled using the Landmark Information Group Envirocheck datasheet and maps which can be found in **Annex A**.

2.4.1 Hydrogeology

Superficial deposits beneath the site have an aquifer designation of secondary aquifer – Undifferentiated.

The bedrock deposits beneath the site have an aquifer designation of aquifer – A.

Deeper groundwater flow within the underlying bedrock will be controlled by the strata dip and any fractures or bedding planes within the rock units.

The hydraulic gradient will be at its steepest during periods of heavy rainfall and aquifer recharge.

It is anticipated that the groundwater is in hydrological continuity with the river Afan.

The site does not locate within a groundwater source protection zone.

There are no groundwater abstractions within 2km of the site.

2.4.2 Hydrology

The nearest surface water feature locates off site 20m to the north and comprises a small stream, the Nant Tryfal within the Afan catchment. The River Afan is also situated 150m north from the site.

The topography of the site slopes down towards to the north. Surface water is likely to drain in this direction.

2.4.3 Flooding

The site is not at risk from extreme flooding from rivers or sea.

The site is at low risk from flooding from surface water.

The Envirocheck report records the site to have a limited potential for groundwater flooding.

2.4.4 Waste

There are no recorded landfill sites within 250m of the site.

There are no licensed waste management facilities or waste transfer sites within 250m of the site.

There are no discharge consents within 250m of the site.

2.4.5 Pollution

No pollution incidents are recorded to have occurred within 250m radius of the site.

2.4.6 Sensitive Land Use

The site is not located within a sensitive land use area.

An Area of Ancient Woodland and forest parks is situated 73m north east and 85m north, respectively.

2.4.7 Estimated Urban Soil Chemistry

The BGS have published estimated urban soil chemistry concentrations locally to the site for a number of common contaminants, i.e. arsenic, cadmium, chromium, lead and nickel. All of the given determinants have anticipated concentrations that are below the recognised trigger levels for a residential with plant uptake scenario.

2.4.8 Industrial Land Use

There are no relevant contemporary trade directory entries recorded within proximity of the site.

2.4.9 Infilled Land

Potentially infilled land features within 250m of the site are summarised in **Table 2.5**.

Table 2.5 Potentially Infilled Land

Feature	Distance/Direction from site
Infilled bank section of the river Afan	151m, north

2.5 Ecology

Please note that TFW Group Ltd are not specialists in this field and the advice of an expert should be sought.

2.6 Archaeology

Please note that TFW Group Ltd are not specialists in this field and the advice of an expert should be sought.

SECTION 3 Coal Mining Risk Assessment

3.1 Coal Mining Risk

3.1.1 Underground Mining

Based upon geological map data, the stratigraphical sequence within 30m of the ground surface of the site is illustrated in **Figure 3.1**.

Recent	MADE GROUND	0.5/1.0m
Holocene	Glacial till	2.00m
Pennant Sandstone Formation	Green-grey, lithic arenites ('Pennant sandstones') with conglomerate lenses at bases of units	30.00m

Figure 3.1 Geology and Strata Base below Ground Level

The Coal Authority Report states that the property is within a surface area that is affected by past underground mining by several seams. The shallowest seam the report records the No.2 Rhondda at a depth of 140mbgl. The Wernddu and Field Vein seam are also collectively known as the No.2 Rhondda.

In the probable unrecorded shallow workings section of the report, it is confirmed that there are none. No spine roadways are recorded at shallow depth.

The Coal Authority is not aware of any damage due to geological faults or other lines of weakness that have been affected by coal mining at the site.

The Coal Authority has not received a damage notice or claim for the subject property, or any property within 50 metres of the enquiry boundary, since 31 October 1994. There is no current Stop Notice delaying the start of remedial works or repairs to the property. The Coal Authority is not aware of any request having been made to carry out preventive works before coal is worked under section 33 of the Coal Mining Subsidence Act 1991.

The Coal Authority has one record of a mine gas emission requiring action, situated with the mine entries 30m east from the site.

Using the County 6-inch 1:10,560 geological map (Glamorgan 17SW) it can be seen that the site is situated within an area with strata dipping to the north. The nearest coal seam to the site is the No.1 Rhondda Rider, situated 160m south. Based on dip direction and local topography, this coal seam is unlikely to underlie the site at shallow depth, as shown in the cross section in **Figure 2.3**. Using the stratigraphical column on the geological map, it can be seen that the next coal seam situated below the No.1 Rhondda Rider would be the No.1 Rhondda, however, based upon local boreholes/shafts, this coal seam would appear to be absent within the local area. Below this is the Wernddu or the Field Vein (also known as No.2 Rhondda) seams.

Further evidence to support this is the shaft record at the Duffryn Rhondda Colliery, which noted the Wernddu seam at a depth of 160 mbgl. The next coal seam encountered in the shaft was the Tormynydd seam at a depth of 280 mbgl.

With the shaft recording the Wernddu seam at 160mbgl, this would likely put the Wernddu/Field Vein seam at 140-160mbgl on site. This figure is taken from the topographical height difference of the site to the shaft record at Duffryn Colliery (roughly 10m).

3.1.2 Shafts & Adits

The report records two mine entries 30m east from the site, as summarised in **Table 3.1**.

Table 3.1 Mine Entries Summary

Entry Type	Grid Reference	Mineral	Conveyancing details
Adit	284428 195675	Coal	Afan Borough Council 02/07/1981
Adit	284408 195676	Coal	

3.1.3 Conclusion

Based upon the nearby coal mining features, including the Dyffryn Rhondda mine, it is considered that the overall risk to the surface stability of the site from possible unrecorded workings is negligible.

3.2 Geoenvironmental Risk

3.2.1 Mine Gas Risk Assessment

This preliminary assessment has been completed in accordance with guidance published in CL:AIRE, 2021, Good practice for risk assessment for coal mine gas emissions. In the first instance, the risk assessment process requires the screening out of 'potentially at risk sites' utilising the decision support tool for mine gas risk assessment, provided in Figure 13.1 - CLAIRE 2021. A summary of the decision tool and site outcome is presented in **Table 3.2**.

Table 3.2 Decision Support Tool Summary – Site Specific

Step	Qualifier Question	Outcome	Comment
1	Is the site within a Coal Authority defined Coal Mining Reporting Area?	Yes	Go to step 2
2	Are all these statements true? Mine entries >50m from site boundary Workings >150m depth No faults or other potential pathways connecting surface to deeper unflooded workings Outside are of past or probable shallow workings on Coal Authority Viewer	No	Got to step 3
3	Are all these statements true? Workings between 30m and 150m but permanently flooded or covered by 10m+ of low permeable superficial deposits Mine entries > 50m from site boundary Low permeability superficial deposits of sufficient thickness - $<1 \times 10^{-4}$ m/s hydraulic conductivity	No	Go to step 4
4	Are any of these statements true?	Yes	High Risk Zone

	Mine entries on site or <20m from site boundary Workings below site <30m depth and unflooded or variable water level Faults or other pathways connecting surface to deeper unflooded workings Within area of past or probable shallow workings on Coal Authority Viewer		
--	--	--	--

It is determined the site is at high risk of mine gas requiring a detailed mine gas risk assessment to establish whether suitable mitigation measures can be incorporated into the development.

Furthermore, the adits 30m east from the site required mine gas remediation.

SECTION 4 Preliminary Human Health and Environmental Risk Assessment

4.1 General

The preliminary human health and environmental risk assessment is a qualitative evaluation of unacceptable risks to human health or the environment from potential 'contaminated land', based on reviewed information in preceding sections of this report.

For 'contaminated land' to exist as defined in Part 2A of the Environmental Protection Act (EPA) 1990, a Pollutant Linkage needs to be identified. Pollutant linkages are defined by having a valid 'source – pathway – receptor' as established in the preliminary conceptual site model.

For our definitions of pollution linkage and how we define risk please refer to **Annex B** which includes our classifications of consequence and probability, and risk assessment matrix.

4.2 Potential Sources of Contamination

Potential or known sources of contamination associated the sites current and historical land use are summarised in **Table 4.1**.

Table 4.1 Contamination Sources

ID	Source	Contaminant
S1	Made ground soils on-site from former buildings and tramway	Metals, metalloids, PAH, TPH CWG, Asbestos, ground gas
S2	Dyffryn Rhondda Colliery/Mine	Ground gas/Mine gas

No other significant potential on-site or off-site sources of contamination have been identified during the desk study.

4.2.1 Omitted Potential Sources

One potential source of contamination highlighted in the desk study has been excluded from further risk assessment. This is detailed in **Table 4.2**.

Table 4.2 Omitted Contamination Sources

Source	Reasoning
Gas Works	The gas works was situated downhill and down gradient of any ground water flow.

4.3 Potential Pollution Pathways

Potential contaminant pathways associated with a commercial land use are as follows.

- P1 – Direct soil and dust ingestion
- P2 – Consumption of home grown produce
- P3 – Dermal contact
- P4 – Inhalation of dust and vapours
- P5 – Vertical migration of leachates (unsaturated zone)
- P6 – Horizontal and vertical migration of contaminants (saturated zone)
- P7 – Artificial contaminant pathway (borehole, pile, excavation etc)
- P8 – Surface run-off
- P9 – Plant uptake
- P10 – Horizontal and vertical migration of ground gasses and vapours
- P11 – Direct contact with construction materials
- P12 – Inhalation of asbestos fibres

4.4 Potential Receptors

There are human and hydrological receptors to any contamination that may be present on site. Potential receptors include.

- R1 – Construction and maintenance workers
- R2 – Future site users (staff/residents/visitors)
- R3 – Passers-by or neighbouring site users
- R4 – Groundwater (aquifer)
- R5 – Surface waters (river/lake)
- R6 – Area of public open space
- R7 – Construction materials (concrete/potable water pipes)

4.5 Preliminary Conceptual Site Model

The preliminary conceptual site model establishes potential pollutant linkages between contaminants (source), pathways and receptors, realised during the preparation of the desk study report. Where a potential pollutant linkage is identified an assessment of risk is subsequently undertaken. The preliminary conceptual site model is tabulated in **Table 4.3**.

Outcomes of the preliminary conceptual site model are used as a basis for the design and implementation of the site investigation, whereby areas of potential contamination can be targeted as well as investigating the wider site.

Findings of the site investigation can in turn be used to develop and refine the conceptual site model.

Table 4.3 Preliminary Conceptual Site Model

Source	Pathway	Receptor	Preliminary Risk Assessment		
			Consequence	Probability	Risk
Human Health					
Contaminated Soils S1	Direct soil and dust ingestion P1	Construction and maintenance workers R1	Medium	Likely	Medium Risk - COSHH assessment and good level of PPE/ hygiene by site workers/ staff; dust suppression measures if required. Suitably designed site investigation recommended
	Dermal contact P3	Passers-by or neighbouring site users R3	Medium	Low Likelihood	Low Risk - Significant contamination is not expected and dust suppression measures would likely prove effective against certain levels of contamination.
	Inhalation of dust and vapours P4	Future site users R2	Medium	Likely	Medium Risk – Various sources of contamination have been identified during the desk study. Suitably designed site investigation recommended
Radon Gas	Horizontal and vertical migration of ground gasses and vapours P10	Future site users R2	Medium	Unlikely	Near Zero Risk - No radon protection measures required
Ground Gas S1, S2		Future site users (residents) R2, Construction and maintenance workers R1	Severe	Low Likelihood	Medium Risk – Due to the likely presence of made ground deposits and nearby infilled land feature, it is considered that there is a risk to the site from ground gas. Suitably designed ground gas monitoring scheme recommended.
Mine Gas S2			Severe	Likely	High Risk – Due to the nearby presence of coal mining features, including adits 30m east that have required mine gas remediation, it is considered that the risk to the site from mine ga is high. Suitably designed mine/ground gas monitoring recommended.
Impacted Groundwaters S1	Horizontal and vertical migration of contaminants (saturated zone) P6 Dermal contact P3	Construction and maintenance workers R1	Medium	Unlikely	Low Risk - Given the hillside setting of the site, shallow groundwaters are not anticipated. However, depending on the nature of the made ground and chemical test results of the soil testing, water samples may also be required.
Contaminated Soils S1	Consumption of home grown produce P2	Future site users R2	Medium	Unlikely	Low Risk – Given the proposed development is a commercial hotel it is considered unlikely that there will be home grown produce produced on the site however it cannot be completely rule out at this stage.
Contaminated Soils S1	Direct Contact P11	Construction materials (water pipes) R7	Mild	Low Likelihood	Low Risk - An appropriate water supply pipe material should be chosen after the potable water supplier has completed an assessment in accordance with UK Water Industry Research guidance; Guidance for the Selection of Water Supply Pipes to be used in Brownfield Sites, UKWIR Report Ref: 10/WM/03/21.
Aggressive ground conditions – Sulphates S1		Construction materials (concrete) R7	Mild	Low Likelihood	Low Risk - Chemical analysis of the soils should be undertaken and the appropriate classification of concrete should be specified as per BRE Special Digest 1: Concrete in Aggressive Ground.

Aquatic Environment					
Contaminated Soils S1	Vertical migration of leachates (unsaturated zone) P5	Groundwater (aquifer) R4 Surface waters (river/lake) R5	Mild	Low Likelihood	Low Risk – Due to the potential for CLAY rich strata below the site, it is unlikely that any proposed contamination would be mobile to the aquatic environment. However, if piled foundations are required for the proposed development, this could transmit any potential contamination into perched groundwater/groundwater.
	Surface run-off P8	Surface waters (river/lake) R5	Mild	Low Likelihood	Low Risk – If any on-site contamination is found, alteration of this material within proximity of the river Afan situated 150m north from the site could present a risk to that watercourse. Suitably designed site investigation required.
	Horizontal and vertical migration of contaminants (saturated zone) P6				

SECTION 5 Field Investigation

5.1 Site Works

A geoenvironmental site investigation comprising eight windowless sampled boreholes was undertaken on the 16th and 17th May 2023.

The fieldwork was supervised by TFW Group Limited, who logged the exploratory holes to the requirements of BS 5930:2015+A1:2020. The proposed locations of the exploratory holes were determined by TFW Group Ltd in general accordance with BS 10175:2011+A2:2017 in order to assess the findings of the preliminary conceptual site model.

The boreholes referenced were formed using a Geo 032 rig. Dynamic sampling techniques were employed from surface to produce a continuous disturbed sample.

Standard penetration tests (SPT) were carried out at regular intervals in general accordance with BS1377: Part 9:1990:3.3. SPT results summarised as N values are presented on the borehole log.

Boreholes were monitored for groundwater ingress as drilling proceeded.

Representative disturbed samples were taken and retained in airtight containers for environmental testing.

The borehole logs are presented in **Annex D**.

On completion the boreholes were backfilled with materials arising and the surface reinstated.

Exploratory hole locations are shown on **Drawing 01**.

5.2 Ground Conditions

The ground conditions encountered by the exploratory holes varied across the site and for the ease of interpretation have been zoned into areas (A, B and C). These ground conditions can in general be summarised as shown in **Table 5.1, 5.2 and 5.3** and are also shown on Drawing 01.

Table 5.1 Summary of Typical Ground Conditions Zone A (WS01 and WS08)

Depth (m)			Thickness (m)	Stratum
0.00	-	0.3/0.9	0.3/0.9	MADE GROUND: Black gravelly SAND
0.3/0.9	-	1.8/3.0	1.5/2.1	Firm to stiff brown gravelly sandy SILT/CLAY
1.8	-	2.0	0.2	Dense grey clayey gravelly SAND (WS01 ONLY)
2.0	-	>2.6	-	Very dense grey sandy GRAVEL (WS01 ONLY)

Table 5.2 Summary of Typical Ground Conditions Zone B (WS02, WS03 and WS06)

Depth (m)			Thickness (m)	Stratum
0.00	-	2.2/4.9	2.2/4.9	MADE GROUND: Black gravelly SAND and Black gravelly CLAY
2.4/4.9	-	>2.8/5.0	-	Very dense grey sandy GRAVEL (WS02 and WS06 ONLY)
2.2	-	>5.0	-	Sample not retained due to borehole collapse (WS03 ONLY)

Table 5.3 Summary of Typical Ground Conditions Zone C (WS04, WS05 and WS07)

Depth (m)			Thickness (m)	Stratum
0.00	-	0.15/0.25	0.15/0.25	MADE GROUND: Tarmac over black gravelly SAND
0.15/0.25	-	>0.6/0.65	-	Firm brown gravelly sandy SILT
0.15	-	>0.6	-	Very dense grey sandy GRAVEL (WS07 ONLY)

5.3 Groundwater

Groundwater was not encountered during the site investigation.

5.4 Stability and Obstructions

Windowless sampled borehole WS03 collapsed at 2.2m due to deep loose made ground deposits.

Advancement of windowless sample boreholes WS04, WS05 and WS07 was obstructed at 0.6m due to very dense ground conditions.

5.5 Laboratory Chemical Testing

5.5.1 Sampling Strategy

Soil sampling locations were selected on a non-targeted basis to characterise the contamination status of the site.

Sample locations, depths and suspected/known contamination source targets are summarised in **Table 5.2**:

Table 5.2 Sample Locations, Depths and Targets

Location	Depth (m)	Contamination Targets
WS01	0.2	S1
WS02	0.6	
WS02	2.2	
WS03	0.8	
WS04	0.4	
WS05	0.6	
WS06	0.2	
WS06	0.6	
WS06	0.9	
WS08	0.5	

5.5.2 Soil Laboratory Analysis

During the site investigation works soil samples were taken and despatched to the accredited laboratories of Eurofins Chemtest for laboratory chemical testing. Soil samples were tested for the determinants listed in **Table 5.3**.

Table 5.3 Soil Laboratory Analysis

Metals & Metalloids	In-Organics	Organics	Others
Arsenic	Cyanide	Phenols	pH (acidity)
Boron	Sulphate	PAH	Asbestos
Cadmium		Petroleum Hydrocarbons	
Chromium III			

Chromium VI			
Copper			
Lead			
Mercury			
Nickel			
Selenium			
Zinc			

The results are discussed in detail in **SECTION 6** and the laboratory test results certificates may be found in **Annex E**.

SECTION 6 Evaluation of Geoenvironmental Analytical Results

6.1 Assessment Methodology

Comparison of the analytical results has been made with the 2015 Suitable 4 Use Levels (S4UL) provided by Land Quality Management (LQM) Limited and the Chartered Institute of Environmental Health (CIEH) or provisional Category 4 Screening Levels (pC4SL).

Sulphate results have been compared to guidelines presented in British Research Establishment (BRE SD1:2015). Sulphate levels need only be considered for buried concrete risk assessment and are not human health related.

6.2 Soil Test Results

A summary of the chemical test results which include the regulatory soil guideline values used in a commercial setting are given in the following tables. The complete results can be found in **Annex E**.

6.2.1 Inorganics & Miscellaneous

Ten samples were tested for a standard suite of inorganics, pH and organic matter. The summarised results are in **Table 6.1**.

Table 6.1 Summary of Soil Chemical Test Results – Inorganics & Miscellaneous

Substance	Threshold Value (mg/kg)	Source	Measured Concentrations (mg/kg)		Number of Exceedances
			Minimum	Maximum	
Arsenic	640	LQM/CIEH	6.7	22	0 of 10
Cadmium	190	LQM/CIEH	0.10	1.1	0 of 10
Chromium III	8600	LQM/CIEH	6.3	19	0 of 10
Chromium VI	33	LQM/CIEH	<0.50	<0.50	0 of 10
Copper	68000	LQM/CIEH	9.6	1400	0 of 10
Lead	2300	pC4SL	7.9	870	0 of 10
Mercury (inorganic)	1100	LQM/CIEH	<0.05	0.16	0 of 10
Nickel	980	LQM/CIEH	9.6	37	0 of 10
Selenium	12000	LQM/CIEH	0.40	1.5	0 of 10
Zinc	730000	LQM/CIEH	40	210	0 of 10
Cyanide	-	-	<0.50	<0.50	0 of 10
Boron	240000	LQM/CIEH	<0.40	0.53	0 of 10
Sulphate (%)	0.24	BRE	<0.010	0.45	2 of 10
Organic Matter (%)	-	-	1.2	5.7	-
pH	-	-	7.9	9.1	-
Phenols	120	LQM/CIEH	<0.10	0.32	0 of 10
Notes:					
- No available guideline					

6.2.2 Organics

Ten samples were tested for speciated polycyclic aromatic hydrocarbons (PAH). The summarised results are in **Table 6.2**.

Table 6.2 Summary of Soil Chemical Test Results – Speciated PAH

Substance	Threshold Value (mg/kg)	Source	Measured Concentrations (mg/kg)		Number of Exceedances
			Minimum	Maximum	
Naphthalene	190	LQM/CIEH	<0.10	8.1	0 of 10
Acenaphthylene	83000	LQM/CIEH	<0.10	1.1	0 of 10
Acenaphthene	84000	LQM/CIEH	<0.10	1.3	0 of 10
Fluorene	63000	LQM/CIEH	<0.10	1.2	0 of 10
Phenanthrene	22000	LQM/CIEH	<0.10	7.3	0 of 10
Anthracene	520000	LQM/CIEH	<0.10	2.7	0 of 10
Fluoranthene	23000	LQM/CIEH	1.1	21	0 of 10
Pyrene	54000	LQM/CIEH	0.97	18	0 of 10
Benzo(a)anthracene	170	LQM/CIEH	1.1	14	0 of 10
Chrysene	350	LQM/CIEH	1.3	18	0 of 10
Benzo(b)fluoranthene	44	LQM/CIEH	1.6	20	0 of 10
Benzo(k)fluoranthene	1200	LQM/CIEH	0.71	7.1	0 of 10
Benzo(a)pyrene	35	LQM/CIEH	0.97	14	0 of 10
Indeno(123cd)pyrene	500	LQM/CIEH	<0.10	9.9	0 of 10
Dibenzo(ah)anthracene	3.5	LQM/CIEH	<0.10	3.5	0 of 10
Benzo(ghi)perylene	3900	LQM/CIEH	<0.10	7.9	0 of 10
Total PAH	-	-	<2.0	<2.0	-
Notes:					
Thresholds based on 1.0% soil organic matter					
- No available guidelines					

Ten samples were tested for petroleum hydrocarbon. The summarised results are shown in **Table 6.3**.

Table 6.3 Summary of Soil Chemical Test Results – Petroleum Hydrocarbons

Substance	Threshold Value (mg/kg)	Source	Measured Concentrations (mg/kg)		Number of Exceedances
			Minimum	Maximum	
Aliphatic					
VPH C5 – C6 Ali	3200	LQM/CIEH	<0.05	<0.05	0 of 10
VPH C6 – C7 Ali	7800	LQM/CIEH	<0.05	<0.05	0 of 10
VPH C7 – C8 Ali	2000	LQM/CIEH	<0.05	<0.05	0 of 10
VPH C8 – C10 Ali	9700	LQM/CIEH	<0.05	<0.05	0 of 10
EPH C10 – C12 Ali	59000	LQM/CIEH	<2.0	2.3	0 of 10
EPH C12 – C16 Ali	1600000*	LQM/CIEH	<1.0	3.5	0 of 10
EPH C16 – C21 Ali	1600000*	LQM/CIEH	<2.0	7.1	0 of 10
EPH C21 – C35 Ali	1600000	LQM/CIEH	<3.0	31	0 of 10
EPH C35 – C40 Ali	1600000	LQM/CIEH	<10	59	0 of 10
Aromatic					
VPH C5 – C7 Arom	26000	LQM/CIEH	<0.05	<0.05	0 of 10
VPH C7 – C8 Arom	56000	LQM/CIEH	<0.05	<0.05	0 of 10

VPH C8 – C10 Arom	3500	LQM/CIEH	<0.05	<0.05	0 of 10
EPH C10 – C12 Arom	16000	LQM/CIEH	<1.0	1.6	0 of 10
EPH C12 – C16 Arom	36000	LQM/CIEH	<1.0	5.2	0 of 10
EPH C16 – C21 Arom	28000	LQM/CIEH	4.8	63	0 of 10
EPH C21 – C35 Arom	28000	LQM/CIEH	12	860	0 of 10
EPH C35 – C40 Arom	28000	LQM/CIEH	1.2	320	0 of 10

Notes:

VPH – Volatile Petroleum Hydrocarbon

EPH – Extractable Petroleum Hydrocarbons

Ali – Aliphatic

Arom – Aromatic

Thresholds based on 1.0% soil organic matter

^ – Ali C6-C7 and C7-C8 based on criteria for Ali EC >6-8

* – Ali C16-C21 and C21-C35 based on criteria for Ali EC >16-35

6.2.3 Asbestos Testing

All made ground soil samples were scheduled for asbestos screening.

Asbestos was not detected.

SECTION 7 Quantitative Risk Assessment

7.1 Contaminants of Concern

All substances tested for were found to be present at concentrations below their respective human health threshold level for a commercial setting.

7.2 Mitigation and Remedial Measures

The following sections summarise the likely mitigation and remedial measures suitable for the identified contamination and proposed development. Detailed methodology to achieve the measures should be prescribed in a Remediation Strategy Report and the results presented in a Validation Report upon completion of the development.

7.2.1 Human Health

7.2.1.1 Contaminated Soils

Site specific mitigation and remedial measures are not required with respect to human health.

As good practice, construction workers should adhere to good site management, COSHH, good standards of hygiene and appropriate health & safety on site, with personal protection equipment (PPE) and dust suppression where appropriate.

All imported soils should be validated as clean and suitable for use in accordance with 'Requirements for the Chemical Testing of Imported Soils for Various End Uses and Validation Cover Systems'.

For proposed new supply water pipes, the UK Water Industry Research publication 'Guidance for the Selection of Water Supply Pipes to be used in Brownfield Sites (Report 10/WM/03/21)' should be consulted.

In accordance with EC Regulation 1272/2008 and Environment Agency Guidance WM3 soils destined for off-site disposal should be classified on the basis of their hazard phrases prior to disposal. Soils are classified as a mirror entry waste and should be classified on the basis of their specific chemical properties.

If during earthworks ground conditions are encountered that are markedly different to those found during the investigation, then the ground should be subject to additional sampling and testing and any necessary remedial measures designed and implemented before continuing with the works.

7.2.1.2 Ground Gas/Mine Gas

Based upon the site investigation findings, it is recommended that ground/mine gas monitoring is undertaken on site to assess the likely risk to the proposed future development.

If elevated levels of methane, carbon dioxide or carbon monoxide are present from beneath the site then proposed structures will need to incorporate within its construction a suitable ground gas protection system. The ground gas protection system should be designed, verified, installed and validated in accordance with the British Standard 8485:2015+A1:2019 and CIRIA guidance C735:2014.

7.2.2 Aquatic Environment

Site specific mitigation and remedial measures may be required with respect to the aquatic environment. Contamination and made ground has been found to significant depths within the eastern area of the site.

During the construction period, there is a risk to the environment/adjacent sites from de-watering, digging foundations, moving contaminated soil, drainage misconnections, discharges to local surface waters or the ground, runoff from construction materials and/or exposed ground, wheel washings and oil or chemical spills.

The risk is considered to be negligible as any adverse effects will be easily preventable by due diligence to good construction practise and housekeeping in preventing surface runoff and the spillage of materials.

The basic measures that should be taken are as follows:

- Prepare a drainage plan and mark the manholes to prevent pollutants accidentally reaching the surface water sewers;
- Carry out any activities that could cause pollution in a designated, bunded area, away from rivers or boreholes. Where possible it should drain to the foul sewer;
- Use settlement ponds to remove silty water;
- Store all oils and chemicals in a fully bunded area to prevent leaks or spills;
- Get advice on whether you need an environmental permit and apply in good time

SECTION 8 Recommended Further Works

8.1 General

An intrusive site investigation designed and justified in accordance with guidance provided in BS10175:2011+A2:2017 should be undertaken to achieve the following objectives:

- Identify the potential environmental liabilities at the site associated with any gas, vapour and groundwater contamination from past site uses, to substantiate and enhance the conceptual site model, for a residential scenario with enclosed spaces.

8.1.1 Intrusive Investigation

It is recommended that the following site investigation is undertaken:

- Gas monitoring should be undertaken to assess the potential for the ground beneath the developments to produce ground gas and mine gas.

8.1.2 Geomorphological Survey

Due to the landslide risk identified by the desk study a geomorphological survey should be undertaken of the site and surrounding area including the recorded landslide.

If concerning features are identified additional works in the form of a slope stability assessment may be required.

**Annex A
Envirocheck Report**

Envirocheck[®] Report:

Datasheet

Order Details:

Order Number:

311342604_1_1

Customer Reference:

17782/JRW

National Grid Reference:

284350, 195670

Slice:

A

Site Area (Ha):

0.18

Search Buffer (m):

1000

Site Details:

Bakers DIY Store, Afan Road
Duffryn Rhondda
PORT TALBOT
SA13 3ES

Client Details:

Mr J Rhys-Williams
TFW Group Ltd
5 Deryn Court
Wharfdale Road
Pentwyn
Cardiff
CF23 7HB

Report Section	Page Number
Summary	-
Agency & Hydrological	1
Waste	19
Hazardous Substances	-
Geological	20
Industrial Land Use	26
Sensitive Land Use	27
Data Currency	29
Data Suppliers	35
Useful Contacts	36

Introduction

The Environment Act 1995 has made site sensitivity a key issue, as the legislation pays as much attention to the pathways by which contamination could spread, and to the vulnerable targets of contamination, as it does the potential sources of contamination. For this reason, Landmark's Site Sensitivity maps and Datasheet(s) place great emphasis on statutory data provided by the Environment Agency/Natural Resources Wales and the Scottish Environment Protection Agency; it also incorporates data from Natural England (and the Scottish and Welsh equivalents) and Local Authorities; and highlights hydrogeological features required by environmental and geotechnical consultants. It does not include any information concerning past uses of land. The datasheet is produced by querying the Landmark database to a distance defined by the client from a site boundary provided by the client. In this datasheet the National Grid References (NGRs) are rounded to the nearest 10m in accordance with Landmark's agreements with a number of Data Suppliers.

Copyright Notice

© Landmark Information Group Limited 2023. The Copyright on the information and data and its format as contained in this Envirocheck® Report ("Report") is the property of Landmark Information Group Limited ("Landmark") and several other Data Providers, including (but not limited to) Ordnance Survey, British Geological Survey, the Environment Agency/Natural Resources Wales and Natural England, and must not be reproduced in whole or in part by photocopying or any other method. The Report is supplied under Landmark's Terms and Conditions accepted by the Customer. A copy of Landmark's Terms and Conditions can be found with the Index Map for this report. Additional copies of the Report may be obtained from Landmark, subject to Landmark's charges in force from time to time. The Copyright, design rights and any other intellectual rights shall remain the exclusive property of Landmark and /or other Data providers, whose Copyright material has been included in this Report. © Environment Agency & United Kingdom Research and Innovation 2023. © Natural Resources Wales & United Kingdom Research and Innovation 2023.

Natural England Copyright Notice

Site of Special Scientific Interest, National Nature Reserve, Ramsar, Special Protection Area, Special Conservation Area, Marine Nature Reserve data (derived from Ordnance Survey 1:10000 raster) is provided by, and used with the permission of, Natural England who retain the copyright and Intellectual Property Rights for the data.

Scottish Natural Heritage Copyright

Contains SNH information licensed under the Open Government Licence v3.0.

Ove Arup Copyright Notice

The Mining Instability data was obtained on licence from Ove Arup & Partners Limited (for further information, contact mining.review@arup.com). No reproduction or further use of such Data is to be made without the prior written consent of Ove Arup & Partners Limited. The supplied Mining Instability data is derived from publicly available records and other third party sources and neither Ove Arup & Partners nor Landmark warrant the accuracy or completeness of such information or data.

Stantec Copyright Notice

The cavity data presented has been extracted from the PBA (now Stantec UK Ltd) enhanced version of the original DEFRA national cavity databases. Stantec UK Ltd retain the copyright & intellectual property rights in the data. Whilst all reasonable efforts are made to check that the information contained in the cavity databases is accurate we do not warrant that the data is complete or error free. The information is based upon our own researches and those collated from a number of external sources and is continually being augmented and updated by Stantec UK Ltd. In no event shall Stantec UK Ltd or Landmark be liable for any loss or damage including, without limitation, indirect or consequential loss or damage arising from the use of this data.

Radon Potential dataset Copyright Notice

Information supplied from a joint dataset compiled by The British Geological Survey and Public Health England.

Natural Resources Wales Copyright Notice

Contains Natural Resources Wales information © Natural Resources Wales and Database Right. All rights Reserved. Contains Ordnance Survey Data. Ordnance Survey Licence number 100019741. Crown Copyright and Database Right. Contains Natural Resources Wales information © Natural Resources Wales and Database Right. All rights Reserved. Some features of this information are based on digital spatial data licensed from the Centre for Ecology & Hydrology © NERC (CEH). Defra, Met Office and DARD Rivers Agency © Crown copyright. © Cranfield University. © James Hutton Institute. Contains OS data © Crown copyright and database right 2023. Land & Property Services © Crown copyright and database right.

Report Version v53.0

Data Type	Page Number	On Site	0 to 250m	251 to 500m	501 to 1000m (*up to 2000m)
Agency & Hydrological					
BGS Groundwater Flooding Susceptibility	pg 1	Yes	Yes	Yes	n/a
Contaminated Land Register Entries and Notices					
Discharge Consents	pg 2				12
Prosecutions Relating to Controlled Waters			n/a	n/a	n/a
Enforcement and Prohibition Notices					
Integrated Pollution Controls					
Integrated Pollution Prevention And Control					
Local Authority Integrated Pollution Prevention And Control					
Local Authority Pollution Prevention and Controls					
Local Authority Pollution Prevention and Control Enforcements					
Nearest Surface Water Feature	pg 4		Yes		
Pollution Incidents to Controlled Waters	pg 5				1
Prosecutions Relating to Authorised Processes					
Registered Radioactive Substances					
River Quality	pg 5		1		
River Quality Biology Sampling Points					
River Quality Chemistry Sampling Points					
Substantiated Pollution Incident Register					
Water Abstractions					
Water Industry Act Referrals					
Groundwater Vulnerability Map	pg 5	Yes	n/a	n/a	n/a
Bedrock Aquifer Designations	pg 5	Yes	n/a	n/a	n/a
Superficial Aquifer Designations	pg 5	Yes	n/a	n/a	n/a
Source Protection Zones					
Extreme Flooding from Rivers or Sea without Defences	pg 5		Yes	n/a	n/a
Flooding from Rivers or Sea without Defences	pg 5		Yes	n/a	n/a
Areas Benefiting from Flood Defences				n/a	n/a
Flood Water Storage Areas				n/a	n/a
Flood Defences				n/a	n/a
OS Water Network Lines	pg 6		15	26	73

Data Type	Page Number	On Site	0 to 250m	251 to 500m	501 to 1000m (*up to 2000m)
Waste					
BGS Recorded Landfill Sites					
Historical Landfill Sites					
Integrated Pollution Control Registered Waste Sites					
Licensed Waste Management Facilities (Landfill Boundaries)					
Licensed Waste Management Facilities (Locations)					
Local Authority Landfill Coverage		1	n/a	n/a	n/a
Local Authority Recorded Landfill Sites					
Potentially Infilled Land (Non-Water)	pg 19				2
Potentially Infilled Land (Water)	pg 19		1		3
Registered Landfill Sites					
Registered Waste Transfer Sites					
Registered Waste Treatment or Disposal Sites					
Hazardous Substances					
Control of Major Accident Hazards Sites (COMAH)					
Explosive Sites					
Notification of Installations Handling Hazardous Substances (NIHHS)					
Planning Hazardous Substance Consents					
Planning Hazardous Substance Enforcements					

Data Type	Page Number	On Site	0 to 250m	251 to 500m	501 to 1000m (*up to 2000m)
Geological					
BGS 1:625,000 Solid Geology	pg 20	Yes	n/a	n/a	n/a
BGS Estimated Soil Chemistry	pg 20	Yes	Yes	Yes	Yes
BGS Recorded Mineral Sites	pg 22		3		9
BGS Urban Soil Chemistry					
BGS Urban Soil Chemistry Averages					
CBSCB Compensation District			n/a	n/a	n/a
Coal Mining Affected Areas	pg 24	Yes	n/a	n/a	n/a
Mining Instability	pg 24	Yes	n/a	n/a	n/a
Man-Made Mining Cavities					
Natural Cavities					
Non Coal Mining Areas of Great Britain				n/a	n/a
Potential for Collapsible Ground Stability Hazards	pg 24	Yes		n/a	n/a
Potential for Compressible Ground Stability Hazards				n/a	n/a
Potential for Ground Dissolution Stability Hazards				n/a	n/a
Potential for Landslide Ground Stability Hazards	pg 24	Yes	Yes	n/a	n/a
Potential for Running Sand Ground Stability Hazards	pg 25	Yes		n/a	n/a
Potential for Shrinking or Swelling Clay Ground Stability Hazards	pg 25	Yes	Yes	n/a	n/a
Radon Potential - Radon Affected Areas			n/a	n/a	n/a
Radon Potential - Radon Protection Measures			n/a	n/a	n/a
Industrial Land Use					
Contemporary Trade Directory Entries					
Fuel Station Entries					
Points of Interest - Commercial Services					
Points of Interest - Education and Health					
Points of Interest - Manufacturing and Production	pg 26	1	1		
Points of Interest - Public Infrastructure	pg 26		2	2	3
Points of Interest - Recreational and Environmental	pg 26			2	
Gas Pipelines					
Underground Electrical Cables					

Data Type	Page Number	On Site	0 to 250m	251 to 500m	501 to 1000m (*up to 2000m)
Sensitive Land Use					
Ancient Woodland	pg 27		1	7	9
Areas of Adopted Green Belt					
Areas of Unadopted Green Belt					
Areas of Outstanding Natural Beauty					
Environmentally Sensitive Areas					
Forest Parks	pg 28		1		
Local Nature Reserves					
Marine Nature Reserves					
National Nature Reserves					
National Parks					
Nitrate Sensitive Areas					
Nitrate Vulnerable Zones					
Ramsar Sites					
Sites of Special Scientific Interest					
Special Areas of Conservation					
Special Protection Areas					
World Heritage Sites					

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
	BGS Groundwater Flooding Susceptibility Flooding Type: Limited Potential for Groundwater Flooding to Occur	A13NE (N)	0	1	284347 195666
	BGS Groundwater Flooding Susceptibility Flooding Type: Limited Potential for Groundwater Flooding to Occur	A13NE (N)	20	1	284347 195700
	BGS Groundwater Flooding Susceptibility Flooding Type: Limited Potential for Groundwater Flooding to Occur	A13NE (NE)	71	1	284400 195750
	BGS Groundwater Flooding Susceptibility Flooding Type: Limited Potential for Groundwater Flooding to Occur	A13SE (SE)	100	1	284400 195550
	BGS Groundwater Flooding Susceptibility Flooding Type: Potential for Groundwater Flooding of Property Situated Below Ground Level	A13NE (N)	120	1	284350 195800
	BGS Groundwater Flooding Susceptibility Flooding Type: Potential for Groundwater Flooding of Property Situated Below Ground Level	A13NE (NE)	166	1	284500 195800
	BGS Groundwater Flooding Susceptibility Flooding Type: Limited Potential for Groundwater Flooding to Occur	A13NE (N)	170	1	284350 195850
	BGS Groundwater Flooding Susceptibility Flooding Type: Limited Potential for Groundwater Flooding to Occur	A13NE (N)	170	1	284347 195850
	BGS Groundwater Flooding Susceptibility Flooding Type: Limited Potential for Groundwater Flooding to Occur	A13NE (NE)	204	1	284550 195800
	BGS Groundwater Flooding Susceptibility Flooding Type: Potential for Groundwater Flooding of Property Situated Below Ground Level	A13NW (NW)	206	1	284200 195850
	BGS Groundwater Flooding Susceptibility Flooding Type: Potential for Groundwater Flooding of Property Situated Below Ground Level	A13NE (NE)	236	1	284550 195850
	BGS Groundwater Flooding Susceptibility Flooding Type: Limited Potential for Groundwater Flooding to Occur	A13SE (S)	250	1	284400 195400
	BGS Groundwater Flooding Susceptibility Flooding Type: Limited Potential for Groundwater Flooding to Occur	A13NE (NE)	307	1	284600 195900
	BGS Groundwater Flooding Susceptibility Flooding Type: Limited Potential for Groundwater Flooding to Occur	A13NE (NE)	378	1	284650 195950
	BGS Groundwater Flooding Susceptibility Flooding Type: Limited Potential for Groundwater Flooding to Occur	A12SE (W)	397	1	283900 195650
	BGS Groundwater Flooding Susceptibility Flooding Type: Potential for Groundwater Flooding to Occur at Surface	A12NE (W)	418	1	283900 195800
	BGS Groundwater Flooding Susceptibility Flooding Type: Potential for Groundwater Flooding of Property Situated Below Ground Level	A12NE (NW)	447	1	283950 195950
	BGS Groundwater Flooding Susceptibility Flooding Type: Potential for Groundwater Flooding of Property Situated Below Ground Level	A12NE (W)	466	1	283850 195800

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
1	Discharge Consents Operator: Dwr Cymru Cyfyngedig Property Type: Sewerage Network - Sewers - Water Company Location: Duffryn Cso, Afan Road, Dyffryn Rhondda, Port Talbot, Sa13 3es Authority: Natural Resources Wales Catchment Area: AFAN - CONF WITH CORRWG TO CONFLUENCE WITH PELENNNA Reference: Bp0028608 Permit Version: 2 Effective Date: 21st October 2019 Issued Date: 21st October 2019 Revocation Date: Not Supplied Discharge Type: Sewage Discharges - Stw Storm Overflow/Storm Tank - Water Company Discharge: Freshwater Stream/River Environment: Receiving Water: River Afan Status: Effective Positional Accuracy: Located by supplier to within 10m	A12NW (W)	670	2	283652 195851
2	Discharge Consents Operator: Dwr Cymru Cyfyngedig Property Type: Sewerage Network - Pumping Staions Location: Abercregan Ps, Abercregan Road, Abercregan, Cymmer, Sa13 3lj Authority: Natural Resources Wales Catchment Area: AFAN - CONF WITH CORRWG TO CONFLUENCE WITH PELENNNA Reference: Bp0028601 Permit Version: 3 Effective Date: 17th December 2019 Issued Date: 17th December 2019 Revocation Date: Not Supplied Discharge Type: Sewage Discharges - Stw Storm Overflow/Storm Tank - Water Company Discharge: Freshwater Stream/River Environment: Receiving Water: Afon Afan Status: Effective Positional Accuracy: Located by supplier to within 10m	A19SW (NE)	719	2	284757 196296
2	Discharge Consents Operator: Dwr Cymru Cyfyngedig Property Type: Sewerage Network - Pumping Staions Location: Abercregan Ps, Abercregan Road, Abercregan, Cymmer, Sa13 3lj Authority: Natural Resources Wales Catchment Area: AFAN - CONF WITH CORRWG TO CONFLUENCE WITH PELENNNA Reference: Bp0028601 Permit Version: 3 Effective Date: 17th December 2019 Issued Date: 17th December 2019 Revocation Date: Not Supplied Discharge Type: Sewage Discharges - Pumping Station - Water Company Discharge: Freshwater Stream/River Environment: Receiving Water: Afon Afan Status: Effective Positional Accuracy: Located by supplier to within 10m	A19SW (NE)	719	2	284757 196296
2	Discharge Consents Operator: Dwr Cymru Cyfyngedig Property Type: Sewerage Network - Pumping Staions Location: Abergregan Pumping Station Afan, Abergregan Pumping Staion, Abergregan, Afan, Neath Port Talbot Cbc Authority: Natural Resources Wales Catchment Area: AFAN - CONF WITH CORRWG TO CONFLUENCE WITH PELENNNA Reference: Bp0028601 Permit Version: 2 Effective Date: 11th March 2003 Issued Date: 11th March 2003 Revocation Date: Not Supplied Discharge Type: Sewage Discharges - Pumping Station - Water Company Discharge: Freshwater Stream/River Environment: Receiving Water: River Afan Status: Effective Positional Accuracy: Located by supplier to within 10m	A19SW (NE)	719	2	284757 196296

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
2	Discharge Consents Operator: Dwr Cymru Cyfyngedig Property Type: Sewerage Network - Pumping Staions Location: Abergregan Pumping Station Afan, Abergregan Pumping Staion, Abergregan, Afan, Neath Port Talbot Cbc Authority: Natural Resources Wales Catchment Area: AFAN - CONF WITH CORRWG TO CONFLUENCE WITH PELENNNA Reference: Bp0028601 Permit Version: 2 Effective Date: 11th March 2003 Issued Date: 11th March 2003 Revocation Date: Not Supplied Discharge Type: Sewage Discharges - Pumping Station - Water Company Discharge: Freshwater Stream/River Environment: Receiving Water: River Afan Status: Effective Positional Accuracy: Located by supplier to within 10m	A19SW (NE)	719	2	284757 196296
2	Discharge Consents Operator: Dwr Cymru Cyfyngedig Property Type: Sewerage Network - Pumping Staions Location: Abergregan Pumping Station Afan, Abergregan Pumping Staion, Abergregan, Afan, Neath Port Talbot Cbc Authority: Natural Resources Wales Catchment Area: AFAN - CONF WITH CORRWG TO CONFLUENCE WITH PELENNNA Reference: Bp0028601 Permit Version: 2 Effective Date: 11th March 2003 Issued Date: 11th March 2003 Revocation Date: Not Supplied Discharge Type: Sewage Discharges - Pumping Station - Water Company Discharge: Freshwater Stream/River Environment: Receiving Water: River Afan Status: Effective Positional Accuracy: Located by supplier to within 10m	A19SW (NE)	719	2	284757 196296
2	Discharge Consents Operator: Dwr Cymru Cyfyngedig Property Type: Sewerage Network - Pumping Staions Location: Abergregan Pumping Station Afan, Abergregan Pumping Staion, Abergregan, Afan, Neath Port Talbot Cbc Authority: Natural Resources Wales Catchment Area: AFAN - CONF WITH CORRWG TO CONFLUENCE WITH PELENNNA Reference: Bp0028601 Permit Version: 2 Effective Date: 11th March 2003 Issued Date: 11th March 2003 Revocation Date: Not Supplied Discharge Type: Sewage Discharges - Pumping Station - Water Company Discharge: Freshwater Stream/River Environment: Receiving Water: River Afan Status: Effective Positional Accuracy: Located by supplier to within 10m	A19SW (NE)	719	2	284757 196296
2	Discharge Consents Operator: Dwr Cymru Cyfyngedig Property Type: Sewerage Network - Pumping Station - Water Company Location: Emergency Dis. Abercregan Pump Authority: Natural Resources Wales Catchment Area: River Afan Reference: BP0028601 Permit Version: 1 Effective Date: 1st April 1987 Issued Date: 1st April 1987 Revocation Date: 10th March 2003 Discharge Type: Unspecified Discharge: Not Supplied Environment: Receiving Water: River Afan Status: New Consent, by Application (Water Resources Act 1991, Section 88) Positional Accuracy: Located by supplier to within 100m	A19SW (NE)	765	2	284790 196330

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
2	Discharge Consents Operator: Dwr Cymru Cyfyngedig Property Type: Sewerage Network - Pumping Staions Location: Emergency Dis. Abercregan Pump Authority: Natural Resources Wales Catchment Area: AFAN - CONF WITH CORRWG TO CONFLUENCE WITH PELENNNA Reference: BP0028610 Permit Version: 1 Effective Date: 1st April 1987 Issued Date: 1st April 1987 Revocation Date: Not Supplied Discharge Type: Sewage Discharges - Stw Storm Overflow/Storm Tank - Water Company Discharge: Freshwater Stream/River Environment: Receiving Water: River Afan Status: Effective Positional Accuracy: Located by supplier to within 10m	A19SW (NE)	765	2	284790 196330
2	Discharge Consents Operator: Dwr Cymru Cyfyngedig Property Type: Sewerage Network - Pumping Staions Location: Emergency Dis. Abercregan Pump Authority: Natural Resources Wales Catchment Area: AFAN - CONF WITH CORRWG TO CONFLUENCE WITH PELENNNA Reference: Bp0028610 Permit Version: 1 Effective Date: 1st April 1987 Issued Date: 1st April 1987 Revocation Date: Not Supplied Discharge Type: Sewage Discharges - Stw Storm Overflow/Storm Tank - Water Company Discharge: Freshwater Stream/River Environment: Receiving Water: River Afan Status: Surrendered Positional Accuracy: Located by supplier to within 10m	A19SW (NE)	765	2	284790 196330
3	Discharge Consents Operator: Dwr Cymru Cyfyngedig Property Type: Sewerage Network - Sewers - Water Company Location: Duffryn Stormwater Overflow Chamber Authority: Natural Resources Wales Catchment Area: AFAN - CONF WITH CORRWG TO CONFLUENCE WITH PELENNNA Reference: BP0028608 Permit Version: 1 Effective Date: 1st April 1987 Issued Date: 1st April 1987 Revocation Date: Not Supplied Discharge Type: Sewage Discharges - Stw Storm Overflow/Storm Tank - Water Company Discharge: Freshwater Stream/River Environment: Receiving Water: River Afan Status: Effective Positional Accuracy: Located by supplier to within 100m	A12NW (W)	719	2	283610 195880
3	Discharge Consents Operator: Dwr Cymru Cyfyngedig Property Type: Sewerage Network - Sewers - Water Company Location: Duffryn Stormwater Overflow Chamber Authority: Natural Resources Wales Catchment Area: AFAN - CONF WITH CORRWG TO CONFLUENCE WITH PELENNNA Reference: Bp0028608 Permit Version: 1 Effective Date: 1st April 1987 Issued Date: 1st April 1987 Revocation Date: Not Supplied Discharge Type: Sewage Discharges - Stw Storm Overflow/Storm Tank - Water Company Discharge: Freshwater Stream/River Environment: Receiving Water: River Afan Status: Effective Positional Accuracy: Located by supplier to within 10m	A12NW (W)	719	2	283610 195880
	Nearest Surface Water Feature	A13NE (N)	20	-	284347 195700

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
4	Pollution Incidents to Controlled Waters Property Type: Water Company Sewage: Storm Overflow Location: Pumping Station, CYMMER Authority: Environment Agency, Welsh Region Pollutant: Miscellaneous - Tip Leachate Note: Inadequate Design/Capacity Incident Date: 14th February 1992 Incident Reference: 3690 Catchment Area: Not Given Receiving Water: Not Given Cause of Incident: Overflow Incident Severity: Category 3 - Minor Incident Positional Accuracy: Located by supplier to within 100m	A19SE (NE)	946	3	285100 196300
	River Quality Name: Afan GQA Grade: River Quality A Reach: Conf.Afon(Cwm Yr Argoed)-Confafon Corwg Estimated Distance (km): 5.2 Flow Rate: Flow less than 2.5 cumecs Flow Type: River Year: 2000	A13NE (NE)	75	3	284395 195755
	Groundwater Vulnerability Map Combined Classification: Secondary Bedrock Aquifer - Medium Vulnerability Combined Vulnerability: Medium Combined Aquifer: Productive Bedrock Aquifer, Productive Superficial Aquifer Pollutant Speed: Low Bedrock Flow: Well Connected Fractures Dilution: >550 mm/year Baseflow Index: <40% Superficial: <90% Patchiness: <3m Superficial Thickness: No Data Superficial Recharge:	A13NE (N)	0	2	284347 195666
	Groundwater Vulnerability Map Combined Classification: Secondary Bedrock Aquifer - Medium Vulnerability Combined Vulnerability: Medium Combined Aquifer: Productive Bedrock Aquifer, No Superficial Aquifer Pollutant Speed: Low Bedrock Flow: Well Connected Fractures Dilution: >550 mm/year Baseflow Index: <40% Superficial: <90% Patchiness: <3m Superficial Thickness: No Data Superficial Recharge:	A13SW (SW)	0	2	284336 195651
	Bedrock Aquifer Designations Aquifer Designation: Secondary Aquifer - A	A13NE (N)	0	2	284347 195666
	Superficial Aquifer Designations Aquifer Designation: Secondary Aquifer - Undifferentiated	A13NE (N)	0	2	284347 195666
	Extreme Flooding from Rivers or Sea without Defences Type: Extent of Extreme Flooding from Rivers or Sea without Defences Flood Plain Type: Fluvial Models Boundary Accuracy: As Supplied	A13NE (N)	120	2	284397 195805
	Flooding from Rivers or Sea without Defences Type: Extent of Flooding from Rivers or Sea without Defences Flood Plain Type: Fluvial Models Boundary Accuracy: As Supplied	A13NE (N)	121	2	284399 195805
	Areas Benefiting from Flood Defences None				
	Flood Water Storage Areas None				
	Flood Defences None				

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
5	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 69.5 Watercourse Level: On ground surface Permanent: True Watercourse Name: Nant Tryfal Catchment Name: Afan Primacy: 1	A13NE (E)	16	4	284405 195667
6	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 177.5 Watercourse Level: On ground surface Permanent: True Watercourse Name: Nant Tryfal Catchment Name: Afan Primacy: 1	A13NE (N)	20	4	284347 195700
7	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 508.7 Watercourse Level: On ground surface Permanent: True Watercourse Name: Nant Tryfal Catchment Name: Afan Primacy: 1	A13SE (SE)	23	4	284405 195634
8	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 343.5 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Afan Primacy: 1	A13NE (NE)	30	4	284404 195704
9	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 3.3 Watercourse Level: Underground Permanent: True Watercourse Name: Nant Tryfal Catchment Name: Afan Primacy: 1	A13NW (W)	82	4	284228 195712
10	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 68.8 Watercourse Level: On ground surface Permanent: True Watercourse Name: Nant Tryfal Catchment Name: Afan Primacy: 1	A13NW (W)	85	4	284224 195713
11	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 827.5 Watercourse Level: On ground surface Permanent: True Watercourse Name: Afon Afan Catchment Name: Afan Primacy: 1	A13NE (NE)	131	4	284411 195811
12	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 43.4 Watercourse Level: Underground Permanent: True Watercourse Name: Not Supplied Catchment Name: Afan Primacy: 1	A13NW (W)	141	4	284158 195691
13	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 19.4 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Afan Primacy: 1	A13NW (W)	142	4	284159 195702

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
14	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 66.4 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Afan Primacy: 1	A13SW (W)	143	4	284154 195659
15	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 180.7 Watercourse Level: On ground surface Permanent: True Watercourse Name: Nant Tryfal Catchment Name: Afan Primacy: 1	A13NW (W)	150	4	284156 195721
16	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 20.2 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Afan Primacy: 1	A13SW (W)	158	4	284157 195593
17	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 25.9 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Afan Primacy: 1	A13SW (W)	158	4	284157 195593
18	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 151.0 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Afan Primacy: 1	A13SW (W)	179	4	284140 195582
19	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 179.5 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Afan Primacy: 1	A13SW (W)	179	4	284140 195582
20	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 53.2 Watercourse Level: Underground Permanent: True Watercourse Name: Nant Tryfal Catchment Name: Afan Primacy: 1	A12NE (W)	329	4	283977 195743
21	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 126.7 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Afan Primacy: 1	A13SW (SW)	332	4	284007 195507
22	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 140.1 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Afan Primacy: 1	A13SW (SW)	336	4	284013 195489

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
23	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 467.9 Watercourse Level: On ground surface Permanent: True Watercourse Name: Afon Afan Catchment Name: Afan Primacy: 1	A13NE (NE)	369	4	284638 195949
24	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 88.3 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Afan Primacy: 1	A13NE (NE)	369	4	284638 195949
25	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 71.4 Watercourse Level: On ground surface Permanent: True Watercourse Name: Nant Tryfal Catchment Name: Afan Primacy: 1	A12NE (W)	371	4	283946 195786
26	OS Water Network Lines Watercourse Form: Lake Watercourse Length: 12.7 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Afan Primacy: 1	A14NW (NE)	386	4	284705 195896
27	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 0.6 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Afan Primacy: 1	A14NW (NE)	390	4	284715 195888
28	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 18.8 Watercourse Level: Underground Permanent: True Watercourse Name: Not Supplied Catchment Name: Afan Primacy: 1	A14NW (NE)	390	4	284715 195888
29	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 167.9 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Afan Primacy: 1	A13SW (SW)	391	4	284101 195330
30	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 255.6 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Afan Primacy: 1	A14NW (NE)	397	4	284730 195876
31	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 247.1 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Afan Primacy: 1	A12NE (W)	415	4	283882 195678

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
32	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 132.7 Watercourse Level: On ground surface Permanent: True Watercourse Name: Afan Afan Catchment Name: Afan Primacy: 1	A12NE (NW)	420	4	283917 195849
33	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 6.5 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Afan Primacy: 1	A12SE (W)	441	4	283881 195521
34	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 105.7 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Afan Primacy: 1	A12SE (SW)	443	4	283950 195392
35	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 53.9 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Afan Primacy: 1	A12SE (SW)	443	4	283950 195392
36	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 56.7 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Afan Primacy: 2	A12SE (W)	446	4	283875 195523
37	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 83.7 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Afan Primacy: 1	A12SE (W)	446	4	283875 195523
38	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 76.1 Watercourse Level: On ground surface Permanent: True Watercourse Name: Nant Tryfal Catchment Name: Afan Primacy: 1	A8NE (S)	447	4	284432 195204
39	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 59.6 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Afan Primacy: 1	A8NE (S)	447	4	284432 195204
40	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 4.5 Watercourse Level: Underground Permanent: True Watercourse Name: Not Supplied Catchment Name: Afan Primacy: 1	A8NE (S)	465	4	284380 195185

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
41	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 75.7 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Afan Primacy: 1	A12SE (SW)	466	4	283876 195467
42	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 236.9 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Afan Primacy: 1	A8NE (S)	468	4	284375 195182
43	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 258.3 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Afan Primacy: 1	A8NW (SW)	474	4	284068 195250
44	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 136.7 Watercourse Level: On ground surface Permanent: True Watercourse Name: Blaen Nant Catchment Name: Afan Primacy: 1	A12SE (W)	498	4	283806 195584
45	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 29.0 Watercourse Level: On ground surface Permanent: True Watercourse Name: Blaen Nant Catchment Name: Afan Primacy: 1	A12NE (W)	499	4	283798 195689
46	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 172.2 Watercourse Level: On ground surface Permanent: True Watercourse Name: Nant Tryfal Catchment Name: Afan Primacy: 1	A8NE (S)	506	4	284451 195148
47	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 80.3 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Afan Primacy: 1	A8NE (S)	506	4	284451 195148
48	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 4.6 Watercourse Level: On ground surface Permanent: True Watercourse Name: Blaen Nant Catchment Name: Afan Primacy: 1	A12NE (W)	507	4	283791 195702
49	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 129.8 Watercourse Level: Not Supplied Permanent: True Watercourse Name: Blaen Nant Catchment Name: Afan Primacy: 1	A12NE (W)	508	4	283790 195707

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
50	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 213.4 Watercourse Level: On ground surface Permanent: True Watercourse Name: Blaen Nant Catchment Name: Afan Primacy: 1	A12SE (W)	508	4	283822 195488
51	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 43.7 Watercourse Level: On ground surface Permanent: True Watercourse Name: Blaen Nant Catchment Name: Afan Primacy: 1	A12SE (W)	509	4	283814 195508
52	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 15.5 Watercourse Level: On ground surface Permanent: True Watercourse Name: Blaen Nant Catchment Name: Afan Primacy: 1	A12SE (W)	513	4	283797 195552
53	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 165.1 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Afan Primacy: 1	A12SE (W)	514	4	283799 195538
54	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 12.7 Watercourse Level: On ground surface Permanent: True Watercourse Name: Blaen Nant Catchment Name: Afan Primacy: 1	A12NE (W)	530	4	283794 195836
55	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 8.5 Watercourse Level: Underground Permanent: True Watercourse Name: Not Supplied Catchment Name: Afan Primacy: 1	A14NW (E)	535	4	284920 195732
56	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 99.4 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Afan Primacy: 1	A14NW (E)	538	4	284924 195725
57	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 329.3 Watercourse Level: On ground surface Permanent: True Watercourse Name: Afon Afan Catchment Name: Afan Primacy: 1	A12NE (W)	540	4	283788 195848
58	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 5.0 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Afan Primacy: 1	A8NE (S)	542	4	284382 195108

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
59	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 85.0 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Afan Primacy: 1	A8NE (S)	546	4	284378 195104
60	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 6.6 Watercourse Level: Underground Permanent: True Watercourse Name: Blaen Nant Catchment Name: Afan Primacy: 1	A7NE (SW)	575	4	283837 195323
61	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 11.2 Watercourse Level: On ground surface Permanent: True Watercourse Name: Blaen Nant Catchment Name: Afan Primacy: 1	A7NE (SW)	578	4	283839 195316
62	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 262.8 Watercourse Level: On ground surface Permanent: True Watercourse Name: Blaen Nant Catchment Name: Afan Primacy: 1	A7NE (SW)	586	4	283836 195305
63	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 7.2 Watercourse Level: Underground Permanent: True Watercourse Name: Not Supplied Catchment Name: Afan Primacy: 1	A14SW (E)	594	4	284982 195660
64	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 158.6 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Afan Primacy: 1	A14SW (E)	598	4	284986 195654
65	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 349.9 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Afan Primacy: 1	A8NE (S)	649	4	284508 195012
66	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 17.4 Watercourse Level: On ground surface Permanent: True Watercourse Name: Nant Tryfal Catchment Name: Afan Primacy: 1	A8NE (S)	649	4	284508 195012
67	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 52.5 Watercourse Level: On ground surface Permanent: True Watercourse Name: Nant Tryfal Catchment Name: Afan Primacy: 1	A8NE (S)	665	4	284504 194995

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
68	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 74.1 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Afan Primacy: 1	A14NE (E)	696	4	285081 195736
69	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 47.0 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Afan Primacy: 1	A19SW (NE)	704	4	284857 196202
70	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 1626.7 Watercourse Level: On ground surface Permanent: True Watercourse Name: Nant Tryfal Catchment Name: Afan Primacy: 1	A8SE (S)	710	4	284507 194950
71	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 66.2 Watercourse Level: Not Supplied Permanent: True Watercourse Name: Not Supplied Catchment Name: Afan Primacy: 1	A8SE (S)	710	4	284507 194950
72	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 15.5 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Afan Primacy: 1	A19SW (NE)	729	4	284946 196146
73	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 5.5 Watercourse Level: Underground Permanent: True Watercourse Name: Blaen Nant Catchment Name: Afan Primacy: 1	A7NE (SW)	733	4	283854 195084
74	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 96.5 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Afan Primacy: 1	A19SW (NE)	734	4	284934 196167
75	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 157.0 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Afan Primacy: 1	A19SW (NE)	735	4	284942 196161
76	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 12.8 Watercourse Level: On ground surface Permanent: True Watercourse Name: Blaen Nant Catchment Name: Afan Primacy: 1	A7NE (SW)	735	4	283857 195079

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
77	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 4.0 Watercourse Level: Underground Permanent: True Watercourse Name: Blaen Nant Catchment Name: Afan Primacy: 1	A7NE (SW)	742	4	283861 195068
78	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 176.1 Watercourse Level: On ground surface Permanent: True Watercourse Name: Blaen Nant Catchment Name: Afan Primacy: 1	A7NE (SW)	746	4	283860 195064
79	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 18.1 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Afan Primacy: 1	A19SW (NE)	751	4	284888 196238
80	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 493.3 Watercourse Level: On ground surface Permanent: True Watercourse Name: Nanthriwgregen Catchment Name: Afan Primacy: 1	A17SE (NW)	752	4	283728 196160
81	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 52.0 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Afan Primacy: 1	A8SE (S)	762	4	284557 194907
82	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 6.6 Watercourse Level: Underground Permanent: True Watercourse Name: Not Supplied Catchment Name: Afan Primacy: 1	A19SW (NE)	764	4	284888 196256
83	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 10.9 Watercourse Level: Underground Permanent: True Watercourse Name: Nanthriwgregen Catchment Name: Afan Primacy: 1	A17SE (NW)	769	4	283778 196236
84	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 58.6 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Afan Primacy: 1	A19SW (NE)	771	4	284893 196260
85	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 51.1 Watercourse Level: On ground surface Permanent: True Watercourse Name: Nanthriwgregen Catchment Name: Afan Primacy: 1	A17SE (NW)	776	4	283780 196247

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
86	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 78.3 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Afan Primacy: 1	A17SE (NW)	788	4	283877 196335
87	OS Water Network Lines Watercourse Form: Marsh Watercourse Length: 20.7 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Afan Primacy: 1	A17SE (NW)	801	4	283809 196303
88	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 151.1 Watercourse Level: On ground surface Permanent: True Watercourse Name: Afan Afan Catchment Name: Afan Primacy: 1	A19NW (NE)	802	4	284832 196346
89	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 120.4 Watercourse Level: On ground surface Permanent: True Watercourse Name: Nant Cregan Catchment Name: Afan Primacy: 1	A19NW (NE)	802	4	284832 196346
90	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 23.9 Watercourse Level: On ground surface Permanent: True Watercourse Name: Nanthrhiwrgregan Catchment Name: Afan Primacy: 1	A17SE (NW)	806	4	283789 196294
91	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 1.2 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Afan Primacy: 1	A17SE (NW)	806	4	283790 196294
92	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 5.5 Watercourse Level: Underground Permanent: True Watercourse Name: Not Supplied Catchment Name: Afan Primacy: 1	A8SE (S)	806	4	284595 194871
93	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 193.8 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Afan Primacy: 1	A8SE (S)	811	4	284599 194867
94	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 117.4 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Afan Primacy: 1	A14SE (E)	828	4	285161 195355

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
95	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 62.2 Watercourse Level: On ground surface Permanent: True Watercourse Name: Nanthriwrgregen Catchment Name: Afan Primacy: 1	A17SE (NW)	828	4	283784 196317
96	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 65.1 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Afan Primacy: 1	A17SE (NW)	828	4	283784 196318
97	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 52.4 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Afan Primacy: 1	A17NE (NW)	836	4	283838 196367
98	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 3.5 Watercourse Level: Underground Permanent: True Watercourse Name: Not Supplied Catchment Name: Afan Primacy: 1	A17NE (NW)	837	4	283831 196363
99	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 11.5 Watercourse Level: Underground Permanent: True Watercourse Name: Not Supplied Catchment Name: Afan Primacy: 1	A17NE (NW)	842	4	283871 196394
100	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 68.3 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Afan Primacy: 1	A17NE (NW)	848	4	283876 196404
101	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 73.5 Watercourse Level: On ground surface Permanent: True Watercourse Name: Nant Cregan Catchment Name: Afan Primacy: 1	A19NW (NE)	853	4	284769 196442
102	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 265.6 Watercourse Level: On ground surface Permanent: True Watercourse Name: Afon Afan Catchment Name: Afan Primacy: 1	A12NW (W)	862	4	283468 195904
103	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 36.3 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Afan Primacy: 1	A17NE (NW)	884	4	283778 196384

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
104	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 190.9 Watercourse Level: On ground surface Permanent: True Watercourse Name: Nanthriwgregen Catchment Name: Afan Primacy: 1	A17NE (NW)	885	4	283766 196377
105	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 214.3 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Ogmores Primacy: 1	A9SW (SE)	888	4	284889 194916
106	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 2.9 Watercourse Level: Underground Permanent: True Watercourse Name: Not Supplied Catchment Name: Afan Primacy: 1	A17NE (NW)	890	4	283792 196401
107	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 319.2 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Afan Primacy: 1	A17NE (NW)	892	4	283793 196404
108	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 60.6 Watercourse Level: On ground surface Permanent: True Watercourse Name: Blaen Nant Catchment Name: Afan Primacy: 1	A7SE (SW)	898	4	283823 194906
109	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 222.0 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Afan Primacy: 1	A7SE (SW)	898	4	283823 194906
110	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 10.8 Watercourse Level: Underground Permanent: True Watercourse Name: Not Supplied Catchment Name: Afan Primacy: 1	A17NE (NW)	899	4	283889 196469
111	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 47.8 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Afan Primacy: 1	A17NE (NW)	903	4	283896 196478
112	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 193.9 Watercourse Level: On ground surface Permanent: True Watercourse Name: Nant Cregan Catchment Name: Afan Primacy: 1	A19NW (NE)	916	4	284760 196515

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
113	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 152.9 Watercourse Level: On ground surface Permanent: True Watercourse Name: Afon Afan Catchment Name: Afan Primacy: 1	A19NW (NE)	936	4	284965 196415
114	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 139.0 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Afan Primacy: 1	A19NW (NE)	936	4	284965 196415
115	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 3.4 Watercourse Level: Underground Permanent: True Watercourse Name: Blaen Nant Catchment Name: Afan Primacy: 1	A7SE (SW)	952	4	283806 194852
116	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 72.9 Watercourse Level: On ground surface Permanent: True Watercourse Name: Blaen Nant Catchment Name: Afan Primacy: 1	A7SE (SW)	955	4	283806 194849
117	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 148.4 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Ogmore Primacy: 1	A9SE (SE)	982	4	285105 194980
118	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 246.1 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Ogmore Primacy: 1	A9NE (E)	982	4	285307 195305

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
	Local Authority Landfill Coverage Name: Neath Port Talbot County Borough Council - Has supplied landfill data		0	5	284347 195666
	Local Authority Landfill Coverage Name: Bridgend County Borough Council - Has supplied landfill data		764	6	285047 195264
119	Potentially Infilled Land (Non-Water) Bearing Ref: SW Use: Unknown Filled Ground (Pit, quarry etc) Date of Mapping: 1988	A7NE (SW)	686	-	283813 195182
120	Potentially Infilled Land (Non-Water) Bearing Ref: NW Use: Unknown Filled Ground (Pit, quarry etc) Date of Mapping: 1988	A17NE (NW)	998	-	283691 196460
121	Potentially Infilled Land (Water) Use: Unknown Filled Ground (Pond, marsh, river, stream, dock etc) Date of Mapping: 1900	A13NE (N)	151	-	284377 195831
122	Potentially Infilled Land (Water) Use: Unknown Filled Ground (Pond, marsh, river, stream, dock etc) Date of Mapping: 1938	A19SW (NE)	655	-	284746 196227
123	Potentially Infilled Land (Water) Use: Unknown Filled Ground (Pond, marsh, river, stream, dock etc) Date of Mapping: 1884	A19SW (NE)	735	-	284815 196277
124	Potentially Infilled Land (Water) Use: Unknown Filled Ground (Pond, marsh, river, stream, dock etc) Date of Mapping: 1938	A19SE (NE)	960	-	285234 196129

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
	BGS 1:625,000 Solid Geology Description: South Wales Upper Coal Measures Formation	A13NE (N)	0	1	284347 195666
	BGS Estimated Soil Chemistry Source: British Geological Survey, National Geoscience Information Service Soil Sample Type: Sediment Arsenic Concentration: 35 - 45 mg/kg Cadmium Concentration: <1.8 mg/kg Chromium Concentration: 60 - 90 mg/kg Lead Concentration: <100 mg/kg Nickel Concentration: 15 - 30 mg/kg	A13NE (N)	0	1	284347 195666
	BGS Estimated Soil Chemistry Source: British Geological Survey, National Geoscience Information Service Soil Sample Type: Sediment Arsenic Concentration: 25 - 35 mg/kg Cadmium Concentration: <1.8 mg/kg Chromium Concentration: 60 - 90 mg/kg Lead Concentration: <100 mg/kg Nickel Concentration: 15 - 30 mg/kg	A13SW (SW)	0	1	284336 195651
	BGS Estimated Soil Chemistry Source: British Geological Survey, National Geoscience Information Service Soil Sample Type: Sediment Arsenic Concentration: 15 - 25 mg/kg Cadmium Concentration: <1.8 mg/kg Chromium Concentration: 60 - 90 mg/kg Lead Concentration: <100 mg/kg Nickel Concentration: 15 - 30 mg/kg	A13NE (N)	3	1	284346 195683
	BGS Estimated Soil Chemistry Source: British Geological Survey, National Geoscience Information Service Soil Sample Type: Sediment Arsenic Concentration: 25 - 35 mg/kg Cadmium Concentration: <1.8 mg/kg Chromium Concentration: 60 - 90 mg/kg Lead Concentration: <100 mg/kg Nickel Concentration: 15 - 30 mg/kg	A13SE (SE)	31	1	284416 195638
	BGS Estimated Soil Chemistry Source: British Geological Survey, National Geoscience Information Service Soil Sample Type: Sediment Arsenic Concentration: 25 - 35 mg/kg Cadmium Concentration: <1.8 mg/kg Chromium Concentration: 60 - 90 mg/kg Lead Concentration: <100 mg/kg Nickel Concentration: 15 - 30 mg/kg	A13SW (SW)	77	1	284311 195587
	BGS Estimated Soil Chemistry Source: British Geological Survey, National Geoscience Information Service Soil Sample Type: Sediment Arsenic Concentration: 35 - 45 mg/kg Cadmium Concentration: <1.8 mg/kg Chromium Concentration: 60 - 90 mg/kg Lead Concentration: <100 mg/kg Nickel Concentration: 15 - 30 mg/kg	A13SW (SW)	106	1	284227 195589

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
	BGS Estimated Soil Chemistry Source: British Geological Survey, National Geoscience Information Service Soil Sample Type: Sediment Arsenic: 25 - 35 mg/kg Concentration: Cadmium: <1.8 mg/kg Concentration: Chromium: 60 - 90 mg/kg Concentration: Lead Concentration: <100 mg/kg Nickel: 15 - 30 mg/kg Concentration:	A13NE (N)	214	1	284361 195894
	BGS Estimated Soil Chemistry Source: British Geological Survey, National Geoscience Information Service Soil Sample Type: Sediment Arsenic: 35 - 45 mg/kg Concentration: Cadmium: <1.8 mg/kg Concentration: Chromium: 60 - 90 mg/kg Concentration: Lead Concentration: <100 mg/kg Nickel: 15 - 30 mg/kg Concentration:	A13NE (N)	320	1	284347 196000
	BGS Estimated Soil Chemistry Source: British Geological Survey, National Geoscience Information Service Soil Sample Type: Sediment Arsenic: 45 - 60 mg/kg Concentration: Cadmium: <1.8 mg/kg Concentration: Chromium: 60 - 90 mg/kg Concentration: Lead Concentration: <100 mg/kg Nickel: 15 - 30 mg/kg Concentration:	A12NE (W)	416	1	283910 195821
	BGS Estimated Soil Chemistry Source: British Geological Survey, National Geoscience Information Service Soil Sample Type: Sediment Arsenic: 60 - 120 mg/kg Concentration: Cadmium: <1.8 mg/kg Concentration: Chromium: 60 - 90 mg/kg Concentration: Lead Concentration: <100 mg/kg Nickel: 15 - 30 mg/kg Concentration:	A12NE (NW)	445	1	284000 196000
	BGS Estimated Soil Chemistry Source: British Geological Survey, National Geoscience Information Service Soil Sample Type: Sediment Arsenic: 35 - 45 mg/kg Concentration: Cadmium: <1.8 mg/kg Concentration: Chromium: 60 - 90 mg/kg Concentration: Lead Concentration: <100 mg/kg Nickel: 15 - 30 mg/kg Concentration:	A14NW (NE)	517	1	284791 196000
	BGS Estimated Soil Chemistry Source: British Geological Survey, National Geoscience Information Service Soil Sample Type: Sediment Arsenic: 25 - 35 mg/kg Concentration: Cadmium: <1.8 mg/kg Concentration: Chromium: 60 - 90 mg/kg Concentration: Lead Concentration: <100 mg/kg Nickel: 15 - 30 mg/kg Concentration:	A12NE (W)	601	1	283702 195754

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
	BGS Estimated Soil Chemistry Source: British Geological Survey, National Geoscience Information Service Soil Sample Type: Sediment Arsenic: 35 - 45 mg/kg Concentration: Cadmium: <1.8 mg/kg Concentration: Chromium: 60 - 90 mg/kg Concentration: Lead Concentration: <100 mg/kg Nickel: 30 - 45 mg/kg Concentration:	A12SE (W)	626	1	283672 195632
	BGS Estimated Soil Chemistry Source: British Geological Survey, National Geoscience Information Service Soil Sample Type: Sediment Arsenic: 35 - 45 mg/kg Concentration: Cadmium: <1.8 mg/kg Concentration: Chromium: 60 - 90 mg/kg Concentration: Lead Concentration: <100 mg/kg Nickel: 15 - 30 mg/kg Concentration:	A12NW (W)	670	1	283629 195722
125	BGS Recorded Mineral Sites Site Name: Dyffryn Rhondda Colliery Location: Duffryn, Croeserw, Neath, West Glamorgan Source: British Geological Survey, National Geoscience Information Service Reference: 154641 Type: Opencast Status: Ceased Operator: Unknown Operator Operator Location: Not Supplied Periodic Type: Carboniferous Geology: Rhondda Member Commodity: Sandstone Positional Accuracy: Located by supplier to within 10m	A13SW (SW)	30	1	284293 195639
126	BGS Recorded Mineral Sites Site Name: Dyffryn Rhondda Location: Duffryn, Neath, Neath Port Talbot Source: British Geological Survey, National Geoscience Information Service Reference: 188609 Type: Underground Status: Ceased Operator: Individual'S Name Withheld Operator Location: Not Supplied Periodic Type: Carboniferous Geology: Rhondda Member Commodity: Coal - Deep Positional Accuracy: Located by supplier to within 10m	A13NE (E)	52	1	284440 195677
127	BGS Recorded Mineral Sites Site Name: Dyffryn Rhondda Colliery Location: Duffryn, Croeserw, Neath, West Glamorgan Source: British Geological Survey, National Geoscience Information Service Reference: 154669 Type: Opencast Status: Ceased Operator: Unknown Operator Operator Location: Not Supplied Periodic Type: Carboniferous Geology: Rhondda Member Commodity: Sandstone Positional Accuracy: Located by supplier to within 10m	A13SW (SW)	169	1	284184 195543
128	BGS Recorded Mineral Sites Site Name: Daren Isaf Location: Cymer, Croeserw, Neath, West Glamorgan Source: British Geological Survey, National Geoscience Information Service Reference: 154640 Type: Underground Status: Ceased Operator: Unknown Operator Operator Location: Not Supplied Periodic Type: Carboniferous Geology: Brithdir Member Commodity: Coal - Deep Positional Accuracy: Located by supplier to within 10m	A18SE (NE)	625	1	284656 196244

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
129	BGS Recorded Mineral Sites Site Name: Blaen Nant Location: Duffryn, Neath, West Glamorgan Source: British Geological Survey, National Geoscience Information Service Reference: 156526 Type: Underground Status: Ceased Operator: Unknown Operator Operator Location: Not Supplied Periodic Type: Carboniferous Geology: Rhondda Member Commodity: Coal - Deep Positional Accuracy: Located by supplier to within 10m	A7NE (SW)	687	1	283812 195181
130	BGS Recorded Mineral Sites Site Name: Cymer Mine Location: Cymer, Croeserw, Neath, West Glamorgan Source: British Geological Survey, National Geoscience Information Service Reference: 154639 Type: Underground Status: Ceased Operator: Unknown Operator Operator Location: Not Supplied Periodic Type: Carboniferous Geology: Brithdir Member Commodity: Coal - Deep Positional Accuracy: Located by supplier to within 10m	A19NW (NE)	796	1	284766 196379
131	BGS Recorded Mineral Sites Site Name: Rhiw-Gregen Location: Tonmawr, Neath, West Glamorgan Source: British Geological Survey, National Geoscience Information Service Reference: 154336 Type: Underground Status: Ceased Operator: Unknown Operator Operator Location: Not Supplied Periodic Type: Carboniferous Geology: Rhondda Member Commodity: Coal - Deep Positional Accuracy: Located by supplier to within 10m	A12NW (W)	809	1	283509 195853
132	BGS Recorded Mineral Sites Site Name: Avan Vale Cottages Location: Cymer, Croeserw, Neath, West Glamorgan Source: British Geological Survey, National Geoscience Information Service Reference: 154638 Type: Opencast Status: Ceased Operator: Unknown Operator Operator Location: Not Supplied Periodic Type: Carboniferous Geology: Brithdir Member Commodity: Sandstone Positional Accuracy: Located by supplier to within 10m	A19NW (NE)	856	1	284766 196447
133	BGS Recorded Mineral Sites Site Name: Lluest Location: Duffryn, Maesteg, West Glamorgan Source: British Geological Survey, National Geoscience Information Service Reference: 156837 Type: Underground Status: Ceased Operator: Unknown Operator Operator Location: Not Supplied Periodic Type: Carboniferous Geology: Rhondda Member Commodity: Coal - Deep Positional Accuracy: Located by supplier to within 10m	A8SE (S)	871	1	284409 194779
134	BGS Recorded Mineral Sites Site Name: Lluest Location: Duffryn, Maesteg, West Glamorgan Source: British Geological Survey, National Geoscience Information Service Reference: 156747 Type: Opencast Status: Ceased Operator: Unknown Operator Operator Location: Not Supplied Periodic Type: Carboniferous Geology: Rhondda Member Commodity: Sandstone Positional Accuracy: Located by supplier to within 10m	A8SE (S)	949	1	284398 194701

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
135	BGS Recorded Mineral Sites Site Name: Nant-Y-Bar Colliery Location: Tonmawr, Neath, West Glamorgan Source: British Geological Survey, National Geoscience Information Service Reference: 154364 Type: Underground Status: Ceased Operator: Unknown Operator Operator Location: Not Supplied Periodic Type: Carboniferous Geology: Brithdir Member Commodity: Coal - Deep Positional Accuracy: Located by supplier to within 10m	A17NE (NW)	984	1	283696 196447
136	BGS Recorded Mineral Sites Site Name: Pen Y Castell Location: Cymer, Croeserw, Neath, West Glamorgan Source: British Geological Survey, National Geoscience Information Service Reference: 154635 Type: Opencast Status: Ceased Operator: Unknown Operator Operator Location: Not Supplied Periodic Type: Carboniferous Geology: Rhondda Member Commodity: Sandstone Positional Accuracy: Located by supplier to within 10m	A19SE (NE)	992	1	285143 196320
	BGS Measured Urban Soil Chemistry No data available				
	BGS Urban Soil Chemistry Averages No data available				
	Coal Mining Affected Areas Description: In an area which may be affected by coal mining activity. It is recommended that a coal mining report is obtained from the Coal Authority. Contact details are included in the Useful Contacts section of this report.	A13NE (N)	0	7	284347 195666
	Mining Instability Mining Evidence: Inconclusive Coal Mining Source: Ove Arup & Partners Boundary Quality: As Supplied	A13NE (N)	0	-	284347 195666
	Non Coal Mining Areas of Great Britain No Hazard				
	Potential for Collapsible Ground Stability Hazards Hazard Potential: No Hazard Source: British Geological Survey, National Geoscience Information Service	A13SW (SW)	0	1	284336 195651
	Potential for Collapsible Ground Stability Hazards Hazard Potential: Very Low Source: British Geological Survey, National Geoscience Information Service	A13NE (N)	0	1	284347 195666
	Potential for Compressible Ground Stability Hazards Hazard Potential: No Hazard Source: British Geological Survey, National Geoscience Information Service	A13NE (N)	0	1	284347 195666
	Potential for Ground Dissolution Stability Hazards Hazard Potential: No Hazard Source: British Geological Survey, National Geoscience Information Service	A13NE (N)	0	1	284347 195666
	Potential for Landslide Ground Stability Hazards Hazard Potential: Moderate Source: British Geological Survey, National Geoscience Information Service	A13NE (N)	0	1	284347 195666
	Potential for Landslide Ground Stability Hazards Hazard Potential: High Source: British Geological Survey, National Geoscience Information Service	A13SW (SW)	0	1	284336 195651
	Potential for Landslide Ground Stability Hazards Hazard Potential: Very Low Source: British Geological Survey, National Geoscience Information Service	A13NE (N)	3	1	284346 195683
	Potential for Landslide Ground Stability Hazards Hazard Potential: Low Source: British Geological Survey, National Geoscience Information Service	A13SE (SE)	32	1	284392 195617
	Potential for Landslide Ground Stability Hazards Hazard Potential: Very Low Source: British Geological Survey, National Geoscience Information Service	A13SW (SW)	77	1	284311 195587

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
	Potential for Landslide Ground Stability Hazards Hazard Potential: Moderate Source: British Geological Survey, National Geoscience Information Service	A13SW (SW)	106	1	284227 195589
	Potential for Landslide Ground Stability Hazards Hazard Potential: Low Source: British Geological Survey, National Geoscience Information Service	A13NW (W)	209	1	284088 195672
	Potential for Running Sand Ground Stability Hazards Hazard Potential: Very Low Source: British Geological Survey, National Geoscience Information Service	A13NE (N)	0	1	284347 195666
	Potential for Running Sand Ground Stability Hazards Hazard Potential: No Hazard Source: British Geological Survey, National Geoscience Information Service	A13SW (SW)	0	1	284336 195651
	Potential for Running Sand Ground Stability Hazards Hazard Potential: No Hazard Source: British Geological Survey, National Geoscience Information Service	A13SE (SE)	31	1	284416 195638
	Potential for Running Sand Ground Stability Hazards Hazard Potential: No Hazard Source: British Geological Survey, National Geoscience Information Service	A13SW (SW)	77	1	284311 195587
	Potential for Running Sand Ground Stability Hazards Hazard Potential: No Hazard Source: British Geological Survey, National Geoscience Information Service	A13NE (N)	214	1	284361 195894
	Potential for Shrinking or Swelling Clay Ground Stability Hazards Hazard Potential: No Hazard Source: British Geological Survey, National Geoscience Information Service	A13NE (N)	0	1	284346 195683
	Potential for Shrinking or Swelling Clay Ground Stability Hazards Hazard Potential: Very Low Source: British Geological Survey, National Geoscience Information Service	A13NE (N)	0	1	284347 195666
	Potential for Shrinking or Swelling Clay Ground Stability Hazards Hazard Potential: No Hazard Source: British Geological Survey, National Geoscience Information Service	A13SW (SW)	77	1	284311 195587
	Potential for Shrinking or Swelling Clay Ground Stability Hazards Hazard Potential: Very Low Source: British Geological Survey, National Geoscience Information Service	A13SW (SW)	106	1	284227 195589
	Radon Potential - Radon Affected Areas Affected Area: The property is in a Lower probability radon area (less than 1% of homes are estimated to be at or above the Action Level). Source: British Geological Survey, National Geoscience Information Service	A13NE (N)	0	1	284347 195666
	Radon Potential - Radon Protection Measures Protection Measure: No radon protective measures are necessary in the construction of new dwellings or extensions Source: British Geological Survey, National Geoscience Information Service	A13NE (N)	0	1	284347 195666

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
137	Points of Interest - Manufacturing and Production Name: Afan Workshops Location: Not Supplied Category: Industrial Features Class Code: Unspecified Works Or Factories Positional Accuracy: Positioned to an adjacent address or location	A13NE (E)	0	8	284372 195665
138	Points of Interest - Manufacturing and Production Name: Workings (Dis) Location: SA13 Category: Extractive Industries Class Code: Unspecified Quarries Or Mines Positional Accuracy: Positioned to an adjacent address or location	A13SW (SW)	165	8	284208 195529
139	Points of Interest - Public Infrastructure Name: Weir Location: SA13 Category: Water Class Code: Weirs, Sluices and Dams Positional Accuracy: Positioned to an adjacent address or location	A13SE (SE)	91	8	284404 195560
139	Points of Interest - Public Infrastructure Name: Weir Location: SA13 Category: Water Class Code: Weirs, Sluices and Dams Positional Accuracy: Positioned to an adjacent address or location	A13SE (SE)	93	8	284410 195559
140	Points of Interest - Public Infrastructure Name: Refuse Tip (Disused) Location: SA13 Category: Infrastructure and Facilities Class Code: Refuse Disposal Facilities Positional Accuracy: Positioned to an adjacent address or location	A8NW (SW)	493	8	284115 195210
140	Points of Interest - Public Infrastructure Name: Heap (Dis) Location: SA13 Category: Infrastructure and Facilities Class Code: Refuse Disposal Facilities Positional Accuracy: Positioned to an adjacent address or location	A8NW (SW)	497	8	284116 195206
141	Points of Interest - Public Infrastructure Name: Refuse Tip (Disused) Location: SA13 Category: Infrastructure and Facilities Class Code: Refuse Disposal Facilities Positional Accuracy: Positioned to an adjacent address or location	A8NW (S)	652	8	284113 195043
142	Points of Interest - Public Infrastructure Name: Heap (Dis) Location: SA13 Category: Infrastructure and Facilities Class Code: Refuse Disposal Facilities Positional Accuracy: Positioned to an adjacent address or location	A8SW (S)	775	8	284090 194922
142	Points of Interest - Public Infrastructure Name: Refuse Tip (Disused) Location: SA13 Category: Infrastructure and Facilities Class Code: Refuse Disposal Facilities Positional Accuracy: Positioned to an adjacent address or location	A8SW (S)	807	8	284088 194889
143	Points of Interest - Recreational and Environmental Name: Play Area Location: Not Supplied Category: Recreational Class Code: Playgrounds Positional Accuracy: Positioned to an adjacent address or location	A13SW (W)	287	8	284017 195603
143	Points of Interest - Recreational and Environmental Name: Play Area Location: (Heol-Y-Gadarn), SA13 Category: Recreational Class Code: Playgrounds Positional Accuracy: Positioned to an adjacent address or location	A13SW (W)	287	8	284017 195603

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
144	Ancient Woodland Name: Not Supplied Reference: 41095 Area(m ²): 88614.58 Type: Plantation on Ancient Woodland	A13NE (NE)	73	2	284384 195756
145	Ancient Woodland Name: Not Supplied Reference: 13989 Area(m ²): 12931.72 Type: Ancient and Semi-Natural Woodland	A12NE (NW)	344	2	283999 195840
146	Ancient Woodland Name: Not Supplied Reference: 41099 Area(m ²): 63740.54 Type: Plantation on Ancient Woodland	A13NE (NE)	351	2	284636 195926
147	Ancient Woodland Name: Not Supplied Reference: 8870 Area(m ²): 19267.39 Type: Ancient and Semi-Natural Woodland	A12NE (NW)	402	2	283940 195855
148	Ancient Woodland Name: Not Supplied Reference: 8871 Area(m ²): 12797.19 Type: Ancient and Semi-Natural Woodland	A18SE (NE)	417	2	284608 196033
149	Ancient Woodland Name: Not Supplied Reference: 13991 Area(m ²): 5248.66 Type: Ancient and Semi-Natural Woodland	A18SE (NE)	449	2	284600 196075
150	Ancient Woodland Name: Not Supplied Reference: 13988 Area(m ²): 6773.66 Type: Ancient and Semi-Natural Woodland	A12NE (W)	483	2	283815 195698
151	Ancient Woodland Name: Not Supplied Reference: 41098 Area(m ²): 12648.56 Type: Plantation on Ancient Woodland	A18SE (NE)	492	2	284577 196134
152	Ancient Woodland Name: Not Supplied Reference: 41096 Area(m ²): 3152.94 Type: Plantation on Ancient Woodland	A19SW (NE)	530	2	284797 196014
153	Ancient Woodland Name: Not Supplied Reference: 41100 Area(m ²): 8031.45 Type: Plantation on Ancient Woodland	A18NE (N)	700	2	284589 196350
154	Ancient Woodland Name: Not Supplied Reference: 41097 Area(m ²): 71782.34 Type: Plantation on Ancient Woodland	A19SW (NE)	709	2	284945 196116
155	Ancient Woodland Name: Not Supplied Reference: 40577 Area(m ²): 2563.94 Type: Plantation on Ancient Woodland	A17SE (NW)	714	2	283674 196018
156	Ancient Woodland Name: Not Supplied Reference: 40578 Area(m ²): 8707.87 Type: Plantation on Ancient Woodland	A17SE (NW)	735	2	283753 196162
157	Ancient Woodland Name: Not Supplied Reference: 39769 Area(m ²): 59813.42 Type: Plantation on Ancient Woodland	A18NE (N)	772	2	284561 196432

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
158	Ancient Woodland Name: Not Supplied Reference: 13992 Area(m ²): 17491.86 Type: Ancient and Semi-Natural Woodland	A19NW (NE)	833	2	284808 196398
159	Ancient Woodland Name: Not Supplied Reference: 11531 Area(m ²): 9840.05 Type: Ancient and Semi-Natural Woodland	A12NW (W)	851	2	283477 195897
160	Ancient Woodland Name: Not Supplied Reference: 7876 Area(m ²): 37764.29 Type: Ancient and Semi-Natural Woodland	A12NW (W)	887	2	283460 195964
161	Forest Parks Name: Not Given Multiple Area: N Area (m2): 8594402 Source: Forestry Commission	A13NE (N)	85	9	284385 195771

Agency & Hydrological	Version	Update Cycle
Contaminated Land Register Entries and Notices Bridgend County Borough Council - Environmental Health Department Natural Resources Wales Neath Port Talbot County Borough Council - Environmental Health Department	January 2020 June 2020 October 2017	Annual Rolling Update Annually Annual Rolling Update
Discharge Consents Environment Agency - Welsh Region Natural Resources Wales	August 2014 October 2022	Quarterly Quarterly
Enforcement and Prohibition Notices Environment Agency - Welsh Region	March 2013	
Integrated Pollution Controls Environment Agency - Welsh Region	January 2009	
Integrated Pollution Prevention And Control Environment Agency - Welsh Region Natural Resources Wales	January 2021 January 2023	Quarterly Quarterly
Local Authority Integrated Pollution Prevention And Control Bridgend County Borough Council - Environmental Health Department Neath Port Talbot County Borough Council - Environmental Health Department	July 2015 March 2014	Variable Variable
Local Authority Pollution Prevention and Controls Bridgend County Borough Council - Environmental Health Department Neath Port Talbot County Borough Council - Environmental Health Department	July 2015 March 2014	Not Applicable Annual Rolling Update
Local Authority Pollution Prevention and Control Enforcements Bridgend County Borough Council - Environmental Health Department Neath Port Talbot County Borough Council - Environmental Health Department	July 2015 March 2015	Variable Variable
Nearest Surface Water Feature Ordnance Survey	March 2023	
Pollution Incidents to Controlled Waters Environment Agency - Welsh Region	December 1998	
Prosecutions Relating to Authorised Processes Environment Agency - Welsh Region Natural Resources Wales	July 2015 July 2015	
Prosecutions Relating to Controlled Waters Environment Agency - Welsh Region Natural Resources Wales	March 2013 March 2013	
Registered Radioactive Substances Natural Resources Wales Environment Agency - Welsh Region	January 2015 June 2016	As notified
River Quality Environment Agency - Head Office	November 2001	Not Applicable
Substantiated Pollution Incident Register Environment Agency Wales - South West Area Natural Resources Wales	January 2021 January 2023	Quarterly Quarterly
Water Abstractions Environment Agency - Welsh Region Natural Resources Wales	April 2023 January 2023	Quarterly Quarterly
Water Industry Act Referrals Environment Agency - Welsh Region Natural Resources Wales	October 2017 October 2022	
Groundwater Vulnerability Map Natural Resources Wales	June 2018	As notified
Bedrock Aquifer Designations Natural Resources Wales	January 2018	Annually

Agency & Hydrological	Version	Update Cycle
Superficial Aquifer Designations Natural Resources Wales	January 2018	Annually
Source Protection Zones Natural Resources Wales	July 2022	Annual Rolling Update
Extreme Flooding from Rivers or Sea without Defences Natural Resources Wales	September 2020	
Flooding from Rivers or Sea without Defences Natural Resources Wales	September 2020	
Areas Benefiting from Flood Defences Natural Resources Wales	November 2019	Quarterly
Flood Water Storage Areas Natural Resources Wales	August 2019	Quarterly
Flood Defences Natural Resources Wales	November 2019	Quarterly
OS Water Network Lines Ordnance Survey	January 2023	Quarterly
Surface Water 1 in 30 year Flood Extent Natural Resources Wales	May 2018	Annually
Surface Water 1 in 100 year Flood Extent Natural Resources Wales	May 2018	Annually
Surface Water 1 in 1000 year Flood Extent Natural Resources Wales	May 2018	Annually
Surface Water Suitability Natural Resources Wales	February 2016	Annually
BGS Groundwater Flooding Susceptibility British Geological Survey - National Geoscience Information Service	May 2013	As notified

Waste	Version	Update Cycle
BGS Recorded Landfill Sites British Geological Survey - National Geoscience Information Service	November 2002	As notified
Historical Landfill Sites Natural Resources Wales	March 2023	As notified
Integrated Pollution Control Registered Waste Sites Environment Agency - Welsh Region	January 2009	Not Applicable
Licensed Waste Management Facilities (Landfill Boundaries) Environment Agency Wales - South West Area Natural Resources Wales	January 2023 October 2021	Quarterly Quarterly
Licensed Waste Management Facilities (Locations) Natural Resources Wales Environment Agency Wales - South West Area	January 2023 July 2021	Quarterly Quarterly
Local Authority Landfill Coverage Bridgend County Borough Council Neath Port Talbot County Borough Council - Environmental Health Department	February 2003 February 2003	Not Applicable Not Applicable
Local Authority Recorded Landfill Sites Bridgend County Borough Council Neath Port Talbot County Borough Council - Environmental Health Department	October 2018 October 2018	
Potentially Infilled Land (Non-Water) Landmark Information Group Limited	December 1999	
Potentially Infilled Land (Water) Landmark Information Group Limited	December 1999	
Registered Landfill Sites Environment Agency Wales - South West Area	March 2006	Not Applicable
Registered Waste Transfer Sites Environment Agency Wales - South West Area	April 2018	
Registered Waste Treatment or Disposal Sites Environment Agency Wales - South West Area	June 2015	
Hazardous Substances	Version	Update Cycle
Control of Major Accident Hazards Sites (COMAH) Health and Safety Executive	March 2023	Bi-Annually
Explosive Sites Health and Safety Executive	March 2017	Annually
Notification of Installations Handling Hazardous Substances (NIHHS) Health and Safety Executive	August 2001	
Planning Hazardous Substance Enforcements Bridgend County Borough Council - Planning Department Neath Port Talbot County Borough Council - Planning Department	March 2023 October 2015	Variable Variable
Planning Hazardous Substance Consents Bridgend County Borough Council - Planning Department Neath Port Talbot County Borough Council - Planning Department	February 2016 October 2015	Variable Variable

Geological	Version	Update Cycle
BGS 1:625,000 Solid Geology British Geological Survey - National Geoscience Information Service	January 2009	As notified
BGS Estimated Soil Chemistry British Geological Survey - National Geoscience Information Service	December 2015	As notified
BGS Recorded Mineral Sites British Geological Survey - National Geoscience Information Service	November 2022	Bi-Annually
CBSCB Compensation District Cheshire Brine Subsidence Compensation Board (CBSCB) Cheshire Brine Subsidence Compensation Board (CBSCB)	August 2011 November 2020	As notified
Coal Mining Affected Areas The Coal Authority - Property Searches	February 2023	Annual Rolling Update
Mining Instability Ove Arup & Partners	June 1998	Not Applicable
Non Coal Mining Areas of Great Britain British Geological Survey - National Geoscience Information Service	May 2015	Not Applicable
Potential for Collapsible Ground Stability Hazards British Geological Survey - National Geoscience Information Service	April 2020	As notified
Potential for Compressible Ground Stability Hazards British Geological Survey - National Geoscience Information Service	January 2019	As notified
Potential for Ground Dissolution Stability Hazards British Geological Survey - National Geoscience Information Service	January 2019	As notified
Potential for Landslide Ground Stability Hazards British Geological Survey - National Geoscience Information Service	January 2019	As notified
Potential for Running Sand Ground Stability Hazards British Geological Survey - National Geoscience Information Service	January 2019	As notified
Potential for Shrinking or Swelling Clay Ground Stability Hazards British Geological Survey - National Geoscience Information Service	January 2019	As notified
Radon Potential - Radon Affected Areas British Geological Survey - National Geoscience Information Service	September 2022	Annually
Radon Potential - Radon Protection Measures British Geological Survey - National Geoscience Information Service	September 2022	Annually

Industrial Land Use	Version	Update Cycle
Contemporary Trade Directory Entries Thomson Directories	January 2023	Quarterly
Fuel Station Entries Catalist Ltd - Experian	February 2023	Quarterly
Gas Pipelines National Grid	October 2021	Bi-Annually
Points of Interest - Commercial Services PointX	March 2023	Quarterly
Points of Interest - Education and Health PointX	March 2023	Quarterly
Points of Interest - Manufacturing and Production PointX	March 2023	Quarterly
Points of Interest - Public Infrastructure PointX	March 2023	Quarterly
Points of Interest - Recreational and Environmental PointX	March 2023	Quarterly
Underground Electrical Cables National Grid	February 2023	Bi-Annually

Sensitive Land Use	Version	Update Cycle
Ancient Woodland Natural Resources Wales	September 2018	Bi-Annually
Areas of Adopted Green Belt Bridgend County Borough Council Neath Port Talbot County Borough Council - Planning Services	July 2022 July 2022	Quarterly Quarterly
Areas of Unadopted Green Belt Bridgend County Borough Council Neath Port Talbot County Borough Council - Planning Services	July 2022 July 2022	Quarterly Quarterly
Areas of Outstanding Natural Beauty Natural Resources Wales	April 2023	Bi-Annually
Environmentally Sensitive Areas The National Assembly for Wales - GI Services (Department of Planning & Countryside)	January 2017	
Forest Parks Forestry Commission	May 2023	Not Applicable
Local Nature Reserves Bridgend County Borough Council Neath Port Talbot County Borough Council	March 2023 March 2023	Bi-Annually Bi-Annually
Marine Nature Reserves Natural Resources Wales	August 2018	Bi-Annually
National Nature Reserves Natural Resources Wales	February 2023	Bi-Annually
National Parks Natural Resources Wales	February 2018	Annually
Nitrate Vulnerable Zones The National Assembly for Wales - GI Services (Department of Planning & Countryside) Natural Resources Wales	April 2016 March 2023	Bi-Annually
Ramsar Sites Natural Resources Wales	March 2023	Bi-Annually
Sites of Special Scientific Interest Natural Resources Wales	March 2023	Bi-Annually
Special Areas of Conservation Natural Resources Wales	April 2023	Bi-Annually
Special Protection Areas Natural Resources Wales	April 2023	Bi-Annually

A selection of organisations who provide data within this report

Data Supplier	Data Supplier Logo
Ordnance Survey	
Environment Agency	
Scottish Environment Protection Agency	
The Coal Authority	
British Geological Survey	 British Geological Survey NATURAL ENVIRONMENT RESEARCH COUNCIL
Centre for Ecology and Hydrology	 Centre for Ecology & Hydrology NATURAL ENVIRONMENT RESEARCH COUNCIL
Natural Resources Wales	
Scottish Natural Heritage	
Natural England	
Public Health England	
Ove Arup	
Stantec UK Ltd	

Contact	Name and Address	Contact Details
1	British Geological Survey - Enquiry Service British Geological Survey, Environmental Science Centre, Keyworth, Nottingham, Nottinghamshire, NG12 5GG	Telephone: 0115 936 3143 Fax: 0115 936 3276 Email: enquiries@bgs.ac.uk Website: www.bgs.ac.uk
2	Natural Resources Wales Ty Cambria, 29 Newport Road, Cardiff, CF24 0TP	Telephone: 0300 065 3000 Email: enquiries@naturalresourceswales.gov.uk
3	Environment Agency - National Customer Contact Centre (NCCC) PO Box 544, Templeborough, Rotherham, S60 1BY	Telephone: 03708 506 506 Email: enquiries@environment-agency.gov.uk
4	Ordnance Survey Adanac Drive, Southampton, Hampshire, SO16 0AS	Telephone: 03456 05 05 05 Email: customerservices@ordnancesurvey.co.uk Website: www.ordnancesurvey.gov.uk
5	Neath Port Talbot County Borough Council - Environmental Health Department Room 322, Neath Civic Centre, Neath, West Glamorgan, SA11 3QZ	Telephone: 01639 763333 Fax: 01693 763444 Website: www.neath-porttalbot.gov.uk
6	Bridgend County Borough Council PO Box 4, Civic Offices, Angel Street, Bridgend, Mid Glamorgan, CF31 1LX	Telephone: 01656 643643 Fax: 01656 668126 Website: www.bridgend.gov.uk
7	The Coal Authority - Property Searches 200 Lichfield Lane, Mansfield, Nottinghamshire, NG18 4RG	Telephone: 0345 762 6848 Fax: 01623 637 338 Email: groundstability@coal.gov.uk Website: www2.groundstability.com
8	PointX 7 Abbey Court, Eagle Way, Sowton, Exeter, Devon, EX2 7HY	Website: www.pointx.co.uk
9	Forestry Commission 231 Corstorphine Road, Edinburgh, Midlothian, EH12 7AT	Telephone: 0131 334 0303 Fax: 0131 334 4473
-	Public Health England - Radon Survey, Centre for Radiation, Chemical and Environmental Hazards Chilton, Didcot, Oxfordshire, OX11 0RQ	Telephone: 01235 822622 Fax: 01235 833891 Email: radon@phe.gov.uk Website: www.ukradon.org
-	Landmark Information Group Limited Imperium, Imperial Way, Reading, Berkshire, RG2 0TD	Telephone: 0844 844 9952 Fax: 0844 844 9951 Email: customerservices@landmarkinfo.co.uk Website: www.landmarkinfo.co.uk

Please note that the Environment Agency / Natural Resources Wales / SEPA have a charging policy in place for enquiries.

Geology 1:50,000 Maps Legends

Artificial Ground and Landslip

Map Colour	Lex Code	Rock Name	Rock Type	Min and Max Age
	SLIP	Landslide Deposit	Unknown/Unclassified Entry	Not Supplied - Quaternary

Superficial Geology

Map Colour	Lex Code	Rock Name	Rock Type	Min and Max Age
	ALV	Alluvium	Clay, Silt, Sand and Gravel	Not Supplied - Holocene
	TILLD	Till, Devensian	Diamicton	Not Supplied - Devensian
	GFDUD	Glaciofluvial Deposits, Devensian	Sand and Gravel	Not Supplied - Devensian
	PEAT	Peat	Peat	Not Supplied - Quaternary

Bedrock and Faults

Map Colour	Lex Code	Rock Name	Rock Type	Min and Max Age
	BD	Brithdir Member	Sandstone	Not Supplied - Westphalian
	H	Hughes Member	Sandstone	Not Supplied - Westphalian
	BD	Brithdir Member	Mudstone, Siltstone and Sandstone	Not Supplied - Westphalian
	H	Hughes Member	Mudstone, Siltstone and Sandstone	Not Supplied - Westphalian
	RA	Rhondda Member	Sandstone	Not Supplied - Westphalian
	RA	Rhondda Member	Mudstone, Siltstone and Sandstone	Not Supplied - Westphalian
	LLFB	Llynfi Member	Mudstone, Siltstone and Sandstone	Not Supplied - Westphalian
	LLFB	Llynfi Member	Sandstone	Not Supplied - Westphalian
	SWUCM	South Wales Upper Coal Measures Formation	Mudstone, Siltstone and Sandstone	Not Supplied - Westphalian
	SWMCM	South Wales Middle Coal Measures Formation	Mudstone, Siltstone and Sandstone	Not Supplied - Westphalian
	SWMCM	South Wales Middle Coal Measures Formation	Sandstone	Not Supplied - Westphalian

Map Colour	Lex Code	Rock Name	Rock Type	Min and Max Age
		Rock Segments		
		Faults		



Geology 1:50,000 Maps

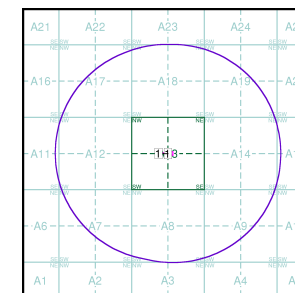
This report contains geological map extracts taken from the BGS Digital Geological map of Great Britain at 1:50,000 scale and is designed for users carrying out preliminary site assessments who require geological maps for the area around the site. This mapping may be more up to date than previously published paper maps.

The various geological layers - artificial and landslip deposits, superficial geology and solid (bedrock) geology are displayed in separate maps, but superimposed on the final 'Combined Surface Geology' map. All map legends feature on this page. Not all layers have complete nationwide coverage, so availability of data for relevant map sheets is indicated below.

Geology 1:50,000 Maps Coverage

Map ID:	1
Map Sheet No:	248
Map Name:	Pontygridd
Map Date:	1960
Bedrock Geology:	Available
Superficial Geology:	Available
Artificial Geology:	Not Available
Faults:	Not Supplied
Landslip:	Available
Rock Segments:	Not Supplied

Geology 1:50,000 Maps - Slice A

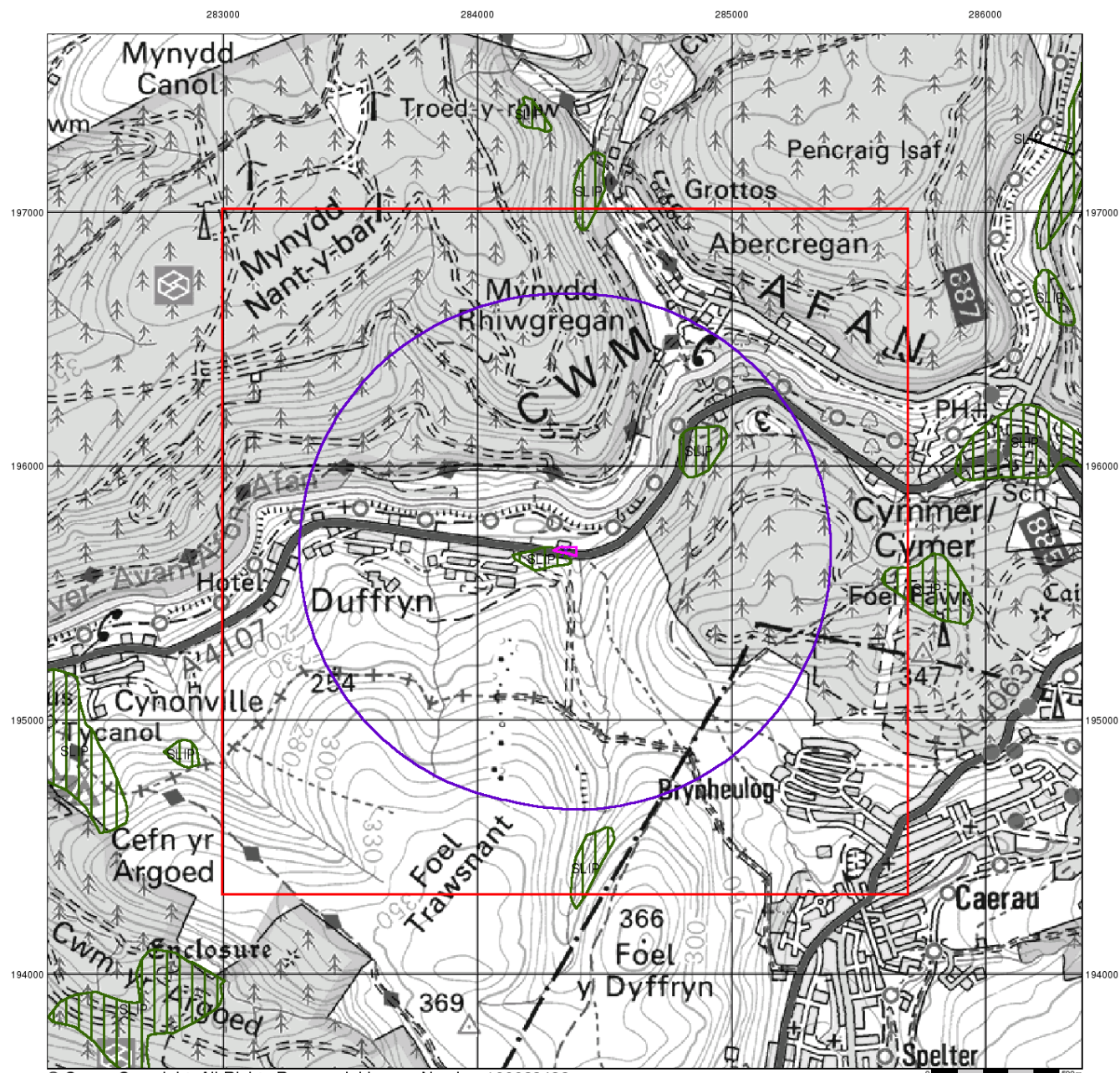


Order Details:

Order Number:	311342604_1_1
Customer Reference:	17782/JRW
National Grid Reference:	284350, 195670
Slice:	A
Site Area (Ha):	0.18
Search Buffer (m):	1000

Site Details:

Bakers DIY Store, Afan Road, Duffryn Rhondda, PORT TALBOT, SA13 3ES



© Crown Copyright. All Rights Reserved. License Number 100022432.



Artificial Ground and Landslip

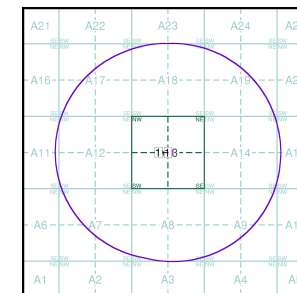
Artificial ground is a term used by BGS for those areas where the ground surface has been significantly modified by human activity. Information about previously developed ground is especially important, as it is often associated with potentially contaminated material, unpredictable engineering conditions and unstable ground.

Artificial ground includes:

- Made ground - man-made deposits such as embankments and spoil heaps on the natural ground surface.
- Worked ground - areas where the ground has been cut away such as quarries and road cuttings.
- Infilled ground - areas where the ground has been cut away then wholly or partially backfilled.
- Landscaped ground - areas where the surface has been reshaped.
- Disturbed ground - areas of ill-defined shallow or near surface mineral workings where it is impracticable to map made and worked ground separately.

Mass movement (landslip) deposits on BGS geological maps are primarily superficial deposits that have moved down slope under gravity to form landslips. These affect bedrock, other superficial deposits and artificial ground. The dataset also includes foundered strata, where the ground has collapsed due to subsidence.

Artificial Ground and Landslip Map - Slice A



Order Details:

Order Number: 311342604_1_1
 Customer Reference: 17782/JRW
 National Grid Reference: 284350, 195670
 Slice: A
 Site Area (Ha): 0.18
 Search Buffer (m): 1000

Site Details:

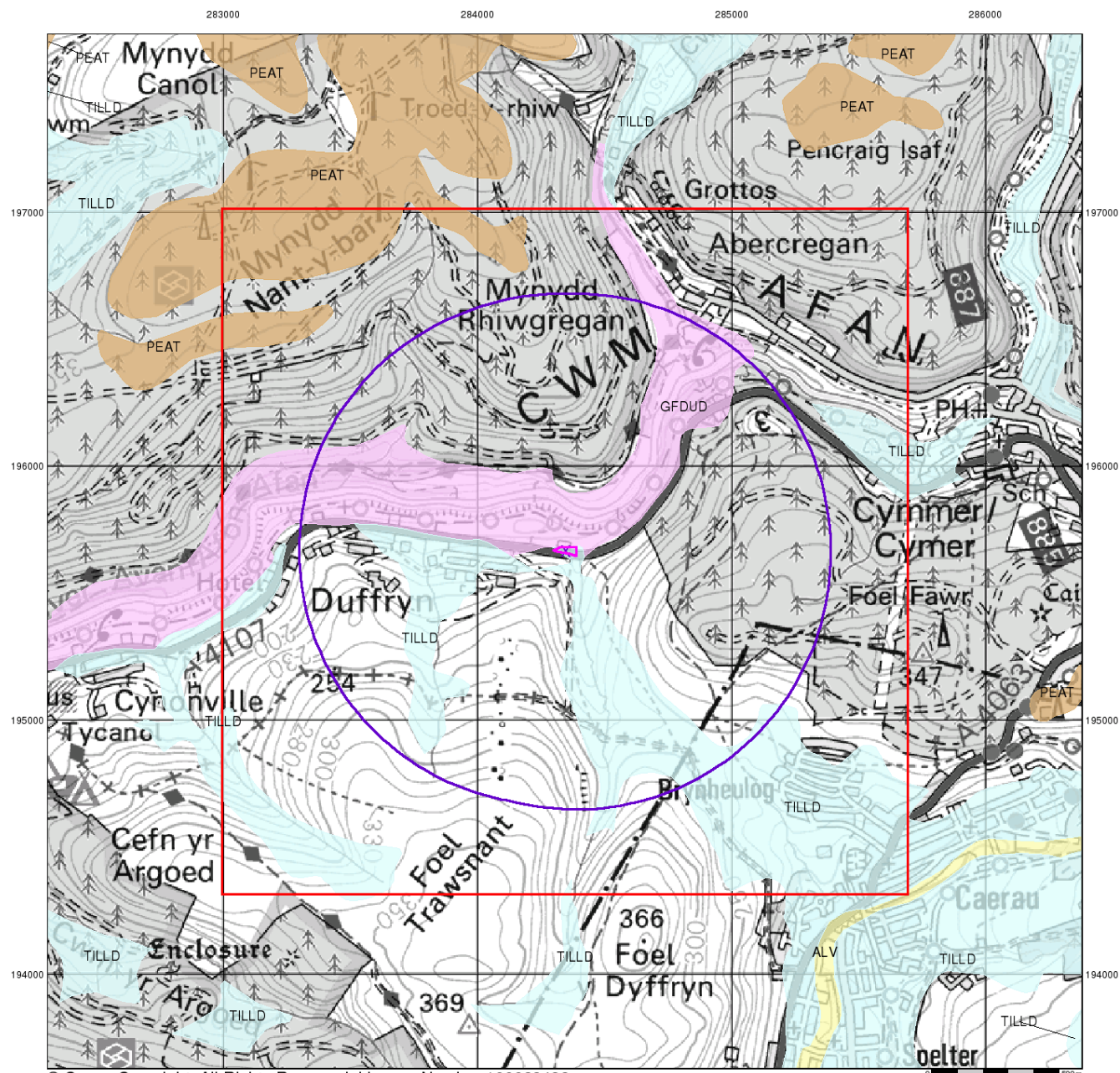
Bakers DIY Store, Afan Road, Duffryn Rhondda, PORT TALBOT, SA13 3ES



Tel: 0844 844 9952
 Fax: 0844 844 9951
 Web: www.ernirocheck.co.uk

v15.0 16-May-2023

Page 2 of 5



© Crown Copyright. All Rights Reserved. License Number 100022432.



Geotechnical & Geoenvironmental Specialists

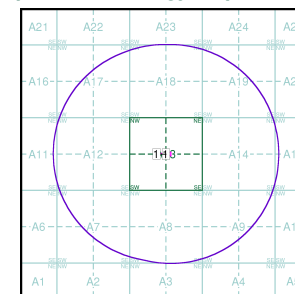
Superficial Geology

Superficial Deposits are the youngest geological deposits formed during the most recent period of geological time, the Quaternary, which extends back about 1.8 million years from the present.

They rest on older deposits or rocks referred to as Bedrock. This dataset contains Superficial deposits that are of natural origin and 'in place'. Other superficial strata may be held in the Mass Movement dataset where they have been moved, or in the Artificial Ground dataset where they are of man-made origin.

Most of these Superficial deposits are unconsolidated sediments such as gravel, sand, silt and clay, and onshore they form relatively thin, often discontinuous patches or larger spreads.

Superficial Geology Map - Slice A



Order Details:

Order Number: 311342604_1_1
 Customer Reference: 17782/JRW
 National Grid Reference: 284350, 195670
 Slice: A
 Site Area (Ha): 0.18
 Search Buffer (m): 1000

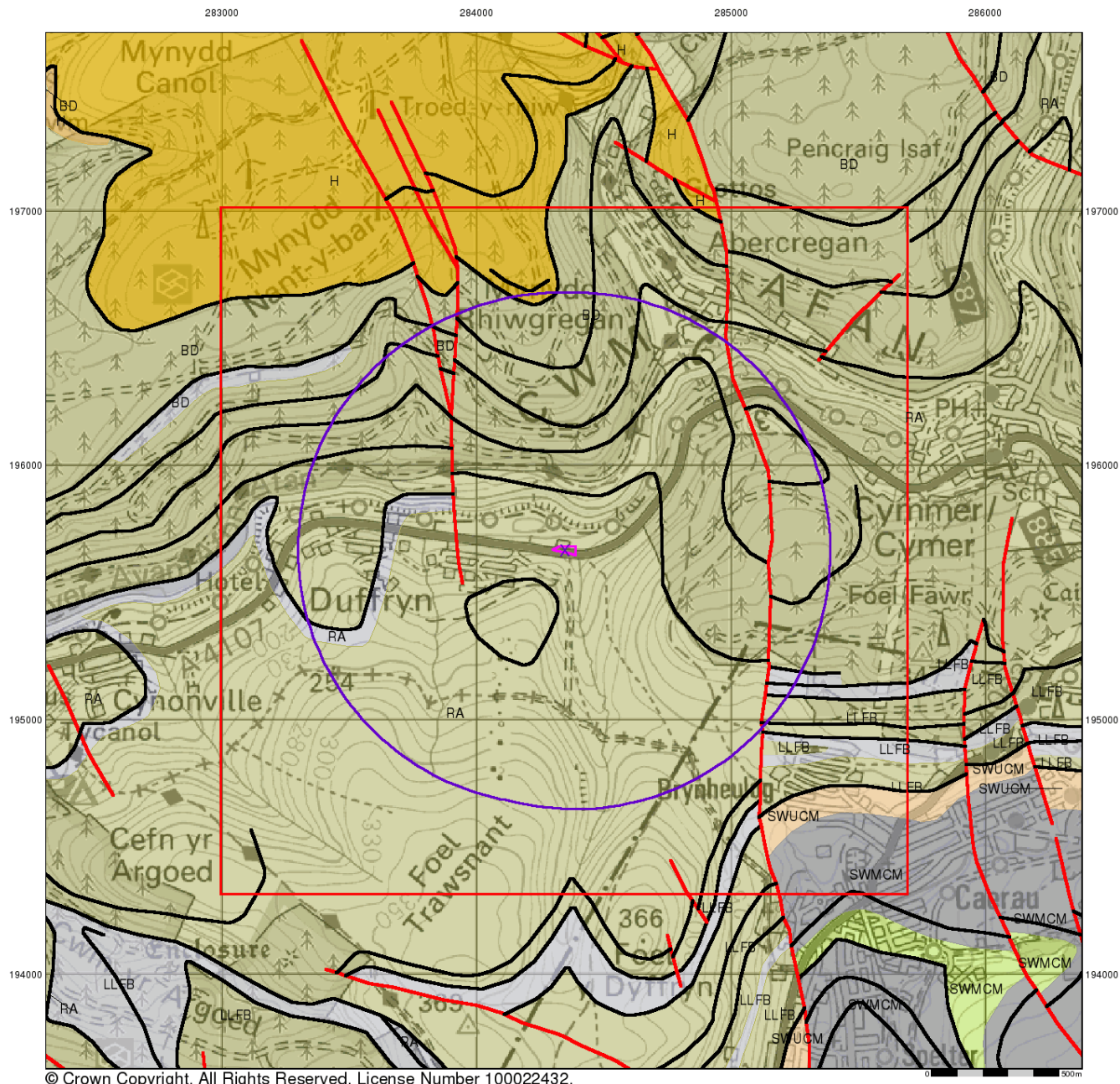
Site Details:

Bakers DIY Store, Afan Road, Duffryn Rhondda, PORT TALBOT, SA13 3ES



Tel: 0844 844 9952
 Fax: 0844 844 9951
 Web: www.ernirocheck.co.uk

v15.0 16-May-2023



© Crown Copyright. All Rights Reserved. License Number 100022432.



Geotechnical & Geoenvironmental Specialists

Bedrock and Faults

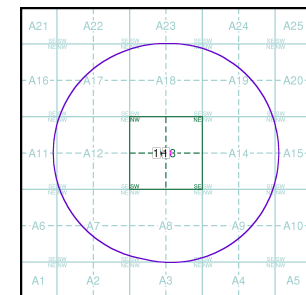
Bedrock geology is a term used for the main mass of rocks forming the Earth and are present everywhere, whether exposed at the surface in outcrops or concealed beneath superficial deposits or water.

The bedrock has formed over vast lengths of geological time ranging from ancient and highly altered rocks of the Proterozoic, some 2500 million years ago, or older, up to the relatively young Pliocene, 1.8 million years ago.

The bedrock geology includes many lithologies, often classified into three types based on origin: igneous, metamorphic and sedimentary.

The BGS Faults and Rock Segments dataset includes geological faults (e.g. normal, thrust), and thin beds mapped as lines (e.g. coal seam, gypsum bed). Some of these are linked to other particular 1:50,000 Geology datasets, for example, coal seams are part of the bedrock sequence, most faults and mineral veins primarily affect the bedrock but cut across the strata and post date its deposition.

Bedrock and Faults Map - Slice A



Order Details:

Order Number: 311342604_1_1
 Customer Reference: 17782/JRW
 National Grid Reference: 284350, 195670
 Slice: A
 Site Area (Ha): 0.18
 Search Buffer (m): 1000

Site Details:

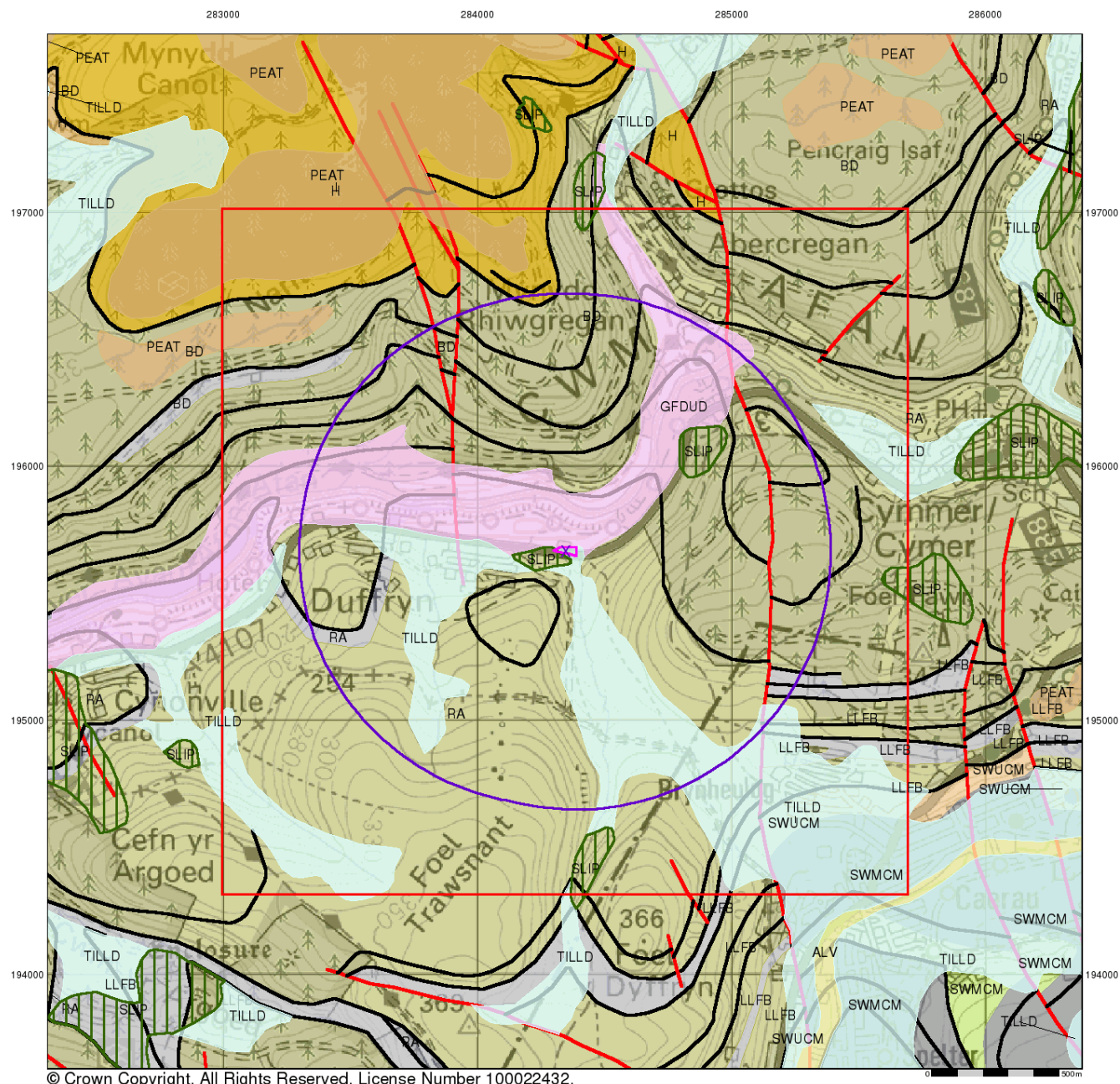
Bakers DIY Store, Afan Road, Duffryn Rhondda, PORT TALBOT, SA13 3ES



Tel: 0844 844 9952
 Fax: 0844 844 9951
 Web: www.envirocheck.co.uk

v15.0 16-May-2023

Page 4 of 5



© Crown Copyright. All Rights Reserved. License Number 100022432.



Geotechnical & Geoenvironmental Specialists

Combined Surface Geology

The Combined Surface Geology map combines all the previous maps into one combined geological overview of your site.

Please consult the legends to the previous maps to interpret the Combined "Surface Geology" map.

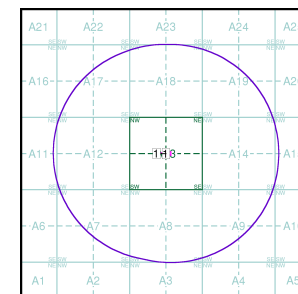
Additional Information

More information on 1:50,000 Geological mapping and explanations of rock classifications can be found on the BGS website. Using the LEX Codes in this report, further descriptions of rock types can be obtained by interrogating the 'BGS Lexicon of Named Rock Units'. This database can be accessed by following the 'Information and Data' link on the BGS website.

Contact

British Geological Survey
Kingsley Dunham Centre
Keyworth
Nottingham
NG12 5GG
Telephone: 0115 936 3143
Fax: 0115 936 3276
email: enquiries@bgs.ac.uk
website: www.bgs.ac.uk

Combined Geology Map - Slice A



Order Details:

Order Number: 311342604_1_1
Customer Reference: 17782/JRW
National Grid Reference: 284350, 195670
Slice: A
Site Area (Ha): 0.18
Search Buffer (m): 1000

Site Details:

Bakers DIY Store, Afan Road, Duffryn Rhondda, PORT TALBOT, SA13 3ES



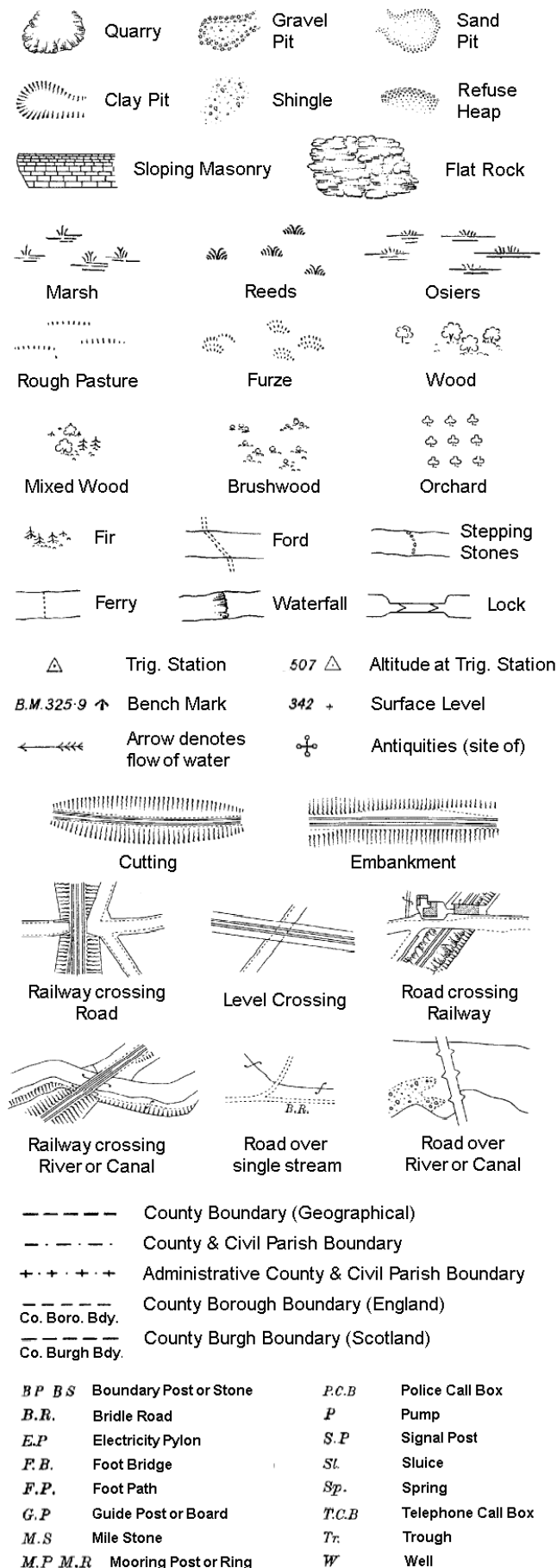
Tel: 0844 844 9952
Fax: 0844 844 9951
Web: www.ernirocheck.co.uk

v15.0 16-May-2023

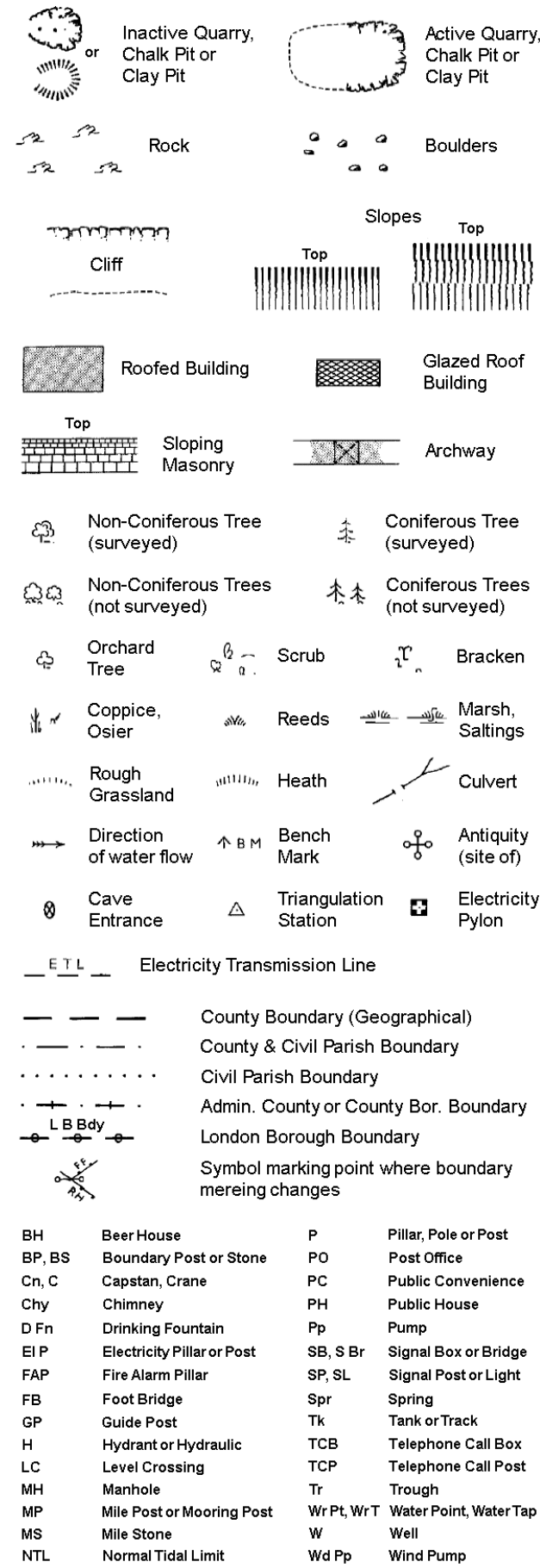
Page 5 of 5

Historical Mapping Legends

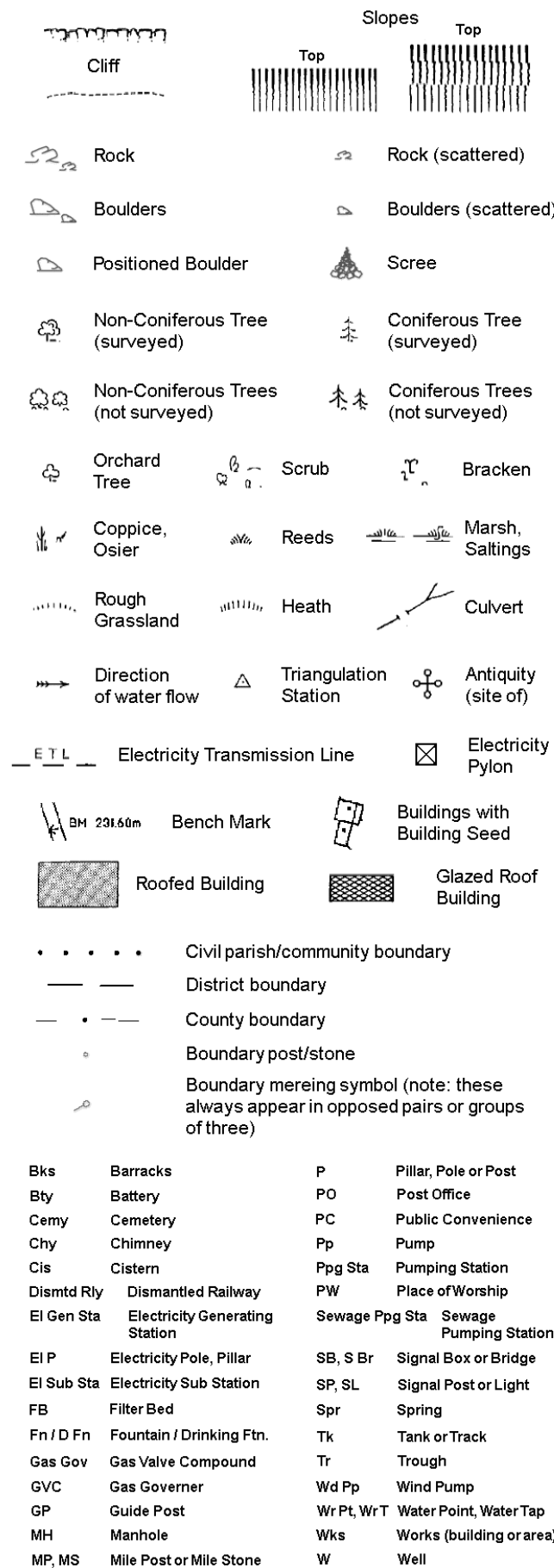
Ordnance Survey County Series and Ordnance Survey Plan 1:2,500



Ordnance Survey Plan, Additional SIMs and Supply of Unpublished Survey Information 1:2,500 and 1:1,250



Large-Scale National Grid Data 1:2,500 and 1:1,250

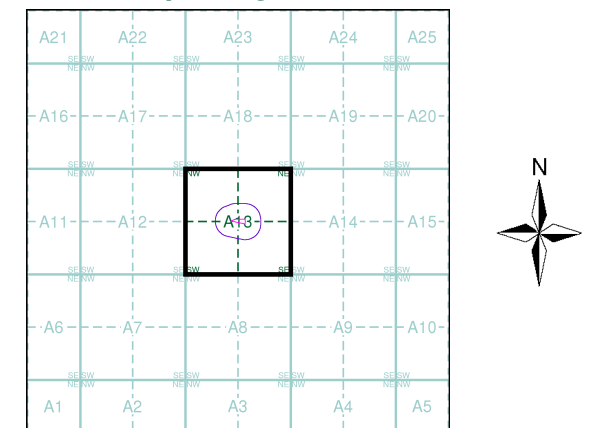


Geotechnical & Geoenvironmental Specialists

Historical Mapping & Photography included:

Mapping Type	Scale	Date	Pg
Glamorganshire	1:2,500	1877	2
Glamorganshire	1:2,500	1899	3
Glamorganshire	1:2,500	1918 - 1919	4
Glamorganshire	1:2,500	1941	5
Ordnance Survey Plan	1:2,500	1962	6
Ordnance Survey Plan	1:2,500	1972	7
Additional SIMs	1:2,500	1987	8
Large-Scale National Grid Data	1:2,500	1993	9
Historical Aerial Photography	1:2,500	2000	10

Historical Map - Segment A13



Order Details

Order Number: 311342604_1_1
Customer Ref: 17782/JRW
National Grid Reference: 284350, 195670
Slice: A
Site Area (Ha): 0.18
Search Buffer (m): 100

Site Details

Bakers DIY Store, Afan Road, Duffryn Rhondda, PORT
TALBOT, SA13 3ES



Tel: 0844 844 9952
Fax: 0844 844 9951
Web: www.envirocheck.co.uk



Geotechnical & Geoenvironmental Specialists

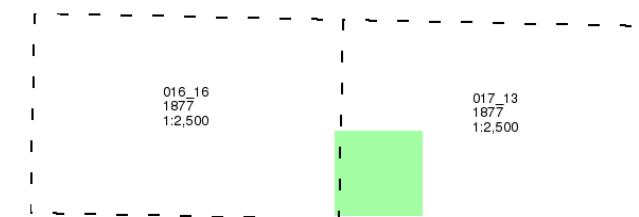
Glamorganshire

Published 1877

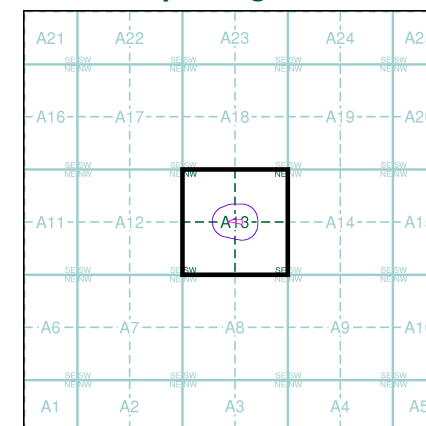
Source map scale - 1:2,500

The historical maps shown were reproduced from maps predominantly held at the scale adopted for England, Wales and Scotland in the 1840's. In 1854 the 1:2,500 scale was adopted for mapping urban areas and by 1896 it covered the whole of what were considered to be the cultivated parts of Great Britain. The published date given below is often some years later than the surveyed date. Before 1938, all OS maps were based on the Cassini Projection, with independent surveys of a single county or group of counties, giving rise to significant inaccuracies in outlying areas.

Map Name(s) and Date(s)



Historical Map - Segment A13



Order Details

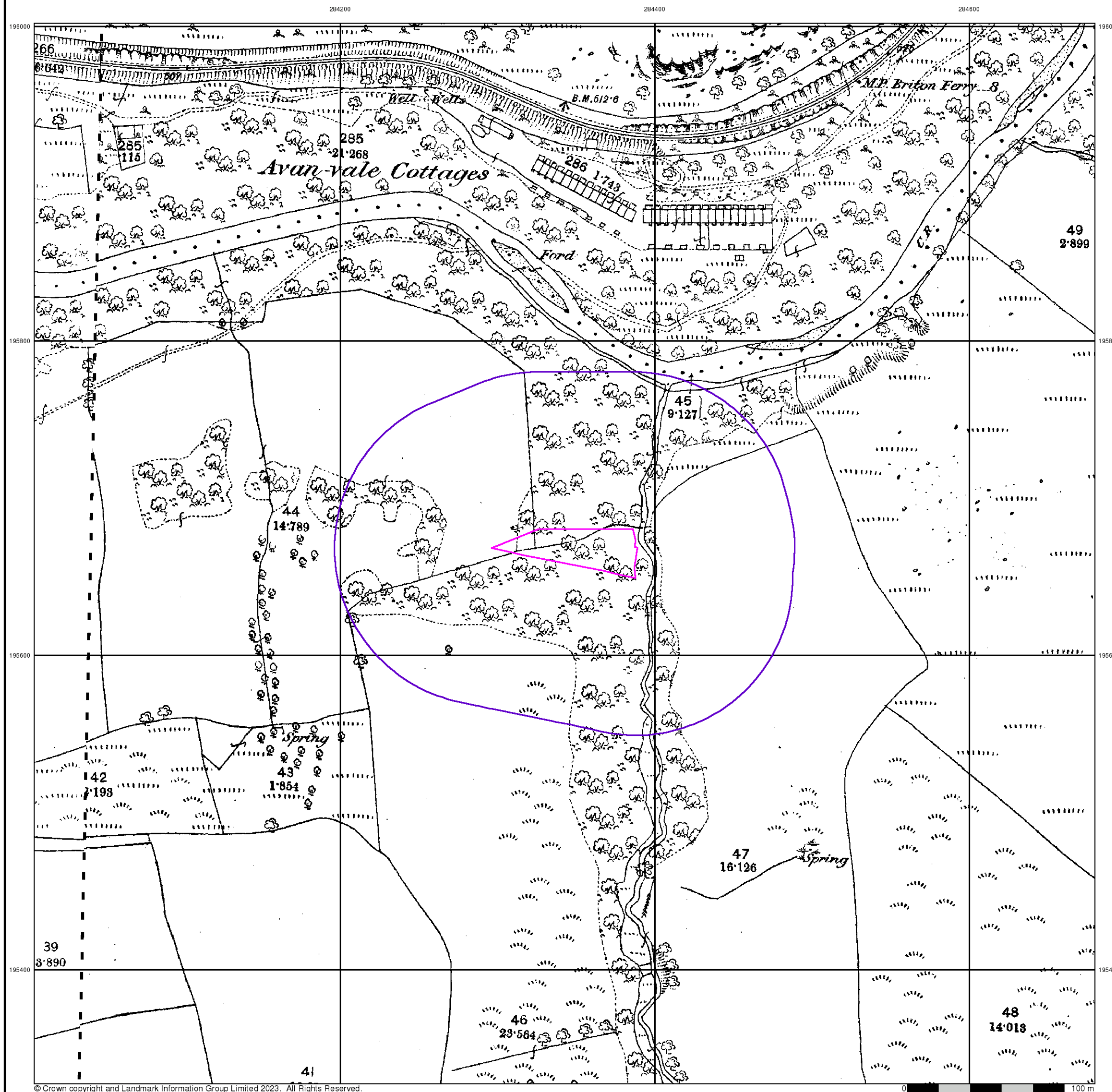
Order Number: 311342604_1_1
Customer Ref: 17782/JRW
National Grid Reference: 284350, 195670
Slice: A
Site Area (Ha): 0.18
Search Buffer (m): 100

Site Details

Bakers DIY Store, Afan Road, Duffryn Rhondda, PORT TALBOT, SA13 3ES



Tel: 0844 844 9952
Fax: 0844 844 9951
Web: www.envirocheck.co.uk





Geotechnical & Geoenvironmental Specialists

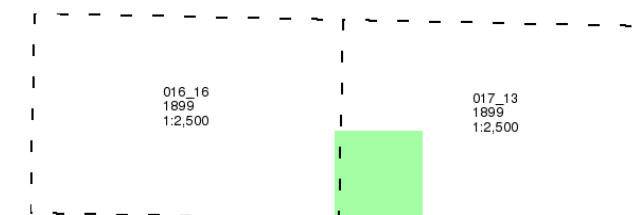
Glamorganshire

Published 1899

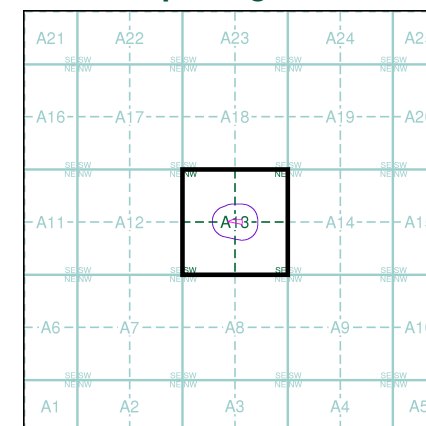
Source map scale - 1:2,500

The historical maps shown were reproduced from maps predominantly held at the scale adopted for England, Wales and Scotland in the 1840's. In 1854 the 1:2,500 scale was adopted for mapping urban areas and by 1896 it covered the whole of what were considered to be the cultivated parts of Great Britain. The published date given below is often some years later than the surveyed date. Before 1938, all OS maps were based on the Cassini Projection, with independent surveys of a single county or group of counties, giving rise to significant inaccuracies in outlying areas.

Map Name(s) and Date(s)



Historical Map - Segment A13



Order Details

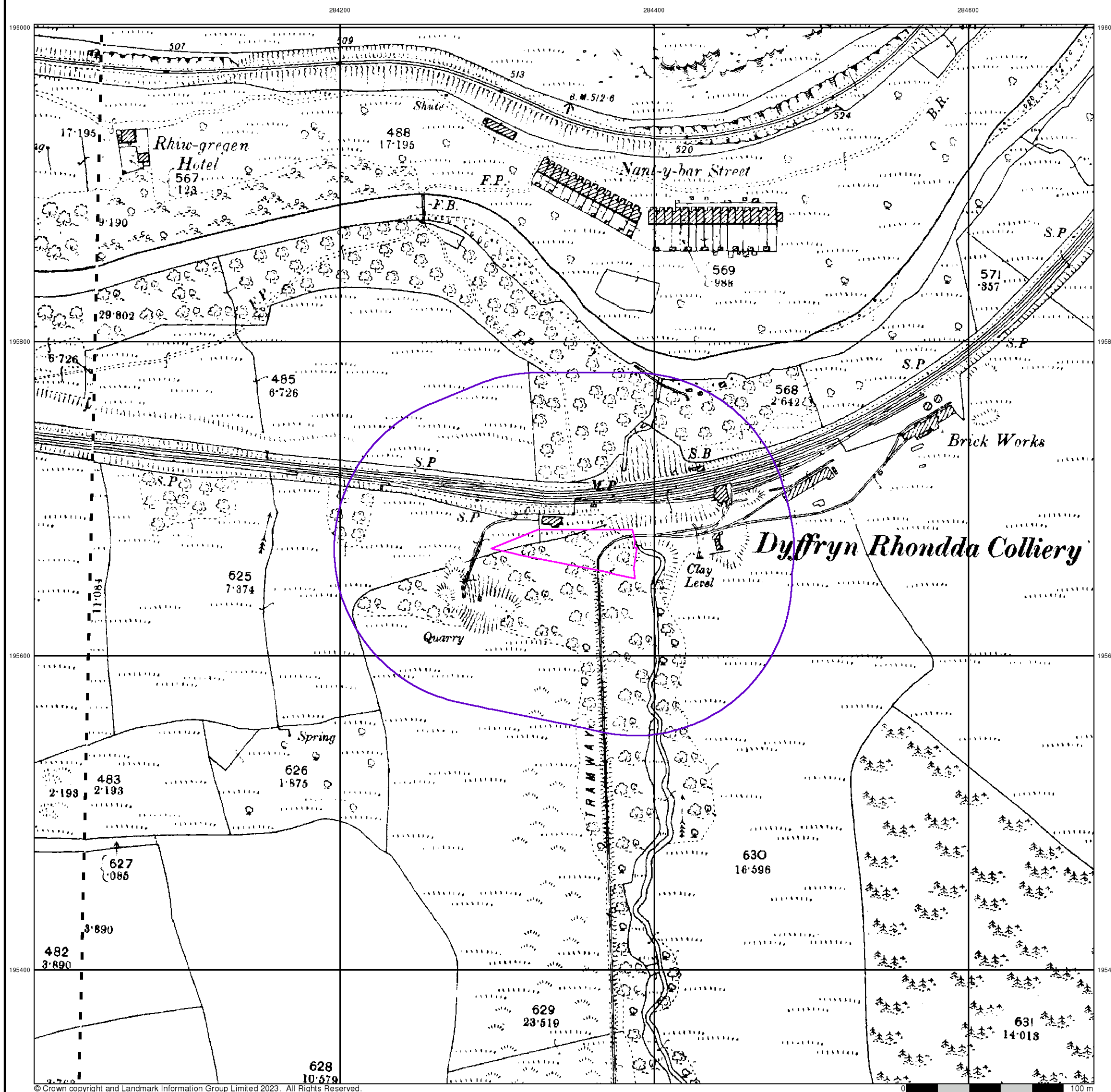
Order Number: 311342604_1_1
Customer Ref: 17782/JRW
National Grid Reference: 284350, 195670
Slice: A
Site Area (Ha): 0.18
Search Buffer (m): 100

Site Details

Bakers DIY Store, Afan Road, Duffryn Rhondda, PORT TALBOT, SA13 3ES

Landmark
INFORMATION GROUP

Tel: 0844 844 9952
Fax: 0844 844 9951
Web: www.envirocheck.co.uk





Geotechnical & Geoenvironmental Specialists

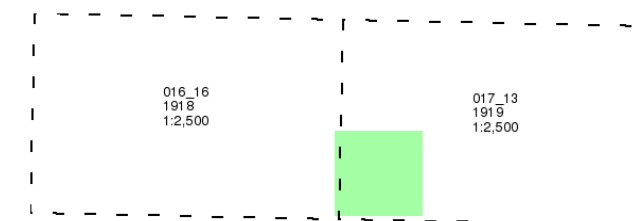
Glamorganshire

Published 1918 - 1919

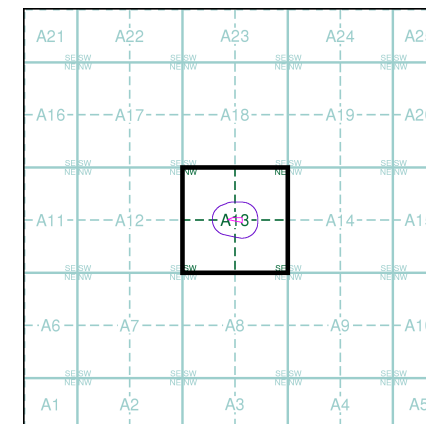
Source map scale - 1:2,500

The historical maps shown were reproduced from maps predominantly held at the scale adopted for England, Wales and Scotland in the 1840's. In 1854 the 1:2,500 scale was adopted for mapping urban areas and by 1896 it covered the whole of what were considered to be the cultivated parts of Great Britain. The published date given below is often some years later than the surveyed date. Before 1938, all OS maps were based on the Cassini Projection, with independent surveys of a single county or group of counties, giving rise to significant inaccuracies in outlying areas.

Map Name(s) and Date(s)



Historical Map - Segment A13



Order Details

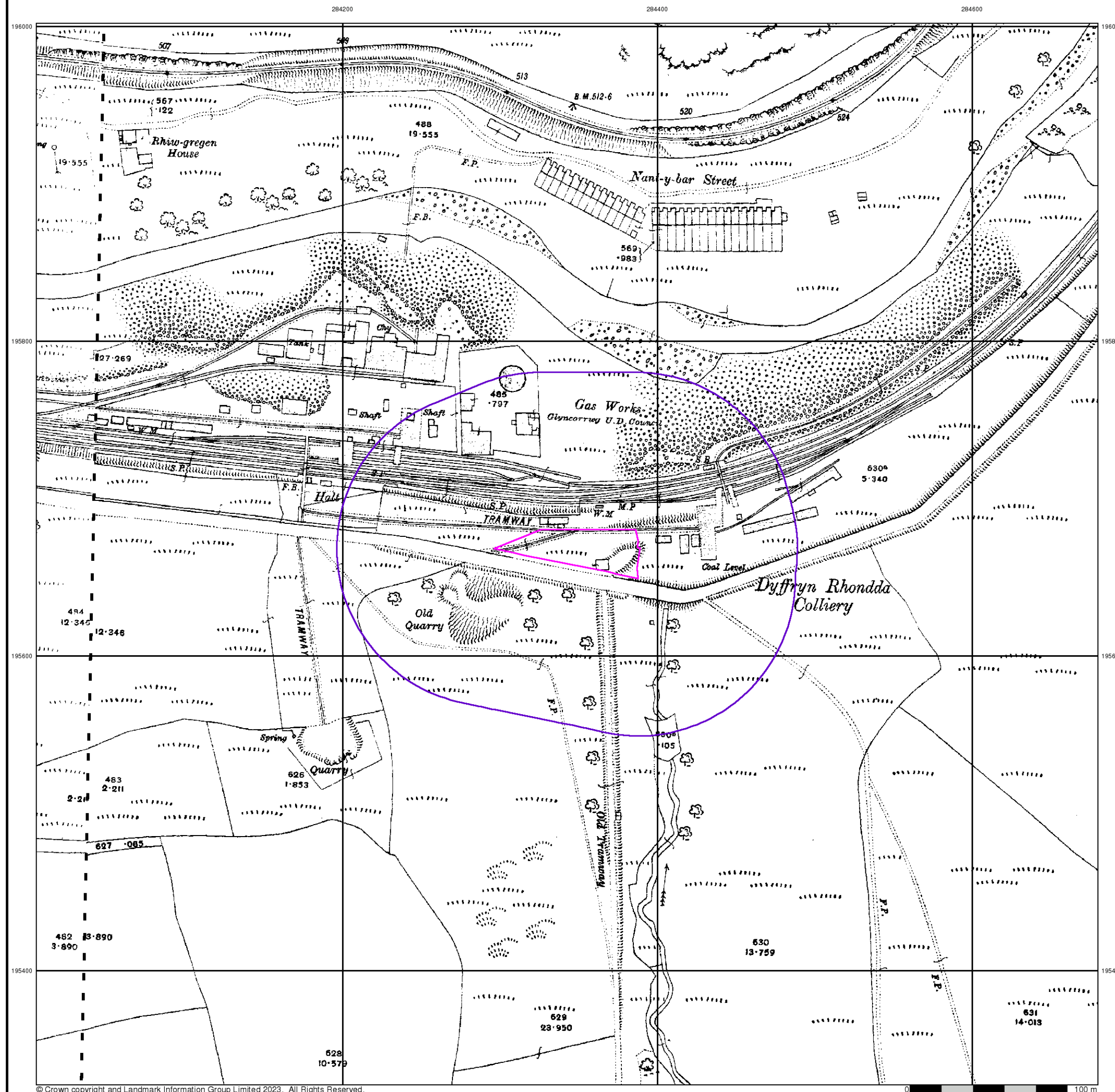
Order Number: 311342604_1_1
Customer Ref: 17782/JRW
National Grid Reference: 284350, 195670
Slice: A
Site Area (Ha): 0.18
Search Buffer (m): 100

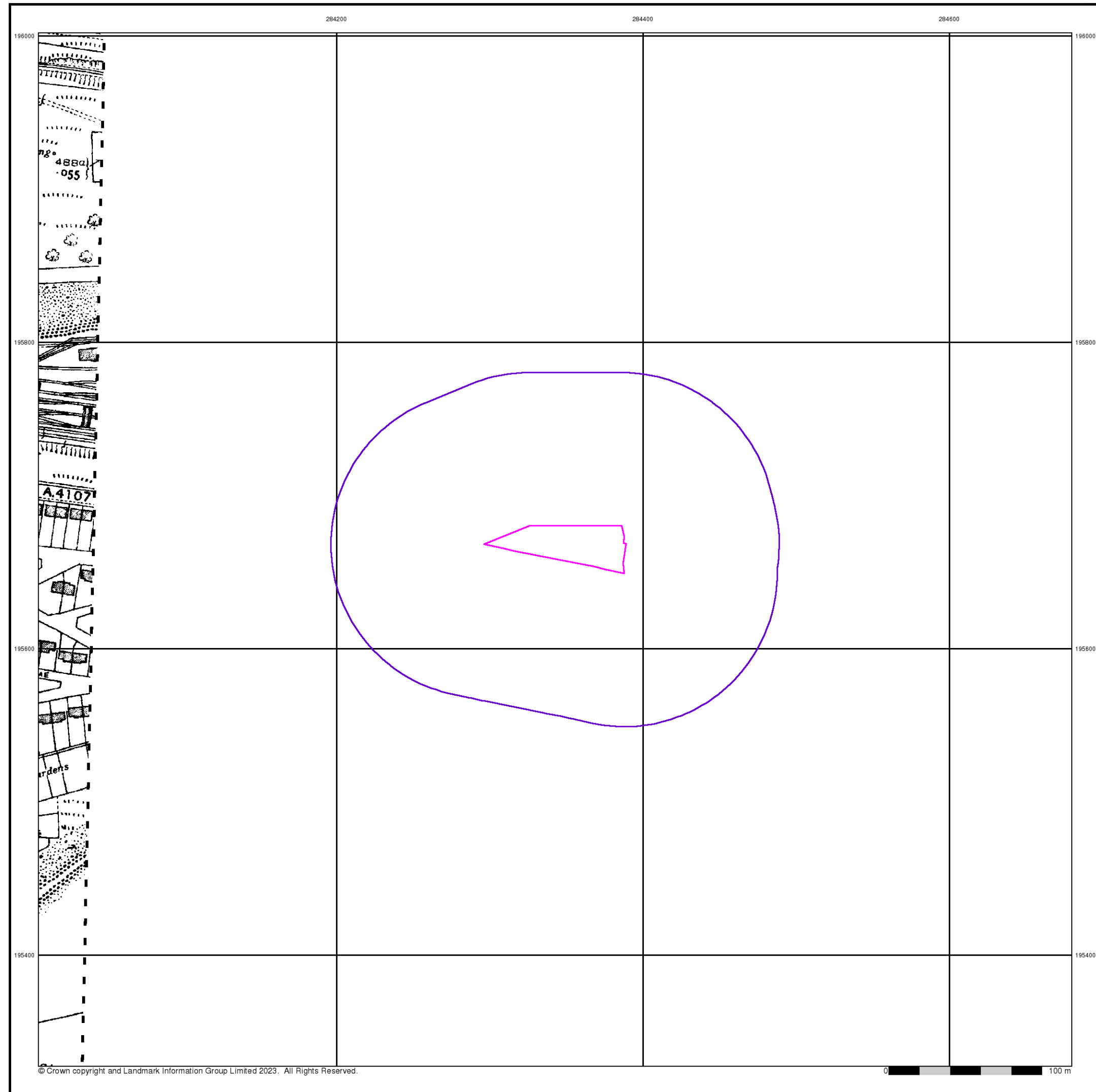
Site Details

Bakers DIY Store, Afan Road, Duffryn Rhondda, PORT TALBOT, SA13 3ES



Tel: 0844 844 9952
Fax: 0844 844 9951
Web: www.envirocheck.co.uk





Geotechnical & Geoenvironmental Specialists

Glamorganshire

Published 1941

Source map scale - 1:2,500

The historical maps shown were reproduced from maps predominantly held at the scale adopted for England, Wales and Scotland in the 1840's. In 1854 the 1:2,500 scale was adopted for mapping urban areas and by 1896 it covered the whole of what were considered to be the cultivated parts of Great Britain. The published date given below is often some years later than the surveyed date. Before 1938, all OS maps were based on the Cassini Projection, with independent surveys of a single county or group of counties, giving rise to significant inaccuracies in outlying areas.

Map Name(s) and Date(s)

016_16
1941
1:2,500

Historical Map - Segment A13

Order Details

Order Number:	311342604_1_1
Customer Ref:	17782/JRW
National Grid Reference:	284350, 195670
Slice:	A
Site Area (Ha):	0.18
Search Buffer (m):	100

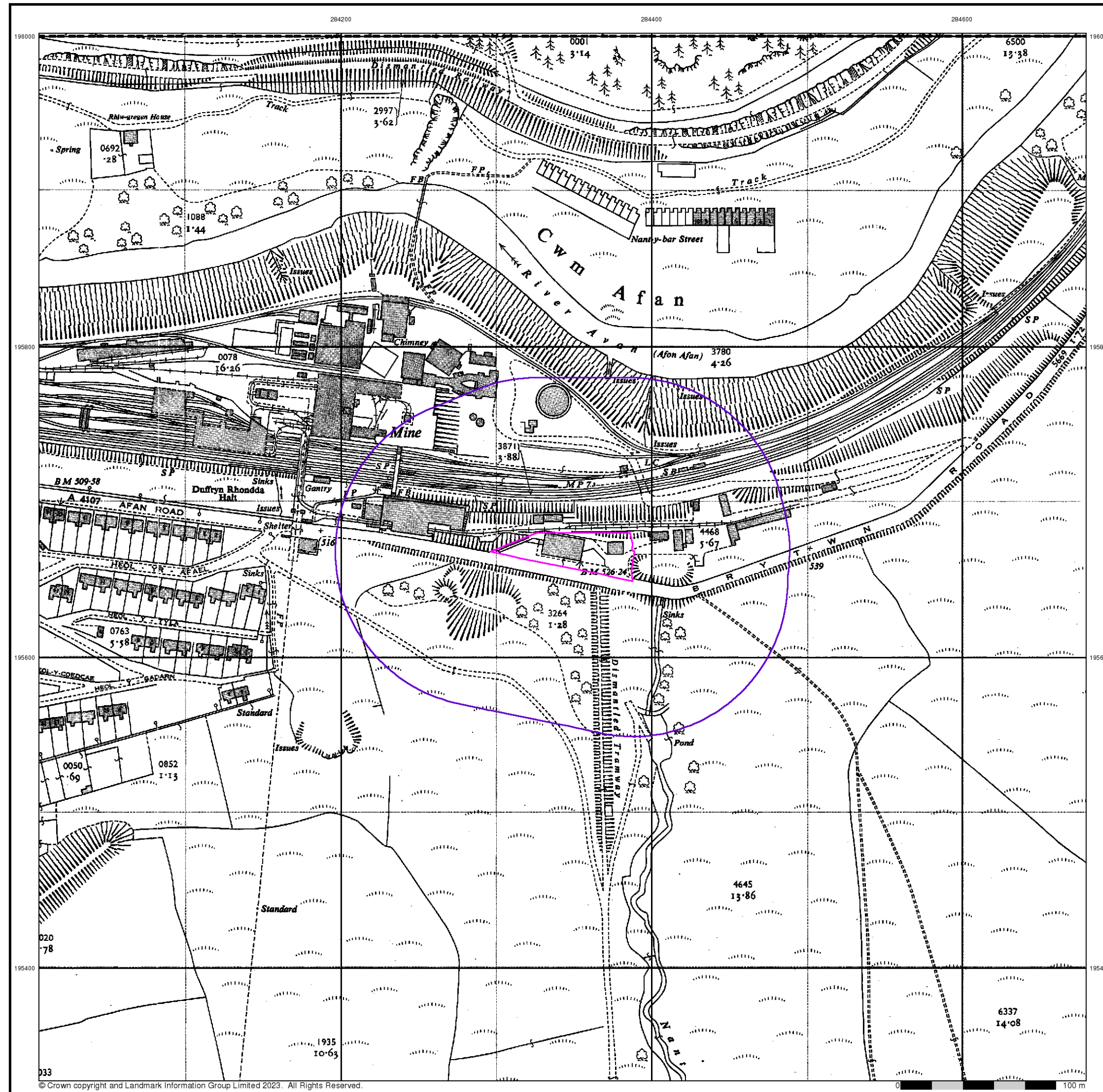
Site Details

Bakers DIY Store, Afan Road, Duffryn Rhondda, PORT TALBOT, SA13 3ES

INFORMATION GROUP

Tel: 0844 844 9952
Fax: 0844 844 9951
Web: www.envirocheck.co.uk

A Landmark Information Group Service v50.0 16-May-2023 Page 5 of 10



Geotechnical & Geoenvironmental Specialists

Ordnance Survey Plan

Published 1962

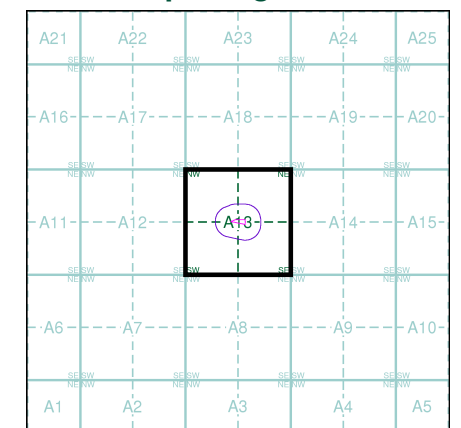
Source map scale - 1:2,500

The historical maps shown were reproduced from maps predominantly held at the scale adopted for England, Wales and Scotland in the 1840's. In 1854 the 1:2,500 scale was adopted for mapping urban areas and by 1896 it covered the whole of what were considered to be the cultivated parts of Great Britain. The published date given below is often some years later than the surveyed date. Before 1938, all OS maps were based on the Cassini Projection, with independent surveys of a single county or group of counties, giving rise to significant inaccuracies in outlying areas.

Map Name(s) and Date(s)

SS8496
1962
1:2,500
SS8495
1962
1:2,500

Historical Map - Segment A13



Order Details

Order Number: 311342604_1_1
Customer Ref: 17782/JRW
National Grid Reference: 284350, 195670
Slice: A
Site Area (Ha): 0.18
Search Buffer (m): 100

Site Details

Bakers DIY Store, Afan Road, Duffryn Rhondda, PORT TALBOT, SA13 3ES



Tel: 0844 844 9952
Fax: 0844 844 9951
Web: www.envirocheck.co.uk



Geotechnical & Geoenvironmental Specialists

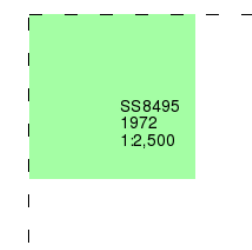
Ordnance Survey Plan

Published 1972

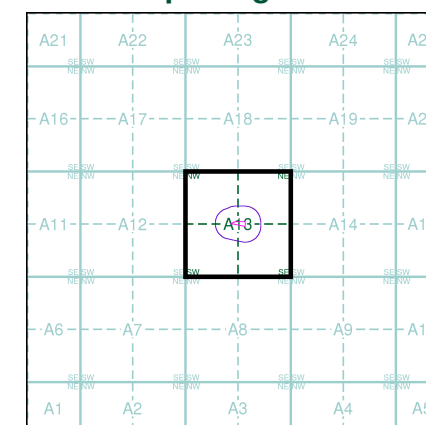
Source map scale - 1:2,500

The historical maps shown were reproduced from maps predominantly held at the scale adopted for England, Wales and Scotland in the 1840's. In 1854 the 1:2,500 scale was adopted for mapping urban areas and by 1896 it covered the whole of what were considered to be the cultivated parts of Great Britain. The published date given below is often some years later than the surveyed date. Before 1938, all OS maps were based on the Cassini Projection, with independent surveys of a single county or group of counties, giving rise to significant inaccuracies in outlying areas.

Map Name(s) and Date(s)



Historical Map - Segment A13



Order Details

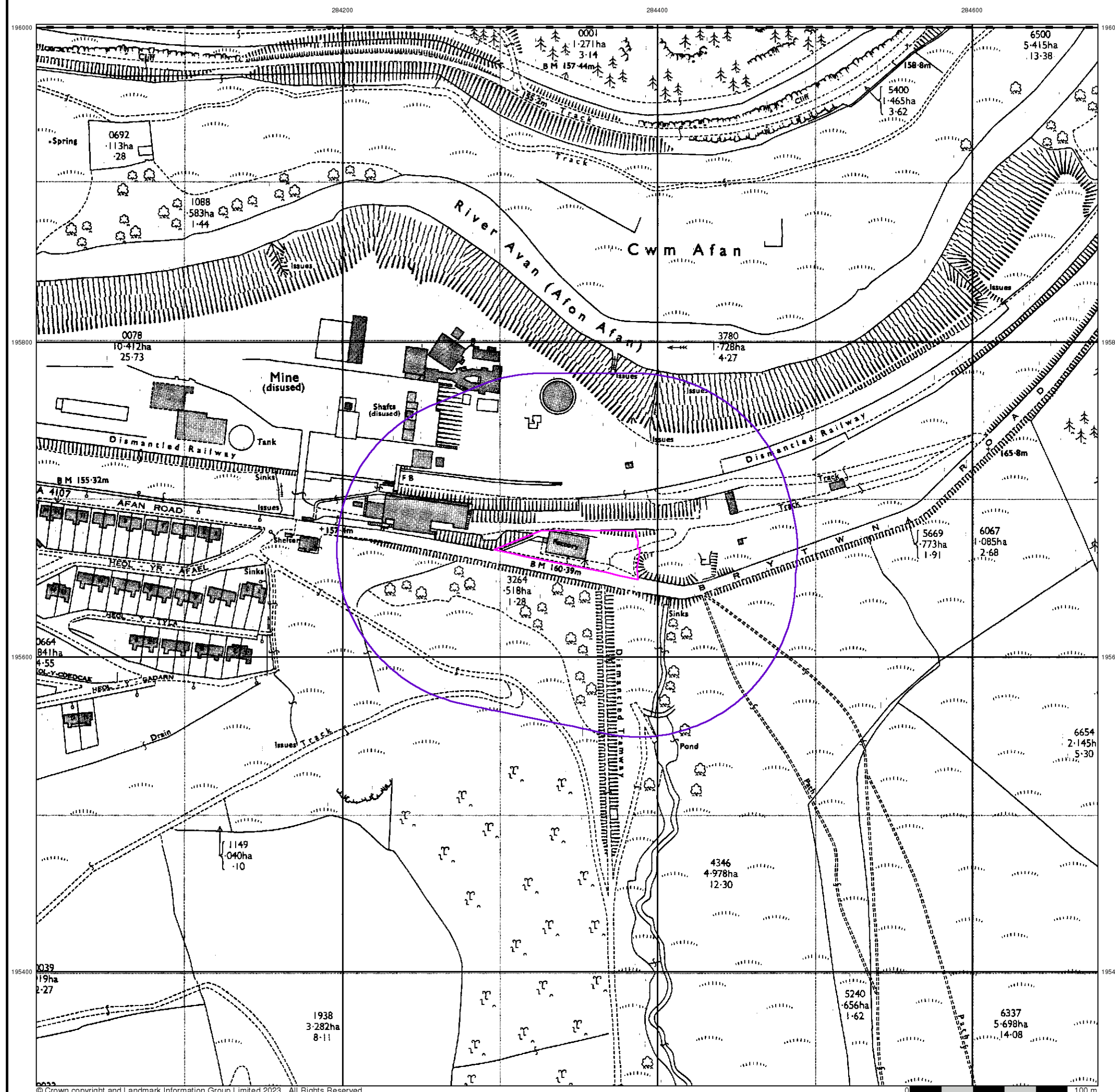
Order Number: 311342604_1_1
Customer Ref: 17782/JRW
National Grid Reference: 284350, 195670
Slice: A
Site Area (Ha): 0.18
Search Buffer (m): 100

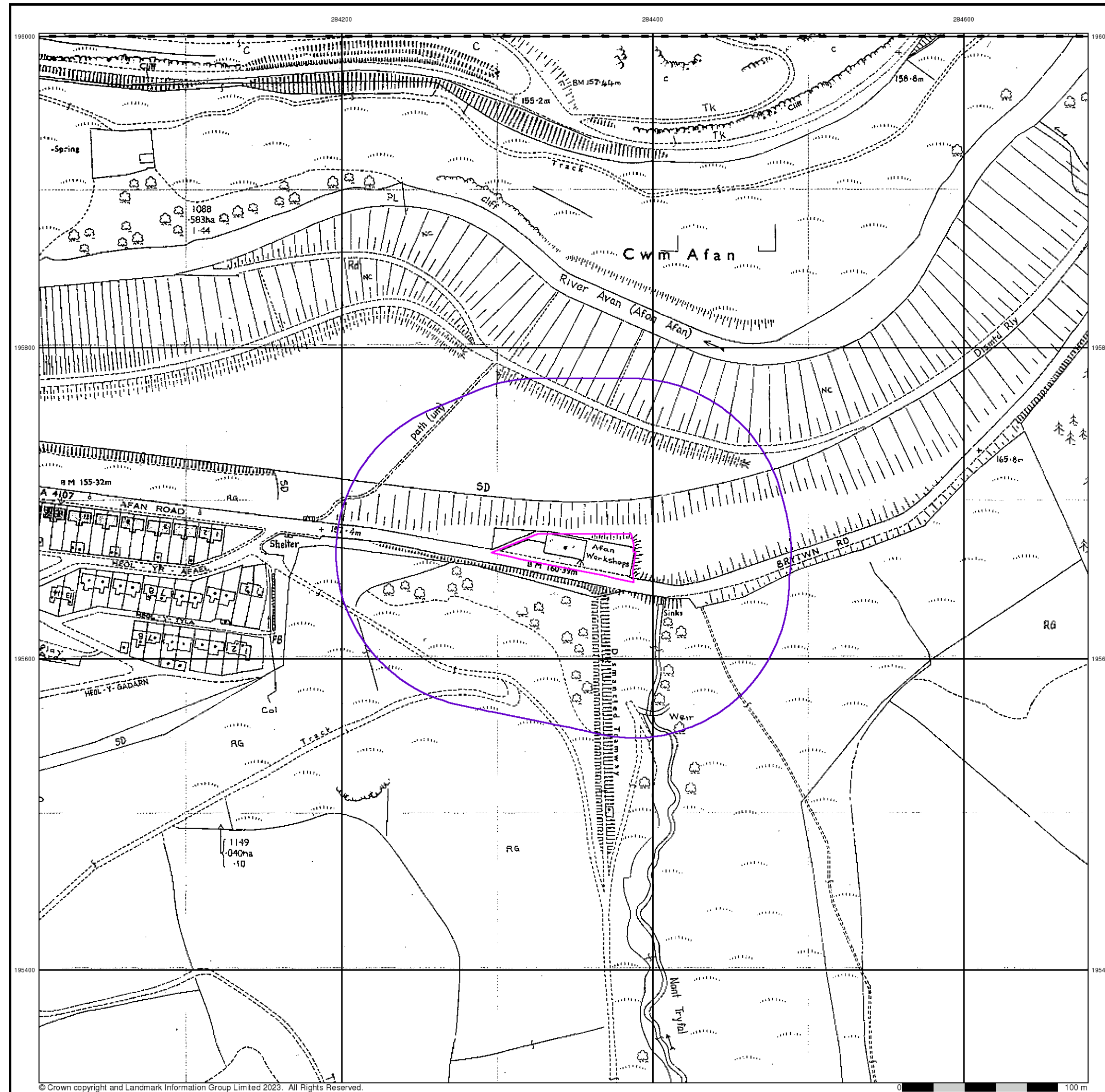
Site Details

Bakers DIY Store, Afan Road, Duffryn Rhondda, PORT
TALBOT, SA13 3ES



Tel: 0844 844 9952
Fax: 0844 844 9951
Web: www.envirocheck.co.uk





Geotechnical & Geoenvironmental Specialists

Additional SIMs

Published 1987

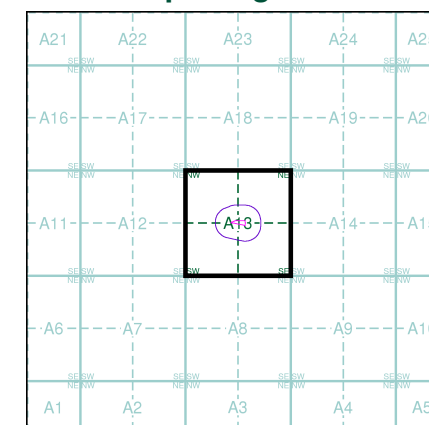
Source map scale - 1:2,500

The SIM cards (Ordnance Survey's 'Survey of Information on Microfilm') are further, minor editions of mapping which were produced and published in between the main editions as an area was updated. They date from 1947 to 1994, and contain detailed information on buildings, roads and land-use. These maps were produced at both 1:2,500 and 1:1,250 scales.

Map Name(s) and Date(s)

SS8496	1987	1:2,500
SS8495	1987	1:2,500

Historical Map - Segment A13



Order Details

Order Number: 311342604_1_1
Customer Ref: 17782/JRW
National Grid Reference: 284350, 195670
Slice: A
Site Area (Ha): 0.18
Search Buffer (m): 100

Site Details

Bakers DIY Store, Afan Road, Duffryn Rhondda, PORT TALBOT, SA13 3ES



Tel: 0844 844 9952
Fax: 0844 844 9951
Web: www.envirocheck.co.uk



Geotechnical & Geoenvironmental Specialists

Large-Scale National Grid Data

Published 1993

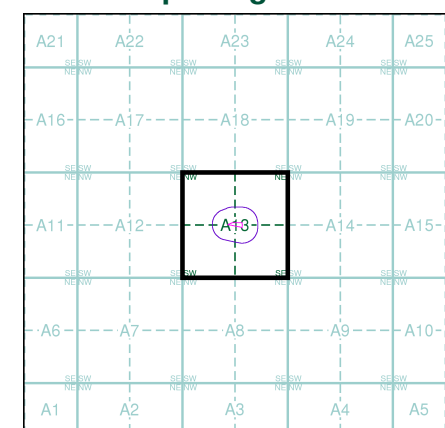
Source map scale - 1:2,500

'Large Scale National Grid Data' superseded SIM cards (Ordnance Survey's 'Survey of Information on Microfilm') in 1992, and continued to be produced until 1999. These maps were the fore-runners of digital mapping and so provide detailed information on houses and roads, but tend to show less topographic features such as vegetation. These maps were produced at both 1:2,500 and 1:1,250 scales.

Map Name(s) and Date(s)

SS8496	1993	1:2,500
SS8495	1993	1:2,500

Historical Map - Segment A13



Order Details

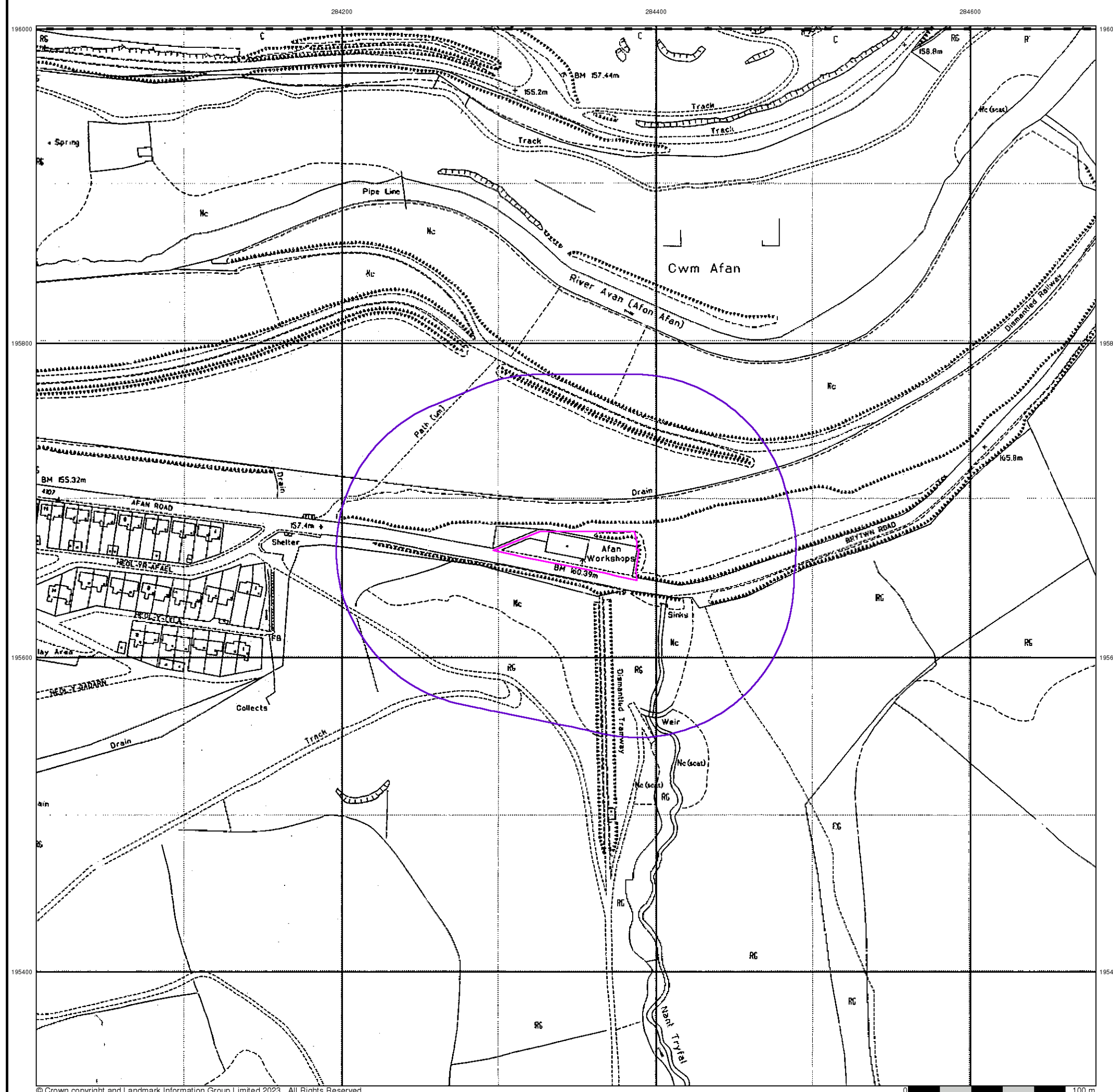
Order Number: 311342604_1_1
Customer Ref: 17782/JRW
National Grid Reference: 284350, 195670
Slice: A
Site Area (Ha): 0.18
Search Buffer (m): 100

Site Details

Bakers DIY Store, Afan Road, Duffryn Rhondda, PORT TALBOT, SA13 3ES



Tel: 0844 844 9952
Fax: 0844 844 9951
Web: www.envirocheck.co.uk





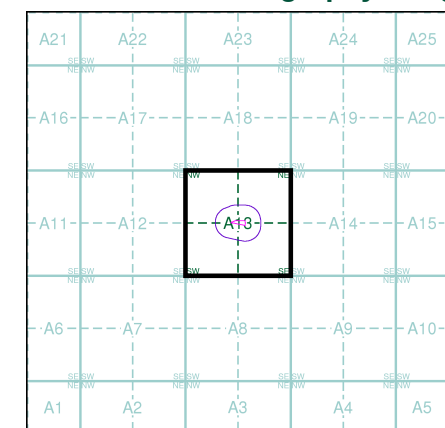
Geotechnical & Geoenvironmental Specialists

Historical Aerial Photography

Published 2000

This aerial photography was produced by Getmapping, these vertical aerial photographs provide a seamless, full colour survey of the whole of Great Britain

Historical Aerial Photography - Segment A13



Order Details

Order Number: 311342604_1_1
Customer Ref: 17782/JRW
National Grid Reference: 284350, 195670
Slice: A
Site Area (Ha): 0.18
Search Buffer (m): 100

Site Details

Bakers DIY Store, Afan Road, Duffryn Rhondda, PORT TALBOT, SA13 3ES



Tel: 0844 844 9952
Fax: 0844 844 9951
Web: www.envirocheck.co.uk

Historical Mapping Legends

Ordnance Survey County Series 1:10,560

	Gravel Pit		Sand Pit		Other Pits
	Quarry		Shingle		Orchard
	Osiers		Reeds		Marsh
	Mixed Wood		Deciduous		Brushwood
	Fir		Furze		Rough Pasture
	Arrow denotes flow of water		Trigonometrical Station		
	Site of Antiquities		Bench Mark		
	Pump, Guide Post, Signal Post		Well, Spring, Boundary Post		
	•285 Surface Level				
	Sketched Contour		Instrumental Contour		
	Main Roads		Minor Roads		
	Sunken Road		Raised Road		
	Road over Railway		Railway over River		
	Railway over Road		Level Crossing		
	Road over River or Canal		Road over Stream		
	Road over Stream				
	County Boundary (Geographical)				
	County & Civil Parish Boundary				
	Administrative County & Civil Parish Boundary				
	County Borough Boundary (England)				
	County Burgh Boundary (Scotland)				
	Rural District Boundary				
	Civil Parish Boundary				

Ordnance Survey Plan 1:10,000

	Chalk Pit, Clay Pit or Quarry		Gravel Pit
	Sand Pit		Disused Pit or Quarry
	Refuse or Slag Heap		Lake, Loch or Pond
	Dunes		Boulders
	Coniferous Trees		Non-Coniferous Trees
	Orchard		Scrub
	Bracken		Heath
	Marsh		Reeds
	Building		Glasshouse
	Sloping Masonry		Pylon
	Cutting		Embankment
	Road Under		Road Over
	Level Crossing		Foot Bridge
	Standard Gauge Multiple Track		Standard Gauge Single Track
	Siding, Tramway or Mineral Line		Narrow Gauge
	Geographical County		Administrative County, County Borough or County of City
	Municipal Borough, Urban or Rural District, Burgh or District Council		Borough, Burgh or County Constituency
	Civil Parish		
	BP, BS Boundary Post or Stone		Police Station
	Church		Post Office
	Club House		Public Convenience
	Fire Engine Station		Public House
	Foot Bridge		Signal Box
	Fountain		Spring
	Guide Post		Telephone Call Box
	Mile Post		Telephone Call Post
	Mile Stone		Well

1:10,000 Raster Mapping

	Gravel Pit		Refuse tip or slag heap
	Rock		Rock (scattered)
	Boulders		Boulders (scattered)
	Shingle		Mud
	Sand		Sand Pit
	Slopes		Top of cliff
	General detail		Underground detail
	Overhead detail		Narrow gauge railway
	Multi-track railway		Single track railway
	County boundary (England only)		Civil, parish or community boundary
	District, Unitary, Metropolitan, London Borough boundary		Constituency boundary
	Area of wooded vegetation		Non-coniferous trees
	Non-coniferous trees (scattered)		Coniferous trees
	Coniferous trees (scattered)		Positioned tree
	Orchard		Coppice or Osiers
	Rough Grassland		Heath
	Scrub		Marsh, Salt Marsh or Reeds
	Water feature		Flow arrows
	Mean high water (springs)		Mean low water (springs)
	Telephone line (where shown)		Electricity transmission line (with poles)
	Bench mark (where shown)		Triangulation station
	Point feature (e.g. Guide Post or Mile Stone)		Pylon, flare stack or lighting tower
	Site of (antiquity)		Glasshouse
	General Building		Important Building

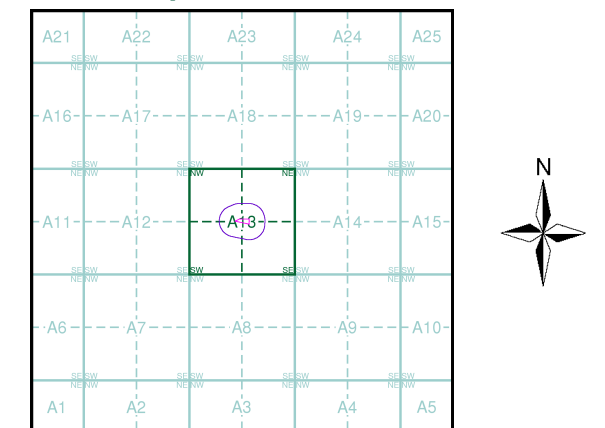


Geotechnical & Geoenvironmental Specialists

Historical Mapping & Photography included:

Mapping Type	Scale	Date	Pg
Glamorganshire	1:10,560	1884	2
Glamorganshire	1:10,560	1900	3
Glamorganshire	1:10,560	1921	4
Glamorganshire	1:10,560	1938 - 1951	5
Historical Aerial Photography	1:10,560	1945 - 1949	6
Glamorganshire	1:10,560	1953	7
Ordnance Survey Plan	1:10,000	1964 - 1965	8
Ordnance Survey Plan	1:10,000	1975	9
Ordnance Survey Plan	1:10,000	1982 - 1988	10
Ordnance Survey Plan	1:10,000	1990	11
10K Raster Mapping	1:10,000	1999	12
10K Raster Mapping	1:10,000	2006	13
VectorMap Local	1:10,000	2022	14

Historical Map - Slice A



Order Details

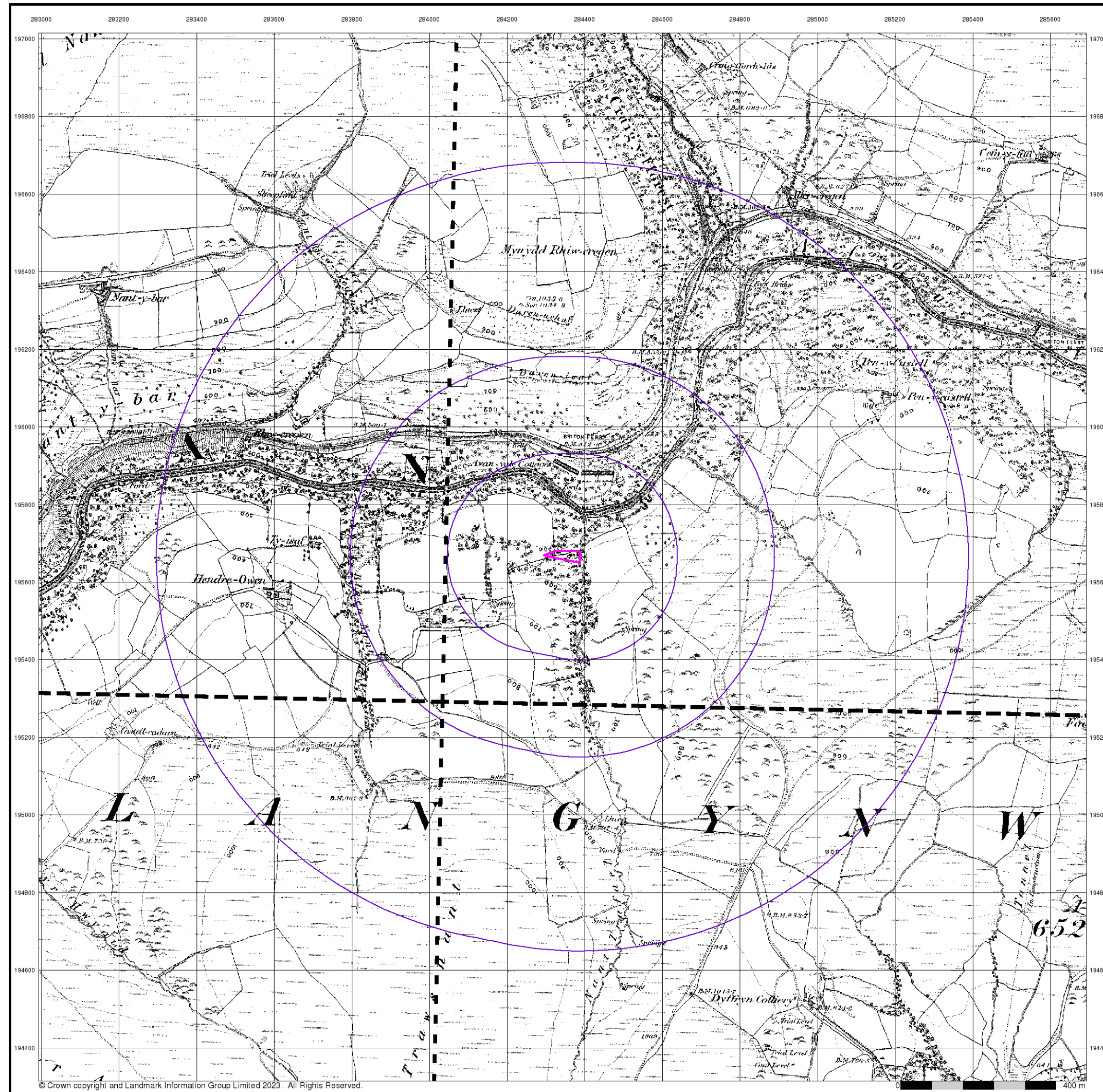
Order Number: 311342604_1_1
Customer Ref: 17782/JRW
National Grid Reference: 284350, 195670
Slice: A
Site Area (Ha): 0.18
Search Buffer (m): 1000

Site Details

Bakers DIY Store, Afan Road, Duffryn Rhondda, PORT
TALBOT, SA13 3ES

Landmark
INFORMATION GROUP

Tel: 0844 844 9952
Fax: 0844 844 9951
Web: www.envirocheck.co.uk



© Crown copyright and Landmark Information Group Limited 2023. All Rights Reserved.



Geotechnical & Geoenvironmental Specialists

Glamorganshire

Published 1884

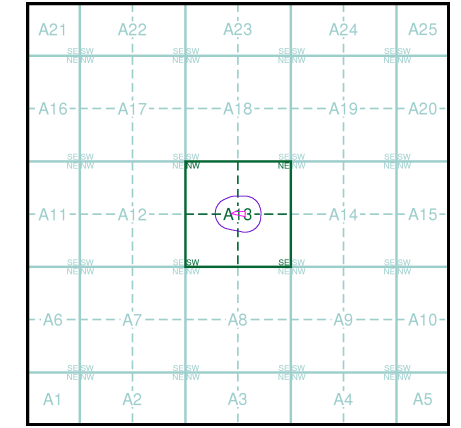
Source map scale - 1:10,560

The historical maps shown were reproduced from maps predominantly held at the scale adopted for England, Wales and Scotland in the 1840's. In 1854 the 1:2,500 scale was adopted for mapping urban areas; these maps were used to update the 1:10,560 maps. The published date given therefore is often some years later than the surveyed date. Before 1938, all OS maps were based on the Cassini Projection, with independent surveys of a single county or group of counties, giving rise to significant inaccuracies in outlying areas. In the late 1940's, a Provisional Edition was produced, which updated the 1:10,560 mapping from a number of sources. The maps appear unfinished - with all military camps and other strategic sites removed. These maps were initially overprinted with the National Grid. In 1970, the first 1:10,000 maps were produced using the Transverse Mercator Projection. The revision process continued until recently, with new editions appearing every 10 years or so for urban areas.

Map Name(s) and Date(s)

01600 1884 1:10,560	01700 1884 1:10,560
02500 1884 1:10,560	02600 1884 1:10,560

Historical Map - Slice A



Order Details

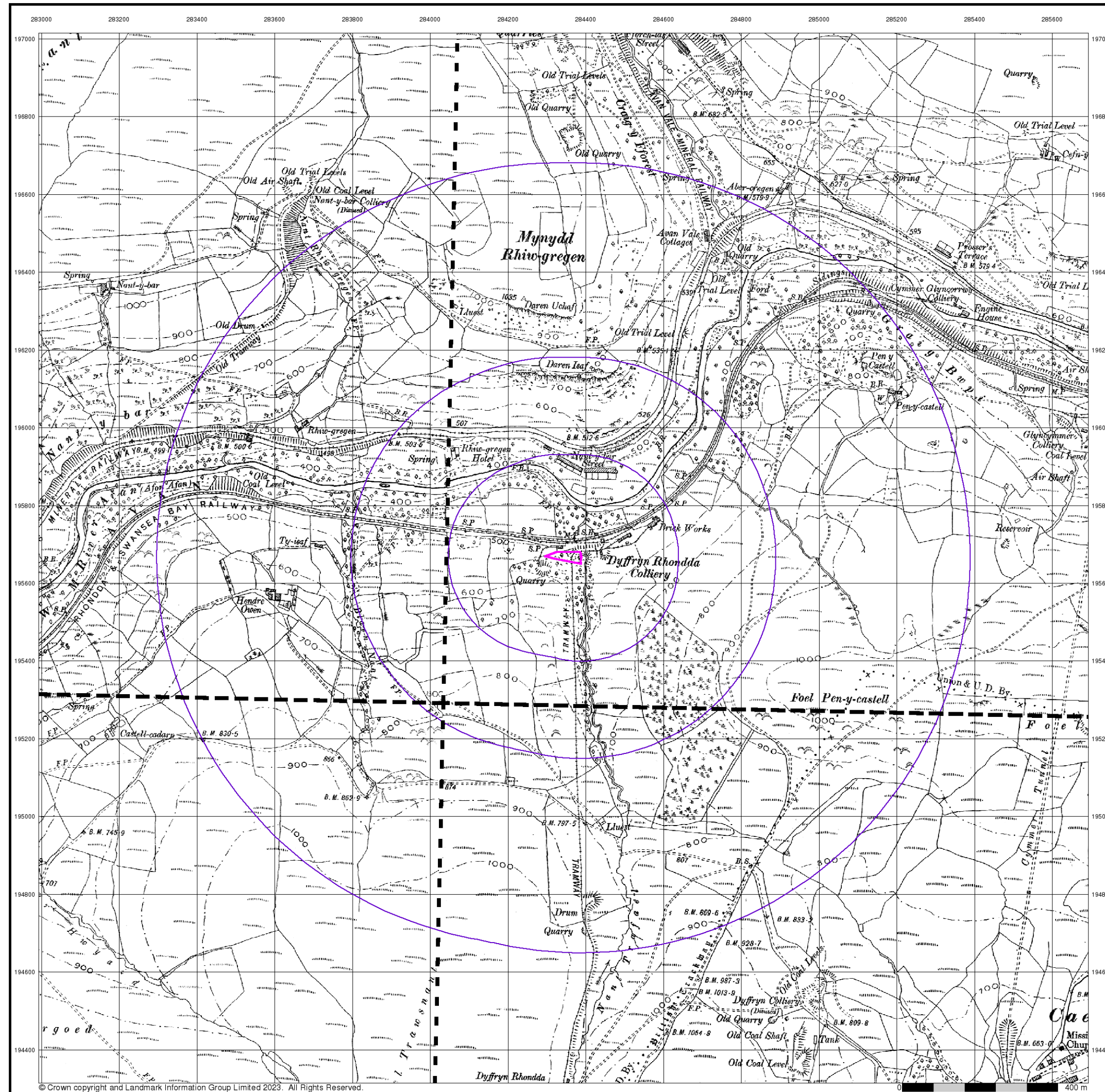
Order Number: 311342604_1_1
Customer Ref: 17782/JRW
National Grid Reference: 284350, 195670
Slice: A
Site Area (Ha): 0.18
Search Buffer (m): 1000

Site Details

Bakers DIY Store, Afan Road, Duffryn Rhondda, PORT TALBOT, SA13 3ES



Tel: 0844 844 9952
Fax: 0844 844 9951
Web: www.envirocheck.co.uk



© Crown copyright and Landmark Information Group Limited 2023. All Rights Reserved.



Geotechnical & Geoenvironmental Specialists

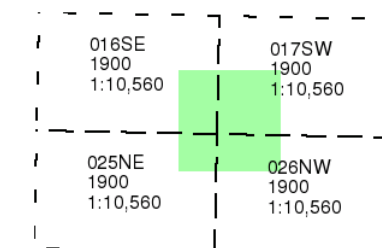
Glamorganshire

Published 1900

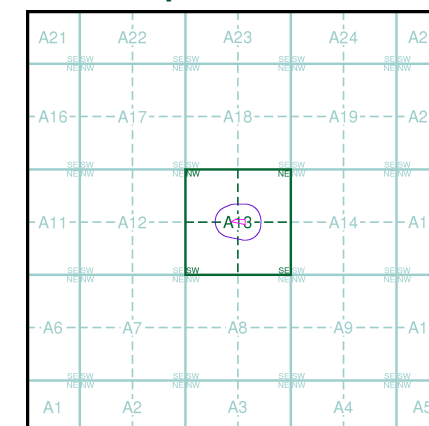
Source map scale - 1:10,560

The historical maps shown were reproduced from maps predominantly held at the scale adopted for England, Wales and Scotland in the 1840's. In 1854 the 1:2,500 scale was adopted for mapping urban areas; these maps were used to update the 1:10,560 maps. The published date given therefore is often some years later than the surveyed date. Before 1938, all OS maps were based on the Cassini Projection, with independent surveys of a single county or group of counties, giving rise to significant inaccuracies in outlying areas. In the late 1940's, a Provisional Edition was produced, which updated the 1:10,560 mapping from a number of sources. The maps appear unfinished - with all military camps and other strategic sites removed. These maps were initially overprinted with the National Grid. In 1970, the first 1:10,000 maps were produced using the Transverse Mercator Projection. The revision process continued until recently, with new editions appearing every 10 years or so for urban areas.

Map Name(s) and Date(s)



Historical Map - Slice A



Order Details

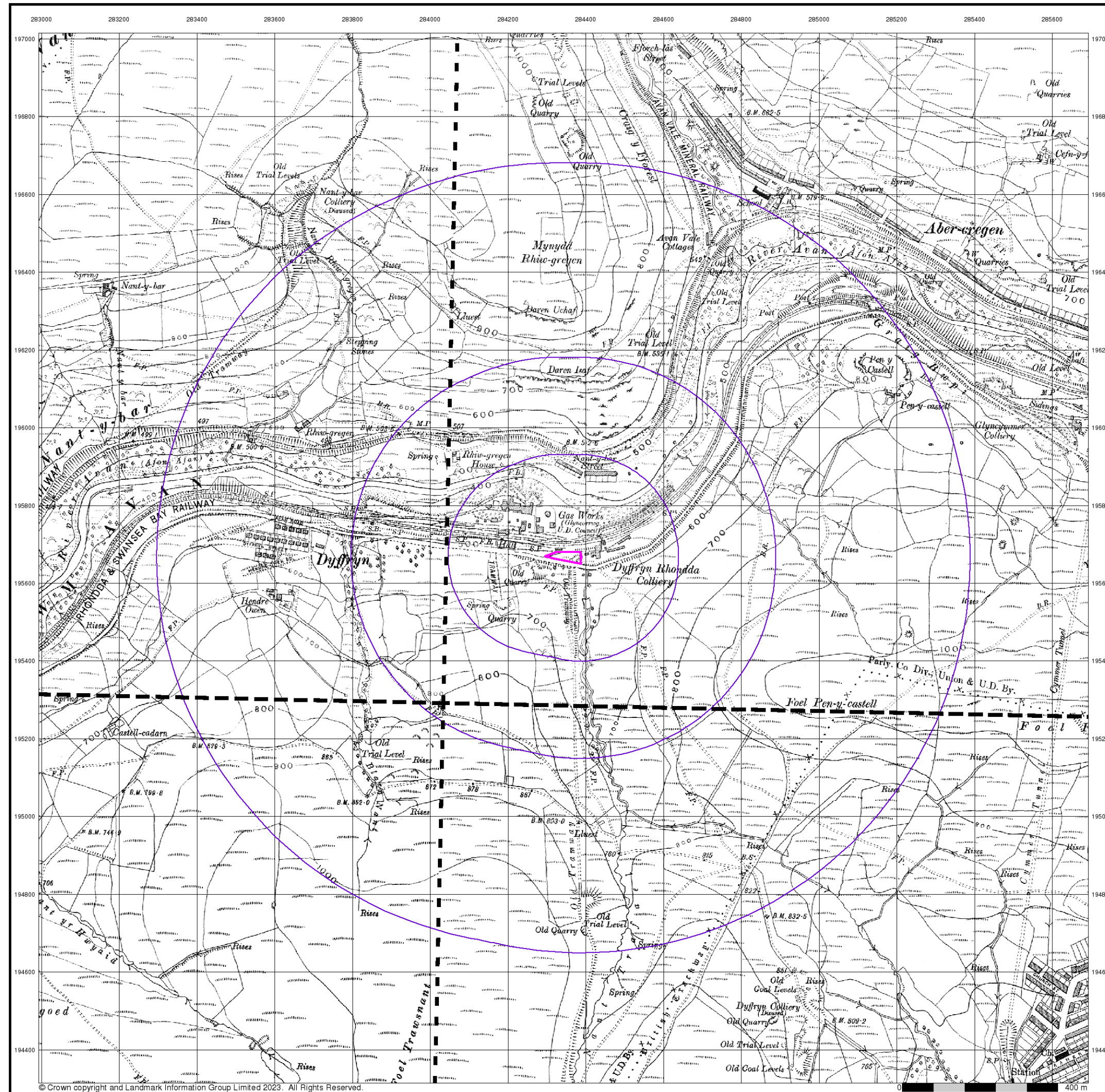
Order Number: 311342604_1_1
Customer Ref: 17782/JRW
National Grid Reference: 284350, 195670
Slice: A
Site Area (Ha): 0.18
Search Buffer (m): 1000

Site Details

Bakers DIY Store, Afan Road, Duffryn Rhondda, PORT
TALBOT, SA13 3ES



Tel: 0844 844 9952
Fax: 0844 844 9951
Web: www.envirocheck.co.uk



Geotechnical & Geoenvironmental Specialists

Glamorganshire

Published 1921

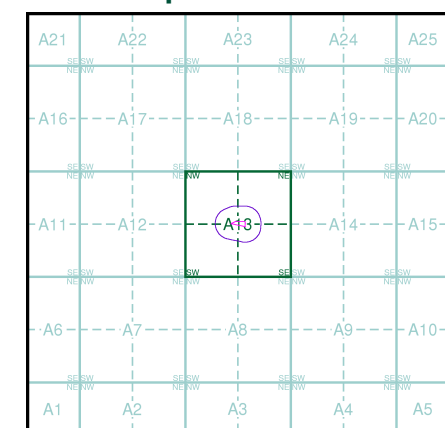
Source map scale - 1:10,560

The historical maps shown were reproduced from maps predominantly held at the scale adopted for England, Wales and Scotland in the 1840's. In 1854 the 1:2,500 scale was adopted for mapping urban areas; these maps were used to update the 1:10,560 maps. The published date given therefore is often some years later than the surveyed date. Before 1938, all OS maps were based on the Cassini Projection, with independent surveys of a single county or group of counties, giving rise to significant inaccuracies in outlying areas. In the late 1940's, a Provisional Edition was produced, which updated the 1:10,560 mapping from a number of sources. The maps appear unfinished - with all military camps and other strategic sites removed. These maps were initially overprinted with the National Grid. In 1970, the first 1:10,000 maps were produced using the Transverse Mercator Projection. The revision process continued until recently, with new editions appearing every 10 years or so for urban areas.

Map Name(s) and Date(s)

016SE 1921 1:10,560	017SW 1921 1:10,560
025NE 1921 1:10,560	026NW 1921 1:10,560

Historical Map - Slice A



Order Details

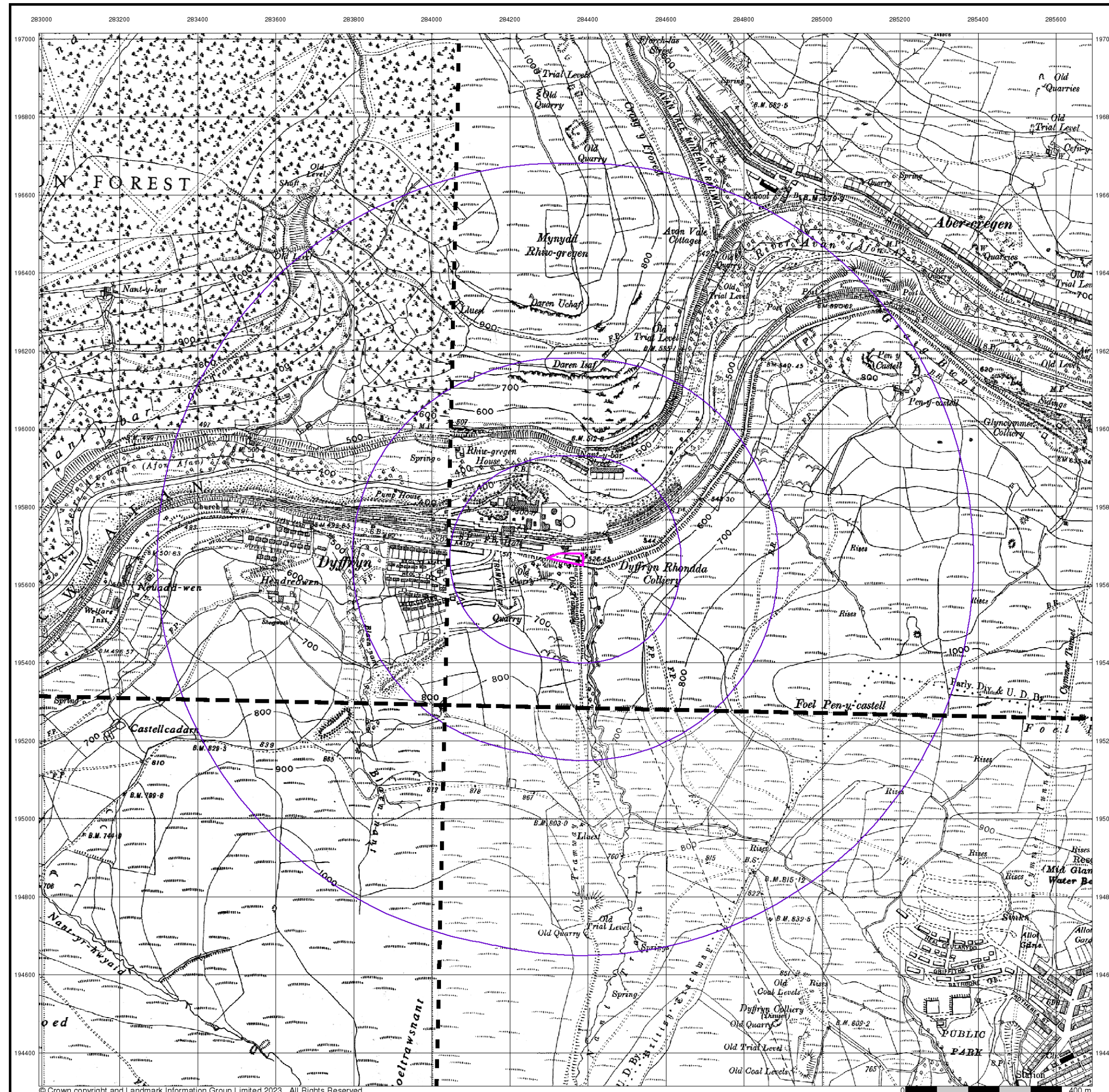
Order Number: 311342604_1_1
Customer Ref: 17782/JRW
National Grid Reference: 284350, 195670
Slice: A
Site Area (Ha): 0.18
Search Buffer (m): 1000

Site Details

Bakers DIY Store, Afan Road, Duffryn Rhondda, PORT
TALBOT, SA13 3ES



Tel: 0844 844 9952
Fax: 0844 844 9951
Web: www.envirocheck.co.uk



© Crown copyright and Landmark Information Group Limited 2023. All Rights Reserved.



Geotechnical & Geoenvironmental Specialists

Glamorganshire

Published 1938 - 1951

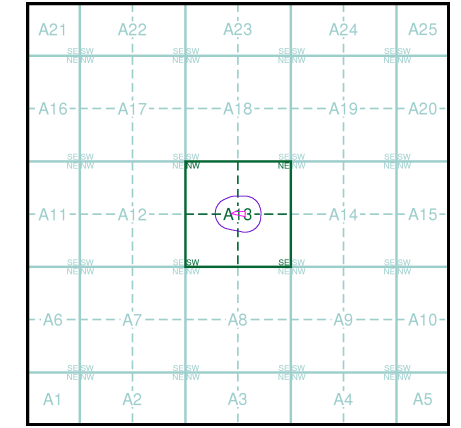
Source map scale - 1:10,560

The historical maps shown were reproduced from maps predominantly held at the scale adopted for England, Wales and Scotland in the 1840's. In 1854 the 1:2,500 scale was adopted for mapping urban areas; these maps were used to update the 1:10,560 maps. The published date given therefore is often some years later than the surveyed date. Before 1938, all OS maps were based on the Cassini Projection, with independent surveys of a single county or group of counties, giving rise to significant inaccuracies in outlying areas. In the late 1940's, a Provisional Edition was produced, which updated the 1:10,560 mapping from a number of sources. The maps appear unfinished - with all military camps and other strategic sites removed. These maps were initially overprinted with the National Grid. In 1970, the first 1:10,000 maps were produced using the Transverse Mercator Projection. The revision process continued until recently, with new editions appearing every 10 years or so for urban areas.

Map Name(s) and Date(s)

016SE 1951 1:10,560	017SW 1938 1:10,560
025NE 1951 1:10,560	026NW 1947 1:10,560

Historical Map - Slice A



Order Details

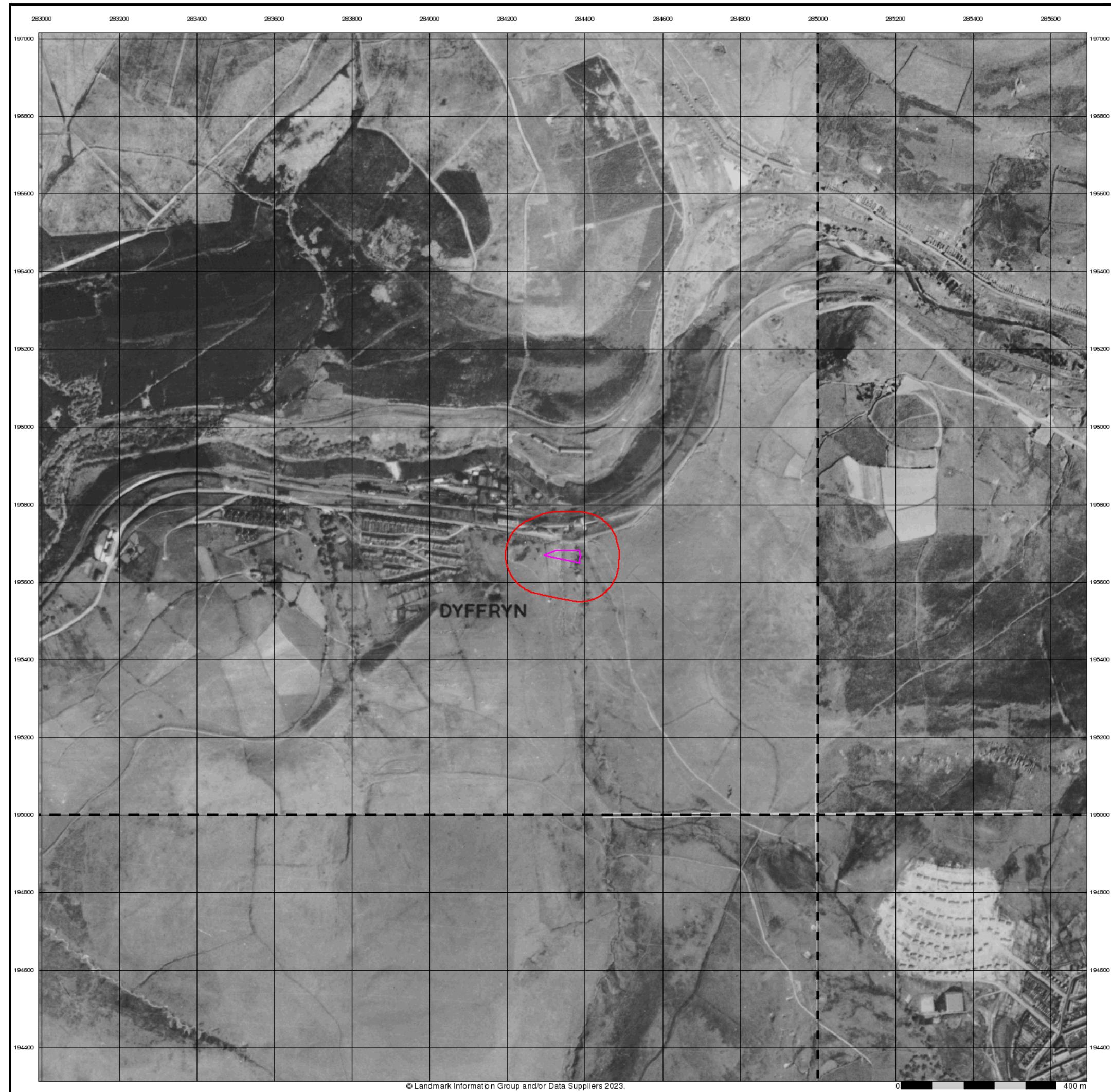
Order Number: 311342604_1_1
Customer Ref: 17782/JRW
National Grid Reference: 284350, 195670
Slice: A
Site Area (Ha): 0.18
Search Buffer (m): 1000

Site Details

Bakers DIY Store, Afan Road, Duffryn Rhondda, PORT TALBOT, SA13 3ES



Tel: 0844 844 9952
Fax: 0844 844 9951
Web: www.envirocheck.co.uk





Geotechnical & Geoenvironmental Specialists

Historical Aerial Photography

Published 1945 - 1949

Source map scale - 1:10,560

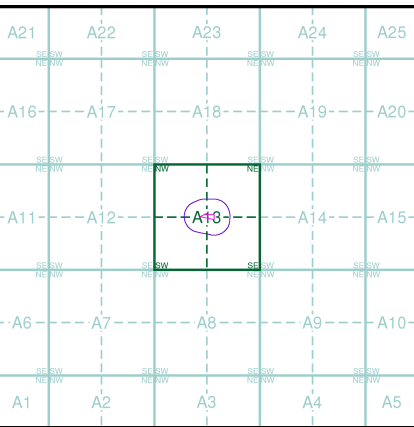
The Historical Aerial Photos were produced by the Ordnance Survey at a scale of 1:1,250 and 1:10,560 from Air Force photography. They were produced between 1944 and 1951 as an interim measure, pending preparation of conventional mapping, due to post war resource shortages. New security measures in the 1950's meant that every photograph was re-checked for potentially unsafe information with security sites replaced by fake fields or clouds. The original editions were withdrawn and only later made available after a period of fifty years although due to the accuracy of the editing, without viewing both revisions it is not easy to spot the edits. Where available Landmark have included both revisions.

© Landmark Information Group and/or Data Suppliers 2010.

Map Name(s) and Date(s)

SS89NW 1949 1:10,560	SS89NE 1945 1:10,560
SS89SW 1949 1:10,560	SS89SE 1949 1:10,560

Historical Aerial Photography - Slice A



Order Details

Order Number: 311342604_1_1
Customer Ref: 17782/JRW
National Grid Reference: 284350, 195670
Slice: A
Site Area (Ha): 0.18
Search Buffer (m): 1000

Site Details

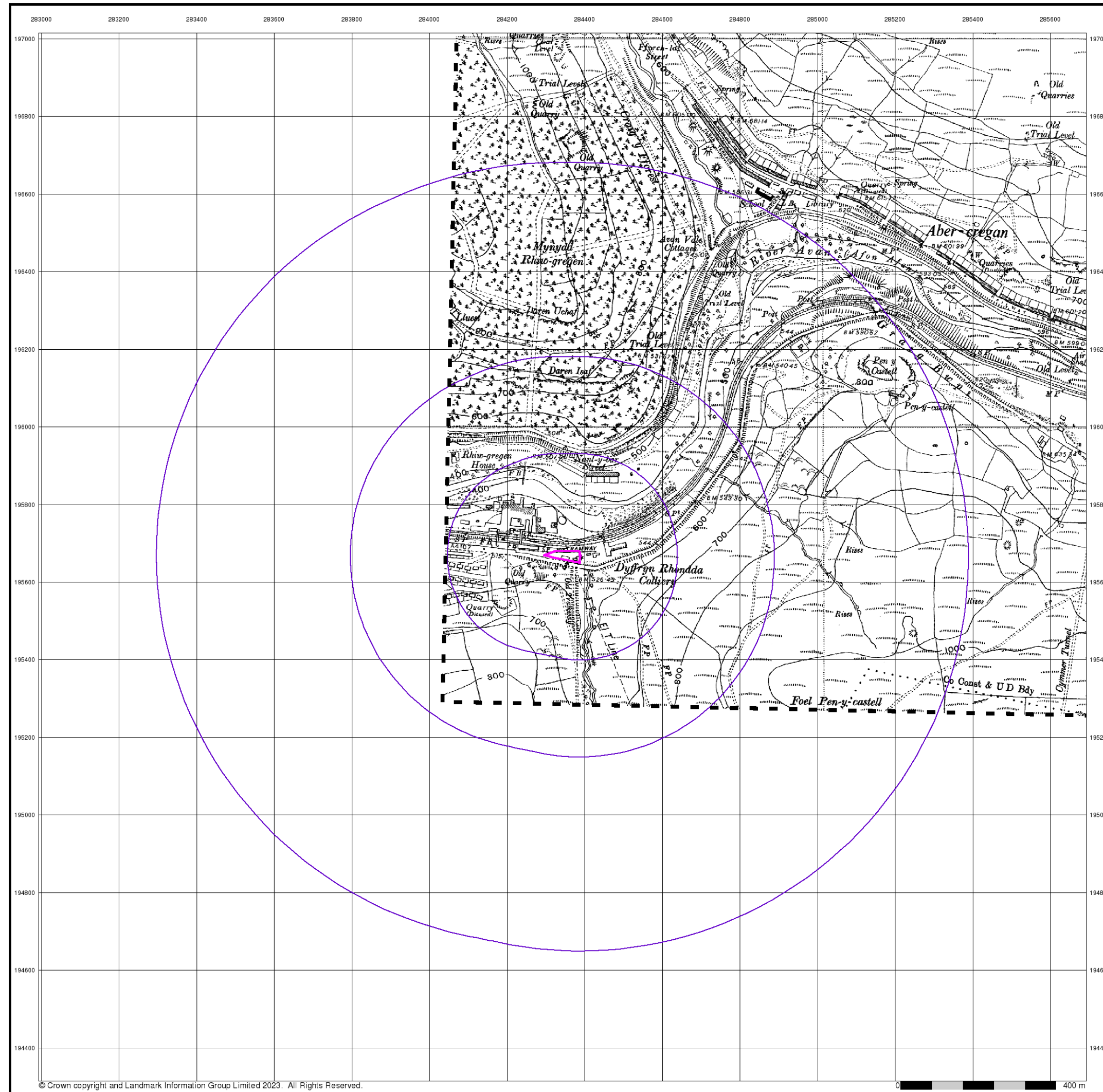
Bakers DIY Store, Afan Road, Duffryn Rhondda, PORT TALBOT, SA13 3ES



Tel: 0844 844 9952
Fax: 0844 844 9951
Web: www.envirocheck.co.uk

© Landmark Information Group and/or Data Suppliers 2023.

A Landmark Information Group Service v50.0 16-May-2023 Page 6 of 14



© Crown copyright and Landmark Information Group Limited 2023. All Rights Reserved.

0 400 m



Geotechnical & Geoenvironmental Specialists

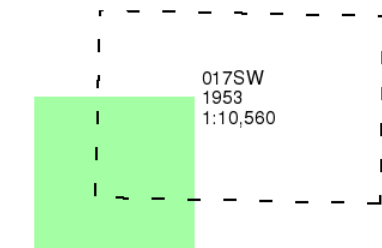
Glamorganshire

Published 1953

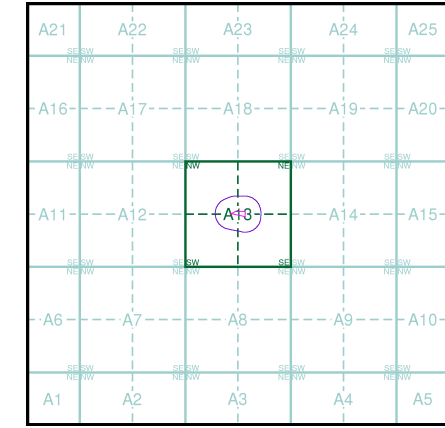
Source map scale - 1:10,560

The historical maps shown were reproduced from maps predominantly held at the scale adopted for England, Wales and Scotland in the 1840's. In 1854 the 1:2,500 scale was adopted for mapping urban areas; these maps were used to update the 1:10,560 maps. The published date given therefore is often some years later than the surveyed date. Before 1938, all OS maps were based on the Cassini Projection, with independent surveys of a single county or group of counties, giving rise to significant inaccuracies in outlying areas. In the late 1940's, a Provisional Edition was produced, which updated the 1:10,560 mapping from a number of sources. The maps appear unfinished - with all military camps and other strategic sites removed. These maps were initially overprinted with the National Grid. In 1970, the first 1:10,000 maps were produced using the Transverse Mercator Projection. The revision process continued until recently, with new editions appearing every 10 years or so for urban areas.

Map Name(s) and Date(s)



Historical Map - Slice A



Order Details

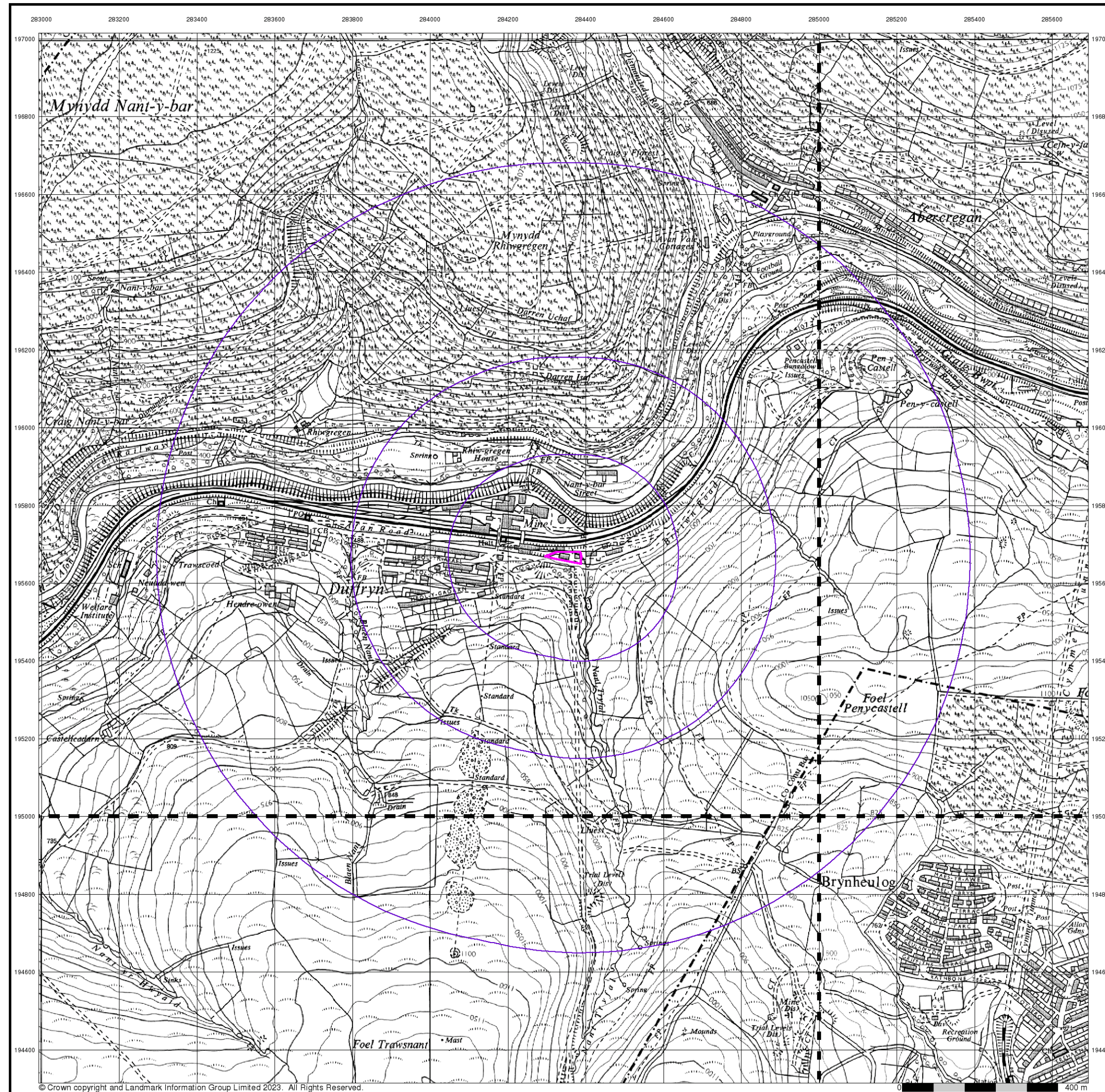
Order Number: 311342604_1_1
Customer Ref: 17782/JRW
National Grid Reference: 284350, 195670
Slice: A
Site Area (Ha): 0.18
Search Buffer (m): 1000

Site Details

Bakers DIY Store, Afan Road, Duffryn Rhondda, PORT TALBOT, SA13 3ES



Tel: 0844 844 9952
Fax: 0844 844 9951
Web: www.envirocheck.co.uk



© Crown copyright and Landmark Information Group Limited 2023. All Rights Reserved.



Geotechnical & Geoenvironmental Specialists

Ordnance Survey Plan

Published 1964 - 1965

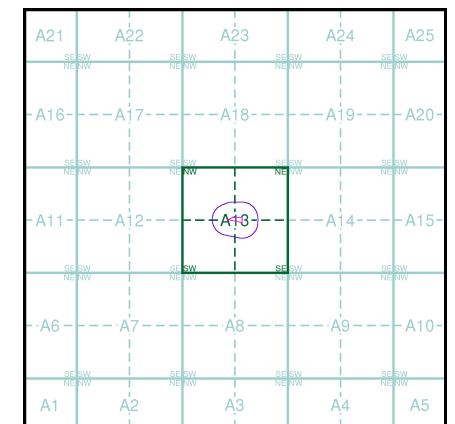
Source map scale - 1:10,000

The historical maps shown were reproduced from maps predominantly held at the scale adopted for England, Wales and Scotland in the 1840's. In 1854 the 1:2,500 scale was adopted for mapping urban areas; these maps were used to update the 1:10,560 maps. The published date given therefore is often some years later than the surveyed date. Before 1938, all OS maps were based on the Cassini Projection, with independent surveys of a single county or group of counties, giving rise to significant inaccuracies in outlying areas. In the late 1940's, a Provisional Edition was produced, which updated the 1:10,560 mapping from a number of sources. The maps appear unfinished - with all military camps and other strategic sites removed. These maps were initially overprinted with the National Grid. In 1970, the first 1:10,000 maps were produced using the Transverse Mercator Projection. The revision process continued until recently, with new editions appearing every 10 years or so for urban areas.

Map Name(s) and Date(s)

SS89NW	SS89NE
1964	1965
1:10,560	1:10,560
SS89SW	SS89SE
1964	1965
1:10,560	1:10,560

Historical Map - Slice A



Order Details

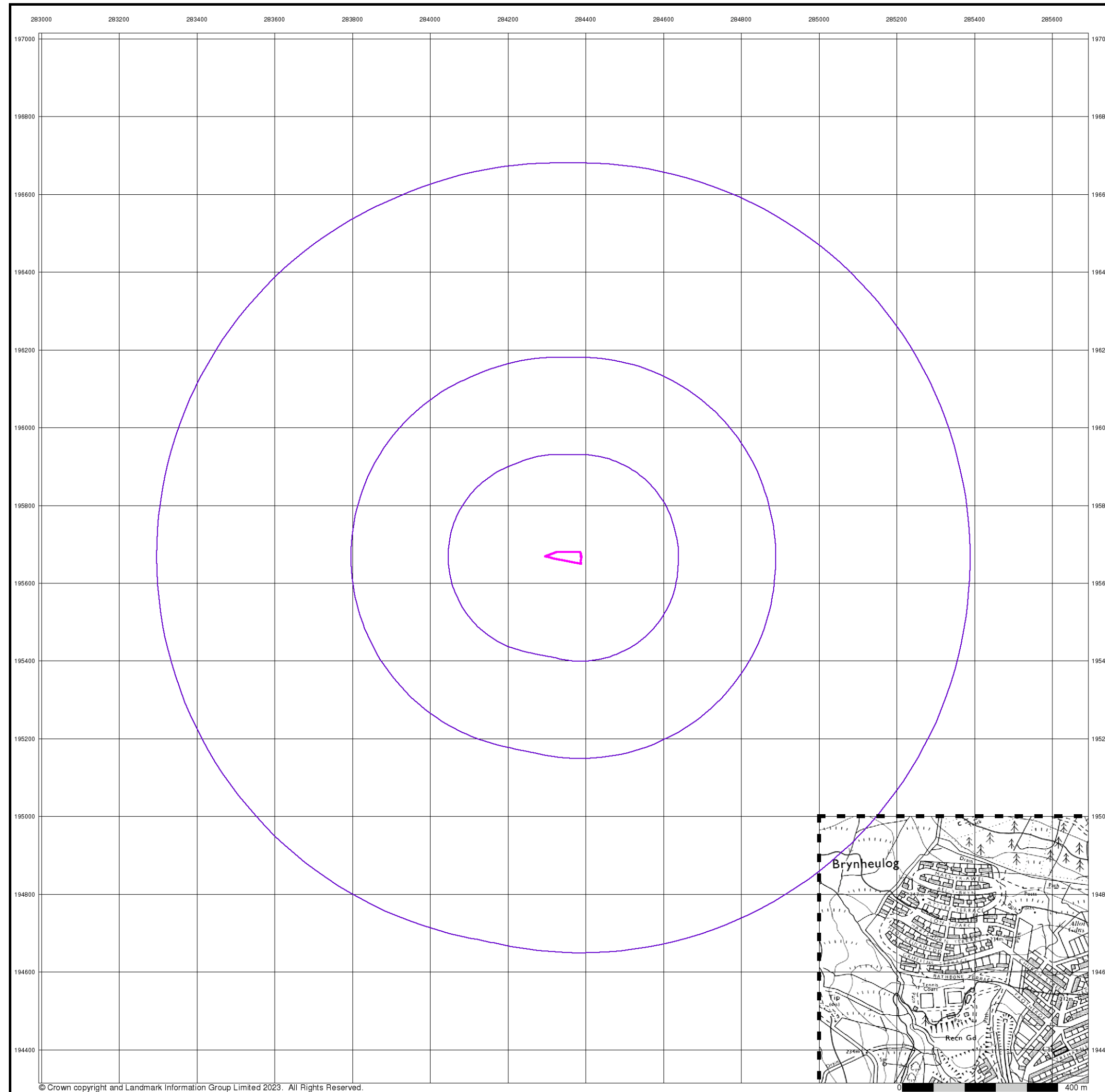
Order Number: 311342604_1_1
Customer Ref: 17782/JRW
National Grid Reference: 284350, 195670
Slice: A
Site Area (Ha): 0.18
Search Buffer (m): 1000

Site Details

Bakers DIY Store, Afan Road, Duffryn Rhondda, PORT
TALBOT, SA13 3ES



Tel: 0844 844 9952
Fax: 0844 844 9951
Web: www.envirocheck.co.uk



© Crown copyright and Landmark Information Group Limited 2023. All Rights Reserved.



Geotechnical & Geoenvironmental Specialists

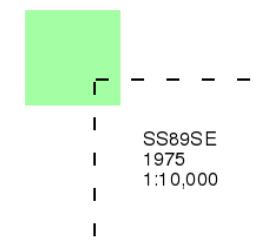
Ordnance Survey Plan

Published 1975

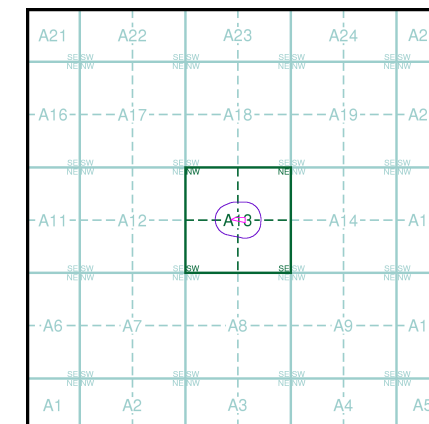
Source map scale - 1:10,000

The historical maps shown were reproduced from maps predominantly held at the scale adopted for England, Wales and Scotland in the 1840's. In 1854 the 1:2,500 scale was adopted for mapping urban areas; these maps were used to update the 1:10,560 maps. The published date given therefore is often some years later than the surveyed date. Before 1938, all OS maps were based on the Cassini Projection, with independent surveys of a single county or group of counties, giving rise to significant inaccuracies in outlying areas. In the late 1940's, a Provisional Edition was produced, which updated the 1:10,560 mapping from a number of sources. The maps appear unfinished - with all military camps and other strategic sites removed. These maps were initially overprinted with the National Grid. In 1970, the first 1:10,000 maps were produced using the Transverse Mercator Projection. The revision process continued until recently, with new editions appearing every 10 years or so for urban areas.

Map Name(s) and Date(s)



Historical Map - Slice A



Order Details

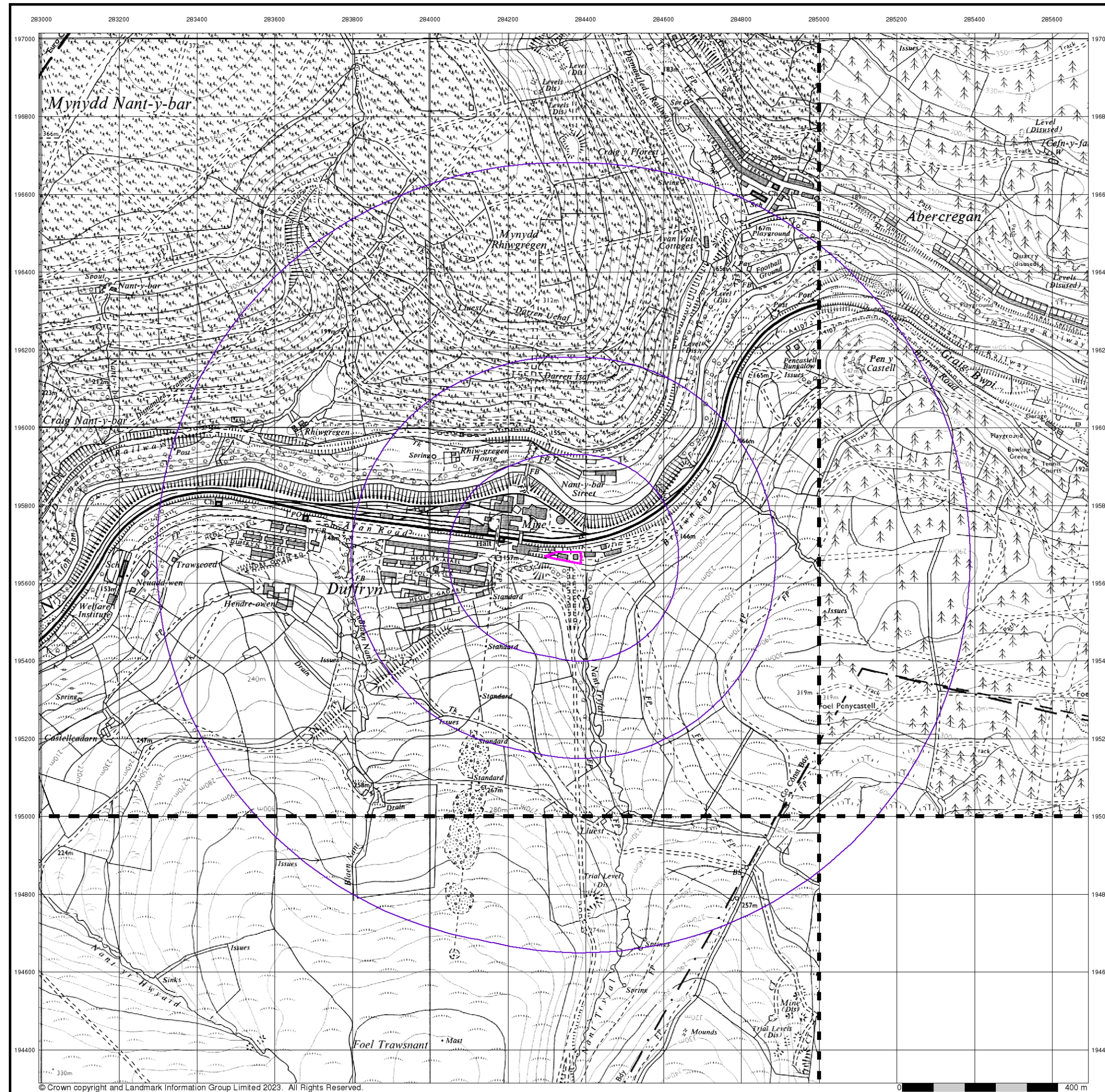
Order Number: 311342604_1_1
Customer Ref: 17782/JRW
National Grid Reference: 284350, 195670
Slice: A
Site Area (Ha): 0.18
Search Buffer (m): 1000

Site Details

Bakers DIY Store, Afan Road, Duffryn Rhondda, PORT TALBOT, SA13 3ES



Tel: 0844 844 9952
Fax: 0844 844 9951
Web: www.envirocheck.co.uk



Geotechnical & Geoenvironmental Specialists

Ordnance Survey Plan

Published 1982 - 1988

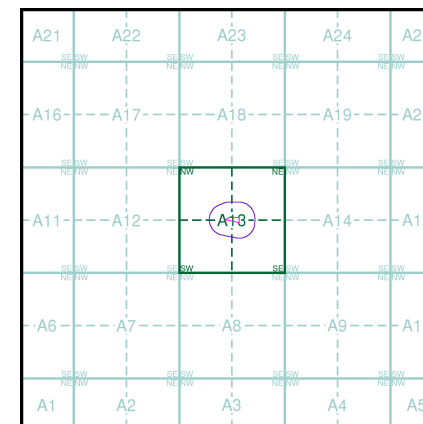
Source map scale - 1:10,000

The historical maps shown were reproduced from maps predominantly held at the scale adopted for England, Wales and Scotland in the 1840's. In 1854 the 1:2,500 scale was adopted for mapping urban areas; these maps were used to update the 1:10,560 maps. The published date given therefore is often some years later than the surveyed date. Before 1938, all OS maps were based on the Cassini Projection, with independent surveys of a single county or group of counties, giving rise to significant inaccuracies in outlying areas. In the late 1940's, a Provisional Edition was produced, which updated the 1:10,560 mapping from a number of sources. The maps appear unfinished - with all military camps and other strategic sites removed. These maps were initially overprinted with the National Grid. In 1970, the first 1:10,000 maps were produced using the Transverse Mercator Projection. The revision process continued until recently, with new editions appearing every 10 years or so for urban areas.

Map Name(s) and Date(s)

SS89NW 1988 1:10,000	SS89NE 1982 1:10,000
SS89SW 1988 1:10,000	

Historical Map - Slice A



Order Details

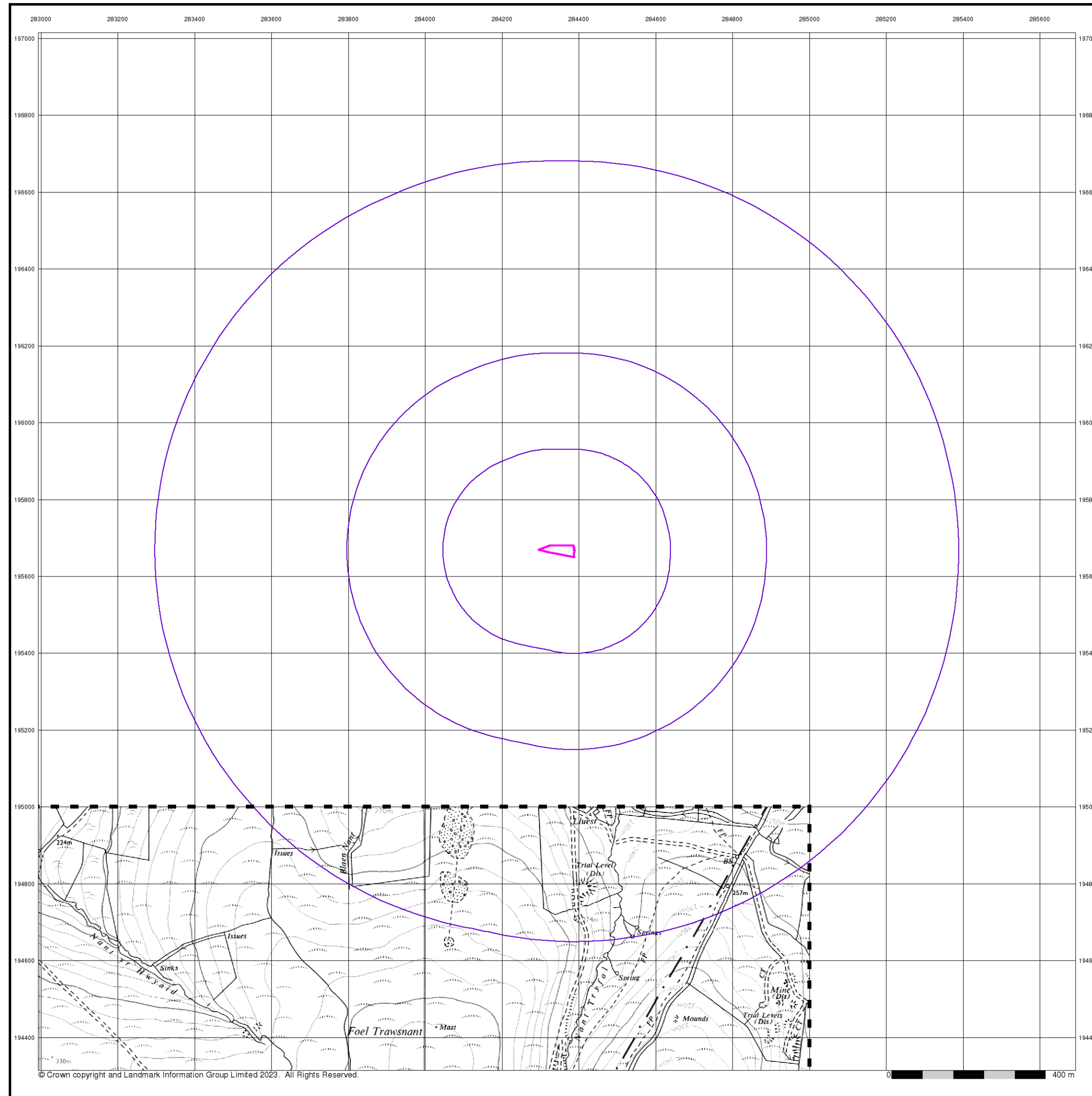
Order Number: 311342604_1_1
Customer Ref: 17782/JRW
National Grid Reference: 284350, 195670
Slice: A
Site Area (Ha): 0.18
Search Buffer (m): 1000

Site Details

Bakers DIY Store, Afan Road, Duffryn Rhondda, PORT
TALBOT, SA13 3ES



Tel: 0844 844 9952
Fax: 0844 844 9951
Web: www.envirocheck.co.uk



© Crown copyright and Landmark Information Group Limited 2023. All Rights Reserved.

0 400 m



Geotechnical & Geoenvironmental Specialists

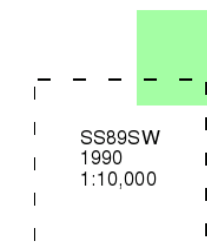
Ordnance Survey Plan

Published 1990

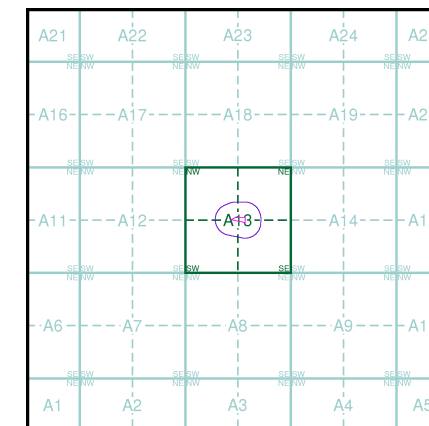
Source map scale - 1:10,000

The historical maps shown were reproduced from maps predominantly held at the scale adopted for England, Wales and Scotland in the 1840's. In 1854 the 1:2,500 scale was adopted for mapping urban areas; these maps were used to update the 1:10,560 maps. The published date given therefore is often some years later than the surveyed date. Before 1938, all OS maps were based on the Cassini Projection, with independent surveys of a single county or group of counties, giving rise to significant inaccuracies in outlying areas. In the late 1940's, a Provisional Edition was produced, which updated the 1:10,560 mapping from a number of sources. The maps appear unfinished - with all military camps and other strategic sites removed. These maps were initially overprinted with the National Grid. In 1970, the first 1:10,000 maps were produced using the Transverse Mercator Projection. The revision process continued until recently, with new editions appearing every 10 years or so for urban areas.

Map Name(s) and Date(s)



Historical Map - Slice A



Order Details

Order Number: 311342604_1_1
Customer Ref: 17782/JRW
National Grid Reference: 284350, 195670
Slice: A
Site Area (Ha): 0.18
Search Buffer (m): 1000

Site Details

Bakers DIY Store, Afan Road, Duffryn Rhondda, PORT
TALBOT, SA13 3ES



Tel: 0844 844 9952
Fax: 0844 844 9951
Web: www.envirocheck.co.uk



© Crown copyright. All Rights Reserved. Licence Number 100022432.



Geotechnical & Geoenvironmental Specialists

10k Raster Mapping

Published 1999

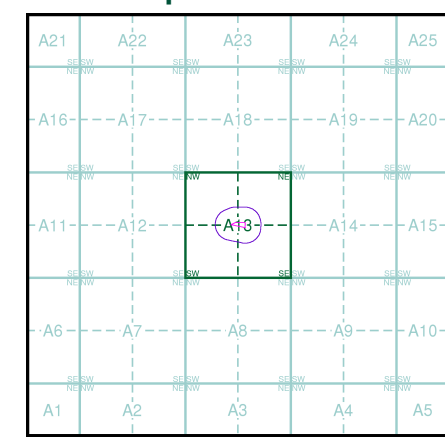
Source map scale - 1:10,000

The historical maps shown were produced from the Ordnance Survey's 1:10,000 colour raster mapping. These maps are derived from Landplan which replaced the old 1:10,000 maps originally published in 1970. The data is highly detailed showing buildings, fences and field boundaries as well as all roads, tracks and paths. Road names are also included together with the relevant road number and classification. Boundary information depiction includes county, unitary authority, district, civil parish and constituency.

Map Name(s) and Date(s)

SS89NW	SS89NE
1999	1999
1:10,000	1:10,000
SS89SW	SS89SE
1999	1999
1:10,000	1:10,000

Historical Map - Slice A



Order Details

Order Number: 311342604_1_1
Customer Ref: 17782/JRW
National Grid Reference: 284350, 195670
Slice: A
Site Area (Ha): 0.18
Search Buffer (m): 1000

Site Details

Bakers DIY Store, Afan Road, Duffryn Rhondda, PORT TALBOT, SA13 3ES



Tel: 0844 844 9952
Fax: 0844 844 9951
Web: www.envirocheck.co.uk



Geotechnical & Geoenvironmental Specialists

10k Raster Mapping

Published 2006

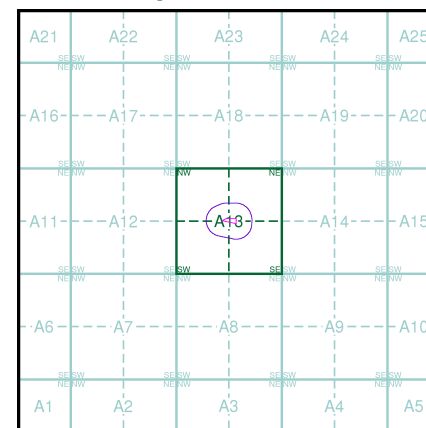
Source map scale - 1:10,000

The historical maps shown were produced from the Ordnance Survey's 1:10,000 colour raster mapping. These maps are derived from Landplan which replaced the old 1:10,000 maps originally published in 1970. The data is highly detailed showing buildings, fences and field boundaries as well as all roads, tracks and paths. Road names are also included together with the relevant road number and classification. Boundary information depiction includes county, unitary authority, district, civil parish and constituency.

Map Name(s) and Date(s)

SS89NW	SS89NE
2006	2006
1:10,000	1:10,000
SS89SW	SS89SE
2006	2006
1:10,000	1:10,000

Historical Map - Slice A



Order Details

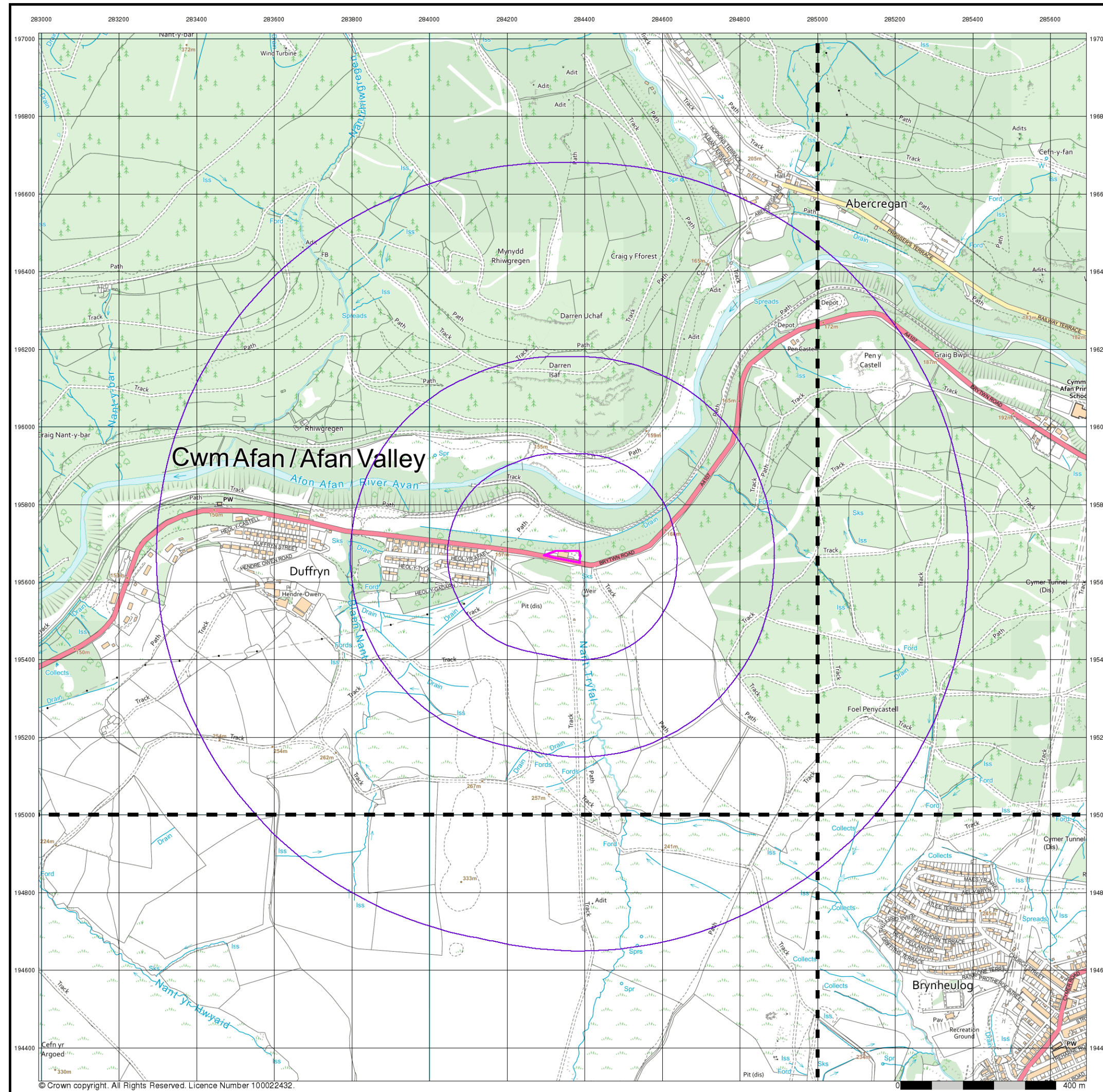
Order Number: 311342604_1_1
Customer Ref: 17782/JRW
National Grid Reference: 284350, 195670
Slice: A
Site Area (Ha): 0.18
Search Buffer (m): 1000

Site Details

Bakers DIY Store, Afan Road, Duffryn Rhondda, PORT
TALBOT, SA13 3ES



Tel: 0844 844 9952
Fax: 0844 844 9951
Web: www.envirocheck.co.uk



© Crown copyright. All Rights Reserved. Licence Number 100022432.



Geotechnical & Geoenvironmental Specialists

VectorMap Local

Published 2022

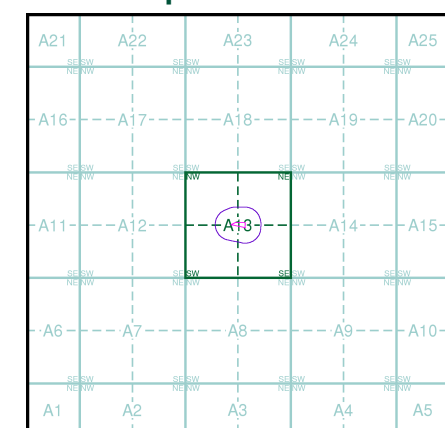
Source map scale - 1:10,000

VectorMap Local (Raster) is Ordnance Survey's highest detailed 'backdrop' mapping product. These maps are produced from OS's VectorMap Local, a simple vector dataset at a nominal scale of 1:10,000, covering the whole of Great Britain, that has been designed for creating graphical mapping. OS VectorMap Local is derived from large-scale information surveyed at 1:1250 scale (covering major towns and cities), 1:2500 scale (smaller towns, villages and developed rural areas), and 1:10 000 scale (mountain, moorland and river estuary areas).

Map Name(s) and Date(s)

SS89NW	SS89NE
2022	2022
Variable	Variable
SS89SW	SS89SE
2022	2022
Variable	Variable

Historical Map - Slice A



Order Details

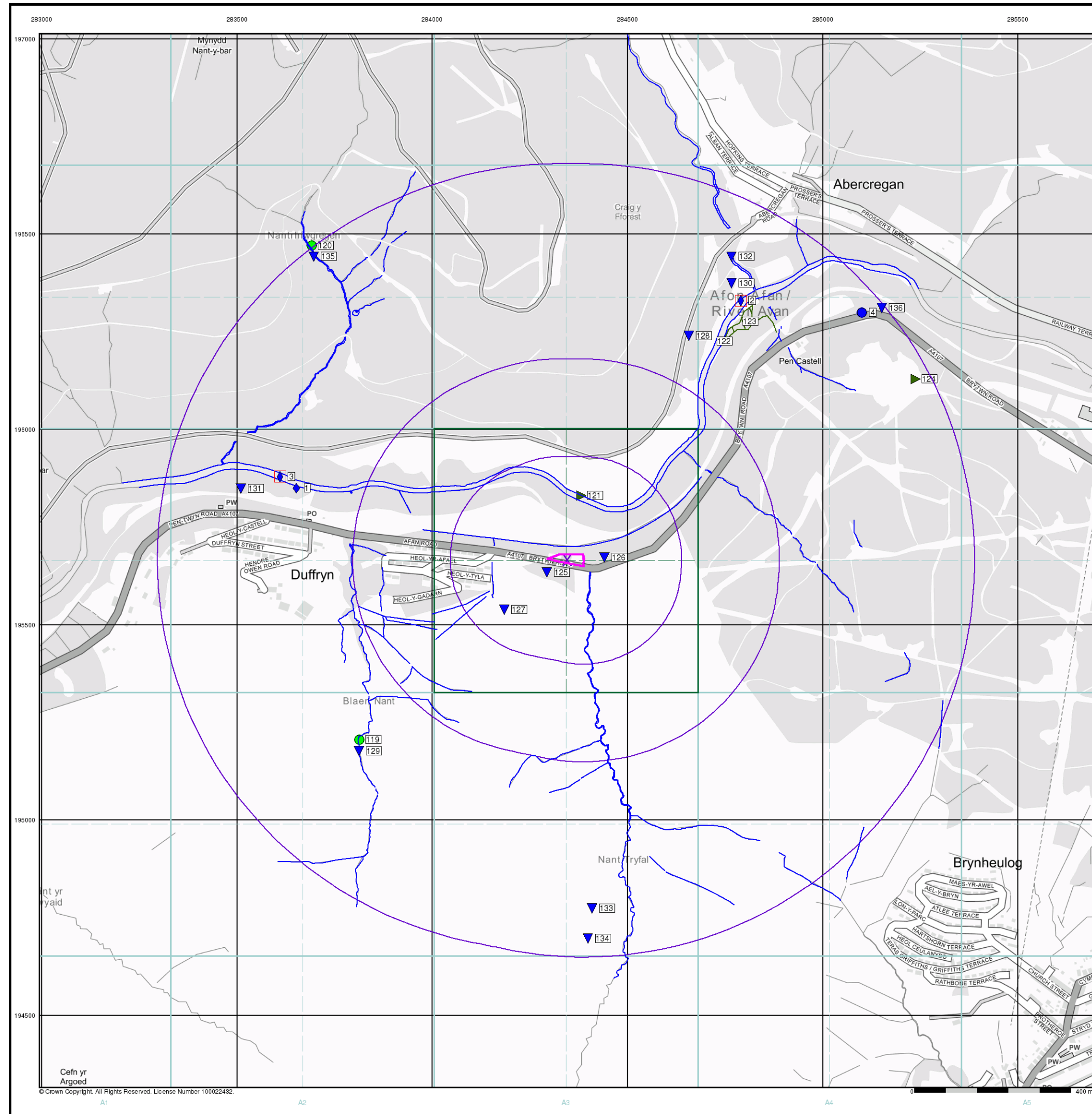
Order Number: 311342604_1_1
Customer Ref: 17782/JRW
National Grid Reference: 284350, 195670
Slice: A
Site Area (Ha): 0.18
Search Buffer (m): 1000

Site Details

Bakers DIY Store, Afan Road, Duffryn Rhondda, PORT TALBOT, SA13 3ES

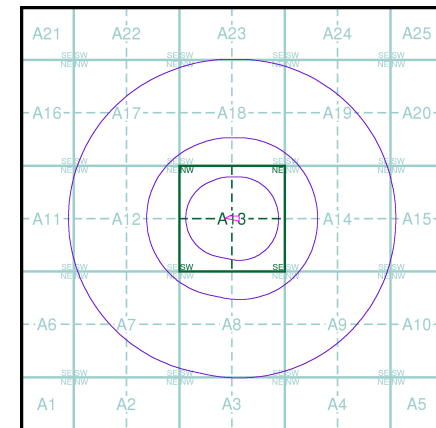


Tel: 0844 844 9952
Fax: 0844 844 9951
Web: www.envirocheck.co.uk



- General**
- Specified Site
 - Specified Buffer(s)
 - Bearing Reference Point
 - Map ID
 - Several of Type at Location
- Agency and Hydrological**
- Contaminated Land Register Entry or Notice (Location)
 - Contaminated Land Register Entry or Notice
 - Discharge Consent
 - Enforcement or Prohibition Notice
 - Integrated Pollution Control
 - Integrated Pollution Prevention Control
 - Local Authority Integrated Pollution Prevention and Control
 - Local Authority Pollution Prevention and Control
 - Local Authority Pollution Prevention and Control Enforcement
 - Pollution Incident to Controlled Waters
 - Prosecution Relating to Authorised Processes
 - Prosecution Relating to Controlled Waters
 - Registered Radioactive Substance
 - River Network or Water Feature
 - River Quality Sampling Point
 - Substantiated Pollution Incident Register
 - Water Abstraction
 - Water Industry Act Referral
- Hazardous Substances**
- COMAH Site
 - Explosive Site
 - NIHHS Site
 - Planning Hazardous Substance Consent
 - Planning Hazardous Substance Enforcement
 - BGS Recorded Mineral Site
- Waste**
- BGS Recorded Landfill Site (Location)
 - BGS Recorded Landfill Site
 - EA Historic Landfill (Buffered Point)
 - EA Historic Landfill (Polygon)
 - Integrated Pollution Control Registered Waste Site
 - Licensed Waste Management Facility (Landfill Boundary)
 - Licensed Waste Management Facility (Location)
 - Local Authority Recorded Landfill Site (Location)
 - Local Authority Recorded Landfill Site
 - Potentially Infilled Land (Non-water)
 - Potentially Infilled Land (Non-water)
 - Potentially Infilled Land (Non-water)
 - Potentially Infilled Land (Water)
 - Potentially Infilled Land (Water)
 - Potentially Infilled Land (Water)
 - Registered Landfill Site (Location)
 - Registered Landfill Site (Point Buffered to 100m)
 - Registered Landfill Site (Point Buffered to 250m)
 - Registered Waste Transfer Site (Location)
 - Registered Waste Transfer Site
 - Registered Waste Treatment or Disposal Site (Location)
 - Registered Waste Treatment or Disposal Site

Site Sensitivity Map - Slice A

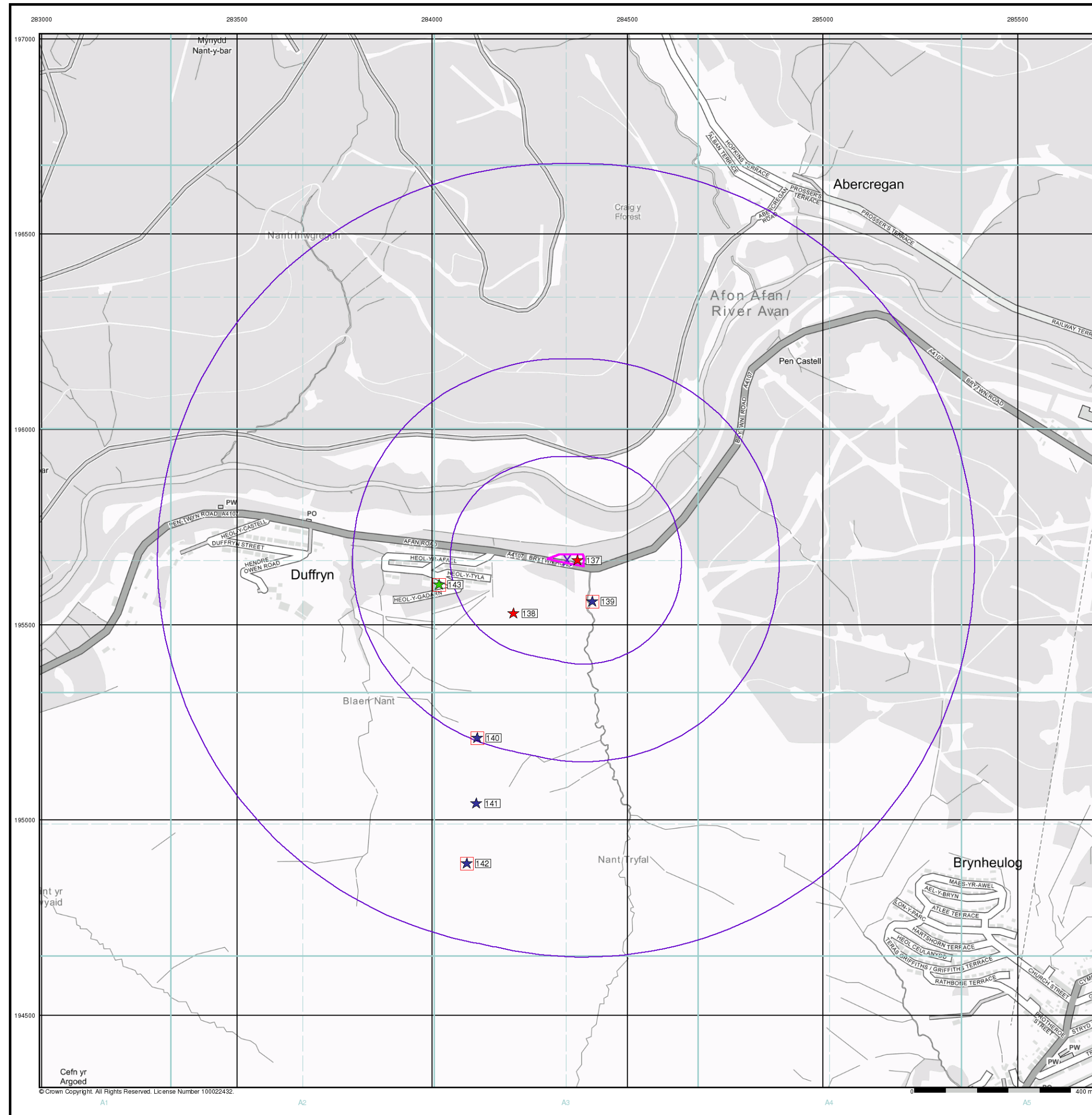


Order Details

Order Number: 311342604_1_1
Customer Ref: 17782/JRW
National Grid Reference: 284350, 195670
Slice: A
Site Area (Ha): 0.18
Search Buffer (m): 1000

Site Details

Bakers DIY Store, Afan Road, Duffryn Rhondda, PORT TALBOT, SA13 3ES



Geotechnical & Geoenvironmental Specialists
Industrial Land Use Map

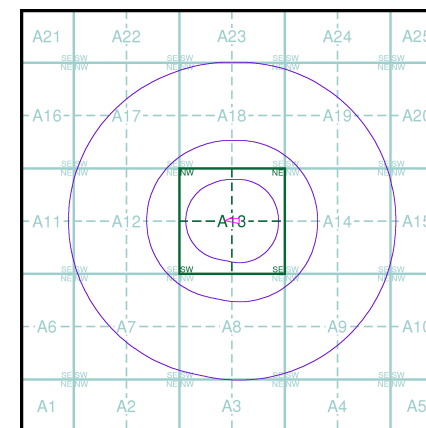
General

- Specified Site
- Specified Buffer(s)
- Bearing Reference Point
- Slice
- Map ID

Industrial Land Use

- Contemporary Trade Directory Entry
- Fuel Station Entry
- Gas Pipeline
- Points of Interest - Commercial Services
- Points of Interest - Education and Health
- Points of Interest - Manufacturing and Production
- Points of Interest - Public Infrastructure
- Points of Interest - Recreational and Environmental
- Underground Electrical Cables

Industrial Land Use Map - Slice A



Order Details

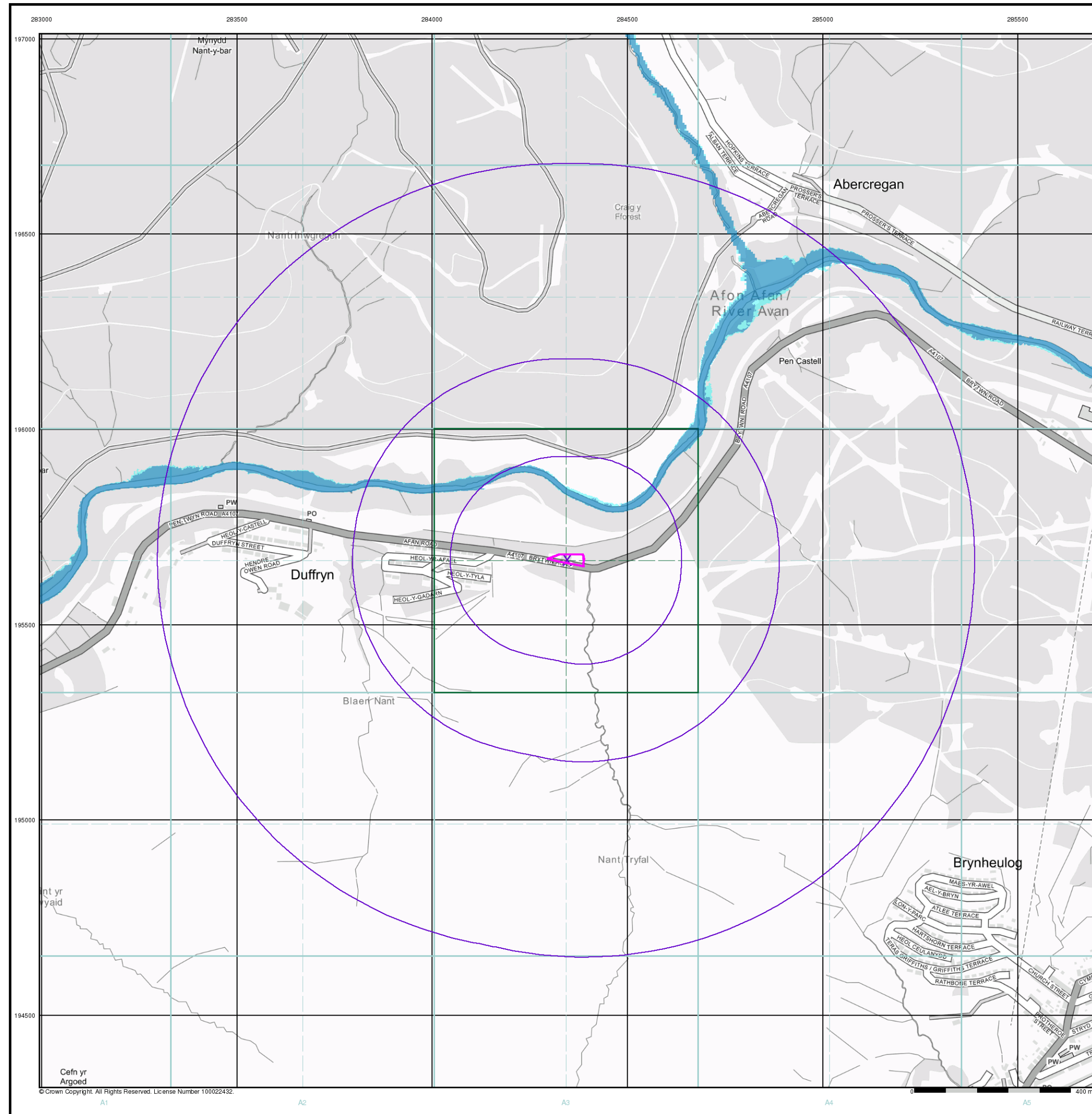
Order Number: 311342604_1_1
Customer Ref: 17782/JRW
National Grid Reference: 284350, 195670
Slice: A
Site Area (Ha): 0.18
Search Buffer (m): 1000

Site Details

Bakers DIY Store, Afan Road, Duffryn Rhondda, PORT
TALBOT, SA13 3ES

Landmark
INFORMATION GROUP

Tel: 0844 844 9952
Fax: 0844 844 9951
Web: www.envirocheck.co.uk



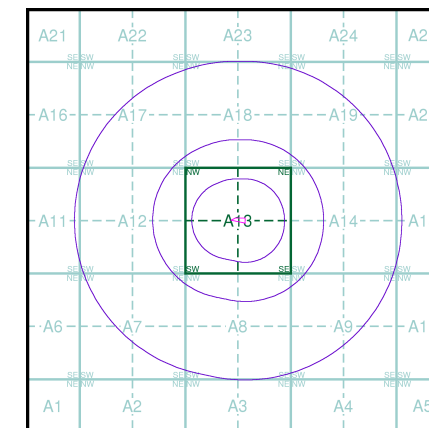
General

- Specified Site
- Specified Buffer(s)
- Bearing Reference Point

Agency and Hydrological (Flood)

- Extreme Flooding from Rivers or Sea without Defences (Zone 2)
- Flooding from Rivers or Sea without Defences (Zone 3)
- Area Benefiting from Flood Defence
- Flood Water Storage Areas
- Flood Defence

Flood Map - Slice A

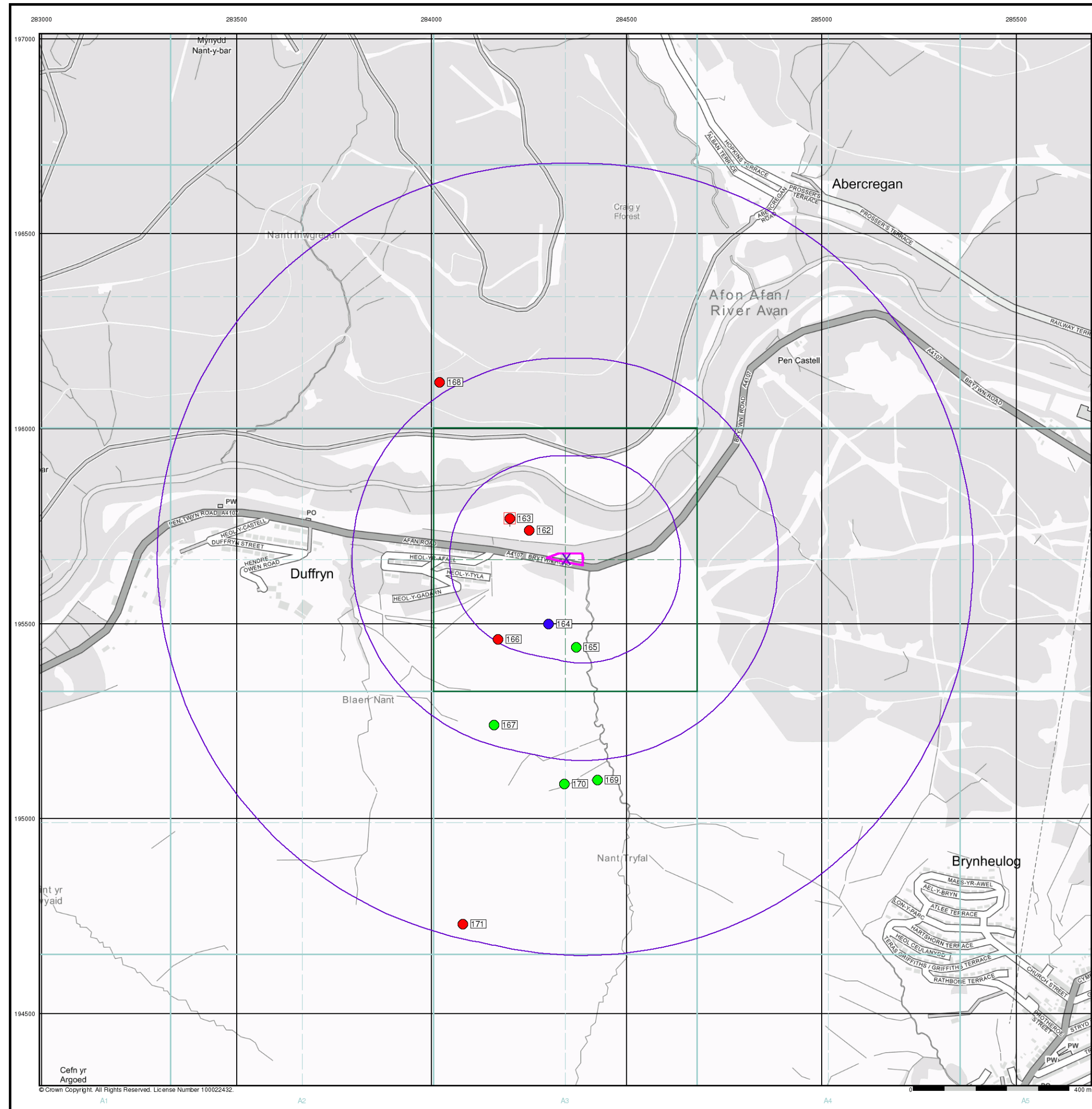


Order Details

Order Number: 311342604_1_1
Customer Ref: 17782/JRW
National Grid Reference: 284350, 195670
Slice: A
Site Area (Ha): 0.18
Search Buffer (m): 1000

Site Details

Bakers DIY Store, Afan Road, Duffryn Rhondda, PORT
TALBOT, SA13 3ES



General

- Specified Site
- Specified Buffer(s)
- Bearing Reference Point
- Map ID
- Several of Type at Location

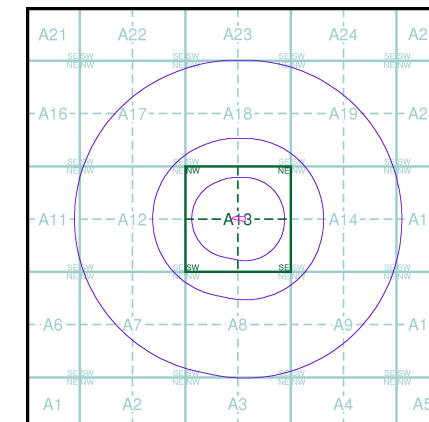
Agency and Hydrological (Boreholes)

- BGS Borehole Depth 0 - 10m
- BGS Borehole Depth 10 - 30m
- BGS Borehole Depth 30m +
- Confidential
- Other

For Borehole information please refer to the Borehole .csv file which accompanied this slice.

A copy of the BGS Borehole Ordering Form is available to download from the Support section of www.envirocheck.co.uk.

Borehole Map - Slice A

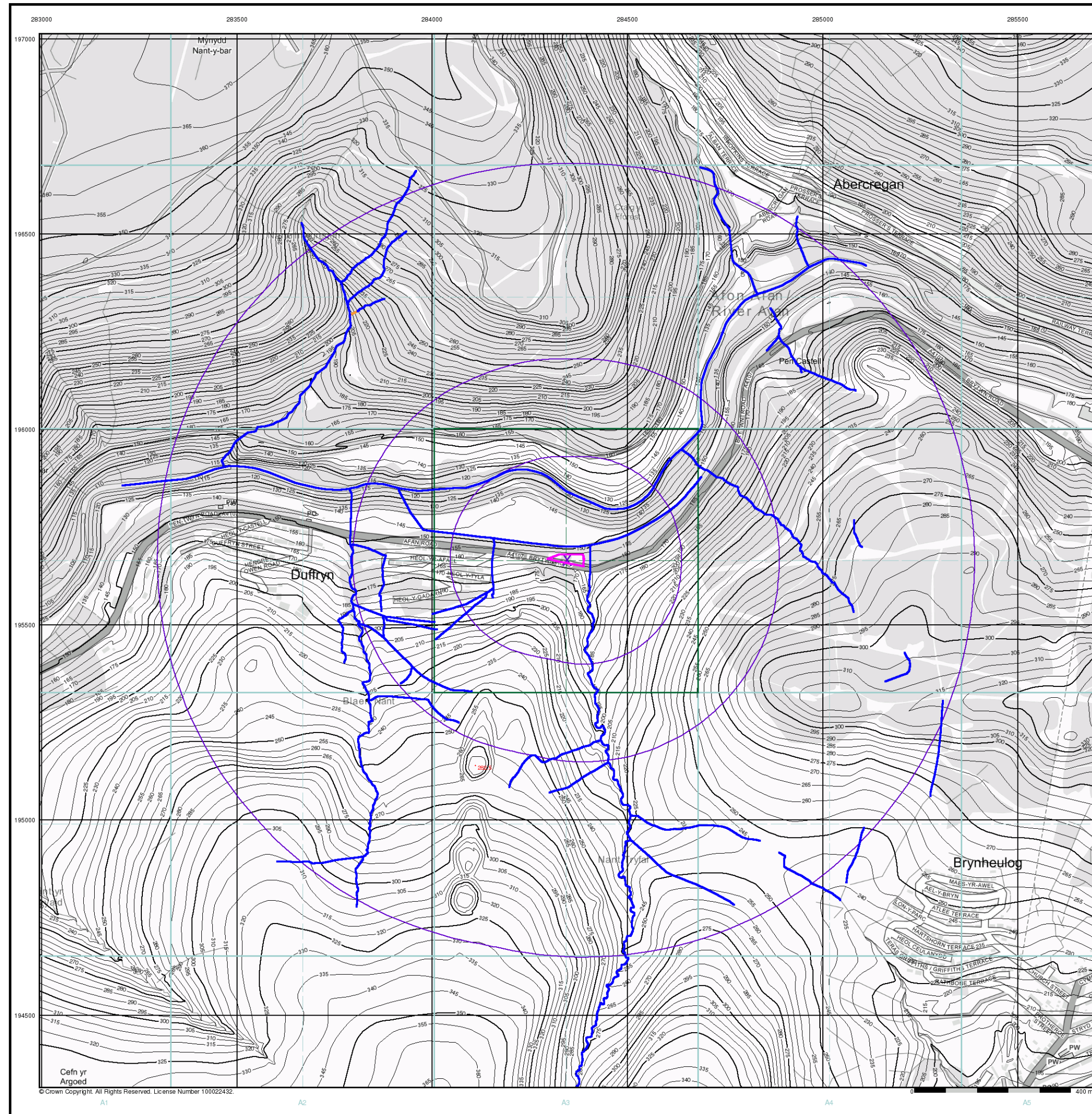


Order Details

Order Number: 311342604_1_1
Customer Ref: 17782/JRW
National Grid Reference: 284350, 195670
Slice: A
Site Area (Ha): 0.18
Search Buffer (m): 1000

Site Details

Bakers DIY Store, Afan Road, Duffryn Rhondda, PORT TALBOT, SA13 3ES



General

- Specified Site
- Specified Buffer(s)
- Bearing Reference Point

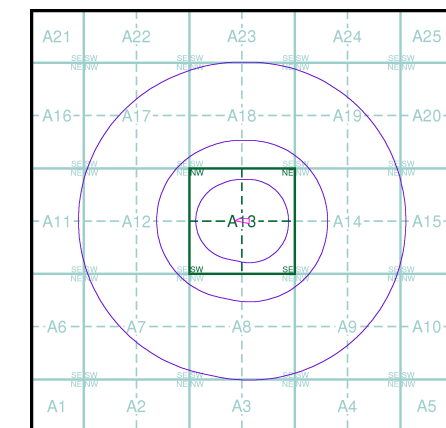
OS Water Network Data

- | | |
|--------------|-------------------------|
| Canal | Drain |
| Reservoir | Other |
| Foreshore | Lake |
| Marsh | Transfer |
| Tidal River | Lock Or Flight Of Locks |
| Inland River | Sea |

Contours (height in meters)

- Standard Contour 105 100 95
- Master Contour 105 100 95
- Spot Height 167.3
- MLW Mean Low Water
- MHW Mean High Water

OS Water Network Map - Slice A

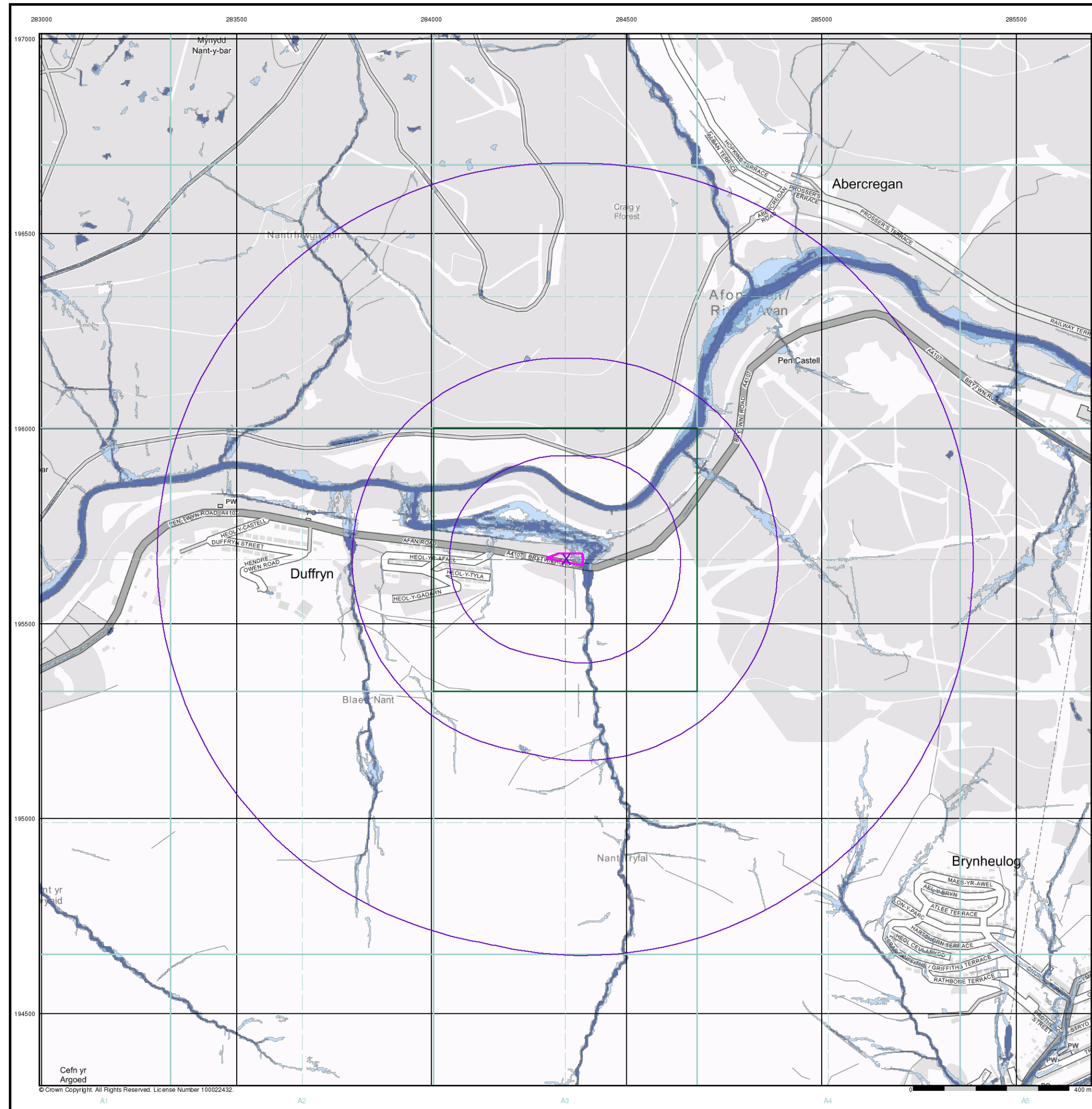


Order Details

Order Number: 311342604_1_1
Customer Ref: 17782/JRW
National Grid Reference: 284350, 195670
Slice: A
Site Area (Ha): 0.18
Search Buffer (m): 1000

Site Details

Bakers DIY Store, Afan Road, Duffryn Rhondda, PORT
TALBOT, SA13 3ES



© Crown Copyright. All Rights Reserved. License Number 100022432.



General

- Specified Site
- Specified Buffer(s)
- Bearing Reference Point

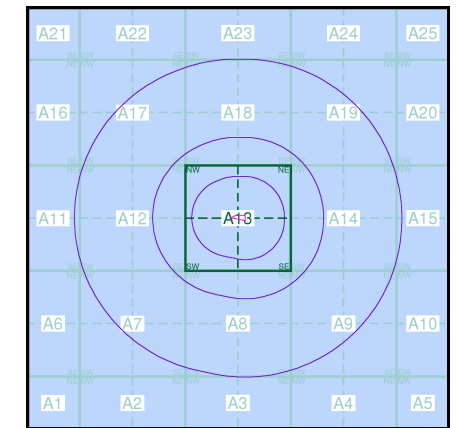
Risk of Flooding from Surface Water

- High - 30 Year Return
- Medium - 100 Year Return
- Low - 1000 Year Return

Suitability

- See the suitability map below
- National to county
 - County to town
 - Town to street
 - Street to parcels of land
 - Property

E/NRW Suitability Map - Slice A



Order Details

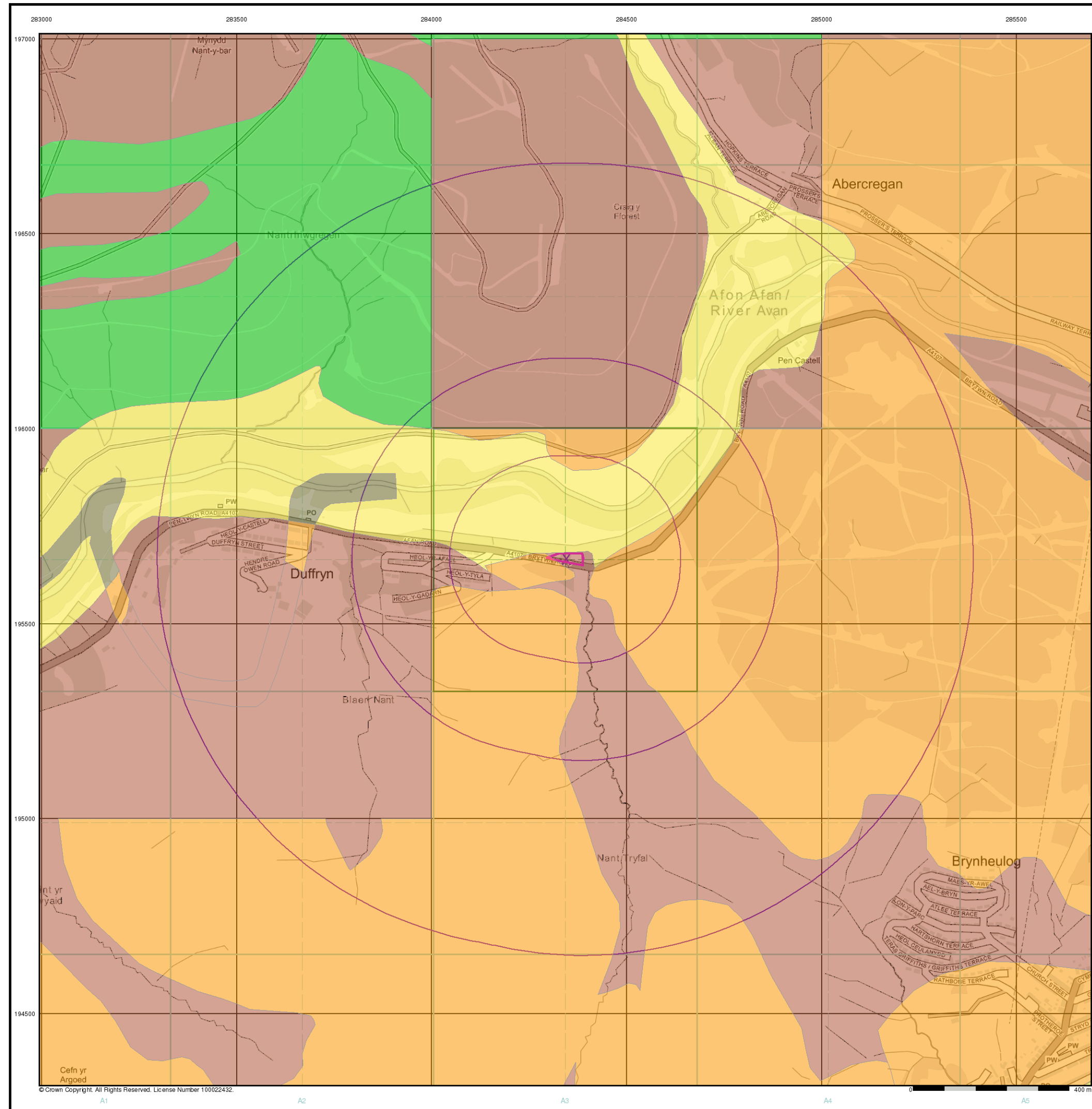
Order Number: 311342604_1_1
Customer Ref: 17782/JRW
National Grid Reference: 284350, 195670
Slice: A
Site Area (Ha): 0.18
Search Buffer (m): 1000

Site Details

Bakers DIY Store, Afan Road, Duffryn Rhondda, PORT TALBOT, SA13 3ES



Tel: 0844 844 9952
Fax: 0844 844 9951
Web: www.envirocheck.co.uk

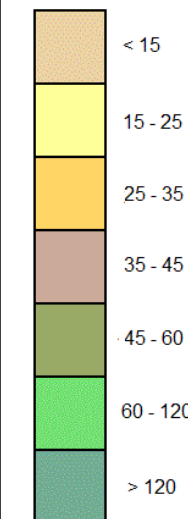


General

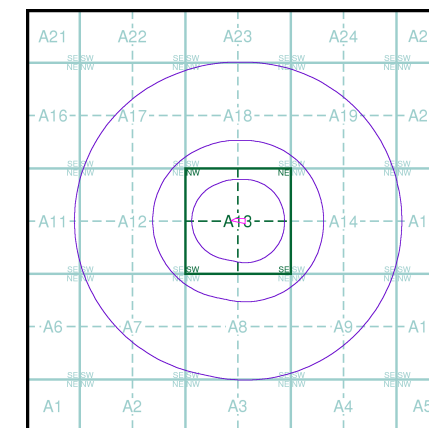
Specified Site Specified Buffer(s) Bearing Reference Point

Estimated Soil Chemistry Arsenic

Arsenic Concentrations mg/kg



Estimated Soil Chemistry Arsenic - Slice A

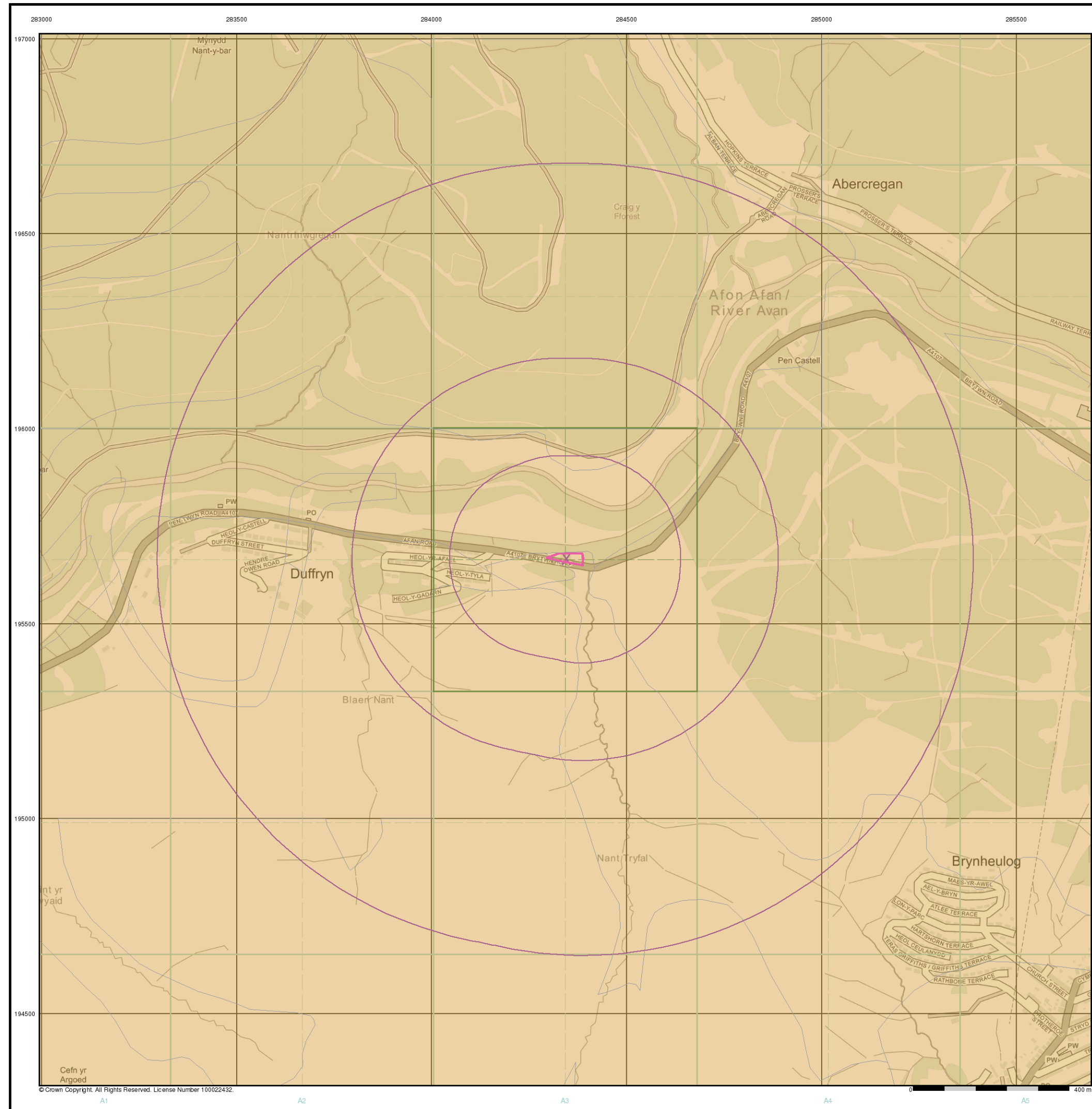


Order Details

Order Details: 311342604_1_1
Customer Ref: 17782/JRW
National Grid Reference: 284350, 195670
Slice: A
Site Area (Ha): 0.18
Search Buffer (m): 1000

Site Details

Bakers DIY Store, Afan Road, Duffryn Rhondda, PORT TALBOT, SA13 3ES

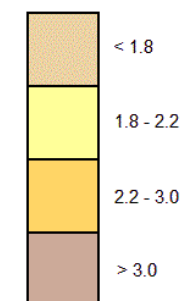


General

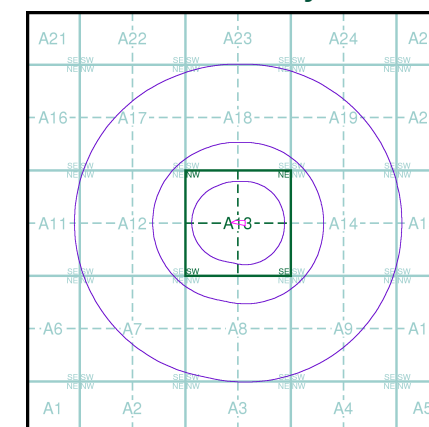
Specified Site Specified Buffer(s) Bearing Reference Point

Estimated Soil Chemistry Cadmium

Cadmium Concentrations mg/kg



Estimated Soil Chemistry Cadmium - Slice A



Order Details

Order Details: 311342604_1_1
Customer Ref: 17782/JRW
National Grid Reference: 284350, 195670
Slice: A
Site Area (Ha): 0.18
Search Buffer (m): 1000

Site Details

Bakers DIY Store, Afan Road, Duffryn Rhondda, PORT TALBOT, SA13 3ES



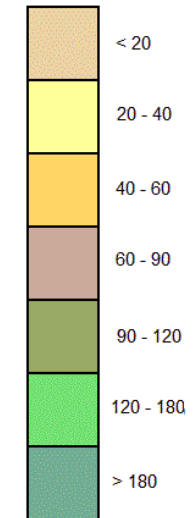
Geotechnical & Geoenvironmental Specialists

General

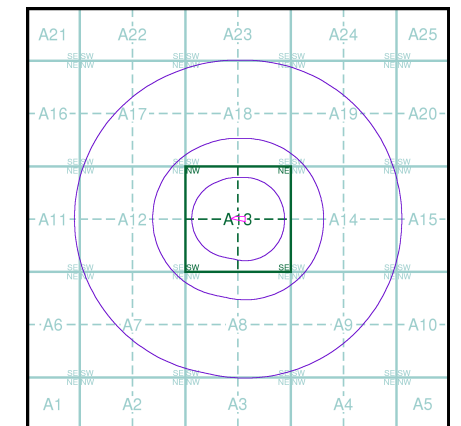
Specified Site Specified Buffer(s) Bearing Reference Point

Estimated Soil Chemistry Chromium

Chromium Concentrations mg/kg



Estimated Soil Chemistry Chromium - Slice A



Order Details

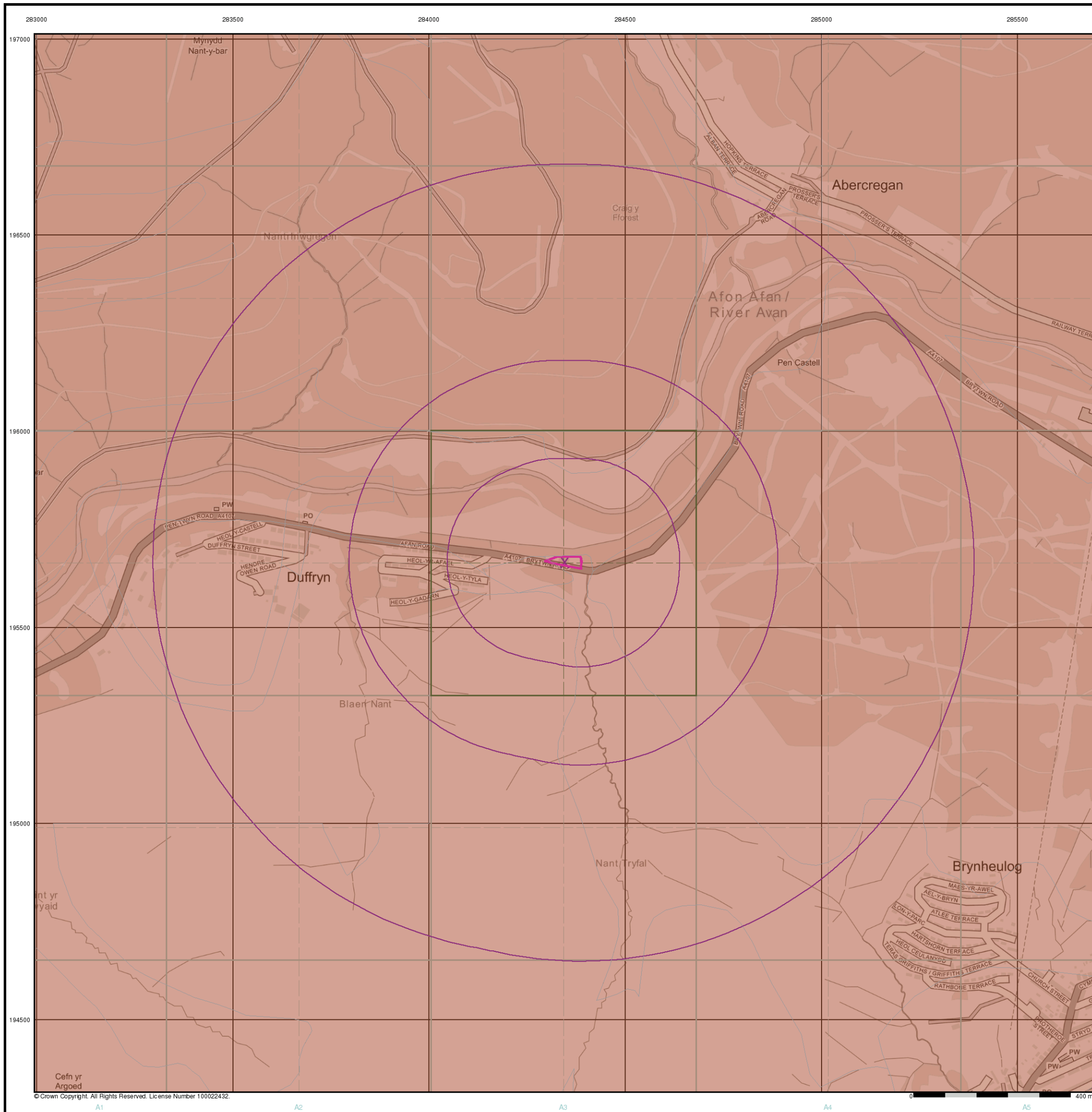
Order Details: 311342604_1_1
Customer Ref: 17782/JRW
National Grid Reference: 284350, 195670
Slice: A
Site Area (Ha): 0.18
Search Buffer (m): 1000

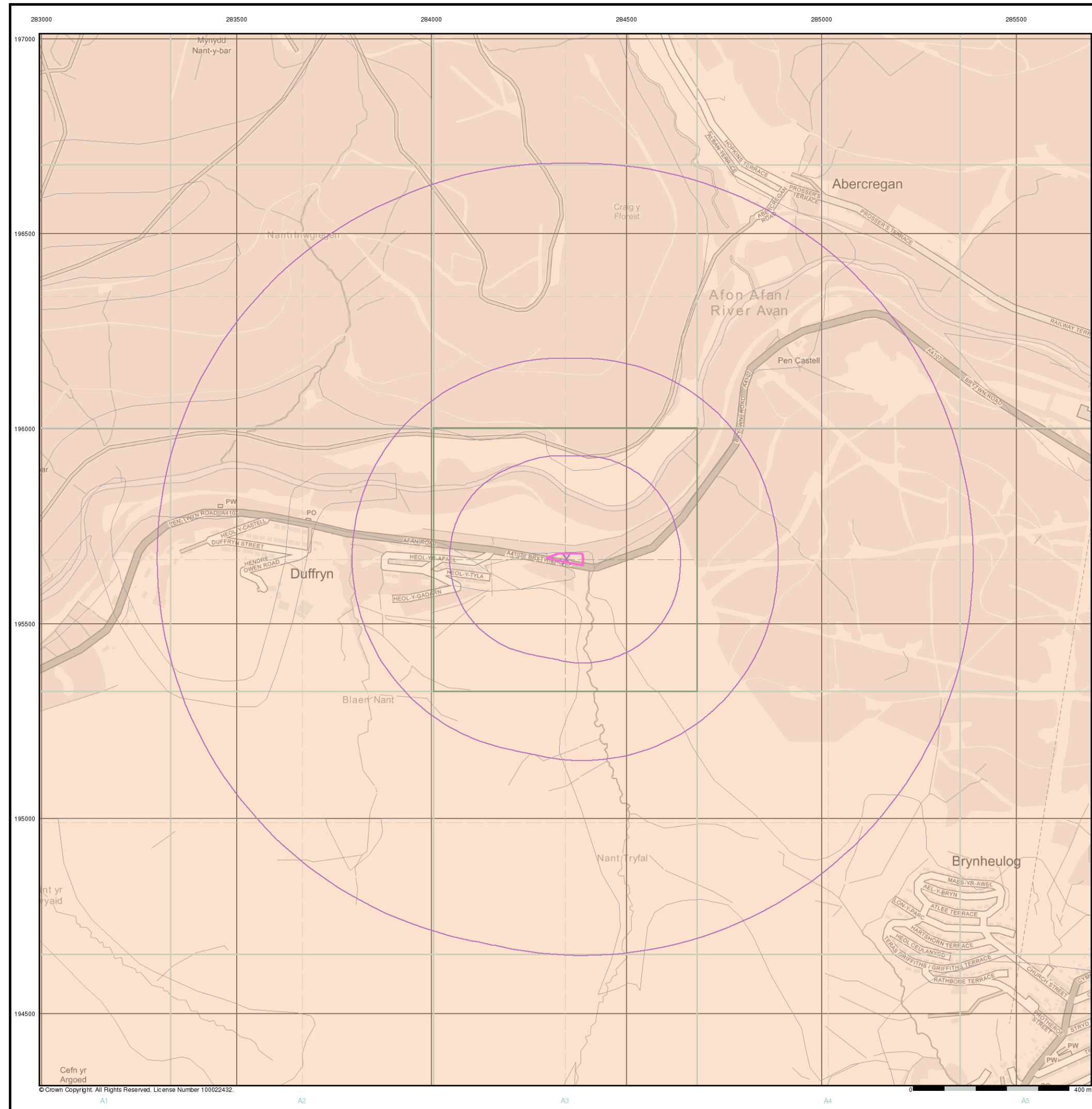
Site Details

Bakers DIY Store, Afan Road, Duffryn Rhondda, PORT
TALBOT, SA13 3ES



Tel: 0844 844 9952
Fax: 0844 844 9951
Web: www.envirocheck.co.uk



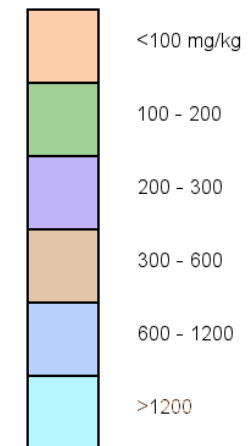


General

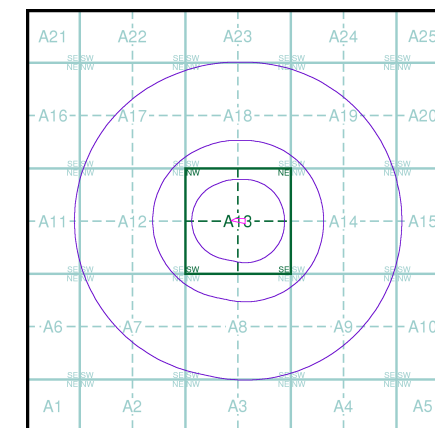
-  Specified Site
-  Specified Buffer(s)
-  Bearing Reference Point

Estimated Soil Chemistry Lead

Lead Concentrations mg/kg



Estimated Soil Chemistry Lead - Slice A

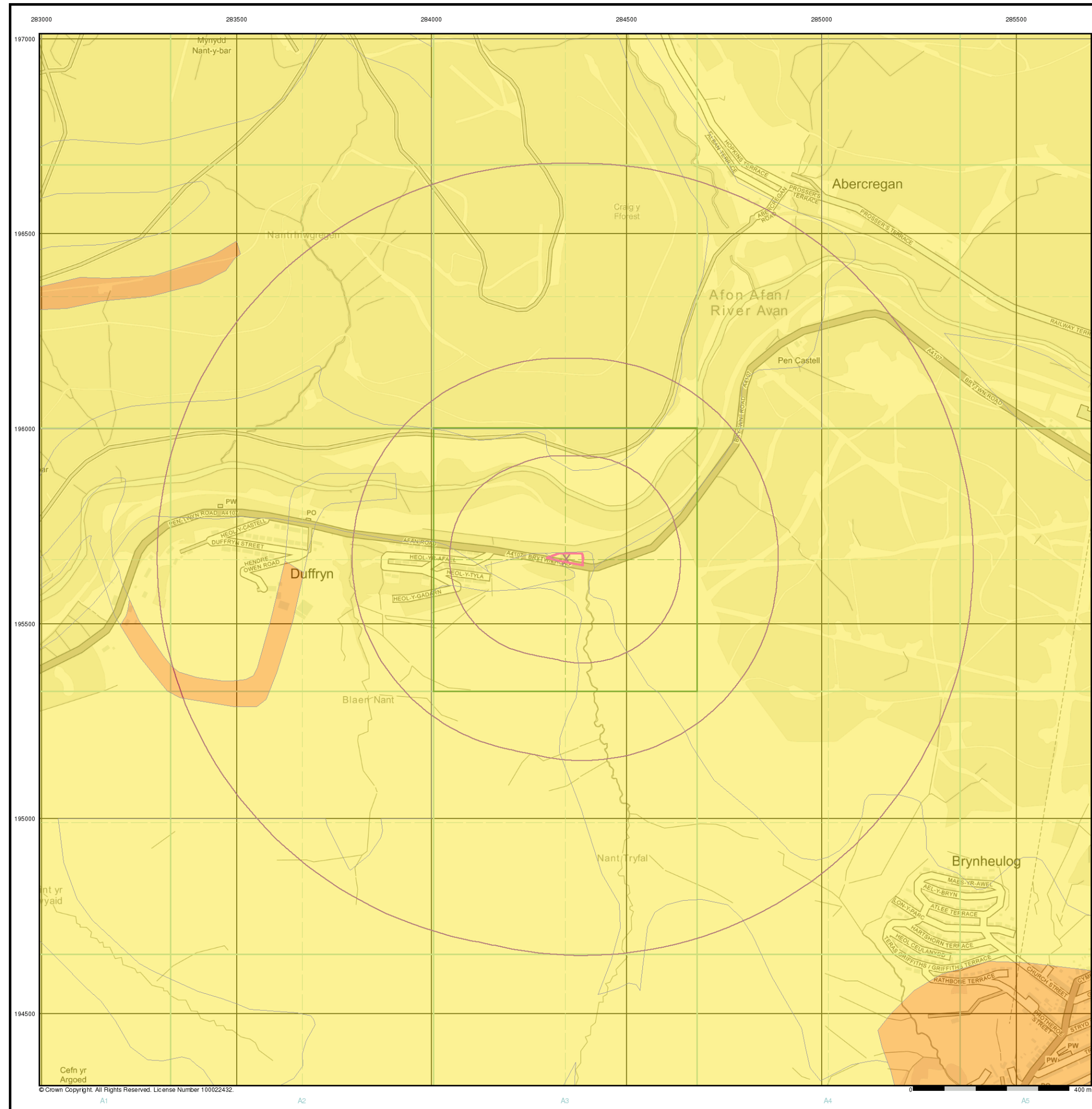


Order Details

Order Details: 311342604_1_1
Customer Ref: 17782/JRW
National Grid Reference: 284350, 195670
Slice: A
Site Area (Ha): 0.18
Search Buffer (m): 1000

Site Details

Bakers DIY Store, Afan Road, Duffryn Rhondda, PORT
TALBOT, SA13 3ES



283000 283500 284000 284500 285000 285500

197000 196500 196000 195500 195000 194500

A1 A2 A3 A4 A5

0 400 m

© Crown Copyright. All Rights Reserved. License Number 100022432.



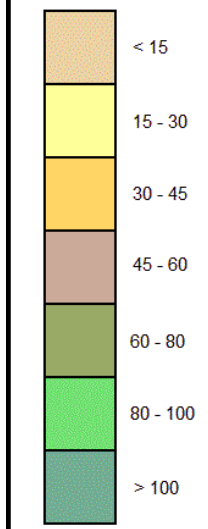
Geotechnical & Geoenvironmental Specialists

General

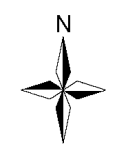
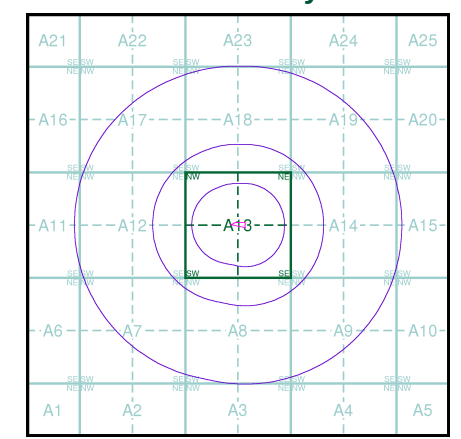
- Specified Site
- Specified Buffer(s)
- Bearing Reference Point

Estimated Soil Chemistry Nickel

Nickel Concentrations mg/kg



Estimated Soil Chemistry Nickel - Slice A



Order Details

Order Details: 311342604_1_1
Customer Ref: 17782/JRW
National Grid Reference: 284350, 195670
Slice: A
Site Area (Ha): 0.18
Search Buffer (m): 1000

Site Details

Bakers DIY Store, Afan Road, Duffryn Rhondda, PORT TALBOT, SA13 3ES



Tel: 0844 844 9952
Fax: 0844 844 9951
Web: www.envirocheck.co.uk

Annex B
Risk Assessment Definitions

The contaminated land regime is set out in Part 2A of the Environmental Protection Act (EPA) 1990 and was introduced on the 1st April 2000 in England and 1st July 2001 in Wales. A similar regime was introduced in Scotland on 14th July 2000.

Part 2A was introduced to achieve three overarching objectives:

- (a) To identify and remove unacceptable risks to human health and the environment.
- (b) To seek to ensure that contaminated land is made suitable for its current use.
- (c) To ensure that the burdens faced by individuals, companies and society as a whole are proportionate, manageable and compatible with the principles of sustainable development.

Under Part 2A the statutory definition of 'contaminated land' is:

"any land which appears to the local authority in whose area it is situated, to be in such a condition, by reason of substances in, on, or under the land, that:

- (a) Significant harm is being caused or there is a significant possibility of such harm being caused; or
- (b) Pollution of controlled waters is being, or is likely to be, caused."

Under Part 2A, for land to be classified as 'Contaminated Land' there must be one or more contaminant, pathway, receptor linkages, known as the '**Pollutant Linkage**'. A pollutant linkage requires three essential elements:

- (a) A **CONTAMINANT** (SOURCE) – a substance that is in, on or under the land and has the potential to cause harm or to cause pollution of controlled waters.
- (b) A **RECEPTOR** – something which could be adversely affected by a contaminant.
- (c) A **PATHWAY** – a route by which a receptor is or might be exposed to or affected by a contaminant.

The term 'Risk' is widely used in different contexts and situations, but a prescriptive definition is given by the Guidelines for Environmental Risk Assessment and Management (DEFRA *et al*, 2000):

'Risk is a combination of the probability, or frequency, of occurrence of a defined hazard and the magnitude of the consequences of the occurrence'.

Model Procedures for the Management of Land Contamination – Contamination Land Report 11 (2004) defines a 'Hazard' as

'a property or situation that in particular circumstances could lead to harm'.

A framework for qualitative risk assessment is provided in CIRIA publication C552 Contaminated Land Risk Assessment – A Guide to Good Practice (2001). The method requires an assessment of the magnitude of the probability of the risk occurring and the magnitude of the potential consequence. Classifications of consequences and probability, levels and descriptions of risk have been devised from the above publication and are defined in the following sections.

Classification of Consequence

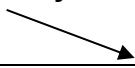
Table A Classification of Consequence	
Classification	Definition
Severe	• Short term (acute) risk to human health likely to result in significant harm • Short term risk to controlled waters • Catastrophic damage to buildings/structures • Short term risk to an ecosystem or organism within the particular ecosystem
Medium	• Chronic damage to human health (long term risk) • Pollution of a sensitive water resource • A significant change in an ecosystem or organism within the ecosystem
Mild	• Pollution of non-sensitive water resources • Significant damage to buildings/structures • Damage to sensitive buildings/structure/services or the environment
Negligible	• Harm (not necessarily significant) which may result in financial loss • Non-permanent health effects to humans (easily prevented by PPE for example) • Easily repairable effects of structural (building) damage

Classification of Probability

Table B Classification of Probability	
Classification	Definition
High Likelihood	• There is a complete pollution linkage and an event appears very likely to occur in the short term and is inevitable in the long term. • Evidence of harm to the receptor
Likely	• There is a complete pollution linkage which means that it is probable that an event will occur • The event is not inevitable but possible in short term and likely in the long term
Low Likelihood	• There is a complete pollution linkage and circumstances are possible under which an event could occur • It is not certain that an event will occur in the long term, and it is less likely to occur in the short term
Unlikely	• There is a complete pollution linkage but circumstances are such that it is improbable that an event would occur even in the long term

Risk Assessment Matrix

By comparing the consequences of a risk and the probability of the risk of a pollution linkage, the likely risk category can be determined as shown in **Table C** below.

Table C Risk Assessment Matrix					
Increasing acceptability 		Consequence			
		Severe	Medium	Mild	Negligible
Probability	High Likelihood	High risk	High risk	Medium risk	Low risk
	Likely	High risk	Medium risk	Low risk	Near zero risk
	Low Likelihood	Medium risk	Low risk	Low risk	Near zero risk
	Unlikely	Low risk	Near zero risk	Near zero risk	Near zero risk

Description of Risks and Likely Actions

High Risk

There is a high probability that severe harm could arise to a receptor, or there is evidence that a receptor is currently being severely harmed. The risk if realised is likely to result in liability, and urgent investigation or remediation will be required.

Medium Risk

It is probable that harm will arise to a receptor. However, it is relatively unlikely that such harm would be severe, or if harm does occur the harm is likely to be relatively mild. Investigation will be required to determine the liability, and some remedial works may be required in the long term.

Low Risk

It is possible that harm may arise to a receptor, but it is likely that the harm would be mild.

Near Zero Risk

There is a very low risk of harm to the receptor. In the event of harm being realised the harm is not likely to be severe.

**Annex C
Coal Authority Report and Map**



The Coal
Authority

Consultants Coal Mining Report

Bakers Diy Store,
Afan Road
Duffryn Rhondda
Port Talbot
Vale Of Glamorgan
SA13 3ES

Date of enquiry:	16 May 2023
Date enquiry received:	16 May 2023
Issue date:	16 May 2023

Our reference:	51003355188001
Your reference:	311342604_2



Consultants

Coal Mining Report

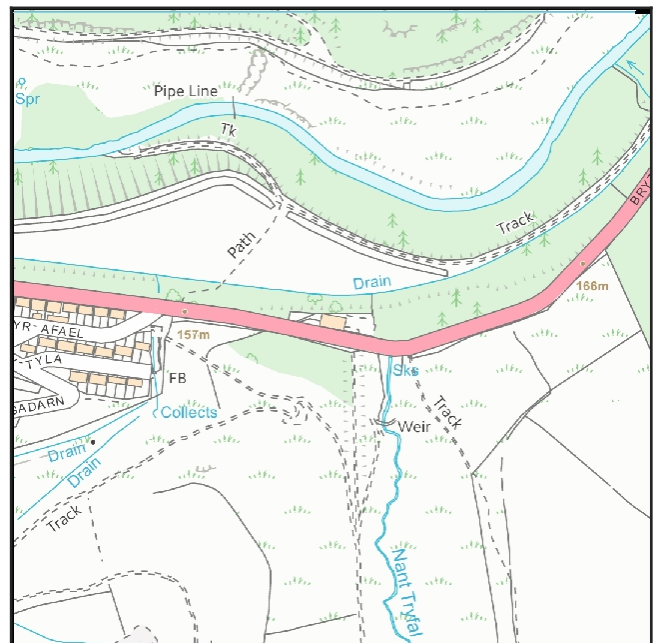
This report is based on and limited to the records held by the Coal Authority at the time the report was produced.

Client name

NLIS Hub

Enquiry address

Bakers Diy Store,
Afan Road
Duffryn Rhondda
Port Talbot
Vale Of Glamorgan
SA13 3ES



How to contact us

0345 762 6848 (UK)
+44 (0)1623 637 000 (International)

200 Lichfield Lane
Mansfield
Nottinghamshire
NG18 4RG

www.groundstability.com

 @coalauthority

[in/company/the-coal-authority](#)

f /thecoalauthority

 /thecoalauthority

Approximate position of property



Reproduced by permission of Ordnance Survey on behalf of HMSO. © Crown copyright and database right 2018. All rights reserved.

Ordnance Survey Licence number: 100020315

Section 1 – Mining activity and geology

Past underground mining

Colliery	Seam	Mineral	Coal Authority reference	Depth (m)	Direction to working	Dipping rate of seam worked (degrees)	Dipped direction of seam worked	Extraction thickness (cm)	Year last mined
unnamed	NO.2 RHONDDA	Coal	4ENQ	140	Beneath Property	10.1	North	78	1900
unnamed	EIGHTEEN INCH	Coal	4EN9	450	Beneath Property	9.6	North	147	1951
unnamed	EIGHTEEN INCH	Coal	4F1L	462	West	10.3	North	147	1908
unnamed	6FT BOTTOM LEAF	Coal	4EN5	579	South	10.0	N/A	292	1927
unnamed	FOUR FOOT	Coal	4EMX	600	North-East	11.8	North	208	1921
unnamed	6FT BOTTOM LEAF	Coal	4EN4	605	Beneath Property	0.0	East	292	1929
unnamed	6FT BOTTOM LEAF	Coal	4F1A	606	South-West	9.3	North	396	1939
unnamed	UPPER NINE FOOT	Coal	4ENB	617	South	0.0	East	102	1959
unnamed	6FT BOTTOM LEAF	Coal	4F1F	627	West	13.2	North	396	1949
unnamed	BUTE	Coal	4EN1	643	South	6.8	North-West	79	1934
unnamed	FOUR FOOT	Coal	4F13	647	North-West	9.3	North-West	193	1939
unnamed	FOUR FOOT	Coal	4EMW	653	North	11.7	North	208	1939
unnamed	UPPER NINE FOOT	Coal	4ENA	657	South-West	11.0	North	102	1945
unnamed	FOUR FOOT	Coal	4EMY	660	North	0.0	East	208	1921
unnamed	BUTE	Coal	4EN3	666	South	0.0	East	79	1936
unnamed	FOUR FOOT	Coal	4F1S	668	North	7.7	North	122	1953
unnamed	6FT BOTTOM LEAF	Coal	4EN6	669	North	12.0	North	292	1929
unnamed	BUTE	Coal	4EN2	670	South-West	7.6	North	79	1934
unnamed	BUTE	Coal	4EN0	670	South-West	7.7	North	79	1931
unnamed	LOWER NINE FOOT TOP LEAF	Coal	4ENI	674	South	10.7	North-East	150	1930

Colliery	Seam	Mineral	Coal Authority reference	Depth (m)	Direction to working	Dipping rate of seam worked (degrees)	Dipped direction of seam worked	Extraction thickness (cm)	Year last mined
unnamed	LOWER NINE FOOT TOP LEAF	Coal	4ENJ	682	Beneath Property	14.2	North	150	1944
unnamed	6FT BOTTOM LEAF	Coal	4F1M	698	North	7.0	North	297	1945

Probable unrecorded shallow workings

None.

Spine roadways at shallow depth

No spine roadway recorded at shallow depth.

Mine entries

Entry type	Reference	Grid reference	Treatment description	Mineral	Conveyancing details
Adit	284195-003	284428 195675		Coal	Afan Borough Council 02/07/1981
Adit	284195-008	284408 195676		Coal	

Abandoned mine plan catalogue numbers

The following abandoned mine plan catalogue numbers intersect with some, or all, of the enquiry boundary:

SWA778	8205	14327
SWA3179	SWA782	14325
SWR3990	SWA1558	SW306

Our records show we have more plans than those shown above which could affect the enquiry boundary.

Please contact us on 0345 762 6848 to determine the exact abandoned mine plans you require based on your needs.

Outcrops

No outcrops recorded.

Geological faults, fissures and breaklines

No faults, fissures or breaklines recorded.

Opencast mines

None recorded within 500 metres of the enquiry boundary.

Coal Authority managed tips

None recorded within 500 metres of the enquiry boundary.

Section 2 – Investigative or remedial activity

Please refer to the 'Summary of findings' map (on separate sheet) for details of any activity within the area of the site boundary.

Site investigations

None recorded within 50 metres of the enquiry boundary.

Remediated sites

None recorded within 50 metres of the enquiry boundary.

Coal mining subsidence

The Coal Authority has not received a damage notice or claim for the subject property, or any property within 50 metres of the enquiry boundary, since 31 October 1994.

There is no current Stop Notice delaying the start of remedial works or repairs to the property.

The Coal Authority is not aware of any request having been made to carry out preventive works before coal is worked under section 33 of the Coal Mining Subsidence Act 1991.

Mine gas

Distance to gas incident/remediation (m)	Direction
35.0	East

See Section 4 for further information.

Mine water treatment schemes

None recorded within 500 metres of the enquiry boundary.

Section 3 – Licensing and future mining activity

Future underground mining

None recorded.

Coal mining licensing

None recorded within 200 metres of the enquiry boundary.

Court orders

None recorded.

Section 46 notices

No notices have been given, under section 46 of the Coal Mining Subsidence Act 1991, stating that the land is at risk of subsidence.

Withdrawal of support notices

The property is not in an area where a notice to withdraw support has been given.

The property is not in an area where a notice has been given under section 41 of the Coal Industry Act 1994, cancelling the entitlement to withdraw support.

Payments to owners of former copyhold land

The property is not in an area where a relevant notice has been published under the Coal Industry Act 1975/Coal Industry Act 1994.

Section 4 – Further information

The following potential risks have been identified and as part of your risk assessment should be investigated further.

Future development

If development proposals are being considered, technical advice relating to both the investigation of coal and former coal mines and their treatment should be obtained before beginning work on site. All proposals should apply specialist engineering practice required for former mining areas. No development should be undertaken that intersects, disturbs or interferes with any coal or coal mines without first obtaining the permission of the Coal Authority.

MINE GAS: Please note, if there are no recorded instances of mine gas within 500m of the enquiry boundary, this does not mean that mine gas is not present within the vicinity. The Coal Authority Mine Gas data is limited to only those sites where a Mine Gas incident has been recorded. Developers should be aware that the investigation of coal seams, mine workings or mine entries may have the potential to generate and/or displace underground gases. Associated risks both to the development site and any neighbouring land or properties should be fully considered when undertaking any ground works. The need for effective measures to prevent gases migrating onto any land or into any properties, either during investigation or remediation work, or after development must also be assessed and properly addressed. In these instances, the Coal Authority recommends that a more detailed Gas Risk Assessment is undertaken by a competent assessor.

Development advice

The site is within an area of historical coal mining activity. Should you require advice and/or support on understanding the mining legacy, its risks to your development or what next steps you need to take, please contact us.

Mine gas remedial works

The site is within an area of previous interest. It is close to where the Coal Authority has investigated and subsequently remediated the effects of mine or ground gas emissions following specific reported hazards.

The site requires further investigation and may influence your risk assessment. We recommend that you order the **Coal Authority Mine Gas Emission Report**, which will include more information about the hazard.

For further information on specific site or ground investigations in relation to any issues raised in Section 4, please call us on 0345 762 6848 or email us at groundstability@coal.gov.uk.

Section 5 – Data definitions

The datasets used in this report have limitations and assumptions within their results. For more guidance on the data and the results specific to the enquiry boundary, please **call us on 0345 762 6848** or **email us at groundstability@coal.gov.uk**.

Past underground coal mining

Details of all recorded underground mining relative to the enquiry boundary. Only past underground workings where the enquiry boundary is within 0.7 times the depth of the workings (zone of likely physical influence) allowing for seam inclination, will be included.

Probable unrecorded shallow workings

Areas where the Coal Authority believes there to be unrecorded coal workings that exist at or close to the surface (less than 30 metres deep).

Spine roadways at shallow depth

Connecting roadways either, working to working, or, surface to working, both in-seam and cross measures that exist at or close to the surface (less than 30 metres deep), either within or within 10 metres of the enquiry boundary.

Mine entries

Details of any shaft or adit either within, or within 100 metres of the enquiry boundary including approximate location, brief treatment details where known, the mineral worked from the mine entry and conveyance details where the mine entry has previously been sold by the Authority or its predecessors British Coal or the National Coal Board.

Abandoned mine plan catalogue numbers

Plan numbers extracted from the abandoned mines catalogue containing details of coal and other mineral abandonment plans deposited via the Mines Inspectorate in accordance with the Coal Mines Regulation Act and Metalliferous Mines Regulation Act 1872. A maximum of 9 plan extents that intersect with the enquiry boundary will be included. This does not infer that the workings and/or mine entries shown on the abandonment plan will be relevant to the site/property boundary.

Outcrops

Details of seam outcrops will be included where the enquiry boundary intersects with a conjectured or actual seam outcrop location (derived by either the British Geological Survey or the Coal Authority) or intersects with a defined 50 metres buffer on the coal (dip) side of the outcrop. An indication of whether the Coal Authority believes the seam to be of sufficient thickness and/or quality to have been worked will also be included.

Geological faults, fissures and breaklines

Geological disturbances or fractures in the bedrock. Surface fault lines (British Geological Survey derived data) and fissures and breaklines (Coal Authority derived data) intersecting with the enquiry boundary will be included. In some circumstances faults, fissures or breaklines have been known to contribute to surface subsidence damage as a consequence of underground coal mining.

Opencast mines

Opencast coal sites from which coal has been removed in the past by opencast (surface) methods and where the enquiry boundary is within 500 metres of either the licence area, site boundary, excavation area (high wall) or coaling area.

Coal Authority managed tips

Locations of disused colliery tip sites owned and managed by the Coal Authority, located within 500 metres of the enquiry boundary.

Site investigations

Details of site investigations within 50 metres of the enquiry boundary where the Coal Authority has received information relating to coal mining risk investigation and/or remediation by third parties.

Remediated sites

Sites where the Coal Authority has undertaken remedial works either within or within 50 metres of the enquiry boundary following report of a hazard relating to coal mining under the Coal Authority's Emergency Surface Hazard Call Out procedures.

Coal mining subsidence

Details of alleged coal mining subsidence claims made since 31 October 1994 either within or within 50 metres of the enquiry boundary. Where the claim relates to the enquiry boundary confirmation of whether the claim was accepted, rejected or whether liability is still being determined will be given. Where the claim has been discharged, whether this was by repair, payment of compensation or a combination of both, the value of the claim, where known, will also be given.

Details of any current 'Stop Notice' deferring remedial works or repairs affecting the property/site, and if so the date of the notice.

Details of any request made to execute preventative works before coal is worked under section 33 of the Coal Mining Subsidence Act 1991. If yes, whether any person withheld consent or failed to comply with any request to execute preventative works.

Mine gas

Reports of alleged mine gas emissions received by the Coal Authority, either within or within 500 metres of the enquiry boundary that subsequently required investigation and action by the Coal Authority to mitigate the effects of the mine gas emission. Please note, if there are no recorded instances of mine gas reported, this does not mean that mine gas is not present within the vicinity. The Coal Authority Mine Gas data is limited to only those sites where a Mine Gas incident has been recorded.

Mine water treatment schemes

Locations where the Coal Authority has constructed or operates assets that remove pollutants from mine water prior to the treated mine water being discharged into the receiving water body.

These schemes are part of the UK's strategy to meet the requirements of the Water Framework Directive. Schemes fall into 2 basic categories: Remedial – mitigating the impact of existing pollution or Preventative – preventing a future pollution incident.

Mine water treatment schemes generally consist of one or more primary settlement lagoons and one or more reed beds for secondary treatment. A small number are more specialised process treatment plants.

Future underground mining

Details of all planned underground mining relative to the enquiry boundary. Only those future workings where the enquiry boundary is within 0.7 times the depth of the workings (zone of likely physical influence) allowing for seam inclination will be included.

Coal mining licensing

Details of all licenses issued by the Coal Authority either within or within 200 metres of the enquiry boundary in relation to the under taking of surface coal mining, underground coal mining or underground coal gasification.

Court orders

Orders in respect of the working of coal under the Mines (Working Facilities and Support) Acts of 1923 and 1966 or any statutory modification or amendment thereof.

Section 46 notices

Notice of proposals relating to underground coal mining operations that have been given under section 46 of the Coal Mining Subsidence Act 1991.

Withdrawal of support notices

Published notices of entitlement to withdraw support and the date of the notice. Details of any revocation notice withdrawing the entitlement to withdraw support given under Section 41 of the Coal Industry Act 1994.

Payment to owners of former copyhold land

Relevant notices which may affect the property and any subsequent notice of retained interests in coal and coal mines, acceptance or rejection notices and whether any compensation has been paid to a claimant.

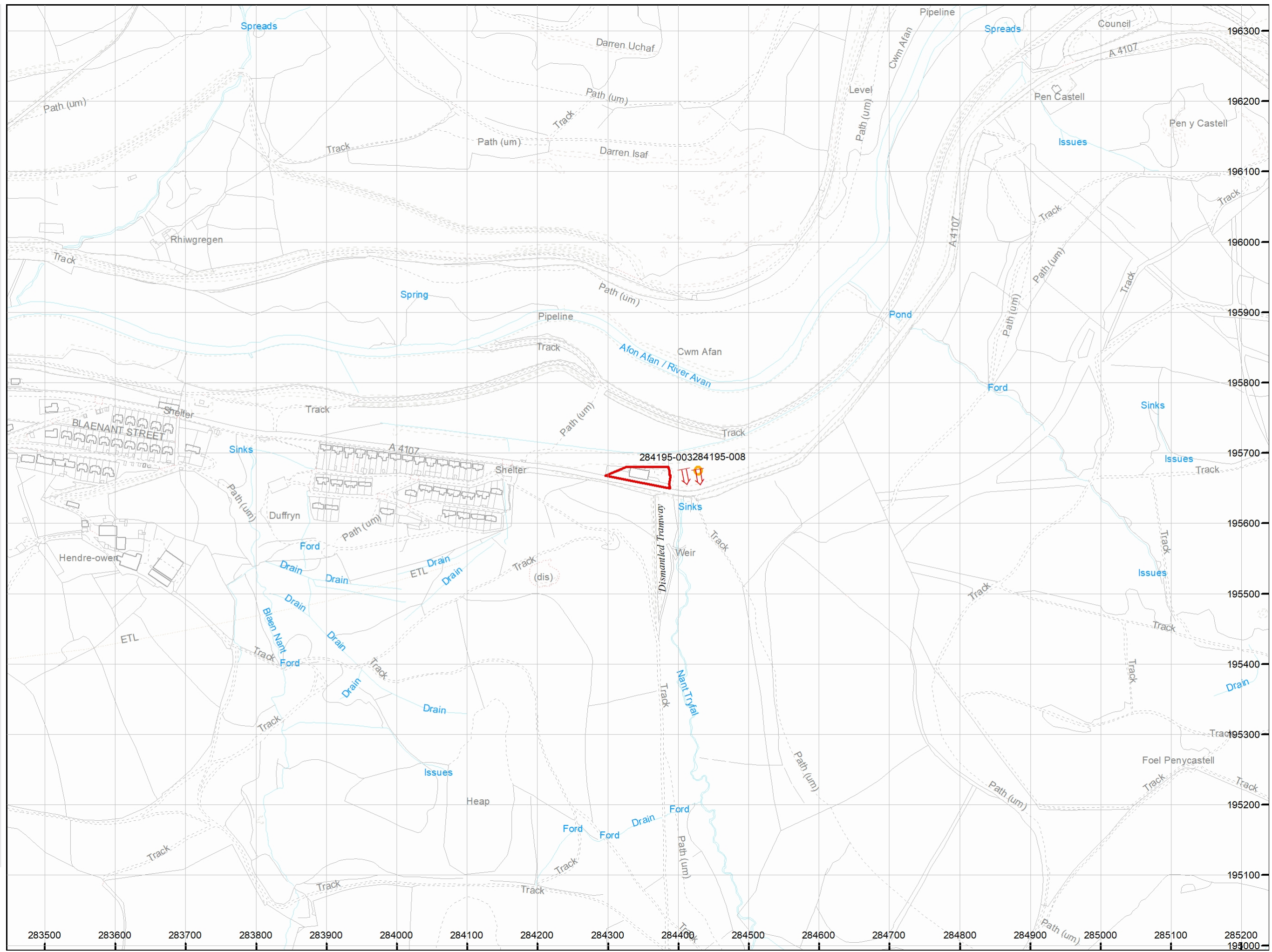
The map highlights any specific surface or subsurface features within or near to the boundary of the site.

Key

- Approximate position of the enquiry boundary shown 
- Disused adit 
- Mine gas remedial works 

How to contact us

0345 762 6848 (UK)
+44 (0)1623 637 000 (International)
www.groundstability.com



**Annex D
Borehole Logs**

Borehole Log

Borehole No.

WS01

Sheet 1 of 1

Project Name: Bakers DIY	Project No: 17782	Co-ords:	Hole Type WS
Location: Brytwn Road	Level:	Scale 1:50	Logged By
Client: Bricks and passion	Dates: 16/05/2023 - 16/05/2023		

Water Strikes	Sample and In Situ Testing			Depth (m)	Level (m)	Well	Legend	Stratum Description	
	Depth (m)	Type	Results						
	0.20	ES		0.30				MADE GROUND. Black gravelly SAND. Sand is fine to coarse. Gravel is angular and subangular fine to coarse of mixed lithologies. Possible coal spoil?	
	1.20	SPT	N=42 (12,12/11,11,10,10)	1.10				Firm brown gravelly sandy SILT with low cobble and boulder content. Sand is fine to coarse. Gravel is angular and subangular fine to coarse of sandstone. Cobbles and boulders are angular and subangular of sandstone.	1
	2.00	SPT	N=37 (5,6/5,13,11,8)	2.00				Stiff brown slightly sandy slightly gravelly CLAY. Sand is fine to coarse. Gravel is angular and subangular fine to coarse of sandstone.	
	2.60	SPT	50 (25 for 95mm/50 for 95mm)	2.60				Dense grey clayey gravelly SAND. Sand is fine to coarse. Gravel is angular and subangular fine to coarse of sandstone.	2
								Very dense grey sandy GRAVEL. Sand is fine to coarse. Gravel is angular and subangular fine to coarse of sandstone. Possible extremely weathered bedrock.	
								End of Borehole at 2.600m	
									3
									4
									5
									6
									7
									8
									9
									10

Remarks:

Borehole Log

Borehole No.

WS02

Sheet 1 of 1

Project Name:	Bakers DIY	Project No:	17782	Co-ords:		Hole Type	WS
Location:	Brytwn Road	Level:		Scale	1:50	Logged By	
Client:	Bricks and passion	Dates:	16/05/2023 - 16/05/2023				

Water Strikes	Sample and In Situ Testing			Depth (m)	Level (m)	Well	Legend	Stratum Description	
	Depth (m)	Type	Results						
	0.60	ES						MADE GROUND. Black gravelly SAND. Sand is fine to coarse. Gravel is angular and subangular fine to coarse of mixed lithologies. Possible coal spoil?	1
	1.20	SPT	N=10 (1,1/3,3,2,2)						
	2.00	SPT	N=6 (2,1/1,1,2,2)	2.00				MADE GROUND. Black gravelly sandy CLAY. Sand is fine to coarse. Gravel is angular and subangular fine to coarse of mixed lithologies. Possible coal spoil?	2
	2.20	ES		2.40					
	2.80	SPT	50 (25 for 105mm/50 for 160mm)	2.80				Very dense grey sandy GRAVEL. Sand is fine to coarse. Gravel is angular and subangular fine to coarse of sandstone. Possible extremely weathered bedrock. End of Borehole at 2.800m	3
									4
									5
									6
									7
									8
									9
									10

Remarks:

Borehole Log

Borehole No.

WS03

Sheet 1 of 1

Project Name:	Bakers DIY	Project No:	17782	Co-ords:		Hole Type	WS
Location:	Brytwn Road	Level:		Scale	1:50	Logged By	
Client:	Bricks and passion	Dates:	16/05/2023 - 16/05/2023				

Water Strikes	Sample and In Situ Testing			Depth (m)	Level (m)	Well	Legend	Stratum Description	
	Depth (m)	Type	Results						
	0.80	ES						MADE GROUND. Black clayey gravelly SAND. Sand is fine to coarse. Gravel is angular and subangular fine to coarse of mixed lithologies.	1
	1.00	SPT	N=8 (8,6/3,2,2,1)						
	2.00	SPT	N=4 (2,2/1,1,1,1)	2.20					2
	3.00	SPT	N=9 (2,1/2,3,2,2)					Unable to retain sample due to collapse, continuous SPT.	3
	4.00	SPT	N=7 (2,2/1,2,1,3)						4
	4.50	SPT	N=8 (2,2/2,3,2,1)						
	5.00	SPT	N=14 (1,2/2,3,3,6)	5.00				End of Borehole at 5.000m	5
									6
									7
									8
									9
									10

Remarks:



Tel: 02920 735354
info@terrafirmawales.co.uk
www.terrafirmawales.co.uk

Geotechnical & Geoenvironmental Specialists

Borehole Log

Borehole No.

WS04

Sheet 1 of 1

Project Name: Bakers DIY

Project No:
17782

Co-ords:

Hole Type
WS

Location: Brytwn Road

Level:

Scale
1:50

Client: Bricks and passion

Dates: 16/05/2023 - 16/05/2023

Logged By

Water Strikes	Sample and In Situ Testing			Depth (m)	Level (m)	Well	Legend	Stratum Description	
	Depth (m)	Type	Results						
	0.40	ES		0.25				MADE GROUND. Tarmac over black gravelly SAND. Sand is fine to coarse. Gravel is angular and subangular fine to coarse of mixed lithologies.	
	0.60	SPT	50 (25 for 10mm/50 for 10mm)	0.60				Firm brown gravelly sandy SILT with low cobble and boulder content. Sand is fine to coarse. Gravel is angular and subangular fine to coarse of sandstone. Cobbles and boulders are angular and subangular of sandstone.	1
								End of Borehole at 0.600m	
									2
									3
									4
									5
									6
									7
									8
									9
									10

Remarks:



Tel: 02920 735354
info@terrafirmawales.co.uk
www.terrafirmawales.co.uk

Borehole Log

Borehole No.

WS05

Sheet 1 of 1

Project Name: Bakers DIY	Project No: 17782	Co-ords:	Hole Type WS
Location: Brytwn Road	Level:	Scale 1:50	Logged By
Client: Bricks and passion	Dates: 17/05/2023 - 17/05/2023		

Water Strikes	Sample and In Situ Testing			Depth (m)	Level (m)	Well	Legend	Stratum Description	
	Depth (m)	Type	Results						
	0.60 0.70	ES SPT	50 (25 for 135mm/50 for 200mm)	0.15 0.65			  	MADE GROUND. Tarmac over black gravelly SAND. Sand is fine to coarse. Gravel is angular and subangular fine to coarse of mixed lithologies. Firm brown gravelly sandy SILT with low cobble and boulder content. Sand is fine to coarse. Gravel is angular and subangular fine to coarse of sandstone. Cobbles and boulders are angular and subangular of sandstone. End of Borehole at 0.700m	1 2 3 4 5 6 7 8 9 10

Remarks:

Borehole Log

Borehole No.

WS06

Sheet 1 of 1

Project Name: Bakers DIY

Project No:
17782

Co-ords:

Hole Type
WS

Location: Brytwn Road

Level:

Scale
1:50

Client: Bricks and passion

Dates: 17/05/2023 - 17/05/2023

Logged By

Water Strikes	Sample and In Situ Testing			Depth (m)	Level (m)	Well	Legend	Stratum Description	
	Depth (m)	Type	Results						
	0.20	ES		0.35				MADE GROUND. Tarmac over black gravelly SAND. Sand is fine to coarse. Gravel is angular and subangular fine to coarse of mixed lithologies.	
	0.60	ES		0.70				MADE GROUND. Brown gravelly sandy SILT with low cobble and boulder content. Sand is fine to coarse. Gravel is angular and subangular fine to coarse of sandstone. Cobbles and boulders are angular and subangular of sandstone.	1
	0.90	ES							
	1.20	SPT	N=6 (1,1/1,1,2,2)					MADE GROUND. Black gravelly SAND. Sand is fine to coarse. Gravel is angular and subangular fine to coarse of mixed lithologies. Possible coal spoil?	
	2.00	SPT	N=4 (2,1/1,1,1,1)						2
	3.00	SPT	N=7 (1,2/1,1,3,2)						3
	4.00	SPT	N=7 (3,2/2,1,2,2)						4
	5.00	SPT	50 (25 for 85mm/50 for 95mm)	4.90 5.00				Very dense grey sandy GRAVEL. Sand is fine to coarse. Gravel is angular and subangular fine to coarse of sandstone. Possible extremely weathered bedrock. End of Borehole at 5.000m	5
									6
									7
									8
									9
									10

Remarks:



Tel: 02920 735354
info@terrafirmawales.co.uk
www.terrafirmawales.co.uk

Geotechnical & Geoenvironmental Specialists

Borehole Log

Borehole No.

WS07

Sheet 1 of 1

Project Name:	Bakers DIY	Project No:	17782	Co-ords:		Hole Type	WS
Location:	Brytwn Road	Level:		Scale	1:50	Logged By	
Client:	Bricks and passion	Dates:	17/05/2023 - 17/05/2023				

Water Strikes	Sample and In Situ Testing			Depth (m)	Level (m)	Well	Legend	Stratum Description	
	Depth (m)	Type	Results						
				0.15				MADE GROUND. Tarmac over black gravelly SAND. Sand is fine to coarse. Gravel is angular and subangular fine to coarse of mixed lithologies.	
	0.60	SPT	50 (7, 11/50 for 85mm)	0.60				Very dense grey sandy GRAVEL. Sand is fine to coarse. Gravel is angular and subangular fine to coarse of sandstone. Possible extremely weathered bedrock. End of Borehole at 0.600m	1
									2
									3
									4
									5
									6
									7
									8
									9
									10

Remarks:

Borehole Log

Borehole No.

WS08

Sheet 1 of 1

Project Name: Bakers DIY	Project No: 17782	Co-ords:	Hole Type WS
Location: Brytwn Road	Level:	Scale 1:50	Logged By
Client: Bricks and passion	Dates: 17/05/2023 - 17/05/2023		

Water Strikes	Sample and In Situ Testing			Depth (m)	Level (m)	Well	Legend	Stratum Description	
	Depth (m)	Type	Results						
	0.50	ES		0.35				MADE GROUND. Tarmac over black gravelly SAND. Sand is fine to coarse. Gravel is angular and subangular fine to coarse of mixed lithologies.	
	1.00	SPT	N=17 (3,3/3,4,5,5)	0.80 0.90				MADE GROUND. Brown gravelly sandy SILT with low cobble and boulder content. Sand is fine to coarse. Gravel is angular and subangular fine to coarse of sandstone. Cobbles and boulders are angular and subangular of sandstone.	1
	2.00	SPT	N=25 (5,6/7,6,6,6)	2.30				MADE GROUND. Black gravelly SAND. Sand is fine to coarse. Gravel is angular and subangular fine to coarse of mixed lithologies.	2
	3.00	SPT	50 (9,6/50 for 265mm)	3.00				Firm brown gravelly sandy SILT with low cobble and boulder content. Sand is fine to coarse. Gravel is angular and subangular fine to coarse of sandstone. Cobbles and boulders are angular and subangular of sandstone.	3
								Very stiff grey slightly sandy gravelly CLAY. Sand is fine to coarse. Gravel is angular and subangular fine to coarse of sandstone.	4
								End of Borehole at 3.000m	5
									6
									7
									8
									9
									10

Remarks:

**Annex E
Laboratory Soil Chemical Test Results**



Final Report

Report No.: 23-16776-1

Initial Date of Issue: 30-May-2023

Re-Issue Details:

Client Terra Firma (Wales) Ltd

Client Address: 5 Deryn Court
Wharfedale Road
Pentwyn
Cardiff
CF23 7HA

Contact(s): elliot@terrafirmawales.co.uk;
chris@terrafirmawales.co.uk

Project Bakers DIY

Quotation No.: **Date Received:** 22-May-2023

Order No.: 17782 **Date Instructed:** 22-May-2023

No. of Samples: 10

Turnaround (Wkdays): 7 **Results Due:** 31-May-2023

Date Approved: 30-May-2023

Approved By:

Details: Stuart Henderson, Technical
Manager

Results - Soil

Project: Bakers DIY

Client: Terra Firma (Wales) Ltd	Chemtest Job No.:				23-16776	23-16776	23-16776	23-16776	23-16776	23-16776	23-16776	23-16776	23-16776
Quotation No.:	Chemtest Sample ID.:				1642598	1642599	1642600	1642601	1642602	1642603	1642604	1642605	1642606
	Client Sample ID.:				ES1	ES1	ES2	ES1	ES1	ES1	ES1	ES2	ES3
	Sample Location:				WS01	WS02	WS02	WS03	WS04	WS05	WS06	WS06	WS06
	Sample Type:				SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL
	Top Depth (m):				0.2	0.6	2.2	0.8	0.4	0.6	0.2	0.6	0.9
	Bottom Depth (m):				0.2	0.6	2.2	0.8	0.4	0.6	0.2	0.6	0.9
	Date Sampled:				19-May-2023	19-May-2023	19-May-2023	19-May-2023	19-May-2023	19-May-2023	19-May-2023	19-May-2023	19-May-2023
	Time Sampled:				12:00	12:00	12:00	12:00	12:00	12:00	12:00	12:00	12:00
	Asbestos Lab:				DURHAM	DURHAM	DURHAM	DURHAM	DURHAM	DURHAM	DURHAM	DURHAM	DURHAM
Determinand	Accred.	SOP	Units	LOD									
ACM Type	U	2192		N/A	-	-	-	-	-	-	-	-	-
Asbestos Identification	U	2192		N/A	No Asbestos Detected	No Asbestos Detected	No Asbestos Detected	No Asbestos Detected	No Asbestos Detected	No Asbestos Detected	No Asbestos Detected	No Asbestos Detected	No Asbestos Detected
Moisture	N	2030	%	0.020	12	6.0	12	11	9.6	6.3	5.7	12	8.7
Soil Colour	N	2040		N/A	Brown	Brown	Brown	Black	Brown	Brown	Brown	Brown	Brown
Other Material	N	2040		N/A	Stones	Stones	Stones	Stones	Stones	Stones	Stones	Stones	Stones
Soil Texture	N	2040		N/A	Loam	Loam	Clay	Loam	Sand	Sand	Sand	Loam	Loam
pH	M	2010		4.0	8.5	8.6	8.1	8.9	8.3	8.4	9.1	8.5	8.8
Boron (Hot Water Soluble)	M	2120	mg/kg	0.40	< 0.40	0.53	0.49	0.50	< 0.40	< 0.40	< 0.40	< 0.40	< 0.40
Cyanide (Complex)	M	2300	mg/kg	0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50
Cyanide (Free)	M	2300	mg/kg	0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50
Cyanide (Total)	M	2300	mg/kg	0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50
Sulphate (Acid Soluble)	U	2430	%	0.010	< 0.010	0.065	0.082	0.45	0.020	< 0.010	0.034	0.013	0.38
Arsenic	M	2455	mg/kg	0.5	11	12	16	22	14	6.7	13	20	19
Beryllium	U	2455	mg/kg	0.5	0.6	1.4	0.8	0.7	< 0.5	< 0.5	0.6	0.5	< 0.5
Cadmium	M	2455	mg/kg	0.10	0.25	0.41	0.25	0.50	0.16	0.10	1.1	0.23	0.16
Chromium	M	2455	mg/kg	0.5	13	9.9	7.0	12	14	12	19	12	6.3
Mercury Low Level	M	2450	mg/kg	0.05	0.15	0.08	0.10	0.16	0.07	< 0.05	0.07	0.06	0.10
Manganese	M	2455	mg/kg	1.0	660	270	170	440	440	580	680	500	120
Molybdenum	M	2455	mg/kg	0.5	1.4	1.3	2.1	2.0	0.6	< 0.5	1.0	0.6	1.2
Antimony	N	2455	mg/kg	2.0	< 2.0	< 2.0	< 2.0	4.9	< 2.0	< 2.0	2.4	< 2.0	< 2.0
Copper	M	2455	mg/kg	0.50	54	37	47	1400	47	9.6	72	26	28
Nickel	M	2455	mg/kg	0.50	26	30	21	37	23	24	34	20	9.6
Lead	M	2455	mg/kg	0.50	38	21	32	870	34	7.9	93	23	24
Selenium	M	2455	mg/kg	0.25	0.81	1.3	1.3	1.4	0.78	0.40	0.55	0.56	1.5
Zinc	M	2455	mg/kg	0.50	98	85	59	190	74	56	210	57	40
Chromium (Trivalent)	N	2490	mg/kg	1.0	13	9.9	7.0	12	14	12	19	12	6.3
Chromium (Hexavalent)	N	2490	mg/kg	0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50
Aliphatic VPH >C5-C6	U	2780	mg/kg	0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
Aliphatic VPH >C6-C7	U	2780	mg/kg	0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
Aliphatic VPH >C7-C8	U	2780	mg/kg	0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
Total Aliphatic VPH >C5-C10	U	2780	mg/kg	0.25	< 0.25	< 0.25	< 0.25	< 0.25	< 0.25	< 0.25	< 0.25	< 0.25	< 0.25
Aliphatic EPH >C10-C12	M	2690	mg/kg	2.00	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	2.3	< 2.0	< 2.0
Aliphatic VPH >C8-C10	U	2780	mg/kg	0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
Aliphatic EPH >C12-C16	M	2690	mg/kg	1.00	< 1.0	2.6	< 1.0	< 1.0	< 1.0	< 1.0	3.5	< 1.0	< 1.0
Aliphatic EPH >C16-C21	M	2690	mg/kg	2.00	< 2.0	< 2.0	< 2.0	2.6	< 2.0	< 2.0	7.1	< 2.0	2.2

Results - Soil

Project: Bakers DIY

Client: Terra Firma (Wales) Ltd	Chemtest Job No.:				23-16776	23-16776	23-16776	23-16776	23-16776	23-16776	23-16776	23-16776	23-16776
Quotation No.:	Chemtest Sample ID.:				1642598	1642599	1642600	1642601	1642602	1642603	1642604	1642605	1642606
	Client Sample ID.:				ES1	ES1	ES2	ES1	ES1	ES1	ES1	ES2	ES3
	Sample Location:				WS01	WS02	WS02	WS03	WS04	WS05	WS06	WS06	WS06
	Sample Type:				SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL
	Top Depth (m):				0.2	0.6	2.2	0.8	0.4	0.6	0.2	0.6	0.9
	Bottom Depth (m):				0.2	0.6	2.2	0.8	0.4	0.6	0.2	0.6	0.9
	Date Sampled:				19-May-2023	19-May-2023	19-May-2023	19-May-2023	19-May-2023	19-May-2023	19-May-2023	19-May-2023	19-May-2023
	Time Sampled:				12:00	12:00	12:00	12:00	12:00	12:00	12:00	12:00	12:00
	Asbestos Lab:				DURHAM	DURHAM	DURHAM	DURHAM	DURHAM	DURHAM	DURHAM	DURHAM	DURHAM
Determinand	Accred.	SOP	Units	LOD									
Aliphatic EPH >C21-C35	M	2690	mg/kg	3.00	< 3.0	3.9	< 3.0	5.4	3.8	< 3.0	31	< 3.0	5.7
Aliphatic EPH >C35-C40	N	2690	mg/kg	10.00	< 10	< 10	< 10	26	14	< 10	59	< 10	< 10
Total Aliphatic EPH >C10-C35	M	2690	mg/kg	5.00	< 5.0	8.1	< 5.0	10	< 5.0	< 5.0	44	< 5.0	8.1
Total Aliphatic EPH >C10-C40	N	2690	mg/kg	10.00	< 10	< 10	< 10	37	14	< 10	100	< 10	< 10
Aromatic VPH >C5-C7	U	2780	mg/kg	0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
Aromatic VPH >C7-C8	U	2780	mg/kg	0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
Aromatic VPH >C8-C10	U	2780	mg/kg	0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
Total Aromatic VPH >C5-C10	U	2780	mg/kg	0.25	< 0.25	< 0.25	< 0.25	< 0.25	< 0.25	< 0.25	< 0.25	< 0.25	< 0.25
Aromatic EPH >C10-C12	U	2690	mg/kg	1.00	< 1.0	1.6	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Aromatic EPH >C12-C16	U	2690	mg/kg	1.00	1.4	2.2	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	5.2
Aromatic EPH >C16-C21	U	2690	mg/kg	2.00	49	16	4.8	12	8.5	10	44	54	63
Aromatic EPH >C21-C35	U	2690	mg/kg	2.00	250	130	12	400	91	48	860	220	200
Aromatic EPH >C35-C40	N	2690	mg/kg	1.00	36	28	1.2	310	46	3.1	320	17	37
Total Aromatic EPH >C10-C35	U	2690	mg/kg	5.00	300	150	17	410	99	58	910	270	270
Total Aromatic EPH >C10-C40	N	2690	mg/kg	10.00	340	180	18	720	150	62	1200	290	300
Total VPH >C5-C10	U	2780	mg/kg	0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50
Total EPH >C10-C35	U	2690	mg/kg	10.00	300	160	19	420	100	58	950	270	270
Total EPH >C10-C40	N	2690	mg/kg	10.00	340	190	20	760	160	62	1300	290	310
Naphthalene	M	2700	mg/kg	0.10	0.42	4.2	8.1	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	1.0
Acenaphthylene	M	2700	mg/kg	0.10	0.49	0.54	1.1	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	0.35
Acenaphthene	M	2700	mg/kg	0.10	1.0	0.73	1.3	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	0.58
Fluorene	M	2700	mg/kg	0.10	1.2	0.63	1.1	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	0.61
Phenanthrene	M	2700	mg/kg	0.10	7.3	2.1	4.1	1.5	0.47	0.50	2.0	< 0.10	3.3
Anthracene	M	2700	mg/kg	0.10	2.7	0.78	2.2	0.85	0.36	0.21	0.53	< 0.10	1.3
Fluoranthene	M	2700	mg/kg	0.10	21	2.3	5.1	1.8	1.6	1.9	5.4	1.1	9.0
Pyrene	M	2700	mg/kg	0.10	18	2.0	4.8	1.4	1.6	1.7	4.4	0.97	7.3
Benzo[a]anthracene	M	2700	mg/kg	0.10	14	1.3	2.5	1.1	2.0	1.8	3.5	1.1	5.5
Chrysene	M	2700	mg/kg	0.10	18	1.4	1.6	1.3	2.5	2.1	4.4	1.3	6.5
Benzo[b]fluoranthene	M	2700	mg/kg	0.10	20	2.7	6.6	1.9	3.4	2.6	5.7	1.6	7.6
Benzo[k]fluoranthene	M	2700	mg/kg	0.10	7.1	0.99	2.5	0.71	1.3	1.1	1.9	0.71	2.7
Benzo[a]pyrene	M	2700	mg/kg	0.10	14	2.0	4.4	0.97	2.2	1.6	3.2	1.1	4.8
Indeno(1,2,3-c,d)Pyrene	M	2700	mg/kg	0.10	9.9	2.6	6.2	1.6	2.4	1.8	3.8	< 0.10	3.6
Dibenz(a,h)Anthracene	M	2700	mg/kg	0.10	3.5	0.75	1.7	0.39	0.73	0.52	1.2	< 0.10	1.3
Benzo[g,h,i]perylene	M	2700	mg/kg	0.10	7.9	2.7	6.6	1.5	1.9	1.3	3.4	< 0.10	3.1
Total Of 16 PAH's	M	2700	mg/kg	2.0	150	28	60	15	21	17	39	7.9	59
Total Phenols	M	2920	mg/kg	0.10	< 0.10	0.32	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10

Results - Soil

Project: Bakers DIY

Client: Terra Firma (Wales) Ltd	Chemtest Job No.:		23-16776	23-16776	23-16776	23-16776	23-16776	23-16776	23-16776	23-16776	23-16776		
Quotation No.:	Chemtest Sample ID.:		1642598	1642599	1642600	1642601	1642602	1642603	1642604	1642605	1642606		
	Client Sample ID.:		ES1	ES1	ES2	ES1	ES1	ES1	ES1	ES2	ES3		
	Sample Location:		WS01	WS02	WS02	WS03	WS04	WS05	WS06	WS06	WS06		
	Sample Type:		SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL		
	Top Depth (m):		0.2	0.6	2.2	0.8	0.4	0.6	0.2	0.6	0.9		
	Bottom Depth (m):		0.2	0.6	2.2	0.8	0.4	0.6	0.2	0.6	0.9		
	Date Sampled:		19-May-2023	19-May-2023	19-May-2023	19-May-2023	19-May-2023	19-May-2023	19-May-2023	19-May-2023	19-May-2023		
	Time Sampled:		12:00	12:00	12:00	12:00	12:00	12:00	12:00	12:00	12:00		
	Asbestos Lab:		DURHAM	DURHAM	DURHAM	DURHAM	DURHAM	DURHAM	DURHAM	DURHAM	DURHAM		
Determinand	Accred.	SOP	Units	LOD									
Organic Matter BS1377	N	2930	%	0.10	4.2	3.1	4.5	5.7	2.2	1.2	2.3	2.7	2.2

Results - Soil

Project: Bakers DIY

Client: Terra Firma (Wales) Ltd	Chemtest Job No.:		23-16776		
Quotation No.:	Chemtest Sample ID.:		1642607		
	Client Sample ID.:		ES1		
	Sample Location:		WS08		
	Sample Type:		SOIL		
	Top Depth (m):		0.5		
	Bottom Depth (m):		0.5		
	Date Sampled:		19-May-2023		
	Time Sampled:		12:00		
	Asbestos Lab:		DURHAM		
Determinand	Accred.	SOP	Units	LOD	
ACM Type	U	2192		N/A	-
Asbestos Identification	U	2192		N/A	No Asbestos Detected
Moisture	N	2030	%	0.020	13
Soil Colour	N	2040		N/A	Brown
Other Material	N	2040		N/A	Stones
Soil Texture	N	2040		N/A	Loam
pH	M	2010		4.0	7.9
Boron (Hot Water Soluble)	M	2120	mg/kg	0.40	0.42
Cyanide (Complex)	M	2300	mg/kg	0.50	< 0.50
Cyanide (Free)	M	2300	mg/kg	0.50	< 0.50
Cyanide (Total)	M	2300	mg/kg	0.50	< 0.50
Sulphate (Acid Soluble)	U	2430	%	0.010	0.016
Arsenic	M	2455	mg/kg	0.5	7.2
Beryllium	U	2455	mg/kg	0.5	< 0.5
Cadmium	M	2455	mg/kg	0.10	0.18
Chromium	M	2455	mg/kg	0.5	9.0
Mercury Low Level	M	2450	mg/kg	0.05	< 0.05
Manganese	M	2455	mg/kg	1.0	260
Molybdenum	M	2455	mg/kg	0.5	< 0.5
Antimony	N	2455	mg/kg	2.0	< 2.0
Copper	M	2455	mg/kg	0.50	15
Nickel	M	2455	mg/kg	0.50	15
Lead	M	2455	mg/kg	0.50	16
Selenium	M	2455	mg/kg	0.25	0.49
Zinc	M	2455	mg/kg	0.50	44
Chromium (Trivalent)	N	2490	mg/kg	1.0	8.8
Chromium (Hexavalent)	N	2490	mg/kg	0.50	< 0.50
Aliphatic VPH >C5-C6	U	2780	mg/kg	0.05	< 0.05
Aliphatic VPH >C6-C7	U	2780	mg/kg	0.05	< 0.05
Aliphatic VPH >C7-C8	U	2780	mg/kg	0.05	< 0.05
Total Aliphatic VPH >C5-C10	U	2780	mg/kg	0.25	< 0.25
Aliphatic EPH >C10-C12	M	2690	mg/kg	2.00	< 2.0
Aliphatic VPH >C8-C10	U	2780	mg/kg	0.05	< 0.05
Aliphatic EPH >C12-C16	M	2690	mg/kg	1.00	< 1.0
Aliphatic EPH >C16-C21	M	2690	mg/kg	2.00	< 2.0

Results - Soil

Project: Bakers DIY

Client: Terra Firma (Wales) Ltd	Chemtest Job No.:		23-16776		
Quotation No.:	Chemtest Sample ID.:		1642607		
	Client Sample ID.:		ES1		
	Sample Location:		WS08		
	Sample Type:		SOIL		
	Top Depth (m):		0.5		
	Bottom Depth (m):		0.5		
	Date Sampled:		19-May-2023		
	Time Sampled:		12:00		
	Asbestos Lab:		DURHAM		
Determinand	Accred.	SOP	Units	LOD	
Aliphatic EPH >C21-C35	M	2690	mg/kg	3.00	< 3.0
Aliphatic EPH >C35-C40	N	2690	mg/kg	10.00	< 10
Total Aliphatic EPH >C10-C35	M	2690	mg/kg	5.00	< 5.0
Total Aliphatic EPH >C10-C40	N	2690	mg/kg	10.00	< 10
Aromatic VPH >C5-C7	U	2780	mg/kg	0.05	< 0.05
Aromatic VPH >C7-C8	U	2780	mg/kg	0.05	< 0.05
Aromatic VPH >C8-C10	U	2780	mg/kg	0.05	< 0.05
Total Aromatic VPH >C5-C10	U	2780	mg/kg	0.25	< 0.25
Aromatic EPH >C10-C12	U	2690	mg/kg	1.00	< 1.0
Aromatic EPH >C12-C16	U	2690	mg/kg	1.00	< 1.0
Aromatic EPH >C16-C21	U	2690	mg/kg	2.00	22
Aromatic EPH >C21-C35	U	2690	mg/kg	2.00	77
Aromatic EPH >C35-C40	N	2690	mg/kg	1.00	4.0
Total Aromatic EPH >C10-C35	U	2690	mg/kg	5.00	99
Total Aromatic EPH >C10-C40	N	2690	mg/kg	10.00	100
Total VPH >C5-C10	U	2780	mg/kg	0.50	< 0.50
Total EPH >C10-C35	U	2690	mg/kg	10.00	100
Total EPH >C10-C40	N	2690	mg/kg	10.00	100
Naphthalene	M	2700	mg/kg	0.10	< 0.10
Acenaphthylene	M	2700	mg/kg	0.10	< 0.10
Acenaphthene	M	2700	mg/kg	0.10	< 0.10
Fluorene	M	2700	mg/kg	0.10	< 0.10
Phenanthrene	M	2700	mg/kg	0.10	1.5
Anthracene	M	2700	mg/kg	0.10	0.61
Fluoranthene	M	2700	mg/kg	0.10	5.1
Pyrene	M	2700	mg/kg	0.10	4.4
Benzo[a]anthracene	M	2700	mg/kg	0.10	3.6
Chrysene	M	2700	mg/kg	0.10	4.0
Benzo[b]fluoranthene	M	2700	mg/kg	0.10	5.4
Benzo[k]fluoranthene	M	2700	mg/kg	0.10	2.0
Benzo[a]pyrene	M	2700	mg/kg	0.10	3.6
Indeno(1,2,3-c,d)Pyrene	M	2700	mg/kg	0.10	2.8
Dibenz(a,h)Anthracene	M	2700	mg/kg	0.10	0.95
Benzo[g,h,i]perylene	M	2700	mg/kg	0.10	2.5
Total Of 16 PAH's	M	2700	mg/kg	2.0	37
Total Phenols	M	2920	mg/kg	0.10	< 0.10

Results - Soil

Project: Bakers DIY

Client: Terra Firma (Wales) Ltd	Chemtest Job No.:		23-16776		
Quotation No.:	Chemtest Sample ID.:		1642607		
	Client Sample ID.:		ES1		
	Sample Location:		WS08		
	Sample Type:		SOIL		
	Top Depth (m):		0.5		
	Bottom Depth (m):		0.5		
	Date Sampled:		19-May-2023		
	Time Sampled:		12:00		
	Asbestos Lab:		DURHAM		
Determinand	Accred.	SOP	Units	LOD	
Organic Matter BS1377	N	2930	%	0.10	3.2

Test Methods

SOP	Title	Parameters included	Method summary
2010	pH Value of Soils	pH	pH Meter
2030	Moisture and Stone Content of Soils(Requirement of MCERTS)	Moisture content	Determination of moisture content of soil as a percentage of its as received mass obtained at <37°C.
2040	Soil Description(Requirement of MCERTS)	Soil description	As received soil is described based upon BS5930
2120	Water Soluble Boron, Sulphate, Magnesium & Chromium	Boron; Sulphate; Magnesium; Chromium	Aqueous extraction / ICP-OES
2192	Asbestos	Asbestos	Polarised light microscopy / Gravimetry
2300	Cyanides & Thiocyanate in Soils	Free (or easy liberatable) Cyanide; total Cyanide; complex Cyanide; Thiocyanate	Alkaline extraction followed by colorimetric determination using Automated Flow Injection Analyser.
2430	Total Sulphate in soils	Total Sulphate	Acid digestion followed by determination of sulphate in extract by ICP-OES.
2450	Acid Soluble Metals in Soils	Metals, including: Arsenic; Barium; Beryllium; Cadmium; Chromium; Cobalt; Copper; Lead; Manganese; Mercury; Molybdenum; Nickel; Selenium; Vanadium; Zinc	Acid digestion followed by determination of metals in extract by ICP-MS.
2455	Acid Soluble Metals in Soils	Metals, including: Arsenic; Barium; Beryllium; Cadmium; Chromium; Cobalt; Copper; Lead; Manganese; Mercury; Molybdenum; Nickel; Selenium; Vanadium; Zinc	Acid digestion followed by determination of metals in extract by ICP-MS.
2490	Hexavalent Chromium in Soils	Chromium [VI]	Soil extracts are prepared by extracting dried and ground soil samples into boiling water. Chromium [VI] is determined by 'Aquakem 600' Discrete Analyser using 1,5-diphenylcarbazide.
2690	EPH A/A Split	Aliphatics: >C10–C12, >C12–C16, >C16–C21, >C21– C35, >C35– C40 Aromatics: >C10–C12, >C12–C16, >C16– C21, >C21– C35, >C35– C40	Acetone/Heptane extraction / GCxGC FID detection
2700	Speciated Polynuclear Aromatic Hydrocarbons (PAH) in Soil by GC-FID	Acenaphthene; Acenaphthylene; Anthracene; Benzo[a]Anthracene; Benzo[a]Pyrene; Benzo[b]Fluoranthene; Benzo[ghi]Perylene; Benzo[k]Fluoranthene; Chrysene; Dibenzo[ah]Anthracene; Fluoranthene; Fluorene; Indeno[123cd]Pyrene; Naphthalene; Phenanthrene; Pyrene	Dichloromethane extraction / GC-FID (GC-FID detection is non-selective and can be subject to interference from co-eluting compounds)
2780	VPH A/A Split	Aliphatics: >C5–C6, >C6–C7,>C7–C8,>C8–C10 Aromatics: >C5–C7,>C7–C8,>C8–C10	Water extraction / Headspace GCxGC FID detection
2920	Phenols in Soils by HPLC	Phenolic compounds including Resorcinol, Phenol, Methylphenols, Dimethylphenols, 1-Naphthol and TrimethylphenolsNote: chlorophenols are excluded.	60:40 methanol/water mixture extraction, followed by HPLC determination using electrochemical detection.
2930	Organic Matter	Organic Matter	Acid Dichromate digestion/Titration

Report Information

Key

U	UKAS accredited
M	MCERTS and UKAS accredited
N	Unaccredited
S	This analysis has been subcontracted to a UKAS accredited laboratory that is accredited for this analysis
SN	This analysis has been subcontracted to a UKAS accredited laboratory that is not accredited for this analysis
T	This analysis has been subcontracted to an unaccredited laboratory
I/S	Insufficient Sample
U/S	Unsuitable Sample
N/E	not evaluated
<	"less than"
>	"greater than"
SOP	Standard operating procedure
LOD	Limit of detection

Comments or interpretations are beyond the scope of UKAS accreditation

The results relate only to the items tested

Uncertainty of measurement for the determinands tested are available upon request

None of the results in this report have been recovery corrected

All results are expressed on a dry weight basis

The following tests were analysed on samples as received and the results subsequently corrected to a dry weight basis TPH, BTEX, VOCs, SVOCs, PCBs, Phenols

For all other tests the samples were dried at < 37°C prior to analysis

All Asbestos testing is performed at the indicated laboratory

Issue numbers are sequential starting with 1 all subsequent reports are incremented by 1

Sample Deviation Codes

- A - Date of sampling not supplied
- B - Sample age exceeds stability time (sampling to extraction)
- C - Sample not received in appropriate containers
- D - Broken Container
- E - Insufficient Sample (Applies to LOI in Trommel Fines Only)

Sample Retention and Disposal

All soil samples will be retained for a period of 30 days from the date of receipt

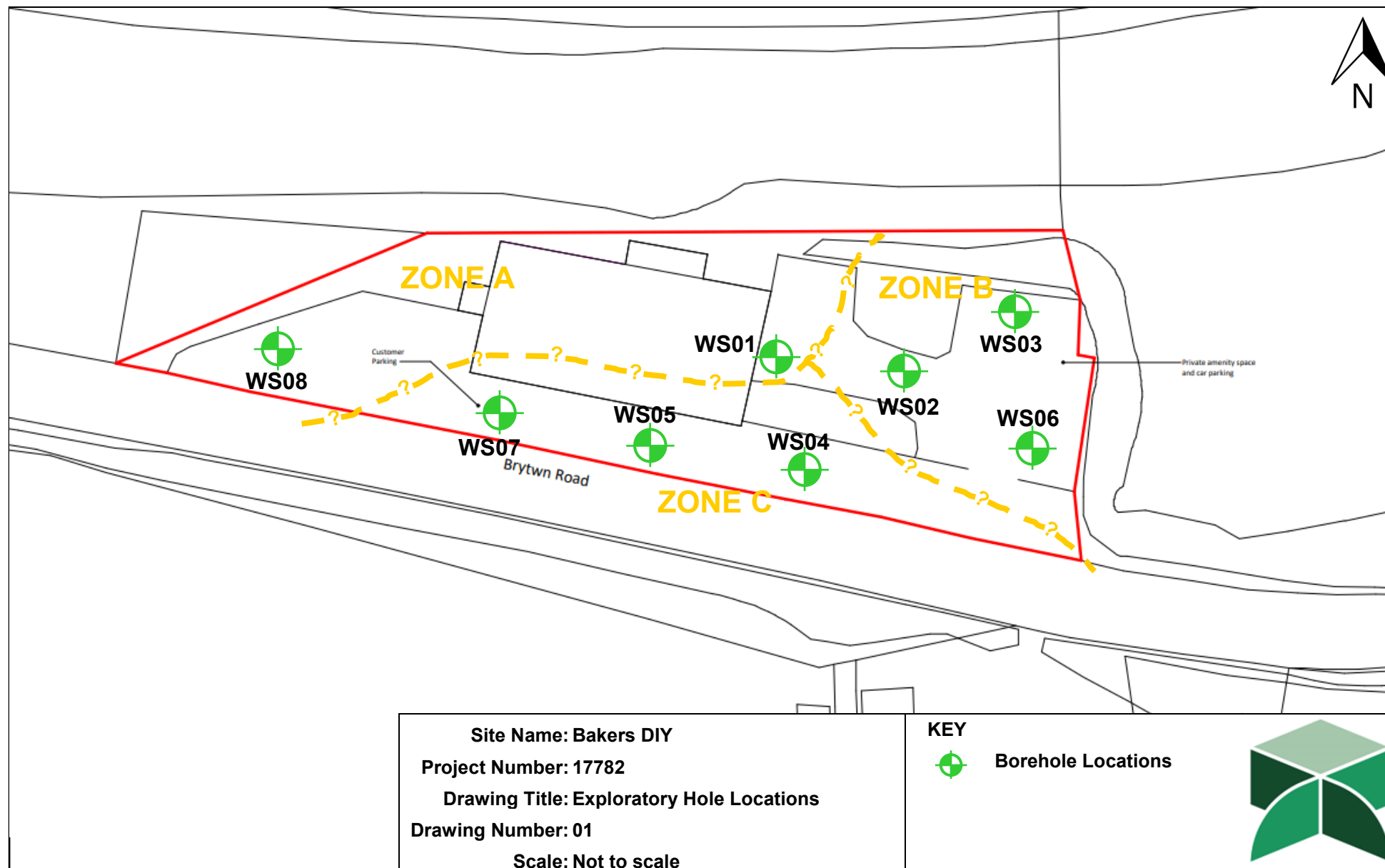
All water samples will be retained for 14 days from the date of receipt

Charges may apply to extended sample storage

If you require extended retention of samples, please email your requirements to:

customerservices@chemtest.com

DRAWINGS



DRAFT

