



Geotechnical and Geoenvironmental Report

Site: 5 Park Row, Cwmavon,
Neath Port Talbot

Prepared For: David & Marie Rees

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Job No: 16881

REPORT TITLE : **Geotechnical and Geoenvironmental Report:
Proposed Residential Development, 5 Park
Row, Cwmavon, Neath Port Talbot**

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Executive Summary

Site Location and Proposed Development	David and Marie Rees (the Client) is proposing the residential development of land occupied by 5 Park Row located in Cwmavon.																												
Ground Conditions	<table border="1"> <thead> <tr> <th colspan="3">Depth (m)</th><th>Thickness (m)</th><th>Stratum</th></tr> </thead> <tbody> <tr> <td>0.00</td><td>-</td><td>0.1/0.2</td><td>0.1/0.2</td><td>MADE GROUND. Grass over brown organic-rich sandy slightly gravelly CLAY with some roots. Gravel is angular mudstone, sandstone and rare brick.</td></tr> <tr> <td>0.1/0.2</td><td>-</td><td>1.25/1.5</td><td>Absent/1.4</td><td>MADE GROUND. Very soft to soft brown slightly sandy slightly gravelly CLAY. Gravel is angular sandstone and occasional concrete. Low cobble content of angular concrete.</td></tr> <tr> <td>1.25/1.5</td><td>-</td><td>1.9/2.0</td><td>Absent/0.65</td><td>Soft grey and orangish brown sandy slightly gravelly CLAY. Gravel is angular sandstone.</td></tr> <tr> <td>0.2/2.0</td><td></td><td>>2.0/>4.0</td><td>-</td><td>Very stiff grey and orangish brown sandy slightly gravelly CLAY with low cobble content/ very dense brown slightly clayey very gravelly SAND. Gravel is angular sandstone.</td></tr> </tbody> </table>				Depth (m)			Thickness (m)	Stratum	0.00	-	0.1/0.2	0.1/0.2	MADE GROUND. Grass over brown organic-rich sandy slightly gravelly CLAY with some roots. Gravel is angular mudstone, sandstone and rare brick.	0.1/0.2	-	1.25/1.5	Absent/1.4	MADE GROUND. Very soft to soft brown slightly sandy slightly gravelly CLAY . Gravel is angular sandstone and occasional concrete. Low cobble content of angular concrete.	1.25/1.5	-	1.9/2.0	Absent/0.65	Soft grey and orangish brown sandy slightly gravelly CLAY . Gravel is angular sandstone.	0.2/2.0		>2.0/>4.0	-	Very stiff grey and orangish brown sandy slightly gravelly CLAY with low cobble content/ very dense brown slightly clayey very gravelly SAND . Gravel is angular sandstone.
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Contamination of Concern	Asbestos (chrysotile), Arsenic, Lead, Naphthalene, Benzo(b)fluoranthene, Benzo(a)pyrene, Dibenzo(a,h)Anthracene																												
Mitigation Measures	To protect future site users from the identified contamination the site will need to be capped. The capping should consist of the proposed buildings and hard standings. In garden and soft landscaped areas, the capping should consist of 600mm of suitable inert topsoil, and subsoil if desired. The capping soil should be directly underlain by a double no-dig barrier comprising a geo-grid and a geotextile membrane. Alternatively, made ground soils could be removed from site and disposed of at a suitably licenced landfill site. Due to elevated concentration of Naphthalene, it is recommended that a vapour barrier also be installed on all future developments at the site.																												
Ground Gas Risk Assessment	Future development on site should incorporate gas protection measures to mitigate any risks posed from potential ground/mine gas. Gas protection measures suitable to cater for Gas Characteristic situation 2 should be designed and installed on all future development on site.																												
Foundation Solution	It is recommended that reinforced concrete strip or trench fill foundations be used; founded within the stiff to very stiff brown sandy slightly gravelly clay/very dense grey and orangish brown clayey very gravelly sand at an approximate depth of between 0.75m and 2m below the existing ground level. An allowable bearing pressure of 100kN/m² may be used for strips up to 750mm wide. To allow for the sloping nature of the founding strata, the trench fill foundations should be stepped. Due to the potential risk from shallow mine workings (assessed by others) reinforcement will be required and should be designed to span a crown hole of 3.0m with a cantilever effect on corners of 1.5m. It is recommended that the foundation recommendations be reviewed following a full assessment of shallow mining risk. Foundations must sit at least 200mm within the founding horizon. For the given foundation solutions and bearing pressure, maximum total settlements of <25mm should result with differential movements of the superstructure not exceeding 1:750. Floor slabs should be designed as suspended.																												

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Annex B Exploratory Hole Logs
Annex C Laboratory Soil Chemical Test Results
Annex D Laboratory Geotechnical Test Results

Drawings

Drawing 01 Proposed Site Layout

SECTION 1 Introduction and Proposed Development

1.1 Introduction

David and Marie Rees (the Client) is proposing the residential development of land occupied by 5 Park Row located in Cwmavon.

Terra Firma (Wales) Limited have been commissioned by Go Concept Designs on behalf of the Client to undertake a geoenvironmental assessment and geotechnical 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

The main objectives of the geotechnical site investigation are:

- Investigated the type, strength and bearing characteristics of the shallow superficial and underlying solid geology
- Investigate the risk, if any, from historical shallow underground mining features
- Provide engineering foundation and floor slab recommendations for the proposed development
- Provide infiltration rates and stormwater drainage viability.
- Provide recommendations regarding any other geotechnical aspects pertaining to the development

In order to achieve the above objectives, Terra Firma (Wales) Limited carried out an assessment programme including a site walkover, a review of existing data, followed by a field investigation to collect geotechnical and geoenvironmental data from selected locations.

A copy of the desk study undertaken in September 2021 is presented in **Annex A**.

1.2 Limitations and Exceptions of Investigation

The Client has requested that a Geoenvironmental Site Assessment (GSA) and Geotechnical Investigation (GI) 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 Terra Firma (Wales) 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 and geotechnical consultants. Terra Firma (Wales) 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.

It was beyond the scope of this report to assess mining risks.

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 Park Row Cwmavon. The site centres on an approximate National Grid Reference of 278110 192670, occupying a plan area of approximately 0.2 Hectares.

The existing dwelling is located in the eastern half of the site and sits upon a plateau which is elevated from Park Row. The western part of the site consists of a large open grassed garden area. A parking area is located on the southern part of this area which is set topographically below the garden and separated by a small retaining wall.

The site is surrounded by residential development. Park Row locates on the sites southern boundary which provides vehicle access to the site.

The site elevation is approximately 71m AOD and remains mostly flat across the majority of the main site plateau. The site falls off to the south with an approximate fall of 2m to the access road of Park Row.

The site location can be seen on **Figure 2.1**

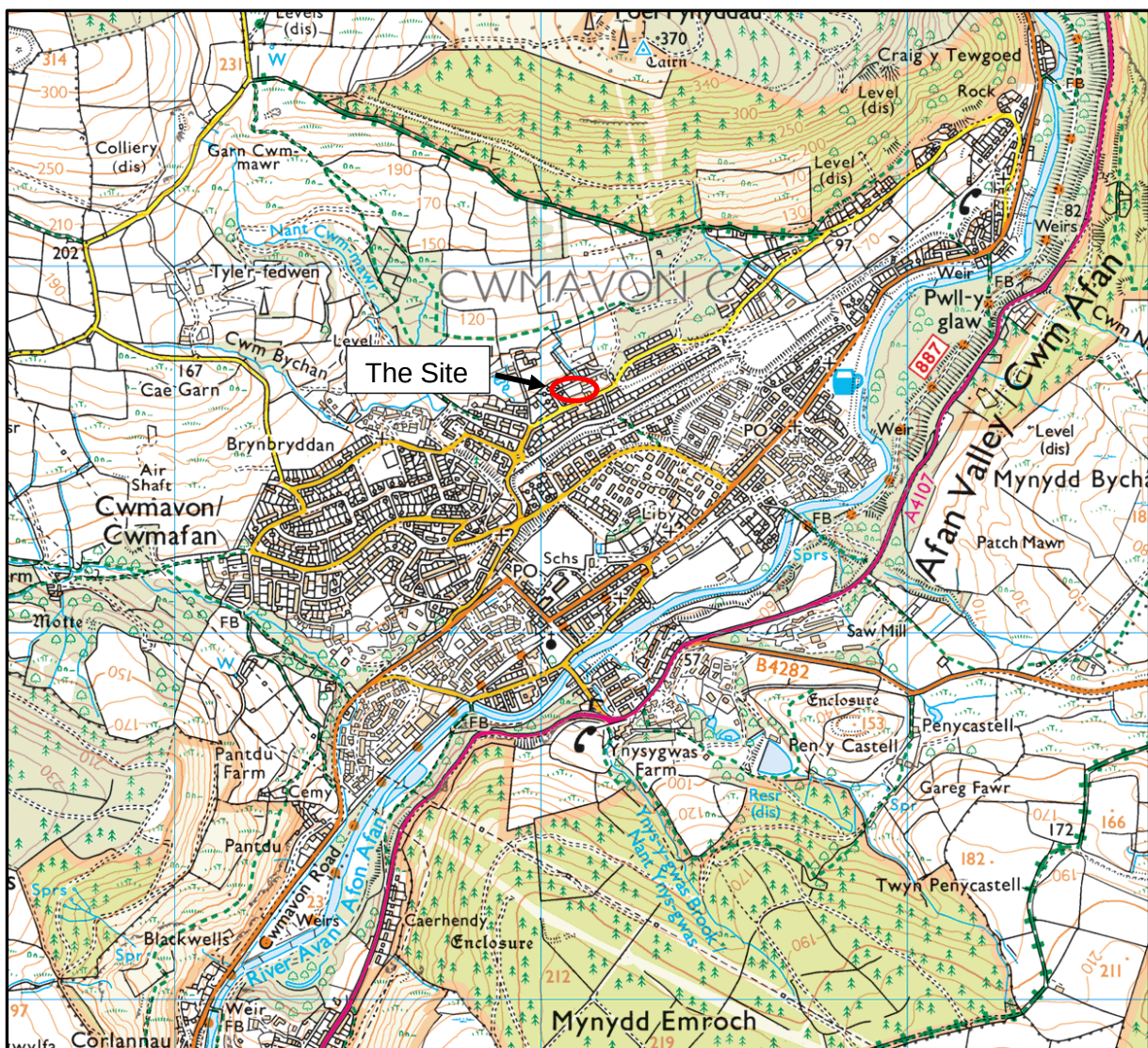


Figure 2.1 Site Location

SECTION 3 David & Marie Rees Field Investigation

3.1 Site Works

A geotechnical and geoenvironmental site investigation comprising 4No. Windowless Sampler Boreholes was undertaken on the 21st October 2021.

The fieldwork was supervised by Terra Firma (Wales) 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 Terra Firma (Wales) 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 WS01 to WS04, were formed using a Terrier 2000 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 and geotechnical testing.

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

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

3.2 Ground Conditions

The ground conditions encountered by the exploratory holes can in general be summarised as shown in **Table 3.1**.

Table 3.1 Summary of Typical Ground Conditions

Depth (m)			Thickness (m)	Stratum
0.00	-	0.1/0.2	0.1/0.2	MADE GROUND. Grass over brown organic-rich sandy slightly gravelly CLAY with some roots. Gravel is angular mudstone, sandstone and rare brick.
0.1/0.2	-	1.25/1.5	Absent/1.4	MADE GROUND. Very soft to soft brown slightly sandy slightly gravelly CLAY . Gravel is angular sandstone and occasional concrete. Low cobble content of angular concrete.
1.25/1.5	-	1.9/2.0	Absent/0.65	Soft grey and orangish brown sandy slightly gravelly CLAY . Gravel is angular sandstone.
0.2/2.0		>2.0/>4.0	-	Very stiff grey and orangish brown sandy slightly gravelly CLAY with low cobble content/ very dense brown slightly clayey very gravelly SAND . Gravel is angular sandstone.

3.3 Groundwater

Groundwater information recorded during the site investigation is summarised in **Table 3.2**.

Table 3.2 Groundwater Summary

Location	Depth (m)	Details
WS04	2.5	Very slow inflow.

3.4 Stability and Obstructions

Boreholes remained stable and vertical during drilling.

3.5 Laboratory Chemical Testing

3.5.1 Sampling Strategy

Soil sampling locations were selected on a non-targeted basis to characterise the contamination status of a defined area. A herringbone sampling pattern was adopted.

Sample locations, depths and suspected/known contamination source targets are summarised in **Table 3.3**:

Table 3.3 Sample Locations, Depths and Targets

Location	Depth (m)	Contamination Targets
WS01	0.5	S1 - Building/demolition waste in made ground
WS02	0.1	S1 - Building/demolition waste in made ground
WS03	0.5	S1 - Building/demolition waste in made ground
WS04	0.1	S1 - Building/demolition waste in made ground
WS04	0.5	S1 - Building/demolition waste in made ground

3.5.2 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 3.4**.

Table 3.4 Soil Laboratory Analysis

Metals & Metalloids	In-Organics	Organics	Others
Arsenic	Cyanide	Phenols	pH (acidity)
Cadmium	Sulphate	PAH	Asbestos
Chromium III		Petroleum Hydrocarbons	
Chromium VI			
Copper			
Lead			
Mercury			
Nickel			
Selenium			
Zinc			

The results are discussed in detail in **SECTION 4** and the laboratory test results certificates may be found in **Annex C**.

3.5.3 Laboratory Geotechnical Testing

A schedule of laboratory tests was prepared by Terra Firma Wales Ltd and samples were despatched to the accredited laboratories of GSTL. A summary of the testing carried out is presented in **Table 3.5**.

Table 3.5 Summary of Geotechnical Testing

Geotechnical Test	Standard (BS1377:1990)	No. Tested
Moisture Content	Part 2, Clause 3.2	2
4 Point Liquid and Plastic Limit	Part 2, Clause 4.3 & 5.3	2

The test results are presented in **Annex D** and discussed in **SECTION 7** of this report.

SECTION 4 Evaluation of Geoenvironmental Analytical Results

4.1 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).

Soil leachate and groundwater analytical results have been compared with available published guidelines in the Water Framework Directive (Standards and Classification) Directions (England and Wales) 2015 and Drinking Water Directive (98/83/EC).

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.

Soils subjected to a UK Water Industry Research (UKWIR) suite of testing have been compared with guidelines set out in UKWIR Guidance for the Selection of Water Supply Pipes to be Used in Brownfield Sites (Ref 10/WM/03/21).

4.2 Soil Test Results

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

4.2.1 Inorganics & Miscellaneous

Five samples were tested for a standard suite of inorganics, pH and organic matter. The summarised results are in **Table 4.1**.

Table 4.1 Summary of Soil Chemical Test Results – Inorganics & Miscellaneous

Substance	Threshold Value (mg/kg)	Source	Measured Concentrations (mg/kg)		Number of Exceedances
			Minimum	Maximum	
Arsenic	37	LQM/CIEH	8.5	62	2
Cadmium	11	LQM/CIEH	<0.1	2.6	0
Chromium III	910	LQM/CIEH	11	30	0
Chromium VI	6	LQM/CIEH	<0.5	<0.5	0
Copper	2400	LQM/CIEH	27	440	0
Lead	200	pC4SL	16	330	2
Mercury (inorganic)	40	LQM/CIEH	0.06	0.36	0
Nickel	180	LQM/CIEH	17	71	0
Selenium	250	LQM/CIEH	0.35	1.1	0
Zinc	3700	LQM/CIEH	65	890	0
Cyanide	-	-	<0.5	<0.5	-
Boron	290	LQM/CIEH	<0.40	0.81	0
Sulphate (%)	0.24	BRE	<0.01	0.095	0
Organic Matter (%)	-	-	0.60	3.3	-
pH	-	-	7.2	8.4	-
Notes: - No available guideline					

4.2.2 Organics

Five samples were tested for speciated polycyclic aromatic hydrocarbons. The summarised results are in **Table 4.2**.

Table 4.2 Summary of Soil Chemical Test Results – Speciated Polycyclic Aromatic Hydrocarbons

Substance	Threshold Value (mg/kg)	Source	Measured Concentrations (mg/kg)		Number of Exceedances
			Minimum	Maximum	
Naphthalene	2.3	LQM/CIEH	<0.1	6.3	3
Acenaphthylene	170	LQM/CIEH	<0.1	0.41	0
Acenaphthene	210	LQM/CIEH	<0.1	1.0	0
Fluorene	170	LQM/CIEH	<0.1	0.77	0
Phenanthrene	95	LQM/CIEH	<0.1	11	0
Anthracene	2400	LQM/CIEH	<0.1	1.8	0
Fluoranthene	280	LQM/CIEH	<0.1	16	0
Pyrene	620	LQM/CIEH	<0.1	13	0
Benzo(a)anthracene	7.2	LQM/CIEH	<0.1	6.5	0
Chrysene	15	LQM/CIEH	<0.1	12	0
Benzo(b)fluoranthene	2.6	LQM/CIEH	<0.1	11	1
Benzo(k)fluoranthene	77	LQM/CIEH	<0.1	4.5	0
Benzo(a)pyrene	2.2	LQM/CIEH	<0.1	6.5	1
Indeno(123cd)pyrene	27	LQM/CIEH	<0.1	5.3	0
Dibenzo(ah)anthracene	0.24	LQM/CIEH	<0.1	2.0	5
Benzo(ghi)perylene	320	LQM/CIEH	<0.1	4.9	0
Total PAH	-	-	<2.0	100	-
Notes:					
Thresholds based on 1.0% soil organic matter					
- No available guidelines					

Five samples were tested for petroleum hydrocarbon. The summarised results are shown in **Table 4.3**.

Table 4.3 Summary of Soil Chemical Test Results – Petroleum Hydrocarbons

Substance	Threshold Value (mg/kg)	Source	Measured Concentrations (mg/kg)		Number of Exceedances
			Minimum	Maximum	
Aliphatic					
PH C5 – C6 Ali	42	LQM/CIEH	<1.0	<1.0	0
PH C6 – C8 Ali	100	LQM/CIEH	<1.0	<1.0	0
PH C8 – C10 Ali	27	LQM/CIEH	<1.0	<1.0	0
PH C10 – C12 Ali	130	LQM/CIEH	<1.0	<1.0	0
PH C12 – C16 Ali	1100	LQM/CIEH	<1.0	<1.0	0
PH C16 – C21 Ali	65000*	LQM/CIEH	<1.0	<1.0	0
PH C21 – C35 Ali	65000*	LQM/CIEH	<1.0	<1.0	0
PH C35 – C44 Ali	65000	LQM/CIEH	<1.0	<1.0	0
Aromatic					
PH C5 – C7 Arom	70	LQM/CIEH	<1.0	<1.0	0
PH C7 – C8 Arom	130	LQM/CIEH	<1.0	<1.0	0

PH C8 – C10 Arom	34	LQM/CIEH	<1.0	<1.0	0
PH C10 – C12 Arom	74	LQM/CIEH	<1.0	<1.0	0
PH C12 – C16 Arom	140	LQM/CIEH	<1.0	<1.0	0
PH C16 – C21 Arom	260	LQM/CIEH	<1.0	<1.0	0
PH C21 – C35 Arom	1100	LQM/CIEH	<1.0	<1.0	0
PH C35 – C44 Arom	1100	LQM/CIEH	<1.0	<1.0	0

Notes:

PH – Petroleum Hydrocarbon

Ali – Aliphatic

Arom – Aromatic

Thresholds based on 1.0% soil organic matter

* – Ali C16-21 and C21-C35 based on criteria for Ali EC >16-35

Five samples were tested for Phenols. The summarised results are in **Table 4.4**.

Table 4.4 Summary of Soil Chemical Test Results – Phenols

Substance	Threshold Value (mg/kg)	Source	Measured Concentrations (mg/kg)		Number of Exceedances
			Minimum	Maximum	
Phenols	120	LQM/CIEH	<0.1	<0.1	0

Notes:

- No available guideline

4.2.3 Asbestos Testing

All made ground soil samples were scheduled for asbestos screening. Asbestos was detected in 1 No. sample. Samples testing positive for asbestos were further scheduled for gravimetric quantification of ACM and fibres in soil/fibre quantification in soils. The results are summarised in **Table 4.5**.

Table 4.5 Summary of Soil Chemical Test Results – Asbestos Quantification

Sample	Depth (m)	Comment	Result (mass %)
WS01	0.5	No Asbestos Detected	
WS02	0.1	No Asbestos Detected	
WS02	0.5	No Asbestos Detected	
WS03	0.5	Chrysotile Fibres/Clumps	<0.001
WS04	0.1	No Asbestos Detected	
WS04	0.5	No Asbestos Detected	

4.2.4 Leachate Test Results

Substances found to be significantly elevated in soil samples were submitted for leachate testing. Five samples were tested for speciated polyaromatic hydrocarbons. The results are summarised in **Table 4.6**.

Table 4.6 Summary of Leachate Chemical Test Results – Speciated Polyaromatic Hydrocarbons

Substance	Threshold Value (µg/l)	Source	Measured Concentrations (µg/l)		Number of Exceedances
			Minimum	Maximum	
Naphthalene	2	WFD1	<0.01	<0.01	0
Acenaphthylene	-	-	<0.01	<0.01	BLDL
Acenaphthene	-	-	<0.01	<0.01	BLDL
Fluorene	-	-	<0.01	<0.01	BLDL

Phenanthrene	-	-	<0.01	<0.01	BLDL
Anthracene	0.1	WFD1	<0.01	<0.01	0
Fluoranthene	0.0063	WFD1	<0.01	1.2	1
Pyrene	-	-	<0.01	0.31	1 ALDL
Benzo(a)anthracene	-	-	<0.01	<0.01	BLDL
Chrysene	-	-	<0.01	<0.01	BLDL
Benzo(b)fluoranthene	0.017	WFD3	<0.01	<0.01	0
Benzo(k)fluoranthene	0.017	WFD3	<0.01	<0.01	0
Benzo(a)pyrene	0.00017	WFD1	<0.01	<0.01	BLDL
Indeno(123cd)pyrene	-	-	<0.01	<0.01	BLDL
Dibenzo(ah)anthracene	-	-	<0.01	<0.01	BLDL
Benzo(ghi)perylene	0.0082	WFD3	<0.01	<0.01	BLDL

Notes:

WFD1 - Water Framework Directive – Inland Surface Waters (AA)

WFD2 - Water Framework Directive – Freshwater (Long Term Mean)

WFD3 - Water Framework Directive – Inland Surface Waters (MAC)

- No available guideline

ALDL - Above laboratory detection limit

BLDL - Below laboratory detection limit

SECTION 5 Geotechnical Testing Results

Geotechnical testing results are summarised in the following sections and presented in their entirety in **Annex D**.

5.1 Plasticity & Moisture Content Testing

During the investigation two samples of the shallow clay material was taken and submitted for plasticity testing. The test results are summarised in **Table 5.1**.

Table 5.1 Plasticity & Moisture Content Test Results

Location	Depth (m)	Laboratory Principal Soil Type	Moisture Content (%)	Plasticity Index (%)	Passing 425µm Sieve (%)	Modified Plasticity Index (%)	Volume Change Potential
WS01	1.4	Clay	21	19	79	15	Low
WS03	2.3	Clay	12	12	79	9.5	Non plastic

In line with the NHBC (Chapter 4.2), the modified plasticity index for each sample was calculated. For design purposes the soils on site should be assumed to have a low volume change potential.

5.2 BRE SD1 Testing

Two samples were subject to BRE SD1 testing for concrete classification. The results are summarised in **Table 5.2**.

Table 5.2 BRE SD1 Testing Summary

Location	Depth (m)	2:1 Water/Soil Extract	Total Potential Sulphate (%)	Oxidisable Sulphate (%)	pH	Design Sulphate Class for Location	ACEC Class for Location
		SO ₄ (mg/l)					
WS01	1.4	14	0.03	0.01	7.6	DS-1	AC-1
WS03	0.5	57	0.42	0.325	7.5	DS-2	AC-2

SECTION 6 Quantitative Risk Assessment

6.1 Contaminants of Concern

Contaminants identified as part of the investigation are summarised in **Table 6.1**, along with an interpretation of the likely contamination source. Where applicable, the contaminant, source relationship is based on the inferences made in the preliminary conceptual site model.

Table 6.1 Contaminants of Concern

Location	Depth	Contaminant	Source
WS01	0.5	Naphthalene Dibenz(a,h)Anthracene	S1 - MADE GROUND. Very soft to soft brown slightly sandy slightly gravelly CLAY. Gravel is angular sandstone and occasional concrete. Low cobble content of angular concrete.
WS02	0.1	Dibenz(a,h)Anthracene	S1 - MADE GROUND. Grass over brown organic-rich sandy slightly gravelly CLAY with some roots. Gravel is angular mudstone, sandstone and rare brick.
WS03	0.5	Asbestos (chrysotile) Arsenic Lead Naphthalene Benzo(b)fluoranthene Benzo(a)pyrene Dibenz(a,h)Anthracene	S1 - Very soft dark brown organic-rich silty sandy slightly gravelly CLAY. Occasional fragments of brick, slag, glass, plastic.
WS04	0.1	Arsenic Lead Naphthalene Dibenz(a,h)Anthracene	S1 - MADE GROUND. Grass over brown organic-rich sandy slightly gravelly CLAY with some roots. Gravel is angular mudstone, sandstone and rare brick.
WS04	0.5	Dibenz(a,h)Anthracene	S1 – MADE GROUND. Soft brown sandy slightly gravelly CLAY. Gravel is angular sandstone.

6.2 Pollutant Linkages

Based on the findings of the intrusive site investigation and identified contaminants, the preliminary conceptual site model has been revised. Significant pollutant linkages are tabulated in the refined conceptual site model **Table 6.2**. Identified pollutant linkages will require detailed risk assessment, appropriate mitigation or remedial measures.

Table 6.2 Refined Conceptual Site Model

Source	Pathway	Receptor
S1 – Made ground	P1 – Direct soil and dust ingestion P2 – Consumption of home grown produce P3 – Dermal contact P4 – Inhalation of dust and vapours	R1 – Construction and maintenance workers R2 – Future site users (residents) R3 – Passers-by or neighbouring site users

	P10 – Inhalation of asbestos fibres	
S2 – Infilled land	P8 – Horizontal and vertical migration of ground gasses and vapours	R2 – Future site users (residents)
S3 – Mine workings	P7 – Artificial contaminant pathway (borehole, grout hole) P8 – Horizontal and vertical migration of ground gasses and vapours	R2 – Future site users (residents)

6.3 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.

6.3.1 Human Health

6.3.1.1 Contaminated Soils

The advice of an asbestos specialist will be required and as a minimum the following precautions should be employed:

- Dust suppression and measures to dampen the material
- Suitable PPE for site workers
- Air monitoring on the site boundary
- Personal air monitors (for a time to determine actual personnel / fibre interaction)

In addition to the above it is best practise to clean down plant and change air filters on any plant used in the works with asbestos contaminated material.

To protect future site users from the identified contamination the site will need to be capped. The capping should consist of the proposed buildings and hard standings. In garden and soft landscaped areas, the capping should consist of 600mm of suitable inert topsoil, and subsoil if desired. The capping soil should be directly underlain by a double no-dig barrier comprising a geo-grid and a geotextile membrane. Alternatively, made ground soils could be removed from site and disposed of at a suitably licenced landfill site.

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.

6.3.1.2 Ground Gas

As recommended in Section 3.6 of Terra Firma's Desk Study (**Annex A**) future development on site should incorporate gas protection measures to mitigate any risks posed from potential ground/mine gas. Gas protection measures suitable to cater for Gas Characteristic situation 2 should be designed and installed on all future development on site.

Due to elevated concentration of Naphthalene, it is recommended that a vapour barrier also be installed on all future developments at the site.

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.

With respect to volatile organic compounds (Naphthalene) encountered at the site, ground gas protection elements should be selected based on guidelines presented in CIRIA C748:2014. In addition, NHBC guidance may also need to be adopted depending on the requirements of the proposed development guarantor.

It is recommended that a specialist consultant is retained to prepare a risk assessed ground gas protection system Verification Plan for the proposed development. The Verification Plan will detail the required protection measures based on the perceived risk associated with the complexity of design, experience of the installer, size of the site and gas characteristic situation. The Verification Plan also details the step-by-step process and requirements to allow for the completion of a Validation Report. Terra Firma (Wales) Ltd offer Verification and Validation services.

Validation of installed ground gas protection systems by an independent third party will be required upon completion of the development. Validation may only be achieved if processes prescribed in the Verification Plan are undertaken.

6.3.2 Aquatic Environment

Several PAH contaminants were recorded above soil laboratory guidelines. Leachate testing confirmed that one sample also contained two contaminants (fluoranthene, and pyrene) above either its target concentration or laboratory detection limits. However, based upon the preliminary conceptual site model that recorded no significant risks to controlled waters, the contaminant concentrations recorded by the chemical testing, the high clay content of the shallow soils, the lack of any evidence of olfactory or visual 'gross' contamination, the distance to the closest surface water body, and the lack of any direct pathways to a surface water body; it is considered that the risk to controlled waters is insignificant.

Site specific mitigation and remedial measures are therefore not required with respect to the aquatic environment.

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 7 Engineering Recommendations

7.1 Preparation of Site

Areas of vegetation including all roots should be stripped and removed from beneath the proposed development site.

Allowances should be made for any temporary/permanent support works to any existing adjacent structure necessary as a result of the proposed works.

Contingencies should be made for the protection/diversion of any underground/overhead services present beneath/above the site brought about as a result of the proposed works.

Any reduced levels should be brought up to the required levels with suitable inert mainly granular materials. Department of Transport (DTP) type 2 sub-base or similar should be used and compacted in layers to the requirements of the Specification for Highway Works.

Allowances should also be made for the excavation of any soft spots/areas and their replacement with well compacted imported granular materials.

In accordance with EC Regulation 1272/2008 and Environment Agency Guidance WM3 soils and other materials 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. Terra Firma (Wales) Ltd offer this service if required.

7.2 Foundation and Floor Slab Solution

It is recommended that reinforced concrete strip or trench fill foundations be used; founded within the stiff to very stiff brown sandy slightly gravelly clay/very dense grey and orangish brown clayey very gravelly sand at an approximate depth of between 0.75m and 2m below the existing ground level. An allowable bearing pressure of 100kN/m² may be used for strips up to 750mm wide.

To allow for the sloping nature of the founding strata, the trench fill foundations should be stepped.

Due to the potential risk from shallow mine workings (assessed by others) reinforcement will be required and should be designed to span a crown hole of 3.0m with a cantilever effect on corners of 1.5m. It is recommended that the foundation recommendations be reviewed following a full assessment of shallow mining risk.

Foundations must sit at least 200mm within the founding horizon.

For the given foundation solutions and bearing pressure, maximum total settlements of <25mm should result with differential movements of the superstructure not exceeding 1:750.

Floor slabs should be designed as suspended.

If trees are to be incorporated within the proposed development, foundations will need to be taken deeper within influencing distance of the tree root systems. The National House Building Council (NHBC) Chapter 4.2 gives guidelines as to the appropriate type of floor slab and void based on the type of tree, distance of the foundation from the tree and the plasticity index of the in-situ materials.

During the investigation two samples of the in-situ clay were taken and submitted for plasticity testing. In line with the NHBC (Chapter 4.2), the modified plasticity index for each sample was

calculated. For design purposes the superficial cohesive deposits should be assumed to have a low volume change potential.

Foundations should be taken down to a minimum depth of 750mm below finished levels when founding in low volume change potential soils.

Allowances should be made for the removal of any 'soft spots' and their replacement with well-compacted granular materials. Department of Transport (DoT) Type 2 materials or similar could be used and should be compacted in layers to the specification for Highway Works.

All foundation formations should be inspected by a suitably qualified Engineer before being concreted.

7.3 Excavations and Formations

Most of the shallow excavations will be possible with normal soil excavating machinery.

Shallow perched water and groundwater flows were not encountered during the investigation. Any water inflows together with rainwater infiltration should be dealt with by conventional pumping techniques. However, it should be noted that during times of heavy rainfall a higher water table will be encountered.

The sides of any excavations deeper than 1.20m, or shallower if unstable, should be supported by planking and strutting or other proprietary means.

The sub-formations/formations are likely to be susceptible to loosening, softening and deterioration by exposure to weather (rain, frost and drying conditions), the action of water (flood water or removal of groundwater) and site traffic.

Formations should never be left unprotected and continuously exposed to rain causing degradation, or left exposed/uncovered overnight, unless permitted by a qualified engineer.

Construction plant and other vehicular traffic should not be operated on unprotected formations.

As a minimum the formation/excavation surfaces must be protected by blinding concrete immediately after exposure.

Allowances should be made for the removal of soft spots/areas and their replacement with well compacted granular materials.

Allowances should also be made for special precautions to prevent formation deterioration in addition to the above.

7.4 Protection of Buried Concrete

When the results are compared with Table C2 of BRE Digest 1:2005, it indicates that buried concrete should generally conform to DS-2 Class AC-2.

7.5 Access Roads and Car Parking Areas

For car parking and road areas, formations within the in-situ natural soils a CBR value of 2% may be used for design purposes.

Allowances should be made for the removal of any 'soft spots/areas' and their replacement with well-compacted granular materials as previously described.

Please note that the Local Council / Highways Authority may require in-situ CBR testing to be undertaken before a road is adopted. In-situ CBR Testing should be performed following earthworks to verify the performance of the engineered fill.

7.6 Retaining Walls

Due to the sloping nature of the site, retaining walls may be required. The existing steepness of any embankments should not be increased. Any cuts should be undertaken in small sections and in such a way so as not to induce any instability to the ground.

Effective shear parameters for retaining wall design are presented in **Table 7.1**.

Table 7.1 Effective Shear Stress Parameters

Stratum Description	Bulk Unit Weight (γ) kN/m ³	Effective Cohesion (c') kN/m ²	Effective Angle of Shearing Resistance (ϕ') degrees
Soft to firm cohesive soils	18	0	18 – 24
Firm to stiff cohesive soils	18	0	24 – 28
Loose granular soils	18	0	22
Medium dense granular soils	18	0	25-30

The parameters are based on experience in similar ground conditions.

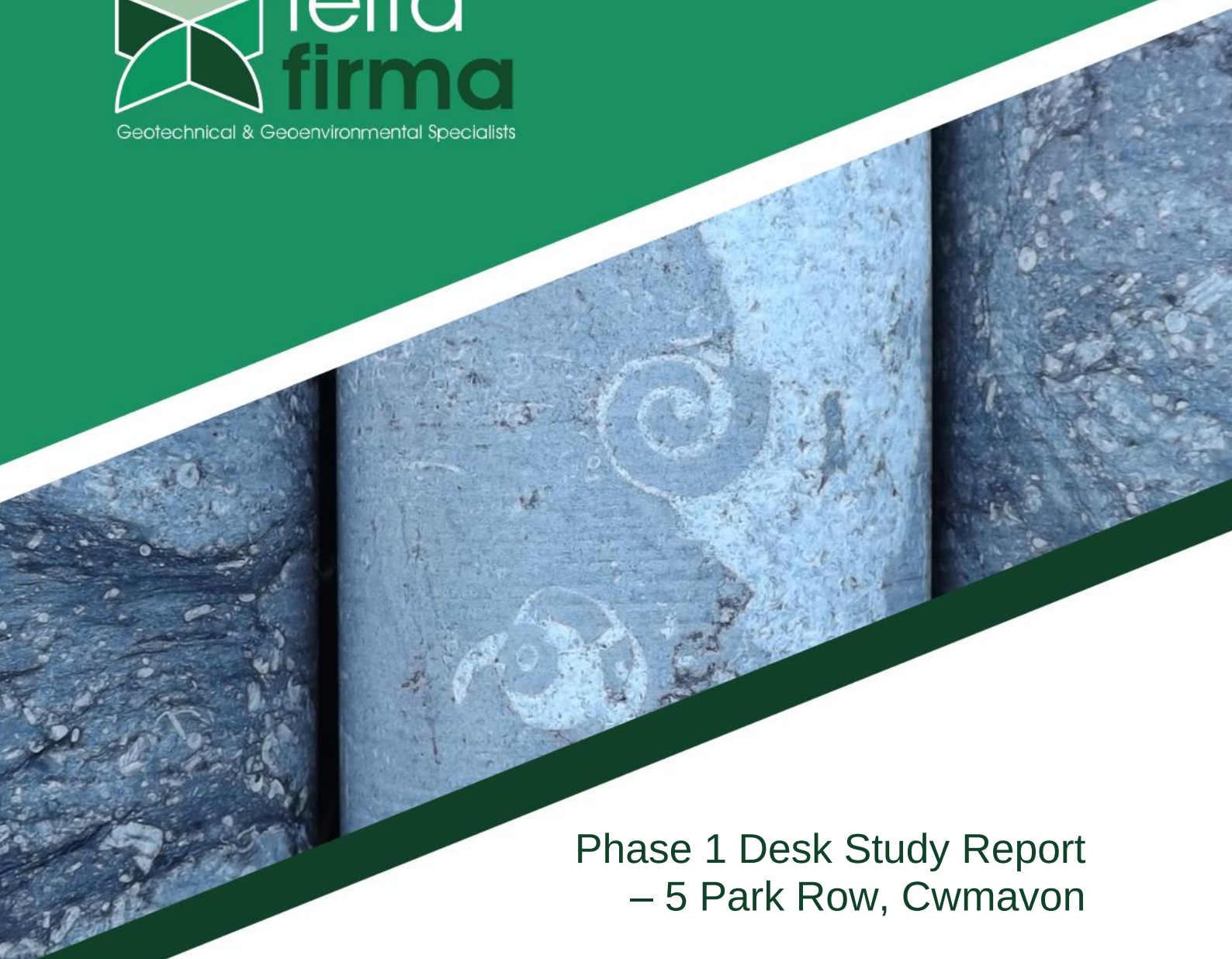
The materials to be in-filled behind the retaining wall should be placed at or close to its optimum moisture content/maximum dry density and compacted in layers as per the requirements of the Specification for Highway Works. During the earthworks suitable in-situ testing should be carried out to ensure that the compaction process is achieving the required maximum dry density to achieve at least 95% compaction.

The acceptability of the filling works should be verified by appropriate on site testing. A certification report should also be prepared on the earthworks by a suitably qualified Geotechnical Engineer.

Appropriate drainage should be incorporated in the design to prevent the build-up of hydrostatic pressure.

Appropriate cutting and benching of the existing slope should be conducted prior to the replacement of any imported fill to minimise the risk of any slip surfaces forming on the interface between the existing imported materials.

**ANNEX A
Desk Study**



Phase 1 Desk Study Report – 5 Park Row, Cwmavon

Prepared For: David & Marie Rees

Issue Date: September 2021

Job No: 15568

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Executive Summary

Site Location and Proposed Development	David and Marie Rees (the Client) is proposing the residential development of land occupied by 5 Park Row located in Cwmavon. The development site is irregular in shape and locates off Park Row Cwmavon. The site centres on an approximate National Grid Reference of 278110 192670, occupying a plan area of approximately 0.2 Hectares.
Site History	The site was previously occupied by gardens of a row of terraced housing. The housing was demolished in the 1970's. The existing building was constructed in the early 1990's.
Geology	The site is underlain by rocks of the South Wales Middle Coal Measures Formation. No superficial deposits are shown to overly the solid geology. Made ground is known to be present on site from recent percolation testing.
Radon	No radon protection measures are required for new development on site.
Preliminary Human Health and Environmental Risks	The desk study has identified several potential sources of contamination that require further consideration. Made ground has been proven on site containing building waste. It is likely that this has been tipped following demolition of the original Park Row dwellings. The made ground soils may contain elevated levels of metals or PAH determinants along with asbestos containing materials or asbestos fibres. Chemical analysis of the soils should be undertaken to further assess the risk and pollutant linkage. The site is underlain by coal measures strata which contain many shallow coal seams along with known coal workings. It is understood that some of the workings beneath the site have been stabilised by drilling and grouting methods. It is unclear as to whether the previous investigation boreholes have been suitably grouted in order to prevent them acting as preferential gas migration pathways directly from the shallow coal seams/workings. Given the age of the investigations, this is unlikely. The existing property has not experienced any issues regarding mine gas, so the risk is considered low. However, future development on site should incorporate gas protection measures to mitigate any risks posed from potential ground/mine gas. Gas protection measures suitable to cater for Gas Characteristic situation 2 should be designed and installed on all future development on site.
Recommended Further Works	It is recommended that an intrusive investigation is undertaken to inspect the ground conditions and to take soil samples for laboratory chemical analysis. It is perceived that dynamically sampled boreholes will be suitable to investigate the site.

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SECTION 1 Introduction and Proposed Development

1.1 Introduction

David and Marie Rees (the Client) is proposing the residential development of land occupied by 5 Park Row located in Cwmavon.

Terra Firma (Wales) Limited have been commissioned by Concept Designs on behalf of the Client to undertake a phase 1 desk study for the site.

The main objectives of the assessment programme are to:

- Provide information on past and current uses of the site and surrounding area
- Provide information on the nature of any hazards and physical constraints, for example buried structures/obstructions
- Provide information on the likely ground conditions beneath the site, including soil types, groundwater and if made ground is likely to be present
- Identify the likely potential environmental liabilities at the site associated with any soil and groundwater contamination from past site uses
- Identify if gas emissions either from the site or surrounding areas is likely to be present
- Produce an initial site conceptual model of the site, to detail the nature and extent of potential contamination, its source, potential pathways and likely receptors (pollutant linkage)
- Prepare a human health and environmental risk assessment for the site
- Provide data to assist in the design of an intrusive site investigation and give early indications of possible remediation requirements

In order to achieve the above objectives, Terra Firma (Wales) Limited carried out an assessment programme including a site walkover and a review of existing data.

1.2 Limitations and Exceptions of Investigation

The Client has requested that a Phase 1 Desk Study (DS) be undertaken to enable the outlined main objectives.

The DS was 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 Terra Firma (Wales) 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 and geotechnical consultants. Terra Firma (Wales) Limited does not provide legal advice and the advice of lawyers may be required.

It was beyond the scope of this report to assess geotechnical or mining risks.

1.3 Quality Assurance

The quality and environmental aspects of the assessment and investigation comply with UKAS Accredited ISO 9001:2015 and ISO 14001:2015 standards.

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
1878 1:2,500	The site locates across the gardens of a row of terraced properties labelled Park Row.	A row of terraced houses are shown 20m south of the site labelled Park Row. An Engine House is shown immediately south of Park Row. Finery Coal Slant is shown 180m east of the site. Several old coal levels are shown 220m north of the site. A Copper Works is shown 150m east of the site. Multiple tramways are shown passing and connecting the copper works to the surrounding area. A Chemical works is also shown 130m south of the site. Meadow pit is shown 220m south east of the site. The majority of the area surrounding the copper and chemical works and pit is shown as spoil. This is likely derived from the local coal mining and industrial process in the area.
1899 1:2,500	No change.	The Chemical Works has been replaced by a Steel Works.
1919 1:2,500	No change.	No significant changes.
1936 1:2,500	Several small outbuildings are shown along the northern edge of the site.	Allotment gardens are now shown immediately north of the site.
1949 Arial photo	No noticeable change.	The steel and copper works have been dismantled and the land appears to be in the process of redevelopment.
1965 1:2,500	No change.	Residential development has started to take place to the south in the area of the former steel works.
1975 1:2,500	The site is now shown to be unoccupied. Park Row has been demolished.	The residential development to the south has extended significantly and now covers the entire area of the former steel and copper works. The area to the north east is labelled as a disused tip.
1994	The existing property is now shown on the site.	Park Row is now shown.
2006 1:10,000	The site remains unchanged.	The surrounding area remains unchanged.
2021 1:10,000	No change.	A dwelling is now shown immediately east of the site.

2.3 Geological Setting

2.3.1 Geology

The BGS geology viewer was consulted for geology underlying the site. The site is shown to be underlain by coal measures rock. No superficial soils are shown to overly the solid geology. Detailed stratigraphical information is provided in **Table 2.2**.

Table 2.2 Detailed Stratigraphical Information

Period	Formation
Carboniferous	South Wales Middle Coal Measures Formation - Grey, (productive) coal-bearing mudstones/siltstones, with seatearths and minor sandstones.

A small veneer of made ground is expected on site giving the past site activity.

2.3.2 BGS Borehole Information

The BGS hold several borehole records on the site, though the records are confidential and not available to the public.

There are also several borehole records available for the tip shown to the north east of the site. The boreholes record colliery waste consisting of shale with boulders to depths around 12-13m which overlies boulder clay. No suggestion of organic material is noted in the borehole logs.

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

A CON29M Coal Report was procured from the Coal Authority. The report is presented in **Annex B**. The report is summarised below:

The property is in a surface area that could be affected by underground mining in 4 seams of coal at 30m to 220m depth, and last worked in 1900. In addition the property is in an area where the Coal Authority believes there is coal at or close to the surface. This coal may have been worked at some time in the past.

Several intrusive mining investigations have been undertaken across the site and the immediate surrounding area which have confirmed the presence of numerous coal seams beneath the site at shallow depth. The investigations have also identified open voids beneath the site associated with past coal and ironstone mining.

It is known that part of the plot 5 area has been subject to drilling and grouting measures in an attempt to stabilise the mine workings beneath the site.

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

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

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

The nearest groundwater abstraction point is located 1186m south west of the site, operated by Ms Powell & Mr Spackman for use in water bottling.

2.4.2 Hydrology

The nearest surface water feature locates off site 36m to the north west.

The topography of the local area slopes down towards to the south. 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.

2.4.4 Waste

Recorded landfill sites within 250m of the site are summaries in **Table 2.3**.

Table 2.3 Landfill Sites Summary

Landfill Name	Distance/ Direction from site	Operation Dates	Deposited Wastes
Disused Tip off Heol Tabor	47m north east	Not supplied	Not supplied though BGS borehole records confirm the tip received colliery waste comprising shale

There are no licensed waste management facilities or waste transfer sites 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.

2.4.7 Measured Urban Soil Chemistry

The BGS do not hold any urban soil chemistry data for the site or surrounding area.

2.4.8 Industrial Land Use

There are no 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 2.4**.

Table 2.4 Potentially Infilled Land

Feature	Distance/Direction from site
Unknown Filled Ground – Historical maps show the area to have received colliery waste	79m north east
Unknown Filled Ground - Historical maps show the area to have received colliery waste	83m east
Unknown Filled Ground - Historical maps show the area to have received colliery/ steelworks waste	90m south east

2.5 Historical Site Investigation Data

Terra Firma recently undertook a percolation test on site. The ground conditions encountered comprised made ground to 1.9m which was underlain by a firm sandy gravelly clay. The made ground soils comprised a loose black sandy gravel with brick and metal inclusions.

SECTION 3 Preliminary Human Health and Environmental Risk Assessment

3.1 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.

3.2 Potential Sources of Contamination

Potential or known sources of contamination associated the sites current and historical land use are summarised in **Table 3.1**.

Table 3.1 Contamination Sources

ID	Source	Contaminant
S1	Building/demolition waste in made ground	Metals, PAH, asbestos
S2	Infilled land	Methane, Co2
S3	Mine workings	Methane, Co2

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

3.2.1 Omitted Potential Sources

One potential source of contamination highlighted in this Phase 1 Desk Study have been excluded from further risk assessment. These are listed in **Table 3.2**.

Table 3.2 Omitted Contamination Sources

Source	Reasoning
Steel, Chemical and Copper Works	All sources were located downgradient of the site and it is extremely unlikely that contamination arising from these sources would migrate upwards toward the site
Railway land	Again, all railway land was located downgradient of the site.

3.3 Potential Pollution Pathways

Potential contaminant pathways associated with a **residential with home grown produce 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, grout hole)
- P8 – Horizontal and vertical migration of ground gasses and vapours

P9 – Direct contact with construction materials

P10 – Inhalation of asbestos fibres

3.4 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 (residents)

R3 – Passers-by or neighbouring site users

R4 – Groundwater (aquifer)

R5 – Construction materials (concrete/potable water pipes)

3.5 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 3.3**.

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.

3.6 Conclusions

The desk study has identified several potential sources of contamination that require further consideration.

Made ground has been proven on site containing building waste. It is likely that this has been tipped following demolition of the original Park Row dwellings. The made ground soils may contain elevated levels of metals or PAH determinants along with asbestos containing materials or asbestos fibres. Chemical analysis of the soils should be undertaken to further assess the risk and pollutant linkage.

The site is underlain by coal measures strata which contain many shallow coal seams along with known coal workings. It is understood that some of the workings beneath the site have been stabilised by drilling and grouting methods.

It is unclear as to whether the previous investigation boreholes have been suitably grouted in order to prevent them acting as preferential gas migration pathways directly from the shallow coal seams/workings. Given the age of the investigations, this is unlikely.

The existing property has not experienced any issues regarding mine gas, so the risk is considered low. However, future development on site should incorporate gas protection measures to mitigate any risks posed from potential ground/mine gas. Gas protection measures suitable to cater for Gas Characteristic situation 2 should be designed and installed on all future development on site.

Table 3.3 Preliminary Conceptual Site Model

Source	Pathway	Receptor	Preliminary Risk Assessment		
			Consequence	Probability	Risk
Human Health					
S1 - Building/demolition waste in made ground	P1 – Direct soil and dust ingestion P2 – Consumption of home grown produce P3 – Dermal contact P4 – Inhalation of dust and vapours P10 – Inhalation of asbestos fibres	R1 - Construction and maintenance workers	Medium	Low Likelihood	Low Risk - COSHH assessment and good level of PPE/ hygiene by site workers/ staff; dust suppression measures if required. Suitably designed site investigation recommended
		R3 - Passers-by or neighbouring site users	Medium	Unlikely	Low Risk - Dust suppression measures if required.
		R2 - Future site users (residents)	Medium	Likely	Medium Risk – made ground comprising building/demolition waste is know to be located on site which is a credible known source of contamination
S2 – Infilled land S3 – Mine Workings	P7 – Artificial contaminant pathway (borehole, grout hole) P8 - Horizontal and vertical migration of ground gasses and vapours	R2 - Future site users (residents)	Medium	Low Likelihood	Low Risk – Only small areas of workings encountered beneath the site in historic investigations. Large areas of infilled land are not likely to contain organic waste capable of generating ground gasses
S1 - Building/demolition waste in made ground	P9 - Direct Contact	R5 - Construction materials (water pipes and concrete)	Mild	Low Likelihood	Low Risk
Aquatic Environment					
S1 - Building/demolition waste in made ground	P5 - Vertical migration of leachates (unsaturated zone) P6 - Horizontal and vertical migration of contaminants (saturated zone)	Groundwater (aquifer) R4	Mild	Low Likelihood	Low Risk – Low permeability soils will prevent migration of contaminants

SECTION 4 Recommended Site Investigation

4.1 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 the known made ground from past site uses, to substantiate and enhance the conceptual site model, for a residential with home grown produce scenario.
- Provide a summary of the environmental conditions at the site, together with any necessary remediation works to render the site fit for its intended use.

4.2 Intrusive Investigation

It is recommended that an intrusive investigation is undertaken to inspect the ground conditions and to take soil samples for laboratory chemical analysis. It is perceived that dynamically sampled boreholes will be suitable to investigate the site.

4.3 Soil Sampling Strategy

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

4.4 Recommended Soil Chemical Analysis

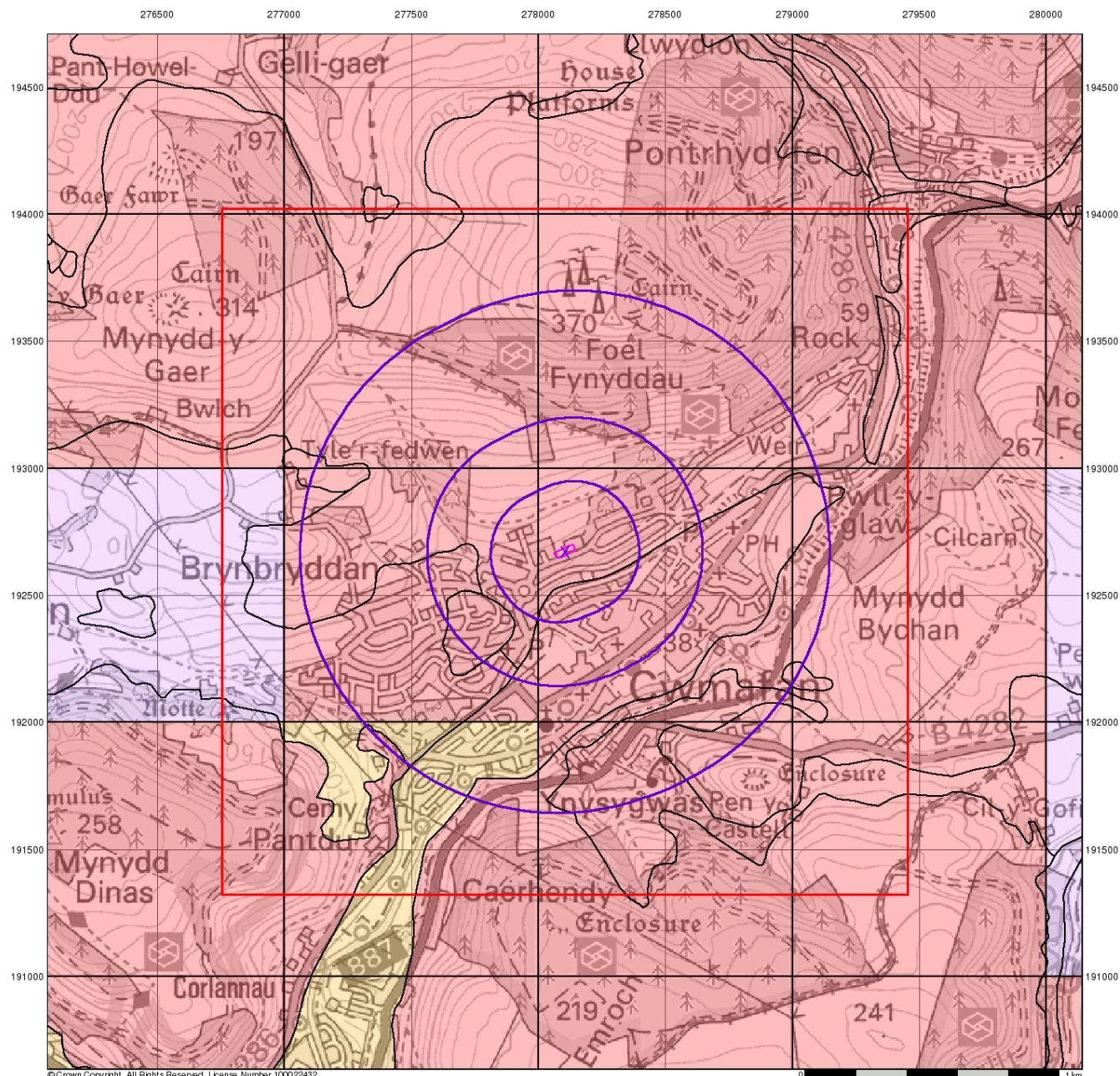
It is recommended that soil samples be taken of the made ground and underlying natural materials and tested at an accredited laboratory for the determinants listed in **Table 4.1**.

Table 4.1 Soil Laboratory Analysis

Metals & Metalloids	In-Organics	Organics	Others
Arsenic	Cyanide	Phenols	pH (acidity)
Cadmium	Sulphate	PAH	Asbestos
Chromium III		Petroleum Hydrocarbons	
Chromium VI			
Copper			
Lead			
Mercury			
Nickel			
Selenium			
Zinc			

Soil samples exhibiting elevated levels of metal and metalloid determinants should be further schedule for leachate testing of the offending substance.

**ANNEX A
Envirocheck Report**



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Groundwater Vulnerability

General

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

Agency and Hydrological

Bedrock Aquifers

- High Vulnerability, Principal Aquifer
- High Vulnerability, Secondary Aquifer
- Medium Vulnerability, Principal Aquifer
- Medium Vulnerability, Secondary Aquifer
- Low Vulnerability, Principal Aquifer
- Low Vulnerability, Secondary Aquifer

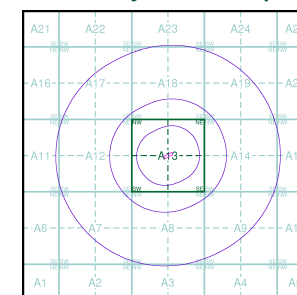
Superficial Aquifers

- High Vulnerability, Principal Aquifer
- High Vulnerability, Secondary Aquifer
- Medium Vulnerability, Principal Aquifer
- Medium Vulnerability, Secondary Aquifer
- Low Vulnerability, Principal Aquifer
- Low Vulnerability, Secondary Aquifer

Unproductive Aquifer

Soluble Rock

Site Sensitivity Context Map - Slice A



Order Details

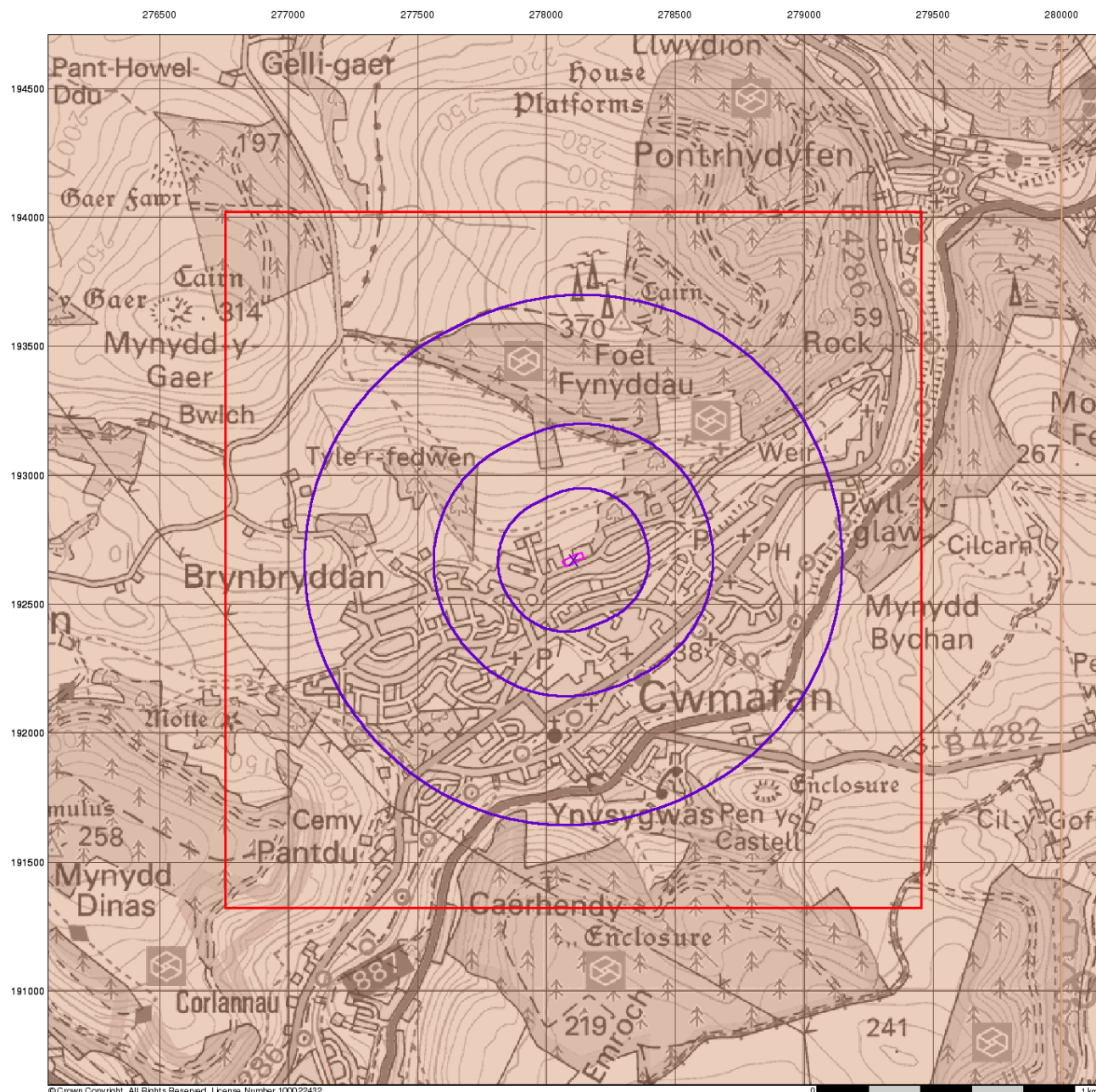
Order Number: 284338045_1_1
 Customer Ref: 15568
 National Grid Reference: 278110, 192670
 Slice: A
 Site Area (Ha): 0.2
 Search Buffer (m): 1000

Site Details

5, Park Row, Cwmavon, PORT TALBOT, SA12 9PW



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0 1 km



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Bedrock Aquifer Designation

General

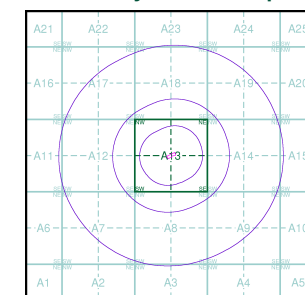
- Specified Site
- Specified Buffer(s)
- Bearing Reference Point
- Slice
- Map ID

Agency and Hydrological

Geological Classes

- Principal Aquifer
- Secondary A Aquifer
- Secondary B Aquifer
- Secondary Undifferentiated
- Unproductive Strata
- Unknown
- Unknown (Lakes and Landslip)

Site Sensitivity Context Map - Slice A



Order Details

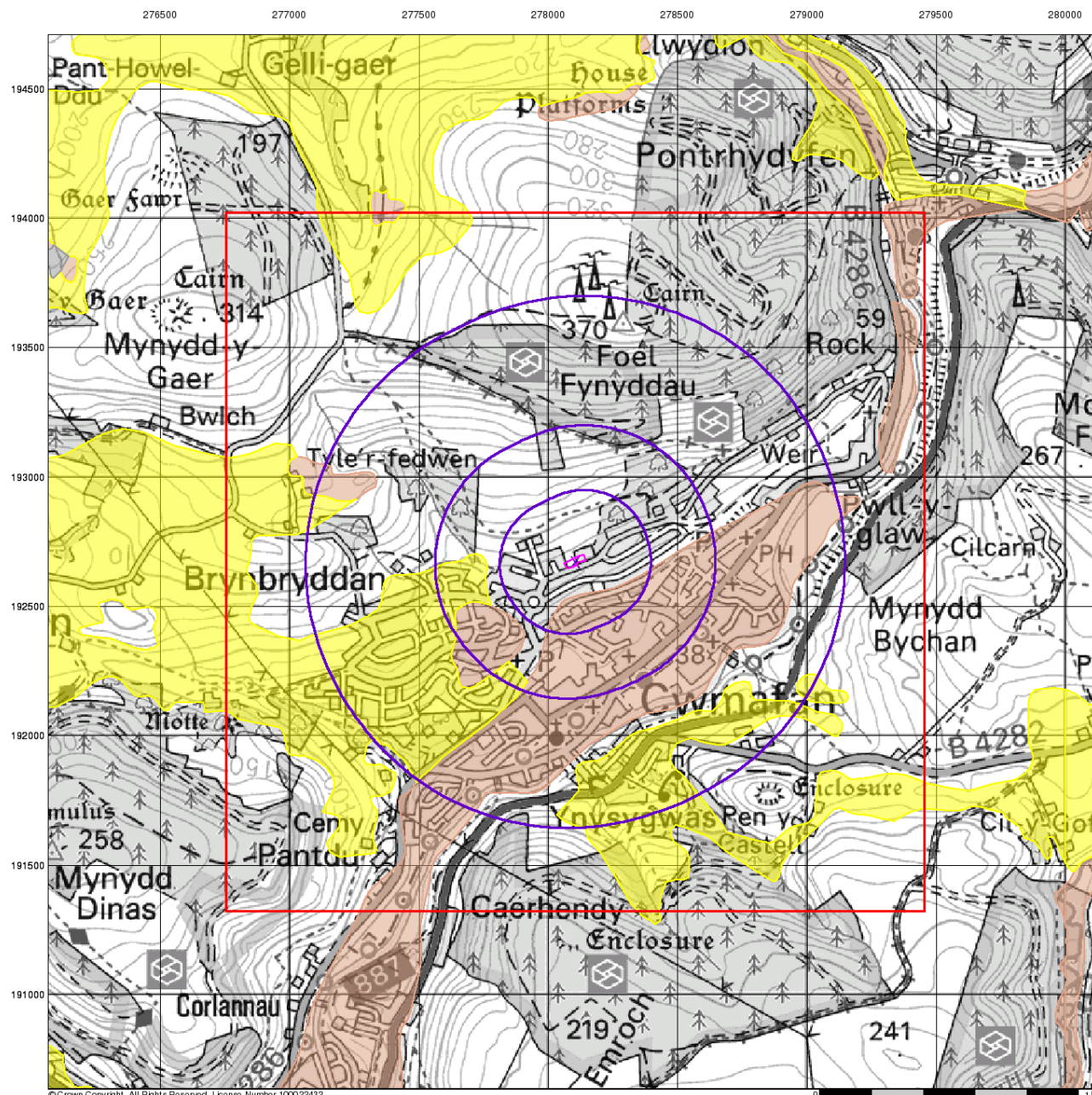
Order Number: 284338045_1_1
 Customer Ref: 15568
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 Slice: A
 Site Area (Ha): 0.2
 Search Buffer (m): 1000

Site Details

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Superficial Aquifer Designation

General

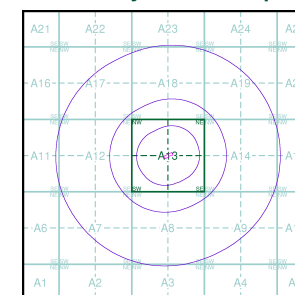
- Specified Site
- Specified Buffer(s)
- Bearing Reference Point
- Slice
- Map ID

Agency and Hydrological

Geological Classes

- Principal Aquifer
- Secondary A Aquifer
- Secondary B Aquifer
- Secondary Undifferentiated
- Unproductive Strata
- Unknown
- Unknown (Lakes and Landslip)

Site Sensitivity Context Map - Slice A



Order Details

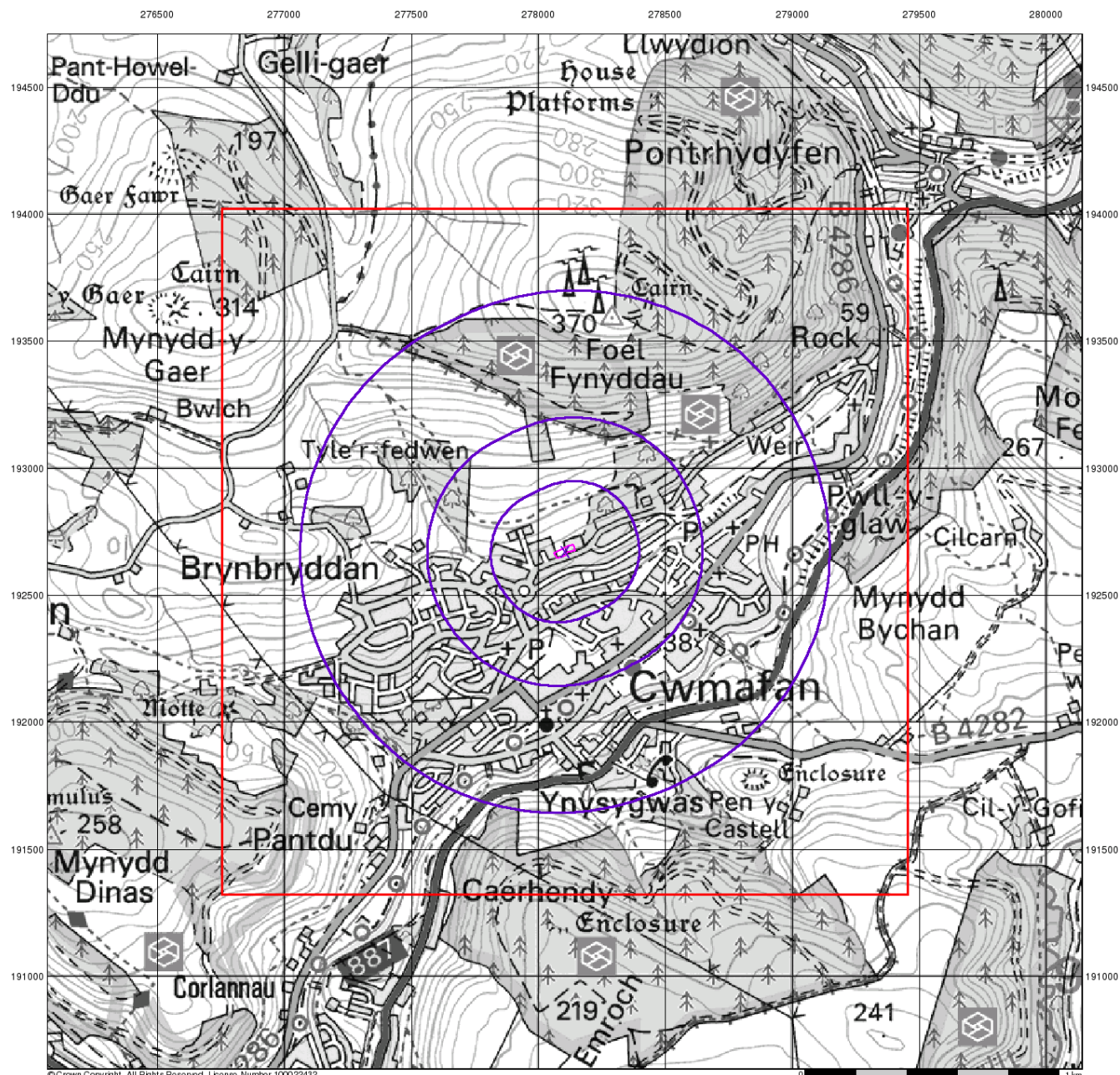
Order Number: 284338045_1_1
 Customer Ref: 15568
 National Grid Reference: 278110, 192670
 Slice: A
 Site Area (Ha): 0.2
 Search Buffer (m): 1000

Site Details

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Source Protection Zones

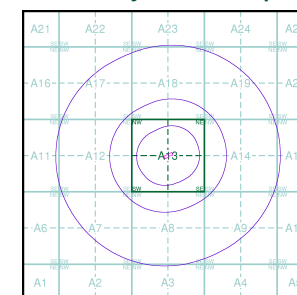
General

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

Agency and Hydrological

- Inner zone (Zone 1)
- Inner zone - subsurface activity only (Zone 1c)
- Outer zone (Zone 2)
- Outer zone - subsurface activity only (Zone 2c)
- Total catchment (Zone 3)
- Total catchment - subsurface activity only (Zone 3c)
- Special interest (Zone 4)

Site Sensitivity Context Map - Slice A



Order Details

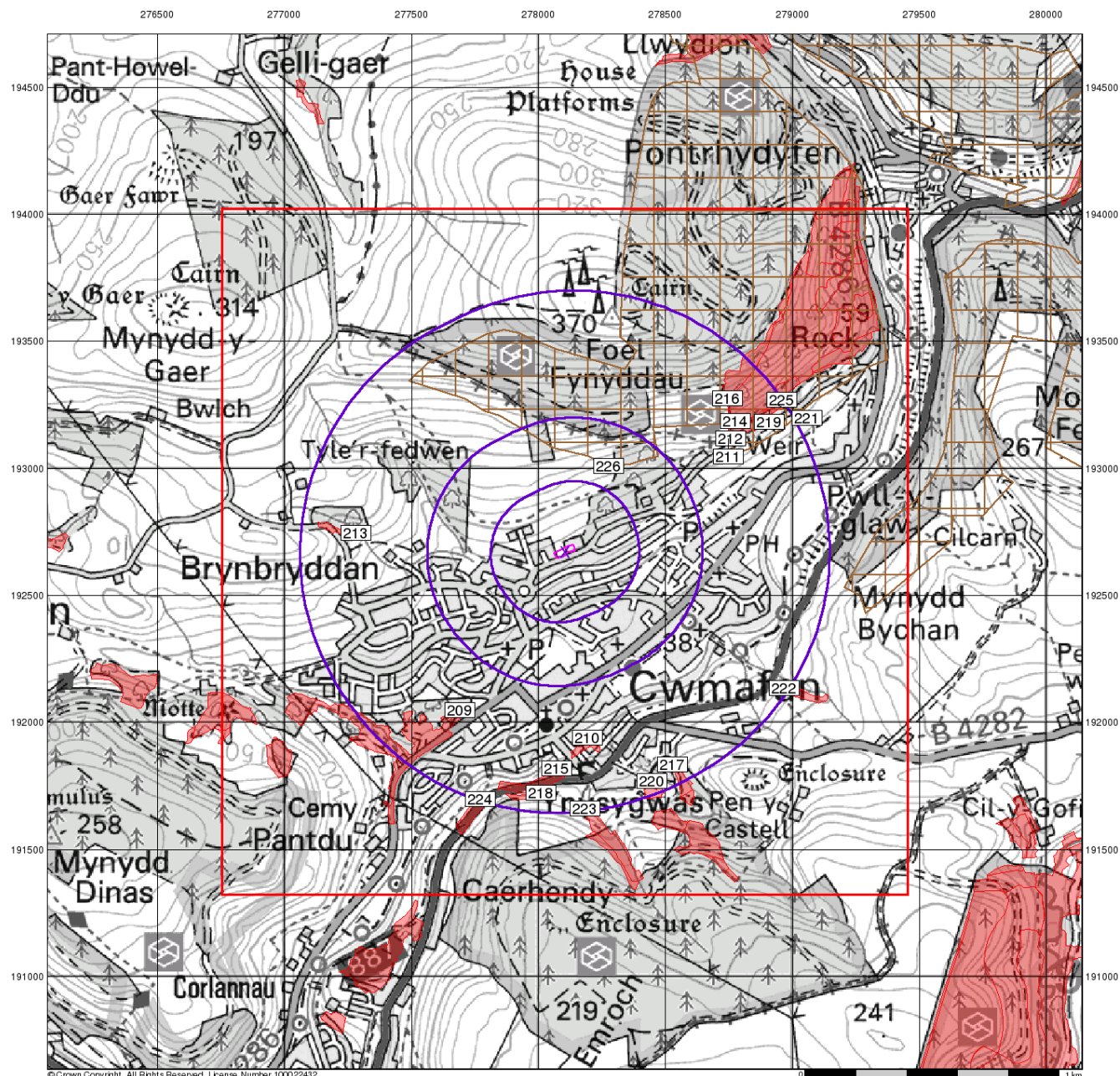
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 Customer Ref: 15568
 National Grid Reference: 278110, 192670
 Slice: A
 Site Area (Ha): 0.2
 Search Buffer (m): 1000

Site Details

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Sensitive Land Uses

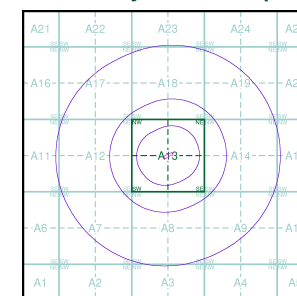
General

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

Sensitive Land Uses

- Ancient Woodland
- Area of Adopted Green Belt
- Area of Unadopted Green Belt
- Area of Outstanding Natural Beauty
- Environmentally Sensitive Area
- Forest Park
- Local Nature Reserve
- Marine Nature Reserve
- National Nature Reserve
- National Park
- Nitrate Sensitive Area
- Nitrate Vulnerable Zone
- Ramsar Site
- Site of Special Scientific Interest
- Special Area of Conservation
- Special Protection Area
- World Heritage Sites

Site Sensitivity Context Map - Slice A



Order Details

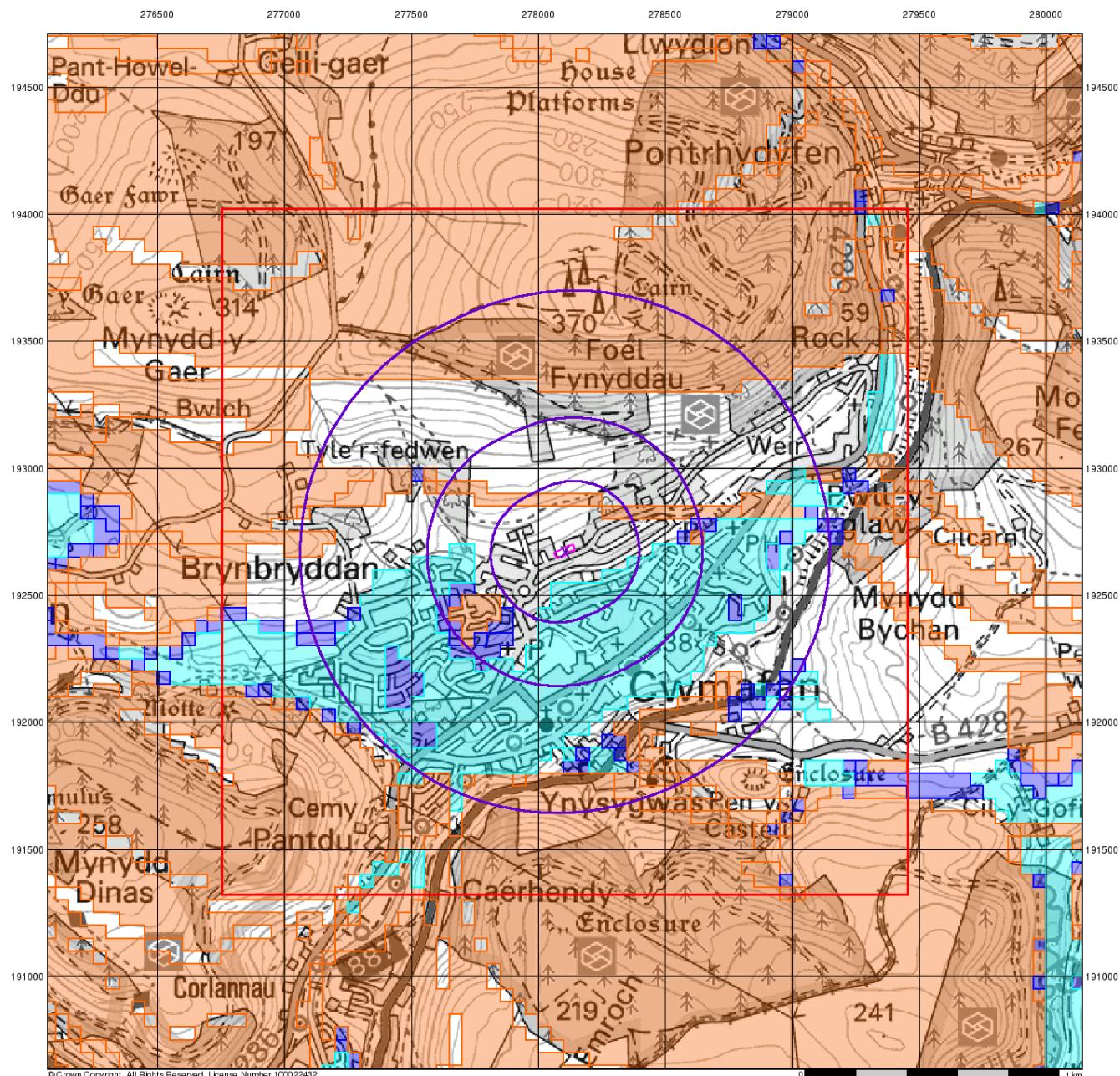
Order Number: 284338045_1_1
 Customer Ref: 15568
 National Grid Reference: 278110, 192670
 Slice: A
 Site Area (Ha): 0.2
 Search Buffer (m): 1000

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BGS Flood GFS Data

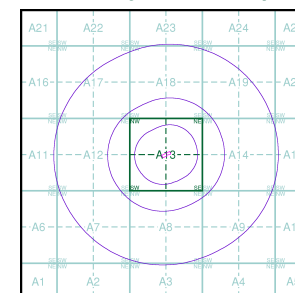
General

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

Agency and Hydrological (Flood)

- Limited Potential for Groundwater Flooding to Occur
- Potential for Groundwater Flooding of Property Situated Below Ground Level
- Potential for Groundwater Flooding to Occur at Surface

Site Sensitivity Context Map - Slice A



Order Details

Order Number: 284338045_1_1
 Customer Ref: 15568
 National Grid Reference: 278110, 192670
 Slice: A
 Site Area (Ha): 0.2
 Search Buffer (m): 1000

Site Details

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Envirocheck[®] Report:

Datasheet

Order Details:

Order Number:

284338045_1_1

Customer Reference:

15568

National Grid Reference:

278110, 192670

Slice:

A

Site Area (Ha):

0.2

Search Buffer (m):

1000

Site Details:

5, Park Row

Cwmavon

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SA12 9PW

Client Details:

Mr M Lake

Terra Firma (Wales) Ltd

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Wharfdale Road

Pentwyn

Cardiff

CF23 7HB

Report Section	Page Number
Summary	-
Agency & Hydrological	1
Waste	26
Hazardous Substances	-
Geological	30
Industrial Land Use	41
Sensitive Land Use	47
Data Currency	49
Data Suppliers	54
Useful Contacts	55

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.

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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	n/a
Contaminated Land Register Entries and Notices					
Discharge Consents	pg 1				22
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	pg 7				2
Local Authority Pollution Prevention and Control Enforcements					
Nearest Surface Water Feature	pg 7		Yes		
Pollution Incidents to Controlled Waters	pg 7			1	40
Prosecutions Relating to Authorised Processes					
Registered Radioactive Substances					
River Quality	pg 14				1
River Quality Biology Sampling Points					
River Quality Chemistry Sampling Points					
Substantiated Pollution Incident Register	pg 14				1
Water Abstractions	pg 14				(*1)
Water Industry Act Referrals					
Groundwater Vulnerability Map	pg 15	Yes	n/a	n/a	n/a
Bedrock Aquifer Designations	pg 15	Yes	n/a	n/a	n/a
Superficial Aquifer Designations			n/a	n/a	n/a
Source Protection Zones					
Extreme Flooding from Rivers or Sea without Defences				n/a	n/a
Flooding from Rivers or Sea without Defences				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 15		20	14	60

Data Type	Page Number	On Site	0 to 250m	251 to 500m	501 to 1000m (*up to 2000m)
Waste					
BGS Recorded Landfill Sites	pg 26				1
Historical Landfill Sites	pg 26		1	1	1
Integrated Pollution Control Registered Waste Sites					
Licensed Waste Management Facilities (Landfill Boundaries)					
Licensed Waste Management Facilities (Locations)	pg 26				2
Local Authority Landfill Coverage	pg 27	1	n/a	n/a	n/a
Local Authority Recorded Landfill Sites					
Potentially Infilled Land (Non-Water)	pg 27		4	2	8
Potentially Infilled Land (Water)	pg 28			1	5
Registered Landfill Sites	pg 28				1
Registered Waste Transfer Sites	pg 29				1
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 30	Yes	n/a	n/a	n/a
BGS Estimated Soil Chemistry	pg 30	Yes	Yes	Yes	Yes
BGS Recorded Mineral Sites	pg 37		1	3	10
BGS Urban Soil Chemistry					
BGS Urban Soil Chemistry Averages					
CBSCB Compensation District			n/a	n/a	n/a
Coal Mining Affected Areas	pg 39	Yes	n/a	n/a	n/a
Mining Instability	pg 39	Yes	n/a	n/a	n/a
Man-Made Mining Cavities					
Natural Cavities					
Non Coal Mining Areas of Great Britain	pg 39		Yes	n/a	n/a
Potential for Collapsible Ground Stability Hazards	pg 39	Yes		n/a	n/a
Potential for Compressible Ground Stability Hazards	pg 40		Yes	n/a	n/a
Potential for Ground Dissolution Stability Hazards				n/a	n/a
Potential for Landslide Ground Stability Hazards	pg 40	Yes	Yes	n/a	n/a
Potential for Running Sand Ground Stability Hazards	pg 40		Yes	n/a	n/a
Potential for Shrinking or Swelling Clay Ground Stability Hazards	pg 40	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	pg 41			4	19
Fuel Station Entries	pg 43			1	
Points of Interest - Commercial Services	pg 43			1	9
Points of Interest - Education and Health					
Points of Interest - Manufacturing and Production	pg 44			1	3
Points of Interest - Public Infrastructure	pg 44		1	2	12
Points of Interest - Recreational and Environmental	pg 45			3	8
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 47				17
Areas of Adopted Green Belt					
Areas of Unadopted Green Belt					
Areas of Outstanding Natural Beauty					
Environmentally Sensitive Areas					
Forest Parks	pg 48			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: Potential for Groundwater Flooding to Occur at Surface	A13SE (S)	94	1	278105 192550
	BGS Groundwater Flooding Susceptibility Flooding Type: Limited Potential for Groundwater Flooding to Occur	A13NE (NE)	151	1	278250 192800
	BGS Groundwater Flooding Susceptibility Flooding Type: Limited Potential for Groundwater Flooding to Occur	A13NE (N)	151	1	278105 192850
	BGS Groundwater Flooding Susceptibility Flooding Type: Potential for Groundwater Flooding of Property Situated Below Ground Level	A13SW (SW)	263	1	277900 192450
	BGS Groundwater Flooding Susceptibility Flooding Type: Limited Potential for Groundwater Flooding to Occur	A13SW (SW)	268	1	277850 192500
	BGS Groundwater Flooding Susceptibility Flooding Type: Potential for Groundwater Flooding of Property Situated Below Ground Level	A12SE (W)	332	1	277750 192550
	BGS Groundwater Flooding Susceptibility Flooding Type: Potential for Groundwater Flooding of Property Situated Below Ground Level	A13SW (SW)	343	1	277900 192350
	BGS Groundwater Flooding Susceptibility Flooding Type: Potential for Groundwater Flooding of Property Situated Below Ground Level	A12SE (SW)	398	1	277700 192500
	BGS Groundwater Flooding Susceptibility Flooding Type: Potential for Groundwater Flooding of Property Situated Below Ground Level	A13SW (SW)	404	1	277800 192350
	BGS Groundwater Flooding Susceptibility Flooding Type: Potential for Groundwater Flooding of Property Situated Below Ground Level	A14NW (E)	405	1	278550 192700
	BGS Groundwater Flooding Susceptibility Flooding Type: Potential for Groundwater Flooding of Property Situated Below Ground Level	A12SE (W)	444	1	277650 192500
	BGS Groundwater Flooding Susceptibility Flooding Type: Potential for Groundwater Flooding of Property Situated Below Ground Level	A12SE (SW)	448	1	277700 192400
	BGS Groundwater Flooding Susceptibility Flooding Type: Limited Potential for Groundwater Flooding to Occur	A14NW (E)	455	1	278600 192700
	BGS Groundwater Flooding Susceptibility Flooding Type: Potential for Groundwater Flooding of Property Situated Below Ground Level	A14NW (E)	461	1	278600 192750
1	Discharge Consents Operator: Barratt (South Wales) Ltd Property Type: Undefined Or Other Location: Outfall 4, Land At The Waun, Cwmafan Authority: Natural Resources Wales Catchment Area: River Afan Reference: Bp0149204 Permit Version: 2 Effective Date: 2nd November 1989 Issued Date: 2nd November 1989 Revocation Date: 23rd October 1992 Discharge Type: Unspecified Discharge: Not Supplied Environment: Receiving Water: River Afan Status: Consent expired Positional Accuracy: Located by supplier to within 100m	A14SW (SE)	619	2	278700 192400

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
1	Discharge Consents Operator: Barratt (South Wales) Ltd Property Type: Undefined Or Other Location: Outfall 4, Land At The Waun, Cwmafan Authority: Natural Resources Wales Catchment Area: River Afan Reference: Bp0149204 Permit Version: 1 Effective Date: 1st January 1901 Issued Date: 1st January 1901 Revocation Date: 1st November 1989 Discharge Type: Unspecified Discharge: Not Supplied Environment: Receiving Water: River Afan Status: Authorisation revoked Positional Accuracy: Located by supplier to within 100m	A14SW (SE)	619	2	278700 192400
2	Discharge Consents Operator: Dwr Cymru Cyfyngedig Property Type: Undefined Or Other Location: Ebbw Vale Row Swo Cwmafan Port Talb, Cwmafan Port Talbot Authority: Natural Resources Wales Catchment Area: River Afan Reference: Bm0003203 Permit Version: 1 Effective Date: 1st January 1901 Issued Date: 1st January 1901 Revocation Date: 14th March 1994 Discharge Type: Unspecified Discharge: Freshwater Stream/River Environment: Receiving Water: Afan Status: Consent expired Positional Accuracy: Located by supplier to within 10m	A8NE (S)	630	2	278340 192070
3	Discharge Consents Operator: Dwr Cymru Cyfyngedig Property Type: Sewerage Network - Sewers - Water Company Location: Cwmafan Rfc Cso, Cwmavon Rfc, Cwmavon, Port Talbot, Sa12 9df Authority: Natural Resources Wales Catchment Area: AFAN - CONFLUENCE WITH PELENNIA TO TIDAL LIMIT Reference: Bw0200301 Permit Version: 3 Effective Date: 29th August 2019 Issued Date: 29th August 2019 Revocation Date: Not Supplied Discharge Type: Sewage Discharges - Stw Storm Overflow/Storm Tank - Water Company Discharge: Freshwater Stream/River Environment: Receiving Water: River Alyn Status: Effective Positional Accuracy: Located by supplier to within 10m	A9NW (SE)	650	2	278476 192115
4	Discharge Consents Operator: Barratt (South Wales) Ltd Property Type: Undefined Or Other Location: Cwmafan Land At The Waun Authority: Natural Resources Wales Catchment Area: River Afan Reference: Bp0149203 Permit Version: 2 Effective Date: 2nd November 1989 Issued Date: 2nd November 1989 Revocation Date: 23rd October 1992 Discharge Type: Unspecified Discharge: Not Supplied Environment: Receiving Water: River Afan Status: Consent expired Positional Accuracy: Located by supplier to within 100m	A14SE (E)	659	2	278800 192600

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
5	Discharge Consents Operator: Barratt (South Wales) Ltd Property Type: Undefined Or Other Location: Cwmafan Land At The Waun Authority: Natural Resources Wales Catchment Area: River Afan Reference: Bp0149203 Permit Version: 1 Effective Date: 1st January 1901 Issued Date: 1st January 1901 Revocation Date: 1st November 1989 Discharge Type: Unspecified Discharge: Not Supplied Environment: Receiving Water: River Afan Status: Authorisation revoked Positional Accuracy: Located by supplier to within 100m	A14SE (E)	710	2	278800 192400
6	Discharge Consents Operator: Dwr Cymru Cyfyngedig Property Type: Sewerage Network - Sewers - Water Company Location: Rolling Mill P. H. (Rear Of) S Cwma, Cwmafan P Talbot Authority: Natural Resources Wales Catchment Area: River Afan Reference: Bm0003205 Permit Version: 1 Effective Date: 1st January 1901 Issued Date: 1st January 1901 Revocation Date: 14th March 1994 Discharge Type: Unspecified Discharge: Freshwater Stream/River Environment: Receiving Water: Afan Status: Consent expired Positional Accuracy: Located by supplier to within 10m	A14SE (E)	735	2	278880 192650
7	Discharge Consents Operator: Dwr Cymru Cyfyngedig Property Type: Sewerage Network - Sewers - Water Company Location: Pelly Street Swo Cwmafan Port Talbot, Cwmafan Port Talbot Authority: Natural Resources Wales Catchment Area: River Afan Reference: BM0003204 Permit Version: 1 Effective Date: 1st January 1901 Issued Date: 1st January 1901 Revocation Date: 11th March 2003 Discharge Type: Public Sewage: Storm Sewage Overflow Discharge: Freshwater Stream/River Environment: Receiving Water: Afan Status: New Consent, by Application (Water Resources Act 1991, Section 88) Positional Accuracy: Located by supplier to within 100m	A14SE (SE)	772	2	278850 192360
7	Discharge Consents Operator: Dwr Cymru Cyfyngedig Property Type: Sewerage Network - Sewers - Water Company Location: Cso 101 The Waun 200m U/S Footbridge, Adj 48 Gwaun Afan, Cwmafan, Port Talbot, Sa12 9ej Authority: Natural Resources Wales Catchment Area: AFAN - CONFLUENCE WITH PELENNIA TO TIDAL LIMIT Reference: Bm0003204 Permit Version: 3 Effective Date: 11th October 2019 Issued Date: 11th October 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	A14SE (E)	784	2	278873 192383

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
7	Discharge Consents Operator: Dwr Cymru Cyfyngedig Property Type: Sewerage Network - Sewers - Water Company Location: Cso 101 The Waun 200m U/S Footbridge, The Waun, 200m U/S Footbridge Pelly Street, Cwmafan Authority: Natural Resources Wales Catchment Area: AFAN - CONFLUENCE WITH PELENNIA TO TIDAL LIMIT Reference: Bm0003204 Permit Version: 2 Effective Date: 12th March 2003 Issued Date: 11th March 2003 Revocation Date: Not Supplied Discharge Type: Sewage Discharges - Stw Storm Overflow/Storm Tank - Water Company Discharge: Freshwater Stream/River Environment: Receiving Water: Afan Status: Effective Positional Accuracy: Located by supplier to within 10m	A14SE (E)	784	2	278873 192383
7	Discharge Consents Operator: Dwr Cymru Cyfyngedig Property Type: Sewerage Network - Sewers - Water Company Location: Cso 101 The Waun 200m U/S Footbridge, The Waun, 200m U/S Footbridge Pelly Street, Cwmafan Authority: Natural Resources Wales Catchment Area: AFAN - CONFLUENCE WITH PELENNIA TO TIDAL LIMIT Reference: Bm0003204 Permit Version: 2 Effective Date: 12th March 2003 Issued Date: 11th March 2003 Revocation Date: Not Supplied Discharge Type: Sewage Discharges - Stw Storm Overflow/Storm Tank - Water Company Discharge: Freshwater Stream/River Environment: Receiving Water: Afan Status: Effective Positional Accuracy: Located by supplier to within 10m	A14SE (E)	784	2	278873 192383
8	Discharge Consents Operator: Barratt (South Wales) Ltd Property Type: Undefined Or Other Location: Cwmafan Land At The Waun, Outfall 1 Authority: Natural Resources Wales Catchment Area: River Afan Reference: Bp0149201 Permit Version: 2 Effective Date: 2nd November 1989 Issued Date: 2nd November 1989 Revocation Date: 23rd October 1992 Discharge Type: Unspecified Discharge: Not Supplied Environment: Receiving Water: River Afan Status: Consent expired Positional Accuracy: Located by supplier to within 100m	A14SE (E)	774	2	278900 192500
8	Discharge Consents Operator: Barratt (South Wales) Ltd Property Type: Undefined Or Other Location: Cwmafan Land At The Waun, Outfall 1 Authority: Natural Resources Wales Catchment Area: River Afan Reference: Bp0149201 Permit Version: 1 Effective Date: 1st January 1901 Issued Date: 1st January 1901 Revocation Date: 1st November 1989 Discharge Type: Unspecified Discharge: Not Supplied Environment: Receiving Water: River Afan Status: Authorisation revoked Positional Accuracy: Located by supplier to within 100m	A14SE (E)	774	2	278900 192500

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
9	Discharge Consents Operator: Barratt (South Wales) Ltd Property Type: Undefined Or Other Location: Outfall 2, Land At The Waun, Cwmafan Authority: Natural Resources Wales Catchment Area: River Afan Reference: Bp0149202 Permit Version: 2 Effective Date: 2nd November 1989 Issued Date: 2nd November 1989 Revocation Date: 23rd October 1992 Discharge Type: Unspecified Discharge: Not Supplied Environment: Receiving Water: River Afan Status: Consent expired Positional Accuracy: Located by supplier to within 100m	A14SE (E)	803	2	278900 192400
9	Discharge Consents Operator: Barratt (South Wales) Ltd Property Type: Undefined Or Other Location: Outfall 2, Land At The Waun, Cwmafan Authority: Natural Resources Wales Catchment Area: River Afan Reference: Bp0149202 Permit Version: 1 Effective Date: 1st January 1901 Issued Date: 1st January 1901 Revocation Date: 1st November 1989 Discharge Type: Unspecified Discharge: Not Supplied Environment: Receiving Water: River Afan Status: Authorisation revoked Positional Accuracy: Located by supplier to within 100m	A14SE (E)	803	2	278900 192400
10	Discharge Consents Operator: Dwr Cymru Cyfyngedig Property Type: Sewerage Network - Sewers - Water Company Location: Swo Ynysygwas Bridge Approx Authority: Natural Resources Wales Catchment Area: River Afan Reference: Bw0202401 Permit Version: 1 Effective Date: 20th October 1989 Issued Date: 20th October 1989 Revocation Date: 14th March 1994 Discharge Type: Unspecified Discharge: Not Supplied Environment: Receiving Water: River Afan Status: Consent expired Positional Accuracy: Located by supplier to within 100m	A8SW (S)	848	2	278000 191800
11	Discharge Consents Operator: Dwr Cymru Cyfyngedig Property Type: Sewerage Network - Sewers - Water Company Location: Britannia P. H. Swo Cwmafan Port Ta, Cwmafan Port Talbot Authority: Natural Resources Wales Catchment Area: River Afan Reference: BM0003201 Permit Version: 1 Effective Date: 1st January 1901 Issued Date: 1st January 1901 Revocation Date: 11th March 2003 Discharge Type: Unspecified Discharge: Freshwater Stream/River Environment: Receiving Water: Afan Status: New Consent, by Application (Water Resources Act 1991, Section 88) Positional Accuracy: Located by supplier to within 100m	A8SW (S)	873	2	277820 191810

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
11	Discharge Consents Operator: Dwr Cymru Cyfyngedig Property Type: Sewerage Network - Sewers - Water Company Location: Britannia Inn Cso, Cwmafan, Opp Britannia Inn, London Row, Cwmavon, Port Talbot, Sa12 9ah Authority: Natural Resources Wales Catchment Area: AFAN - CONFLUENCE WITH PELENNIA TO TIDAL LIMIT Reference: Bm0003201 Permit Version: 3 Effective Date: 29th August 2019 Issued Date: 29th August 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	A8SW (S)	884	2	277798 191806
11	Discharge Consents Operator: Dwr Cymru Cyfyngedig Property Type: Sewerage Network - Sewers - Water Company Location: Cso No 102 100m D/S Footbridge, Britannia Inn, Cwmafan Authority: Natural Resources Wales Catchment Area: AFAN - CONFLUENCE WITH PELENNIA TO TIDAL LIMIT Reference: Bm0003201 Permit Version: 2 Effective Date: 12th March 2003 Issued Date: 11th March 2003 Revocation Date: Not Supplied Discharge Type: Sewage Discharges - Stw Storm Overflow/Storm Tank - Water Company Discharge: Freshwater Stream/River Environment: Receiving Water: Afan Status: Effective Positional Accuracy: Located by supplier to within 10m	A8SW (S)	884	2	277798 191806
11	Discharge Consents Operator: Dwr Cymru Cyfyngedig Property Type: Sewerage Network - Sewers - Water Company Location: Cso No 102 100m D/S Footbridge, Britannia Inn, Cwmafan Authority: Natural Resources Wales Catchment Area: AFAN - CONFLUENCE WITH PELENNIA TO TIDAL LIMIT Reference: Bm0003201 Permit Version: 2 Effective Date: 12th March 2003 Issued Date: 11th March 2003 Revocation Date: Not Supplied Discharge Type: Sewage Discharges - Stw Storm Overflow/Storm Tank - Water Company Discharge: Freshwater Stream/River Environment: Receiving Water: Afan Status: Effective Positional Accuracy: Located by supplier to within 10m	A8SW (S)	884	2	277798 191806
11	Discharge Consents Operator: Dwr Cymru Cyfyngedig Property Type: Sewerage Network - Sewers - Water Company Location: Swo.Br'Nnia Inn Cwmafan Authority: Natural Resources Wales Catchment Area: River Afan Reference: Bw0203001 Permit Version: 1 Effective Date: 20th October 1989 Issued Date: 20th October 1989 Revocation Date: 14th March 1994 Discharge Type: Unspecified Discharge: Not Supplied Environment: Receiving Water: River Afan Status: Consent expired Positional Accuracy: Located by supplier to within 100m	A8SW (S)	889	2	277800 191800

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
12	Discharge Consents Operator: Dwr Cymru Cyfyngedig Property Type: Sewerage Network - Sewers - Water Company Location: London Close Swo Cwmafan Port Talbo, Cwmafan Port Talbot Authority: Natural Resources Wales Catchment Area: River Afan Reference: Bm0003202 Permit Version: 1 Effective Date: 1st January 1901 Issued Date: 1st January 1901 Revocation Date: 14th March 1994 Discharge Type: Unspecified Discharge: Freshwater Stream/River Environment: Receiving Water: Afan Status: Consent expired Positional Accuracy: Located by supplier to within 10m	A8SW (S)	878	2	277920 191780
13	Local Authority Pollution Prevention and Controls Name: Western Logs Limited Location: Forest Products Centre, Cwmafan, PORT TALBOT, West Glamorgan, SA12 9AB Authority: Neath Port Talbot County Borough Council, Environmental Health Department Permit Reference: E3/1/13 Dated: 28th September 1994 Process Type: Local Authority Air Pollution Control Description: PG6/2 Manufacture of timber and wood-based products Status: Authorisation has varied Positional Accuracy: Automatically positioned to the address	A9SW (SE)	864	3	278677 191995
14	Local Authority Pollution Prevention and Controls Name: Davies Skips Limited Location: 1 Brunel Industrial Estate, Cwmavon, Port Talbot, Sa12 9db Authority: Neath Port Talbot County Borough Council, Environmental Health Department Permit Reference: E3/1/126 Dated: 10th December 2007 Process Type: Local Authority Pollution Prevention and Control Description: PG3/16 Mobile screening and crushing processes Status: Permitted Positional Accuracy: Located by supplier to within 10m	A7SE (S)	886	3	277764 191815
	Nearest Surface Water Feature	A13NW (NW)	36	-	278086 192716
15	Pollution Incidents to Controlled Waters Property Type: Waste Handling Facilities Location: Culvert Chute, Below Cwmafan Authority: Environment Agency, Welsh Region Pollutant: Sewage - Septic Tank Effluent Note: Inadequate Design/Capacity Incident Date: 27th October 1991 Incident Reference: 1595 Catchment Area: Not Given Receiving Water: Not Given Cause of Incident: Direct Discharge Incident Severity: Category 2 - Significant Incident Positional Accuracy: Located by supplier to within 100m	A8NE (S)	494	4	278300 192200
16	Pollution Incidents to Controlled Waters Property Type: Water Company Sewage: Sewerage Location: 20 Metres Down Stream Of, Ynysafan Bridge Authority: Environment Agency, Welsh Region Pollutant: Heavy Fuel Oil Note: Neglect Incident Date: 10th January 1991 Incident Reference: 2655 Catchment Area: Not Given Receiving Water: Not Given Cause of Incident: Overflow Incident Severity: Category 2 - Significant Incident Positional Accuracy: Located by supplier to within 100m	A14SW (SE)	531	4	278600 192400

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
17	Pollution Incidents to Controlled Waters Property Type: Other Location: End Of Ebbw, Vale Row, CWMAFAN Authority: Environment Agency, Welsh Region Pollutant: Rubble/Litter Or Solids Note: Neglect Incident Date: 2nd September 1994 Incident Reference: 21130 Catchment Area: Not Given Receiving Water: Not Given Cause of Incident: Spillage Incident Severity: Category 3 - Minor Incident Positional Accuracy: Located by supplier to within 100m	A8NE (S)	588	4	278300 192100
17	Pollution Incidents to Controlled Waters Property Type: Other Location: End Of Ebbw, Vale Row On, John Edwards Authority: Environment Agency, Welsh Region Pollutant: Unknown Note: Neglect Incident Date: 2nd September 1994 Incident Reference: 21130 Catchment Area: Not Given Receiving Water: Not Given Cause of Incident: Spillage Incident Severity: Category 3 - Minor Incident Positional Accuracy: Located by supplier to within 100m	A8NE (S)	593	4	278300 192095
17	Pollution Incidents to Controlled Waters Property Type: Waste Handling Facilities Location: Cwmafan Jet, Wash Garage Authority: Environment Agency, Welsh Region Pollutant: Unknown Note: Inadequate Design/Capacity Incident Date: 5th December 1991 Incident Reference: 1659 Catchment Area: Not Given Receiving Water: Not Given Cause of Incident: Direct Discharge Incident Severity: Category 3 - Minor Incident Positional Accuracy: Located by supplier to within 100m	A8NE (S)	594	4	278305 192095
18	Pollution Incidents to Controlled Waters Property Type: Water Company Sewage: Storm Overflow Location: Cwmafan, Rugby Fields Authority: Environment Agency, Welsh Region Pollutant: Sewage - Treated Effluent Note: Blocked Sewer Incident Date: 11th August 1991 Incident Reference: 1353 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	A9NW (SE)	593	4	278500 192200
19	Pollution Incidents to Controlled Waters Property Type: Not Given Location: Porset Brook, Gwaun Afan Estate Authority: Environment Agency, Welsh Region Pollutant: Chemicals - Alkali Note: Blocked Sewer Incident Date: 21st March 1996 Incident Reference: 27793 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	A14SW (SE)	617	4	278700 192405
19	Pollution Incidents to Controlled Waters Property Type: Water Company Sewage: Storm Overflow Location: Gwaun Afan Estate, PORT TALBOT Authority: Environment Agency, Welsh Region Pollutant: Chemicals - Alkali Note: Blocked Sewer Incident Date: 21st March 1996 Incident Reference: 27793 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	A14SW (SE)	619	4	278700 192400

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
19	Pollution Incidents to Controlled Waters Property Type: Not Given Location: Location Description Not Available Authority: Environment Agency, Welsh Region Pollutant: Sewage - Treated Effluent Note: Blocked Sewer Incident Date: 6th June 1996 Incident Reference: 28644 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	A14SW (SE)	621	4	278705 192405
19	Pollution Incidents to Controlled Waters Property Type: Water Company Sewage: Storm Overflow Location: New Barratt Houses, 400 Yards, Up Stream Of Ynysafan Authority: Environment Agency, Welsh Region Pollutant: Light Oil Note: Inadequate Design/Capacity Incident Date: 20th November 1994 Incident Reference: 21790 Catchment Area: Not Given Receiving Water: Not Given Cause of Incident: Overflow Incident Severity: Category 2 - Significant Incident Positional Accuracy: Located by supplier to within 100m	A14SW (SE)	621	4	278700 192395
19	Pollution Incidents to Controlled Waters Property Type: Not Given Location: CWMAFAN Authority: Environment Agency, Welsh Region Pollutant: Unknown Note: Blocked Sewer Incident Date: 24th June 1996 Incident Reference: 28926 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	A14SW (SE)	623	4	278705 192400
19	Pollution Incidents to Controlled Waters Property Type: Water Company Sewage: Storm Overflow Location: All Saints Place Authority: Environment Agency, Welsh Region Pollutant: Oils - Diesel (Including Agricultural) Note: Blocked Sewer Incident Date: 22nd March 1995 Incident Reference: 23325 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	A14SW (SE)	626	4	278705 192395
20	Pollution Incidents to Controlled Waters Property Type: Water Company Sewage: Sewerage Location: Northern End, Of Cwmafan Rfc Authority: Environment Agency, Welsh Region Pollutant: Crude Sewage Note: Blocked Sewer Incident Date: 18th May 1991 Incident Reference: 3812 Catchment Area: Not Given Receiving Water: Not Given Cause of Incident: Overflow Incident Severity: Category 2 - Significant Incident Positional Accuracy: Located by supplier to within 100m	A8NE (SE)	627	4	278400 192100
21	Pollution Incidents to Controlled Waters Property Type: Not Given Location: Ynysygwas Bridge Authority: Environment Agency, Welsh Region Pollutant: Crude Sewage Note: Neglect; River Afan Incident Date: 16th November 1998 Incident Reference: 37164 Catchment Area: Not Given Receiving Water: Not Given Cause of Incident: Leakage Incident Severity: Category 3 - Minor Incident Positional Accuracy: Located by supplier to within 100m	A8NW (S)	645	4	278100 192000

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
22	Pollution Incidents to Controlled Waters Property Type: Water Company Sewage: Treated Water Distribution System Location: Bridge By, Civic Centre Authority: Environment Agency, Welsh Region Pollutant: Contaminated Groundwater Note: Accidental Spillage/Leakage Incident Date: 14th June 1995 Incident Reference: 24554 Catchment Area: Not Given Receiving Water: Not Given Cause of Incident: Runoff Incident Severity: Category 3 - Minor Incident Positional Accuracy: Located by supplier to within 100m	A8NE (S)	656	4	278200 192000
22	Pollution Incidents to Controlled Waters Property Type: Not Given Location: CWMAFAN Authority: Environment Agency, Welsh Region Pollutant: Oils - Diesel (Including Agricultural) Note: Not Supplied Incident Date: 23rd September 1994 Incident Reference: 21185 Catchment Area: Not Given Receiving Water: Not Given Cause of Incident: Unknown Incident Severity: Category 3 - Minor Incident Positional Accuracy: Located by supplier to within 100m	A8SE (S)	705	4	278200 191950
23	Pollution Incidents to Controlled Waters Property Type: Water Company Sewage: Sewerage Location: 20 Metres Down Stream Of, Ynysafan Bridge Authority: Environment Agency, Welsh Region Pollutant: Light Oil Note: Not Supplied Incident Date: 3rd January 1991 Incident Reference: 2647 Catchment Area: Not Given Receiving Water: Not Given Cause of Incident: Overflow Incident Severity: Category 2 - Significant Incident Positional Accuracy: Located by supplier to within 100m	A9NW (SE)	669	4	278700 192300
24	Pollution Incidents to Controlled Waters Property Type: Water Company Sewage: Treated Water Distribution System Location: PORT TALBOT Authority: Environment Agency, Welsh Region Pollutant: Mud/Clay/Soil Note: Accidental Spillage/Leakage Incident Date: 12th June 1995 Incident Reference: 24513 Catchment Area: Not Given Receiving Water: Not Given Cause of Incident: Burst Incident Severity: Category 3 - Minor Incident Positional Accuracy: Located by supplier to within 100m	A8NE (S)	682	4	278300 192000
24	Pollution Incidents to Controlled Waters Property Type: Water Company Sewage: Treated Water Distribution System Location: Corlannau Weir Authority: Environment Agency, Welsh Region Pollutant: Crude Sewage Note: Accidental Spillage/Leakage Incident Date: 12th June 1995 Incident Reference: 24513 Catchment Area: Not Given Receiving Water: Not Given Cause of Incident: Burst Incident Severity: Category 3 - Minor Incident Positional Accuracy: Located by supplier to within 100m	A8SE (S)	687	4	278300 191995
24	Pollution Incidents to Controlled Waters Property Type: Not Given Location: Alongside Rafan At Ynys Y Gwas, Cwm-Yr-Onnen, PORT TALBOT Authority: Environment Agency, Welsh Region Pollutant: Agricultural: Carcasses Note: Inadequate Design/Capacity Incident Date: 7th March 1996 Incident Reference: 27698 Catchment Area: Not Given Receiving Water: Not Given Cause of Incident: Burst Incident Severity: Category 3 - Minor Incident Positional Accuracy: Located by supplier to within 100m	A8SE (S)	688	4	278305 191995

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
25	Pollution Incidents to Controlled Waters Property Type: Not Given Location: Location Description Not Available Authority: Environment Agency, Welsh Region Pollutant: Unknown Note: Not Supplied Incident Date: 23rd September 1994 Incident Reference: 21185 Catchment Area: Not Given Receiving Water: Not Given Cause of Incident: Unknown Incident Severity: Category 3 - Minor Incident Positional Accuracy: Located by supplier to within 100m	A8SE (S)	710	4	278200 191945
25	Pollution Incidents to Controlled Waters Property Type: Private Sewage (Non-PLC): Other Location: Ynys Y Gwas Authority: Environment Agency, Welsh Region Pollutant: Crude Sewage Note: Poor Operational Practise Incident Date: 18th February 1991 Incident Reference: 2649 Catchment Area: Not Given Receiving Water: Not Given Cause of Incident: Spillage Incident Severity: Category 2 - Significant Incident Positional Accuracy: Located by supplier to within 100m	A8SE (S)	755	4	278200 191900
25	Pollution Incidents to Controlled Waters Property Type: Process Location: Location Description Not Available Authority: Environment Agency, Welsh Region Pollutant: Sewage - Treated Effluent Note: Poor Operational Practise Incident Date: 16th March 1995 Incident Reference: 23258 Catchment Area: Not Given Receiving Water: Not Given Cause of Incident: Direct Discharge Incident Severity: Category 3 - Minor Incident Positional Accuracy: Located by supplier to within 100m	A8SE (S)	759	4	278200 191895
25	Pollution Incidents to Controlled Waters Property Type: Not Given Location: Ynysygwas, Cwmafan, PORT TALBOT Authority: Environment Agency, Welsh Region Pollutant: Crude Sewage Note: Accidental Spillage/Leakage Incident Date: 22nd February 1996 Incident Reference: 27418 Catchment Area: Not Given Receiving Water: Not Given Cause of Incident: Burst Incident Severity: Category 3 - Minor Incident Positional Accuracy: Located by supplier to within 100m	A8SE (S)	760	4	278205 191895
26	Pollution Incidents to Controlled Waters Property Type: Water Company Sewage: Storm Overflow Location: Waunafan, Barretts, Site Cwmafan Authority: Environment Agency, Welsh Region Pollutant: Agricultural: Carcasses Note: Blocked Sewer Incident Date: 29th April 1992 Incident Reference: 4441 Catchment Area: Not Given Receiving Water: Not Given Cause of Incident: Overflow Incident Severity: Category 2 - Significant Incident Positional Accuracy: Located by supplier to within 100m	A14SE (E)	710	4	278800 192400
26	Pollution Incidents to Controlled Waters Property Type: Other Location: Tymian Street, CWMAFAN Authority: Environment Agency, Welsh Region Pollutant: Crude Sewage Note: Deliberate Act Incident Date: 14th June 1992 Incident Reference: 4798 Catchment Area: Not Given Receiving Water: Not Given Cause of Incident: Direct Discharge Incident Severity: Category 2 - Significant Incident Positional Accuracy: Located by supplier to within 100m	A14SE (E)	712	4	278800 192395

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
27	Pollution Incidents to Controlled Waters Property Type: Water Company Sewage: Storm Overflow Location: Opposite The, Waun Club Authority: Environment Agency, Welsh Region Pollutant: Crude Sewage Note: Blocked Sewer Incident Date: 27th March 1996 Incident Reference: 27701 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	A9NE (SE)	754	4	278800 192300
27	Pollution Incidents to Controlled Waters Property Type: Not Given Location: Gwaun Afan, Behind Gaerwen Arms Authority: Environment Agency, Welsh Region Pollutant: Farm Effluent/Slurry Note: Blocked Sewer Incident Date: 2nd July 1996 Incident Reference: 29466 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	A9NE (SE)	757	4	278800 192295
27	Pollution Incidents to Controlled Waters Property Type: Not Given Location: Opposite The Waun Club, CWMAFAN Authority: Environment Agency, Welsh Region Pollutant: Crude Sewage Note: Blocked Sewer Incident Date: 27th March 1996 Incident Reference: 27701 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	A9NE (SE)	759	4	278805 192300
27	Pollution Incidents to Controlled Waters Property Type: Not Given Location: Opposite The Watertonie Authority: Environment Agency, Welsh Region Pollutant: Crude Sewage Note: Blocked Sewer Incident Date: 27th March 1996 Incident Reference: 27701 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	A9NE (SE)	761	4	278805 192295
28	Pollution Incidents to Controlled Waters Property Type: Not Given Location: Gwaun Afan Cso, CWMAFAN Authority: Environment Agency, Welsh Region Pollutant: Miscellaneous - Fire water / Foam Note: Blocked Sewer Incident Date: 26th September 1996 Incident Reference: 30083 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	A14SE (SE)	762	4	278840 192360
28	Pollution Incidents to Controlled Waters Property Type: Not Given Location: Crude Sewage Overflow Near Footbridge At, Rear Of Barrat Housing Estate, CWMAFAN Authority: Environment Agency, Welsh Region Pollutant: Crude Sewage Note: River Afan; Overflow Incident Date: 5th December 1997 Incident Reference: 34342 Catchment Area: Not Given Receiving Water: Not Given Cause of Incident: Blocked Sewer Incident Severity: Category 3 - Minor Incident Positional Accuracy: Located by supplier to within 100m	A14SE (SE)	765	4	278840 192355

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
29	Pollution Incidents to Controlled Waters Property Type: Not Given Location: Up Stream Of From Scots, Contractors Authority: Environment Agency, Welsh Region Pollutant: Crude Sewage Note: Not Supplied Incident Date: 27th August 1991 Incident Reference: 1413 Catchment Area: Not Given Receiving Water: Not Given Cause of Incident: Unknown Incident Severity: Category 2 - Significant Incident Positional Accuracy: Located by supplier to within 100m	A14NE (E)	765	4	278900 192800
30	Pollution Incidents to Controlled Waters Property Type: Not Given Location: A4107 Top Road, Opposite Sawmills Authority: Environment Agency, Welsh Region Pollutant: Oils - Diesel (Including Agricultural) Note: Unnamed Ditch Near 'Western Log Saw Mills'; Run-Off Incident Date: 3rd February 1998 Incident Reference: 34731 Catchment Area: Not Given Receiving Water: Not Given Cause of Incident: Weather Incident Severity: Category 3 - Minor Incident Positional Accuracy: Located by supplier to within 100m	A9NW (SE)	799	4	278700 192100
31	Pollution Incidents to Controlled Waters Property Type: Not Given Location: Gwaun Afan Authority: Environment Agency, Welsh Region Pollutant: Sewage Debris/Litter Note: River Afan; Overflow Incident Date: 19th September 1997 Incident Reference: 33620 Catchment Area: Not Given Receiving Water: Not Given Cause of Incident: Blocked Sewer Incident Severity: Category 3 - Minor Incident Positional Accuracy: Located by supplier to within 100m	A8SW (S)	876	4	277825 191805
31	Pollution Incidents to Controlled Waters Property Type: Not Given Location: Gwaun Afan Authority: Environment Agency, Welsh Region Pollutant: Crude Sewage Note: River Afan; Overflow Incident Date: 19th September 1997 Incident Reference: 33620 Catchment Area: Not Given Receiving Water: Not Given Cause of Incident: Blocked Sewer Incident Severity: Category 3 - Minor Incident Positional Accuracy: Located by supplier to within 100m	A8SW (S)	878	4	277820 191805
31	Pollution Incidents to Controlled Waters Property Type: Not Given Location: Britannia Inn, CWMAFAN Authority: Environment Agency, Welsh Region Pollutant: Crude Sewage Note: River Afan; Overflow Incident Date: 6th May 1998 Incident Reference: 35535 Catchment Area: Not Given Receiving Water: Not Given Cause of Incident: Blocked Sewer Incident Severity: Category 3 - Minor Incident Positional Accuracy: Located by supplier to within 100m	A8SW (S)	889	4	277800 191800
32	Pollution Incidents to Controlled Waters Property Type: Not Given Location: Hope Road Authority: Environment Agency, Welsh Region Pollutant: Mud/Clay/Soil Note: Poor Management Control Incident Date: 17th December 1996 Incident Reference: 30745 Catchment Area: Not Given Receiving Water: Not Given Cause of Incident: Runoff Incident Severity: Category 3 - Minor Incident Positional Accuracy: Located by supplier to within 100m	A8SE (S)	904	4	278400 191800

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
33	Pollution Incidents to Controlled Waters Property Type: Not Given Location: Below Britannia Inn, CWMAFAN Authority: Environment Agency, Welsh Region Pollutant: Crude Sewage Note: Blockage Incident Date: 15th February 1997 Incident Reference: 31393 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	A7SE (SW)	925	4	277700 191800
33	Pollution Incidents to Controlled Waters Property Type: Not Given Location: Pipe Below Britannia Inn Footbridge, CWMAFAN Authority: Environment Agency, Welsh Region Pollutant: Crude Sewage Note: Blockage Incident Date: 15th February 1997 Incident Reference: 31393 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	A7SE (SW)	927	4	277705 191795
33	Pollution Incidents to Controlled Waters Property Type: Not Given Location: Crude Sewage Overflow, Below Britannia Inn Bridge, CWMAFAN Authority: Environment Agency, Welsh Region Pollutant: Crude Sewage Note: Blockage Incident Date: 15th February 1997 Incident Reference: 31393 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	A7SE (SW)	929	4	277700 191795
	River Quality Name: Afan GQA Grade: River Quality A Reach: M4 Motorway - Conf. Pelena Estimated Distance (km): 5.6 Flow Rate: Flow less than 5 cumecs Flow Type: River Year: 2000	A9NW (SE)	640	4	278659 192293
34	Substantiated Pollution Incident Register Authority: Natural Resources Wales Incident Date: 16th March 2004 Incident Reference: 223386 Water Impact: Category 2 - Significant Incident Air Impact: Category 3 - Minor Incident Land Impact: Category 2 - Significant Incident Positional Accuracy: Located by supplier to within 10m Pollutant: Crude Sewage	A8SE (S)	668	2	278179 191984
	Water Abstractions Operator: Ms Powell & Mr Spackman Licence Number: 21/58/61/0043 Permit Version: 1 Location: Unnamed Spring Authority: Environment Agency, Welsh Region Abstraction: Food And Drink: Water Bottling Abstraction Type: Water may be abstracted from a single point Source: Groundwater Daily Rate (m3): Not Supplied Yearly Rate (m3): Not Supplied Details: Not Supplied Authorised Start: 01 January Authorised End: 31 December Permit Start Date: 20th November 2004 Permit End Date: Not Supplied Positional Accuracy: Located by supplier to within 10m	A7SW (SW)	1186	4	277170 191880

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
	Groundwater Vulnerability Map Combined Secondary Bedrock Aquifer - High Vulnerability Classification: High Combined Vulnerability: Productive Bedrock Aquifer, No Superficial Aquifer Pollutant Speed: High Bedrock Flow: Well Connected Fractures Dilution: >550 mm/year Baseflow Index: 40-70% Superficial: <90% Patchiness: <3m Superficial Thickness: No Data Superficial Recharge:	A13SE (NW)	0	2	278105 192672
	Bedrock Aquifer Designations Aquifer Designation: Secondary Aquifer - A	A13SE (NW)	0	2	278105 192672
	Superficial Aquifer Designations No Data Available				
	Extreme Flooding from Rivers or Sea without Defences None				
	Flooding from Rivers or Sea without Defences None				
	Areas Benefiting from Flood Defences None				
	Flood Water Storage Areas None				
	Flood Defences None				
35	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 118.4 Watercourse Level: Not Supplied Permanent: True Watercourse Name: Not Supplied Catchment Name: Afan Primacy: 1	A13NE (N)	5	5	278114 192709
36	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 202.2 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Afan Primacy: 1	A13NW (NW)	36	5	278086 192716
37	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 83.1 Watercourse Level: Not Supplied Permanent: True Watercourse Name: Not Supplied Catchment Name: Afan Primacy: 1	A13NE (NE)	47	5	278179 192723
38	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 12.3 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Afan Primacy: 1	A13NE (NE)	51	5	278188 192710
39	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 14.2 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Afan Primacy: 1	A13NE (E)	57	5	278200 192692

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
40	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 14.2 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Afan Primacy: 1	A13NE (E)	58	5	278197 192703
41	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 619.5 Watercourse Level: Not Supplied Permanent: True Watercourse Name: Not Supplied Catchment Name: Afan Primacy: 1	A13NE (E)	58	5	278202 192687
42	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 22.5 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Afan Primacy: 1	A13NE (N)	80	5	278140 192779
43	OS Water Network Lines Watercourse Form: Lake Watercourse Length: 6.7 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Afan Primacy: 1	A13NE (N)	98	5	278145 192797
44	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 54.8 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Afan Primacy: 1	A13NE (N)	104	5	278148 192803
45	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 47.3 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Afan Primacy: 1	A13SW (W)	144	5	277921 192634
46	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 146.4 Watercourse Level: Not Supplied Permanent: True Watercourse Name: Not Supplied Catchment Name: Afan Primacy: 1	A13SW (W)	146	5	277922 192625
47	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 23.1 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Afan Primacy: 1	A13NW (W)	156	5	277907 192685
48	OS Water Network Lines Watercourse Form: Lake Watercourse Length: 17.5 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Afan Primacy: 1	A13NW (W)	157	5	277905 192674

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
49	OS Water Network Lines Watercourse Form: Lake Watercourse Length: 28.3 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Afan Primacy: 1	A13NW (W)	165	5	277900 192691
50	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 41.7 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Afan Primacy: 1	A13NW (W)	171	5	277900 192718
51	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 18.2 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Afan Primacy: 1	A13NW (W)	189	5	277876 192691
52	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 17.6 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Afan Primacy: 2	A13NW (W)	204	5	277861 192702
53	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 243.3 Watercourse Level: On ground surface Permanent: True Watercourse Name: Nant Cwm-mawr Catchment Name: Afan Primacy: 1	A13SW (SW)	213	5	277941 192480
54	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 539.0 Watercourse Level: On ground surface Permanent: True Watercourse Name: Nant Cwm-mawr Catchment Name: Afan Primacy: 1	A13SW (SW)	213	5	277941 192480
55	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 71.2 Watercourse Level: On ground surface Permanent: True Watercourse Name: Nant Cwm-mawr Catchment Name: Afan Primacy: 1	A12SE (W)	325	5	277741 192618
56	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 131.8 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Afan Primacy: 1	A12NE (W)	358	5	277733 192805
57	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 91.3 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Afan Primacy: 1	A12NE (W)	365	5	277702 192724

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
58	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 25.5 Watercourse Level: On ground surface Permanent: True Watercourse Name: Nant Cwm-mawr Catchment Name: Afan Primacy: 1	A12SE (W)	368	5	277694 192649
59	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 254.8 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Afan Primacy: 1	A12SE (W)	368	5	277694 192649
60	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 6.1 Watercourse Level: Underground Permanent: True Watercourse Name: Not Supplied Catchment Name: Afan Primacy: 1	A12NE (W)	374	5	277703 192768
61	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 17.3 Watercourse Level: Underground Permanent: True Watercourse Name: Nant Cwm-mawr Catchment Name: Afan Primacy: 1	A12SE (W)	379	5	277683 192669
62	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 55.7 Watercourse Level: On ground surface Permanent: True Watercourse Name: Nant Cwm-mawr Catchment Name: Afan Primacy: 1	A12NE (W)	381	5	277682 192690
63	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 3.3 Watercourse Level: On ground surface Permanent: True Watercourse Name: Nant Cwm-mawr Catchment Name: Afan Primacy: 1	A12NE (W)	381	5	277682 192686
64	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 645.7 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Afan Primacy: 1	A14NW (E)	394	5	278510 192830
65	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 245.8 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Afan Primacy: 1	A12NE (W)	415	5	277670 192800
66	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 136.3 Watercourse Level: On ground surface Permanent: True Watercourse Name: Nant Cwm-mawr Catchment Name: Afan Primacy: 1	A12NE (W)	420	5	277647 192728

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
67	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 152.9 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Afan Primacy: 1	A14NW (NE)	447	5	278509 192948
68	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 414.1 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Afan Primacy: 1	A19SW (NE)	496	5	278455 193081
69	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 41.6 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Afan Primacy: 1	A12NE (W)	522	5	277569 192835
70	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 564.4 Watercourse Level: On ground surface Permanent: True Watercourse Name: Nant Cwm-mawr Catchment Name: Afan Primacy: 1	A12NE (W)	522	5	277569 192835
71	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 51.1 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Afan Primacy: 1	A18SE (NE)	550	5	278424 193169
72	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 11.8 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Afan Primacy: 1	A18SE (NE)	550	5	278424 193169
73	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 64.0 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Afan Primacy: 1	A8NE (S)	580	5	278154 192069
74	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 35.1 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Afan Primacy: 1	A8NW (S)	586	5	277884 192091
75	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 10.5 Watercourse Level: Underground Permanent: True Watercourse Name: Not Supplied Catchment Name: Afan Primacy: 1	A12SE (W)	591	5	277478 192573

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
76	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 44.1 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Afan Primacy: 1	A12SE (W)	600	5	277470 192566
77	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 6.7 Watercourse Level: On ground surface Permanent: True Watercourse Name: Nant Cwm-mawr Catchment Name: Afan Primacy: 1	A8NE (S)	609	5	278300 192078
78	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 30.7 Watercourse Level: On ground surface Permanent: True Watercourse Name: Nant Cwm-mawr Catchment Name: Afan Primacy: 1	A8NE (S)	615	5	278302 192072
79	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 20.7 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Afan Primacy: 1	A8NW (SW)	616	5	277851 192072
80	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 229.4 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Afan Primacy: 1	A14NW (E)	616	5	278717 192909
81	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 11.0 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Afan Primacy: 1	A8NE (S)	623	5	278346 192079
82	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 273.4 Watercourse Level: On ground surface Permanent: True Watercourse Name: Afon Afan Catchment Name: Afan Primacy: 1	A8NE (SE)	631	5	278371 192082
83	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 35.9 Watercourse Level: On ground surface Permanent: True Watercourse Name: Afon Afan Catchment Name: Afan Primacy: 1	A8NE (S)	634	5	278352 192070
84	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 3.0 Watercourse Level: Underground Permanent: True Watercourse Name: Not Supplied Catchment Name: Afan Primacy: 1	A12SE (W)	638	5	277430 192577

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
85	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 492.9 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Afan Primacy: 1	A12SW (W)	639	5	277429 192580
86	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 265.7 Watercourse Level: On ground surface Permanent: True Watercourse Name: Afan Afan Catchment Name: Afan Primacy: 1	A8NE (S)	641	5	278321 192051
87	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 221.5 Watercourse Level: On ground surface Permanent: True Watercourse Name: Afan Afan Catchment Name: Afan Primacy: 1	A9NW (SE)	648	5	278682 192313
88	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 4.2 Watercourse Level: On ground surface Permanent: True Watercourse Name: Afan Afan Catchment Name: Afan Primacy: 1	A9NW (SE)	660	5	278709 192331
89	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 103.9 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Afan Primacy: 1	A9NW (SE)	663	5	278713 192333
90	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 323.6 Watercourse Level: On ground surface Permanent: True Watercourse Name: Afan Afan Catchment Name: Afan Primacy: 1	A9NW (SE)	663	5	278713 192333
91	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 45.7 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Afan Primacy: 1	A8NW (SW)	683	5	277779 192030
92	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 67.9 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Afan Primacy: 1	A9NW (SE)	705	5	278610 192146
93	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 160.4 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Afan Primacy: 1	A8SE (S)	712	5	278188 191941

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
94	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 40.0 Watercourse Level: On ground surface Permanent: True Watercourse Name: Nant Ynys-y-gwas Catchment Name: Afan Primacy: 1	A8SW (S)	730	5	278094 191915
95	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 1342.4 Watercourse Level: On ground surface Permanent: True Watercourse Name: Afon Afan Catchment Name: Afan Primacy: 1	A8SW (S)	730	5	278094 191915
96	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 347.4 Watercourse Level: On ground surface Permanent: True Watercourse Name: Afon Afan Catchment Name: Afan Primacy: 1	A14SE (E)	735	5	278878 192611
97	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 4.2 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Afan Primacy: 1	A9NW (SE)	752	5	278770 192255
98	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 43.0 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Afan Primacy: 1	A9NW (SE)	752	5	278770 192256
99	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 31.2 Watercourse Level: On ground surface Permanent: True Watercourse Name: Nant Ynys-y-gwas Catchment Name: Afan Primacy: 1	A8SE (S)	757	5	278122 191888
100	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 78.5 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Afan Primacy: 1	A8SE (S)	760	5	278248 191904
101	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 23.2 Watercourse Level: Underground Permanent: True Watercourse Name: Nant Ynys-y-gwas Catchment Name: Afan Primacy: 1	A8SE (S)	786	5	278129 191860
102	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 440.2 Watercourse Level: On ground surface Permanent: True Watercourse Name: Afon Afan Catchment Name: Afan Primacy: 1	A14NE (E)	788	5	278922 192809

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
103	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 125.8 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Afan Primacy: 1	A9NE (SE)	793	5	278807 192238
104	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 102.5 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Afan Primacy: 1	A9NE (SE)	793	5	278807 192238
105	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 76.4 Watercourse Level: On ground surface Permanent: True Watercourse Name: Nant Ynys-y-gwas Catchment Name: Afan Primacy: 1	A8SE (S)	804	5	278144 191843
106	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 24.7 Watercourse Level: Not Supplied Permanent: True Watercourse Name: Not Supplied Catchment Name: Afan Primacy: 1	A14SE (E)	810	5	278934 192488
107	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 39.4 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Afan Primacy: 1	A14NE (E)	812	5	278906 192959
108	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 61.3 Watercourse Level: Not Supplied Permanent: True Watercourse Name: Not Supplied Catchment Name: Afan Primacy: 1	A8SE (S)	826	5	278304 191851
109	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 64.3 Watercourse Level: Not Supplied Permanent: True Watercourse Name: Not Supplied Catchment Name: Afan Primacy: 1	A8SE (S)	826	5	278304 191851
110	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 53.2 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Afan Primacy: 1	A14SE (E)	830	5	278956 192496
111	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 60.6 Watercourse Level: Not Supplied Permanent: True Watercourse Name: Not Supplied Catchment Name: Afan Primacy: 1	A9NE (SE)	870	5	278821 192126

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
112	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 81.3 Watercourse Level: Not Supplied Permanent: True Watercourse Name: Nant Ynys-y-gwas Catchment Name: Afan Primacy: 1	A8SE (S)	870	5	278186 191781
113	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 41.0 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Afan Primacy: 1	A8SE (S)	871	5	278356 191819
114	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 30.1 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Afan Primacy: 1	A14SE (E)	871	5	279001 192510
115	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 115.5 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Afan Primacy: 1	A14SE (E)	871	5	279001 192510
116	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 58.4 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Afan Primacy: 1	A8SE (S)	875	5	278275 191793
117	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 63.9 Watercourse Level: Not Supplied Permanent: True Watercourse Name: Not Supplied Catchment Name: Afan Primacy: 1	A9NE (SE)	884	5	278887 192194
118	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 102.6 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Afan Primacy: 1	A8SE (S)	897	5	278394 191805
119	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 12.1 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Afan Primacy: 1	A9NE (SE)	910	5	278821 192065
120	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 129.9 Watercourse Level: Not Supplied Permanent: True Watercourse Name: Not Supplied Catchment Name: Afan Primacy: 1	A9NE (SE)	920	5	278824 192054

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
121	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 173.1 Watercourse Level: Not Supplied Permanent: True Watercourse Name: Not Supplied Catchment Name: Afan Primacy: 1	A14SE (E)	926	5	279069 192603
122	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 330.5 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Afan Primacy: 1	A9NE (SE)	948	5	278941 192160
123	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 246.0 Watercourse Level: On ground surface Permanent: True Watercourse Name: Nant Ynys-y-gwas Catchment Name: Afan Primacy: 1	A8SE (S)	951	5	278189 191700
124	OS Water Network Lines Watercourse Form: Lake Watercourse Length: 36.3 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Afan Primacy: 1	A9SW (S)	961	5	278470 191766
125	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 364.0 Watercourse Level: On ground surface Permanent: True Watercourse Name: Nant Cwm-clais Catchment Name: Afan Primacy: 1	A7SW (SW)	980	5	277387 191948
126	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 217.5 Watercourse Level: On ground surface Permanent: True Watercourse Name: Nant Cwm-mawr Catchment Name: Afan Primacy: 1	A17SW (NW)	982	5	277185 193104
127	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 42.2 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Afan Primacy: 1	A9SW (S)	991	5	278470 191733
128	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 59.5 Watercourse Level: On ground surface Permanent: True Watercourse Name: Nant Cwm-clais Catchment Name: Afan Primacy: 1	A7SE (SW)	993	5	277462 191865

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
129	BGS Recorded Landfill Sites Site Name: Eagle Brickworks Location: Off A4107, Glamorgan Authority: British Geological Survey, National Geoscience Information Service Ground Water: Information not available Surface Water: Information not available Geology: N/A Positional Accuracy: Manually positioned to the address or location Boundary Accuracy: Derived	A14SE (E)	924	-	279043 192454
130	Historical Landfill Sites Licence Holder: Not Supplied Location: Cwmavon, Port Talbot Name: Disused Tip off Heol Tabor Operator Location: Not Supplied Boundary Accuracy: As Supplied Provider Reference: EAHLD34825 First Input Date: Not Supplied Last Input Date: Not Supplied Specified Waste: Not Supplied Type: EA Waste Ref: 0 Regis Ref: Not Supplied WRC Ref: Not Supplied BGS Ref: Not Supplied Other Ref: Not Supplied	A13NE (NE)	47	2	278168 192735
131	Historical Landfill Sites Licence Holder: Not Supplied Location: Cwmavon Name: Tip - Disused Operator Location: Not Supplied Boundary Accuracy: As Supplied Provider Reference: EAHLD34811 First Input Date: Not Supplied Last Input Date: Not Supplied Specified Waste: Not Supplied Type: EA Waste Ref: 0 Regis Ref: Not Supplied WRC Ref: Not Supplied BGS Ref: Not Supplied Other Ref: Not Supplied	A13NE (N)	255	2	278114 192954
132	Historical Landfill Sites Licence Holder: Not Supplied Location: Off A4107, Glamorgan Name: Eagle Brickworks Site Operator Location: Not Supplied Boundary Accuracy: As Supplied Provider Reference: EAHLD31276 First Input Date: 4th January 1971 Last Input Date: Not Supplied Specified Waste: Deposited Waste included Industrial and Commercial Waste, and Liquid Sludge Type: EA Waste Ref: 0 Regis Ref: Not Supplied WRC Ref: Not Supplied BGS Ref: 894 Other Ref: Not Supplied	A9NE (E)	911	2	278986 192323
133	Licensed Waste Management Facilities (Locations) Licence Number: FP3898FK Location: G Davies Skip Hire, Brunel Ind Est, Cwmavon, Port Talbot, N P T, Neath Port Talbot, SA12 9DE Operator Name: Glenville Davies Operator Location: Not Supplied Authority: Natural Resources Wales Site Category: Household, Commercial And Industrial Transfer Stations Licence Status: Effective Issued: 1st June 1999 Last Modified: Not Supplied Expires: Not Supplied Suspended: Not Supplied Revoked: Not Supplied Surrendered: Not Supplied IPPC Reference: Not Supplied Positional Accuracy: Located by supplier to within 10m	A7SE (SW)	878	2	277745 191832

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
133	Licensed Waste Management Facilities (Locations) Licence Number: 34157 Location: 1 Brunel Ind Est , Cwmavon, Port Talbot, SA12 9DE Operator Name: Davies Glenville Operator Location: Not Supplied Authority: Natural Resources Wales Site Category: Household, Commercial And Industrial Transfer Stations Licence Status: Modified Issued: 1st June 1999 Last Modified: 23rd August 2012 Expires: Not Supplied Suspended: Not Supplied Revoked: Not Supplied Surrendered: Not Supplied IPPC Reference: Not Supplied Positional Accuracy: Located by supplier to within 10m	A7SE (SW)	878	2	277745 191832
	Local Authority Landfill Coverage Name: Neath Port Talbot County Borough Council - Has supplied landfill data		0	3	278105 192672
134	Potentially Infilled Land (Non-Water) Bearing Ref: NE Use: Unknown Filled Ground (Pit, quarry etc) Date of Mapping: 1996	A13NE (NE)	79	-	278185 192763
135	Potentially Infilled Land (Non-Water) Bearing Ref: E Use: Unknown Filled Ground (Pit, quarry etc) Date of Mapping: 1996	A13NE (E)	83	-	278219 192718
136	Potentially Infilled Land (Non-Water) Bearing Ref: SE Use: Unknown Filled Ground (Pit, quarry etc) Date of Mapping: 1996	A13SE (SE)	90	-	278213 192616
137	Potentially Infilled Land (Non-Water) Bearing Ref: SE Use: Unknown Filled Ground (Pit, quarry etc) Date of Mapping: 1996	A13SE (SE)	220	-	278247 192478
138	Potentially Infilled Land (Non-Water) Bearing Ref: W Use: Unknown Filled Ground (Pit, quarry etc) Date of Mapping: 1996	A12NE (W)	345	-	277719 192703
139	Potentially Infilled Land (Non-Water) Bearing Ref: S Use: Unknown Filled Ground (Pit, quarry etc) Date of Mapping: 1996	A8NW (S)	360	-	278075 192279
140	Potentially Infilled Land (Non-Water) Bearing Ref: W Use: Unknown Filled Ground (Pit, quarry etc) Date of Mapping: 1996	A12NE (W)	595	-	277490 192828
141	Potentially Infilled Land (Non-Water) Bearing Ref: SE Use: Unknown Filled Ground (Pit, quarry etc) Date of Mapping: 1996	A9NW (SE)	728	-	278714 192219
142	Potentially Infilled Land (Non-Water) Bearing Ref: SE Use: Unknown Filled Ground (Pit, quarry etc) Date of Mapping: 1996	A9NW (SE)	742	-	278766 192269
143	Potentially Infilled Land (Non-Water) Bearing Ref: E Use: Unknown Filled Ground (Pit, quarry etc) Date of Mapping: 1996	A14NE (E)	822	-	278909 192983
144	Potentially Infilled Land (Non-Water) Bearing Ref: SE Use: Unknown Filled Ground (Pit, quarry etc) Date of Mapping: 1996	A9SW (SE)	846	-	278612 191969
145	Potentially Infilled Land (Non-Water) Bearing Ref: N Use: Unknown Filled Ground (Pit, quarry etc) Date of Mapping: 1996	A18NE (N)	889	-	278324 193568

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
146	Potentially Infilled Land (Non-Water) Bearing Ref: SE Use: Unknown Filled Ground (Pit, quarry etc) Date of Mapping: 1996	A9NE (SE)	901	-	278804 192059
147	Potentially Infilled Land (Non-Water) Bearing Ref: NE Use: Unknown Filled Ground (Pit, quarry etc) Date of Mapping: 1996	A19SE (NE)	947	-	278944 193196
148	Potentially Infilled Land (Water) Use: Unknown Filled Ground (Pond, marsh, river, stream, dock etc) Date of Mapping: 1964	A8NE (S)	357	-	278117 192290
149	Potentially Infilled Land (Water) Use: Unknown Filled Ground (Pond, marsh, river, stream, dock etc) Date of Mapping: 1964	A8NW (S)	620	-	277857 192065
150	Potentially Infilled Land (Water) Use: Unknown Filled Ground (Pond, marsh, river, stream, dock etc) Date of Mapping: 1952	A8SE (S)	723	-	278245 191942
151	Potentially Infilled Land (Water) Use: Unknown Filled Ground (Pond, marsh, river, stream, dock etc) Date of Mapping: 1952	A8SE (S)	798	-	278267 191869
152	Potentially Infilled Land (Water) Use: Unknown Filled Ground (Pond, marsh, river, stream, dock etc) Date of Mapping: 1921	A9NE (SE)	894	-	278834 192105
153	Potentially Infilled Land (Water) Use: Unknown Filled Ground (Pond, marsh, river, stream, dock etc) Date of Mapping: 1921	A8SE (S)	902	-	278406 191804
154	Registered Landfill Sites Licence Holder: K J Collier Licence Reference: 1/88 Site Location: Cwmbont 1 & 2 (Western Logs Ltd), Ynysygwas, Cwmafan, Port Talbot, West Glamorgan Licence Easting: 278800 Licence Northing: 192000 Operator Location: Ynysallan Farm, Llansamlet, Swansea, West Glamorgan Authority: Environment Agency Wales, South West Area Site Category: Landfill Max Input Rate: Undefined Waste Source: No known restriction on source of waste Restrictions: Status: Licence lapsed/cancelled/defunct/not applicable/surrenderedCancelled Dated: 1st June 1988 Preceded By: Not Given Licence: Superseded By: Not Given Licence: Positional Accuracy: Manually positioned to the road within the address or location Boundary Accuracy: Not Applicable Authorised Waste: Builders Rubble, Stone, Bricks, Mortar Prohibited Waste: Topsoil/Subsoil, Putrescible Materials	A9NW (SE)	690	4	278620 192174

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
155	Registered Waste Transfer Sites Licence Holder: G Davies - G Davies Skip Hire Licence Reference: SWW 174L Site Location: 1 Brunel Industrial Estate, Cwmavon, PORT TALBOT, West Glamorgan, SA12 9DB Operator Location: 1 Brunel Industrial Estate, Cwmavon, PORT TALBOT, West Glamorgan, SA12 9DB Authority: Environment Agency Wales, South West Area Site Category: Transfer Max Input Rate: Small (Equal to or greater than 10,000 and less than 25,000 tonnes per year) Waste Source: No known restriction on source of waste Restrictions: Licence Status: Operational as far as is knownOperational Dated: 1st June 1999 Preceded By: Not Given Licence: Superseded By: Not Given Licence: Positional Accuracy: Manually positioned to the address or location Boundary Quality: Not Supplied Authorised Waste: Construction/Demolition/Building Wastes, Stone Inert Waste Scrap Metal Timber,Paper, Cardboard, Plastics Prohibited Waste: Household Degradable Waste Liquid Wastes Powders Sludge Wastes Spec.Waste (Epa'90:S62/1996 Regs) Waste N.O.S.	A7SE (S)	905	4	277750 191800

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
	BGS 1:625,000 Solid Geology Description: Pennine Middle Coal Measures Formation And South Wales Middle Coal Measures Formation (Undifferentiated)	A13SE (NW)	0	1	278105 192672
	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: 30 - 45 mg/kg Concentration:	A13SE (NW)	0	1	278105 192672
	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:	A13SE (S)	109	1	278130 192547
	BGS Estimated Soil Chemistry Source: British Geological Survey, National Geoscience Information Service Soil Sample Type: Sediment Arsenic: <15 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:	A13SW (S)	222	1	278007 192434
	BGS Estimated Soil Chemistry Source: British Geological Survey, National Geoscience Information Service Soil Sample Type: Sediment Arsenic: 15 - 25 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:	A13SW (SW)	224	1	278000 192434
	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:	A13SW (S)	245	1	278000 192411
	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:	A13SW (SW)	286	1	277888 192430

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 15 - 30 mg/kg Concentration:	A14NW (E)	587	1	278714 192822
	BGS Estimated Soil Chemistry Source: British Geological Survey, National Geoscience Information Service Soil Sample Type: Sediment Arsenic 15 - 25 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:	A8NE (S)	595	1	278316 192098
	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:	A18SE (N)	608	1	278173 193306
	BGS Estimated Soil Chemistry Source: British Geological Survey, National Geoscience Information Service Soil Sample Type: Sediment Arsenic <15 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:	A8NE (S)	631	1	278352 192073
	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 - 200 mg/kg Nickel 15 - 30 mg/kg Concentration:	A8NE (S)	644	1	278105 192000
	BGS Estimated Soil Chemistry Source: British Geological Survey, National Geoscience Information Service Soil Sample Type: Sediment Arsenic 15 - 25 mg/kg Concentration: Cadmium <1.8 mg/kg Concentration: Chromium 60 - 90 mg/kg Concentration: Lead Concentration: 100 - 200 mg/kg Nickel 30 - 45 mg/kg Concentration:	A8NE (S)	650	1	278163 192000

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 <15 mg/kg Concentration: Cadmium <1.8 mg/kg Concentration: Chromium 60 - 90 mg/kg Concentration: Lead Concentration: 100 - 200 mg/kg Nickel 15 - 30 mg/kg Concentration:	A8NE (S)	661	1	278222 192000
	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:	A8NE (S)	686	1	278353 192015
	BGS Estimated Soil Chemistry Source: British Geological Survey, National Geoscience Information Service Soil Sample Type: Sediment Arsenic 15 - 25 mg/kg Concentration: Cadmium <1.8 mg/kg Concentration: Chromium 60 - 90 mg/kg Concentration: Lead Concentration: 100 - 200 mg/kg Nickel 15 - 30 mg/kg Concentration:	A8NE (S)	688	1	278318 192000
	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:	A14NE (E)	702	1	278818 192876
	BGS Estimated Soil Chemistry Source: British Geological Survey, National Geoscience Information Service Soil Sample Type: Sediment Arsenic 15 - 25 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:	A9NW (SE)	757	1	278739 192206
	BGS Estimated Soil Chemistry Source: British Geological Survey, National Geoscience Information Service Soil Sample Type: Sediment Arsenic 15 - 25 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:	A9NW (SE)	763	1	278500 192000

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: 15 - 25 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:	A8SW (S)	778	1	278000 191870
	BGS Estimated Soil Chemistry Source: British Geological Survey, National Geoscience Information Service Soil Sample Type: Sediment Arsenic: 15 - 25 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:	A14NE (E)	779	1	278898 192877
	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:	A12NW (W)	787	1	277333 192960
	BGS Estimated Soil Chemistry Source: British Geological Survey, National Geoscience Information Service Soil Sample Type: Sediment Arsenic: <15 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:	A9SW (SE)	788	1	278500 191971
	BGS Estimated Soil Chemistry Source: British Geological Survey, National Geoscience Information Service Soil Sample Type: Sediment Arsenic: <15 mg/kg Concentration: Cadmium: <1.8 mg/kg Concentration: Chromium: 60 - 90 mg/kg Concentration: Lead Concentration: 100 - 200 mg/kg Nickel: 15 - 30 mg/kg Concentration:	A9SW (SE)	788	1	278500 191971
	BGS Estimated Soil Chemistry Source: British Geological Survey, National Geoscience Information Service Soil Sample Type: Sediment Arsenic: <15 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:	A9NE (SE)	800	1	278783 192191

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 15 - 30 mg/kg Concentration:	A12NW (NW)	805	1	277331 193000
	BGS Estimated Soil Chemistry Source: British Geological Survey, National Geoscience Information Service Soil Sample Type: Sediment Arsenic 15 - 25 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:	A8SW (S)	837	1	278000 191811
	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)	844	1	277256 192913
	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 - 200 mg/kg Nickel 30 - 45 mg/kg Concentration:	A8SE (S)	846	1	278121 191799
	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 - 200 mg/kg Nickel 15 - 30 mg/kg Concentration:	A8SE (S)	846	1	278171 191803
	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 30 - 45 mg/kg Concentration:	A8SW (S)	864	1	278000 191784

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 - 200 mg/kg Nickel 15 - 30 mg/kg Concentration:	A8SE (S)	877	1	278395 191827
	BGS Estimated Soil Chemistry Source: British Geological Survey, National Geoscience Information Service Soil Sample Type: Sediment Arsenic 15 - 25 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:	A9SW (SE)	883	1	278500 191863
	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 - 200 mg/kg Nickel 15 - 30 mg/kg Concentration:	A9SW (SE)	897	1	278476 191837
	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:	A9SW (SE)	903	1	278500 191842
	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 30 - 45 mg/kg Concentration:	A9SW (SE)	907	1	278519 191846
	BGS Estimated Soil Chemistry Source: British Geological Survey, National Geoscience Information Service Soil Sample Type: Sediment Arsenic 15 - 25 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:	A7SE (S)	922	1	277758 191779

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 15 - 30 mg/kg Concentration:	A9SW (SE)	923	1	278500 191820
	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:	A14NE (E)	933	1	279028 192980
	BGS Estimated Soil Chemistry Source: British Geological Survey, National Geoscience Information Service Soil Sample Type: Sediment Arsenic 15 - 25 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:	A9NE (SE)	946	1	278969 192209
	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:	A7SE (SW)	949	1	277682 191781
	BGS Estimated Soil Chemistry Source: British Geological Survey, National Geoscience Information Service Soil Sample Type: Sediment Arsenic 15 - 25 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:	A7SE (SW)	959	1	277652 191785
	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:	A9SW (SE)	971	1	278500 191767

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: 15 - 25 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:	A9NE (SE)	982	1	278959 192125
	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:	A7SE (SW)	990	1	277566 191797
156	BGS Recorded Mineral Sites Site Name: Copper Row Location: Cwmafan, Neath, West Glamorgan Source: British Geological Survey, National Geoscience Information Service Reference: 156572 Type: Underground Status: Ceased Operator: Unknown Operator Operator Location: Not Supplied Periodic Type: Carboniferous Geology: South Wales Middle Coal Measures Formation Commodity: Coal - Deep Positional Accuracy: Located by supplier to within 10m	A13NE (E)	211	1	278349 192731
157	BGS Recorded Mineral Sites Site Name: Tewgoed-Bach Location: Cwmafan, Neath, West Glamorgan Source: British Geological Survey, National Geoscience Information Service Reference: 156571 Type: Underground Status: Ceased Operator: Unknown Operator Operator Location: Not Supplied Periodic Type: Carboniferous Geology: South Wales Middle Coal Measures Formation Commodity: Coal - Deep Positional Accuracy: Located by supplier to within 10m	A13NE (N)	275	1	278124 192974
157	BGS Recorded Mineral Sites Site Name: Tewgoed-Bach Location: Cwmafan, Neath, West Glamorgan Source: British Geological Survey, National Geoscience Information Service Reference: 156570 Type: Underground Status: Ceased Operator: Unknown Operator Operator Location: Not Supplied Periodic Type: Carboniferous Geology: South Wales Middle Coal Measures Formation Commodity: Coal - Deep Positional Accuracy: Located by supplier to within 10m	A13NE (N)	305	1	278158 193003
158	BGS Recorded Mineral Sites Site Name: Meadow Pit Location: Cwmafan, Neath, West Glamorgan Source: British Geological Survey, National Geoscience Information Service Reference: 156617 Type: Underground Status: Ceased Operator: Unknown Operator Operator Location: Not Supplied Periodic Type: Carboniferous Geology: South Wales Middle Coal Measures Formation Commodity: Coal - Deep Positional Accuracy: Located by supplier to within 10m	A13SE (SE)	346	1	278403 192444

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
159	BGS Recorded Mineral Sites Site Name: Cwm-Mawr Location: Cwmafan, Neath, West Glamorgan Source: British Geological Survey, National Geoscience Information Service Reference: 156573 Type: Underground Status: Ceased Operator: Unknown Operator Operator Location: Not Supplied Periodic Type: Carboniferous Geology: South Wales Middle Coal Measures Formation Commodity: Coal - Deep Positional Accuracy: Located by supplier to within 10m	A12NE (W)	520	1	277576 192848
160	BGS Recorded Mineral Sites Site Name: Railmill House Location: Cwmafan, Neath, West Glamorgan Source: British Geological Survey, National Geoscience Information Service Reference: 156575 Type: Underground Status: Ceased Operator: Unknown Operator Operator Location: Not Supplied Periodic Type: Carboniferous Geology: South Wales Middle Coal Measures Formation Commodity: Coal - Deep Positional Accuracy: Located by supplier to within 10m	A9NE (SE)	785	1	278805 192249
161	BGS Recorded Mineral Sites Site Name: Railmill House Location: Cwmafan, Neath, West Glamorgan Source: British Geological Survey, National Geoscience Information Service Reference: 156576 Type: Opencast Status: Ceased Operator: Unknown Operator Operator Location: Not Supplied Periodic Type: Carboniferous Geology: South Wales Middle Coal Measures Formation Commodity: Sandstone Positional Accuracy: Located by supplier to within 10m	A9NE (SE)	821	1	278809 192192
162	BGS Recorded Mineral Sites Site Name: Pen Y Castell Location: Cwmafan, Port Talbot, West Glamorgan Source: British Geological Survey, National Geoscience Information Service Reference: 156646 Type: Opencast Status: Ceased Operator: Unknown Operator Operator Location: Not Supplied Periodic Type: Carboniferous Geology: South Wales Lower Coal Measures Formation Commodity: Sandstone Positional Accuracy: Located by supplier to within 10m	A9SW (SE)	827	1	278583 191973
163	BGS Recorded Mineral Sites Site Name: Tormynydd Location: Port Talbot, Neath Port Talbot Source: British Geological Survey, National Geoscience Information Service Reference: 188773 Type: Underground Status: Ceased Operator: Unknown Operator Operator Location: Not Supplied Periodic Type: Carboniferous Geology: South Wales Middle Coal Measures Formation Commodity: Coal - Deep Positional Accuracy: Located by supplier to within 10m	A19SE (NE)	898	1	278943 193097
164	BGS Recorded Mineral Sites Site Name: Craig Colliery Location: Cwmafan, Neath, West Glamorgan Source: British Geological Survey, National Geoscience Information Service Reference: 156611 Type: Underground Status: Ceased Operator: Unknown Operator Operator Location: Not Supplied Periodic Type: Carboniferous Geology: South Wales Upper Coal Measures Formation Commodity: Coal - Deep Positional Accuracy: Located by supplier to within 10m	A19SE (NE)	919	1	278846 193285

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
165	BGS Recorded Mineral Sites Site Name: Pen Y Castell Location: Cwmafan, Port Talbot, West Glamorgan Source: British Geological Survey, National Geoscience Information Service Reference: 156649 Type: Underground Status: Ceased Operator: Unknown Operator Operator Location: Not Supplied Periodic Type: Carboniferous Geology: South Wales Lower Coal Measures Formation Commodity: Coal - Deep Positional Accuracy: Located by supplier to within 10m	A9NE (SE)	919	1	278813 192044
166	BGS Recorded Mineral Sites Site Name: Tormynydd Location: Port Talbot, Neath Port Talbot Source: British Geological Survey, National Geoscience Information Service Reference: 188774 Type: Underground Status: Ceased Operator: Unknown Operator Operator Location: Not Supplied Periodic Type: Carboniferous Geology: South Wales Middle Coal Measures Formation Commodity: Coal - Deep Positional Accuracy: Located by supplier to within 10m	A19SE (NE)	922	1	278984 193066
167	BGS Recorded Mineral Sites Site Name: Maesmelyn Colliery Location: Cwmafan, Port Talbot, West Glamorgan Source: British Geological Survey, National Geoscience Information Service Reference: 156671 Type: Underground Status: Ceased Operator: Unknown Operator Operator Location: Not Supplied Periodic Type: Carboniferous Geology: South Wales Middle Coal Measures Formation Commodity: Coal - Deep Positional Accuracy: Located by supplier to within 10m	A9NE (SE)	986	1	278984 192156
168	BGS Recorded Mineral Sites Site Name: Railmill House Location: Cwmafan, Neath, West Glamorgan Source: British Geological Survey, National Geoscience Information Service Reference: 156596 Type: Underground Status: Ceased Operator: Unknown Operator Operator Location: Not Supplied Periodic Type: Carboniferous Geology: South Wales Middle Coal Measures Formation Commodity: Coal - Deep Positional Accuracy: Located by supplier to within 10m	A9NE (E)	992	1	279072 192321
	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.	A13SE (NW)	0	6	278105 192672
	Mining Instability Mining Evidence: Inconclusive Coal Mining Source: Ove Arup & Partners Boundary Quality: As Supplied	A13SE (NW)	0	-	278105 192672
	Non Coal Mining Areas of Great Britain Risk: Highly Unlikely Source: British Geological Survey, National Geoscience Information Service	A13SW (S)	216	1	278087 192427
	Potential for Collapsible Ground Stability Hazards Hazard Potential: Very Low Source: British Geological Survey, National Geoscience Information Service	A13SE (NW)	0	1	278105 192672
	Potential for Collapsible Ground Stability Hazards Hazard Potential: No Hazard Source: British Geological Survey, National Geoscience Information Service	A13SE (S)	114	1	278150 192550

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
	Potential for Compressible Ground Stability Hazards Hazard Potential: No Hazard Source: British Geological Survey, National Geoscience Information Service	A13SE (NW)	0	1	278105 192672
	Potential for Compressible Ground Stability Hazards Hazard Potential: Very Low Source: British Geological Survey, National Geoscience Information Service	A13NE (NE)	50	1	278171 192737
	Potential for Compressible Ground Stability Hazards Hazard Potential: Very Low Source: British Geological Survey, National Geoscience Information Service	A13SE (S)	79	1	278127 192579
	Potential for Ground Dissolution Stability Hazards Hazard Potential: No Hazard Source: British Geological Survey, National Geoscience Information Service	A13SE (NW)	0	1	278105 192672
	Potential for Landslide Ground Stability Hazards Hazard Potential: Low Source: British Geological Survey, National Geoscience Information Service	A13SE (NW)	0	1	278105 192672
	Potential for Landslide Ground Stability Hazards Hazard Potential: Very Low Source: British Geological Survey, National Geoscience Information Service	A13SE (E)	11	1	278153 192663
	Potential for Landslide Ground Stability Hazards Hazard Potential: Moderate Source: British Geological Survey, National Geoscience Information Service	A13NE (NE)	34	1	278156 192728
	Potential for Landslide Ground Stability Hazards Hazard Potential: Very Low Source: British Geological Survey, National Geoscience Information Service	A13NE (NE)	50	1	278171 192737
	Potential for Landslide Ground Stability Hazards Hazard Potential: Moderate Source: British Geological Survey, National Geoscience Information Service	A13NW (NW)	54	1	278039 192714
	Potential for Landslide Ground Stability Hazards Hazard Potential: Moderate Source: British Geological Survey, National Geoscience Information Service	A13NE (NE)	105	1	278225 192756
	Potential for Landslide Ground Stability Hazards Hazard Potential: Low Source: British Geological Survey, National Geoscience Information Service	A13NE (N)	180	1	278142 192880
	Potential for Landslide Ground Stability Hazards Hazard Potential: Moderate Source: British Geological Survey, National Geoscience Information Service	A13NE (N)	181	1	278129 192881
	Potential for Landslide Ground Stability Hazards Hazard Potential: Low Source: British Geological Survey, National Geoscience Information Service	A13NW (N)	214	1	278044 192893
	Potential for Running Sand Ground Stability Hazards Hazard Potential: No Hazard Source: British Geological Survey, National Geoscience Information Service	A13SE (NW)	0	1	278105 192672
	Potential for Running Sand Ground Stability Hazards Hazard Potential: Very Low Source: British Geological Survey, National Geoscience Information Service	A13NE (NE)	50	1	278171 192737
	Potential for Running Sand Ground Stability Hazards Hazard Potential: Very Low Source: British Geological Survey, National Geoscience Information Service	A13SE (S)	79	1	278127 192579
	Potential for Shrinking or Swelling Clay Ground Stability Hazards Hazard Potential: Very Low Source: British Geological Survey, National Geoscience Information Service	A13SE (NW)	0	1	278105 192672
	Potential for Shrinking or Swelling Clay Ground Stability Hazards Hazard Potential: No Hazard Source: British Geological Survey, National Geoscience Information Service	A13NE (N)	141	1	278117 192840
	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	A13SE (NW)	0	1	278105 192672
	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	A13SE (NW)	0	1	278105 192672

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
169	Contemporary Trade Directory Entries Name: Gwendraeth Valley Cars Location: Heol Cwmmawr, Drefach, Llanelli, Dyfed, SA14 7AA Classification: Car Dealers - Used Status: Inactive Positional Accuracy: Manually positioned to the road within the address or location	A13SW (SW)	258	-	277844 192526
170	Contemporary Trade Directory Entries Name: Washed4u Location: 41, Heol Jiwbilli, Cwmavon, Port Talbot, West Glamorgan, SA12 9NR Classification: Laundries & Launderettes Status: Active Positional Accuracy: Automatically positioned to the address	A14SW (SE)	419	-	278492 192440
171	Contemporary Trade Directory Entries Name: Brynbryddan Pest Control Services Location: 7, Brynbryddan, Cwmavon, Port Talbot, West Glamorgan, SA12 9LD Classification: Pest & Vermin Control Status: Inactive Positional Accuracy: Automatically positioned to the address	A12SE (SW)	455	-	277735 192345
172	Contemporary Trade Directory Entries Name: A & I Engineering Ltd Location: 49, Depot Road, Cwmavon, Port Talbot, West Glamorgan, SA12 9BA Classification: Precision Engineers Status: Inactive Positional Accuracy: Automatically positioned to the address	A8NE (S)	481	-	278222 192186
173	Contemporary Trade Directory Entries Name: Barber Refrigeration Ltd Location: Hazelwood Terrace, Cwmavon, Port Talbot, SA12 9DW Classification: Refrigerators & Freezers - Servicing & Repairs Status: Active Positional Accuracy: Automatically positioned to the address	A14SW (SE)	539	-	278606 192395
174	Contemporary Trade Directory Entries Name: Sharpes Auto Electrical Co Ltd Location: London Terrace, Cwmavon, Port Talbot, West Glamorgan, SA12 9AN Classification: Garage Services Status: Inactive Positional Accuracy: Automatically positioned to the address	A8SW (S)	734	-	277949 191922
175	Contemporary Trade Directory Entries Name: Wizard Chocolates Location: 53, Pine Valley, Cwmavon, Port Talbot, SA12 9NF Classification: Confectionery Manufacturers Status: Inactive Positional Accuracy: Automatically positioned to the address	A7NE (SW)	756	-	277497 192159
175	Contemporary Trade Directory Entries Name: Wizard Chocolates Location: 53, Pine Valley, Cwmavon, Port Talbot, West Glamorgan, SA12 9NF Classification: Confectionery Manufacturers Status: Inactive Positional Accuracy: Automatically positioned to the address	A7NE (SW)	757	-	277497 192159
176	Contemporary Trade Directory Entries Name: Cwmavon Animal Feed Location: 15, Cefn Coed Road, Cwmavon, Port Talbot, SA12 9LR Classification: Pet Foods & Animal Feeds Status: Inactive Positional Accuracy: Automatically positioned to the address	A7NW (SW)	760	-	277384 192320
177	Contemporary Trade Directory Entries Name: Boiler Maintenance Services Location: 8, Ynys y Gwas, Cwmavon, Port Talbot, West Glamorgan, SA12 9AB Classification: Boilers - Servicing, Replacements & Repairs Status: Inactive Positional Accuracy: Automatically positioned to the address	A8SE (S)	774	-	278201 191880
178	Contemporary Trade Directory Entries Name: Ibis Packaging Location: Craven Lodge, Cwmavon Road, Cwmavon, Port Talbot, West Glamorgan, SA12 9BT Classification: Packaging & Wrapping Equipment & Supplies Status: Inactive Positional Accuracy: Automatically positioned to the address	A7SE (SW)	774	-	277676 191982

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
179	Contemporary Trade Directory Entries Name: The Private Cleaning Co Location: 71, Brynglas Avenue, Cwmavon, Port Talbot, West Glamorgan, SA12 9LF Classification: Cleaning Services - Domestic Status: Inactive Positional Accuracy: Automatically positioned to the address	A7NW (SW)	778	-	277403 192251
180	Contemporary Trade Directory Entries Name: Apex Cleaning & Pest Control Location: 26, Ynys-Lee, Cwmavon, Port Talbot, SA12 9AQ Classification: Commercial Cleaning Services Status: Active Positional Accuracy: Automatically positioned to the address	A8SE (SE)	806	-	278436 191919
181	Contemporary Trade Directory Entries Name: Richard Morris Car Sales Ltd Location: Unit 1/2, Brunel Industrial Estate, Cwmavon, Port Talbot, West Glamorgan, SA12 9DE Classification: Car Dealers - Used Status: Inactive Positional Accuracy: Automatically positioned to the address	A7SE (SW)	912	-	277712 191808
181	Contemporary Trade Directory Entries Name: Tidy Tyres Location: Unit 2, Brunel Industrial Estate, Cwmavon, Port Talbot, SA12 9DE Classification: Tyre Dealers Status: Active Positional Accuracy: Automatically positioned to the address	A7SE (SW)	921	-	277695 191806
182	Contemporary Trade Directory Entries Name: Fibreglass Roofing Supplies Ltd Location: 37a, Pine Valley, Cwmavon, Port Talbot, SA12 9NE Classification: Glass Fibre Moulding, Materials & Manufacturers Status: Active Positional Accuracy: Automatically positioned to the address	A7NW (SW)	917	-	277422 192003
183	Contemporary Trade Directory Entries Name: Millennium Motors Location: Unit 3, Brunel Industrial Estate, Cwmavon, PORT TALBOT, West Glamorgan, SA12 9DE Classification: Garage Services Status: Inactive Positional Accuracy: Automatically positioned to the address	A7SE (SW)	931	-	277708 191790
183	Contemporary Trade Directory Entries Name: K D Autos Location: Unit 3 Brunel Industrial Estate, Cwmavon, Port Talbot, West Glamorgan, SA12 9DE Classification: Mot Testing Centres Status: Active Positional Accuracy: Automatically positioned to the address	A7SE (SW)	931	-	277708 191790
183	Contemporary Trade Directory Entries Name: K D Autos Swansea Location: Unit 3 Brunel Industrial Estate, Cwmavon, Port Talbot, West Glamorgan, SA12 9DE Classification: Garage Services Status: Active Positional Accuracy: Automatically positioned to the address	A7SE (SW)	931	-	277708 191790
183	Contemporary Trade Directory Entries Name: R S Body Repair Centre Location: Unit 4, Brunel Industrial Estate, Cwmavon, Port Talbot, SA12 9DE Classification: Car Body Repairs Status: Inactive Positional Accuracy: Automatically positioned to the address	A7SE (SW)	956	-	277687 191771
183	Contemporary Trade Directory Entries Name: R & S Repair Location: Unit 4, Brunel Industrial Estate, Cwmavon, Port Talbot, SA12 9DE Classification: Car Body Repairs Status: Inactive Positional Accuracy: Automatically positioned to the address	A7SE (SW)	956	-	277687 191771
183	Contemporary Trade Directory Entries Name: Allen & Co Ltd Location: Unit 5/6, Brunel Industrial Estate, Cwmavon, Port Talbot, West Glamorgan, SA12 9DE Classification: Window Frame Manufacturers Status: Inactive Positional Accuracy: Automatically positioned to the address	A7SE (SW)	972	-	277674 191760

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
183	Contemporary Trade Directory Entries Name: Allan Ltd & Co Location: Unit 5, Brunel Industrial Estate, Cwmavon, Port Talbot, SA12 9DE Classification: Industrial Services Status: Inactive Positional Accuracy: Automatically positioned to the address	A7SE (SW)	972	-	277674 191760
184	Fuel Station Entries Name: Ageglory Service Station Location: Cunard Row, Cwmafon, Port Talbot, Neath Port Talbot, SA12 9ED Brand: Obsolete Premises Type: Not Applicable Status: Obsolete Positional Accuracy: Manually positioned to the road within the address or location	A14SW (SE)	491	-	278591 192468
185	Points of Interest - Commercial Services Name: Brynbryddan Pest Control Services Location: 7 Brynbryddan, Cwmavon, Port Talbot, SA12 9LD Category: Contract Services Class Code: Pest and Vermin Control Positional Accuracy: Positioned to address or location	A12SE (SW)	455	7	277735 192344
186	Points of Interest - Commercial Services Name: Sharpes Auto Electrical Co Ltd Location: London Terrace, Cwmavon, Port Talbot, SA12 9AN Category: Repair and Servicing Class Code: Vehicle Repair, Testing and Servicing Positional Accuracy: Positioned to address or location	A8SW (S)	734	7	277949 191922
186	Points of Interest - Commercial Services Name: Sharpes Auto Electrical Co Ltd Location: London Terrace, Cwmavon, Port Talbot, SA12 9AN Category: Repair and Servicing Class Code: Vehicle Repair, Testing and Servicing Positional Accuracy: Positioned to address or location	A8SW (S)	734	7	277949 191922
187	Points of Interest - Commercial Services Name: K D Autos Location: Unit 3 Brunel Industrial Estate, Cwmavon, Port Talbot, SA12 9DE Category: Repair and Servicing Class Code: Vehicle Repair, Testing and Servicing Positional Accuracy: Positioned to address or location	A7SE (SW)	931	7	277708 191790
187	Points of Interest - Commercial Services Name: K D Autos Swansea Location: Unit 3 Brunel Industrial Estate, Cwmavon, Port Talbot, SA12 9DE Category: Repair and Servicing Class Code: Vehicle Repair, Testing and Servicing Positional Accuracy: Positioned to address or location	A7SE (SW)	931	7	277708 191790
187	Points of Interest - Commercial Services Name: Fast Wax Detailing Location: UNIT 3, BRUNEL INDUSTRIAL ESTATE, Cwmavon, Port Talbot, SA12 9DE Category: Personal, Consumer and other Services Class Code: Vehicle Cleaning Services Positional Accuracy: Positioned to address or location	A7SE (SW)	931	7	277708 191790
187	Points of Interest - Commercial Services Name: Millennium Motors Location: Unit 3, Brunel Industrial Estate, Cwmavon, Port Talbot, SA12 9DE Category: Repair and Servicing Class Code: Vehicle Repair, Testing and Servicing Positional Accuracy: Positioned to address or location	A7SE (SW)	931	7	277708 191790
187	Points of Interest - Commercial Services Name: Millennium Motors Location: Unit 3, Brunel Industrial Estate, Cwmavon, Port Talbot, SA12 9DE Category: Repair and Servicing Class Code: Vehicle Repair, Testing and Servicing Positional Accuracy: Positioned to address or location	A7SE (SW)	932	7	277708 191789
187	Points of Interest - Commercial Services Name: R & S Repair Location: Unit 4, Brunel Industrial Estate, Cwmavon, Port Talbot, SA12 9DE Category: Repair and Servicing Class Code: Vehicle Repair, Testing and Servicing Positional Accuracy: Positioned to address or location	A7SE (SW)	956	7	277687 191771
187	Points of Interest - Commercial Services Name: R S Body Repair Centre Location: Unit 4, Brunel Industrial Estate, Cwmavon, Port Talbot, SA12 9DE Category: Repair and Servicing Class Code: Vehicle Repair, Testing and Servicing Positional Accuracy: Positioned to address or location	A7SE (SW)	956	7	277687 191771

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
188	Points of Interest - Manufacturing and Production Name: Shaft (Disused) Location: SA12 Category: Extractive Industries Class Code: Unspecified Quarries Or Mines Positional Accuracy: Positioned to an adjacent address or location	A14NW (E)	379	7	278509 192783
189	Points of Interest - Manufacturing and Production Name: C R Mortimer & Sons Location: Cwmavon Post Office 5, Tyr Owen Row, Cwmavon, Port Talbot, SA12 9BE Category: Farming Class Code: Livestock Farming Positional Accuracy: Positioned to address or location	A8NW (S)	546	7	277960 192111
190	Points of Interest - Manufacturing and Production Name: Tanks Location: SA12 Category: Industrial Features Class Code: Tanks (Generic) Positional Accuracy: Positioned to an adjacent address or location	A9SE (SE)	984	7	278832 191970
191	Points of Interest - Manufacturing and Production Name: Brunel Industrial Estate Location: SA12 Category: Industrial Features Class Code: Business Parks and Industrial Estates Positional Accuracy: Positioned to an adjacent address or location	A7SE (SW)	989	7	277592 191783
192	Points of Interest - Public Infrastructure Name: Refuse Tip (Disused) Location: SA12 Category: Infrastructure and Facilities Class Code: Refuse Disposal Facilities Positional Accuracy: Positioned to an adjacent address or location	A13NE (NE)	123	7	278183 192814
193	Points of Interest - Public Infrastructure Name: Refuse Tip (Disused) Location: SA12 Category: Infrastructure and Facilities Class Code: Refuse Disposal Facilities Positional Accuracy: Positioned to an adjacent address or location	A13NE (N)	286	7	278142 192985
193	Points of Interest - Public Infrastructure Name: Tip Location: SA12 Category: Infrastructure and Facilities Class Code: Refuse Disposal Facilities Positional Accuracy: Positioned to an adjacent address or location	A18SE (N)	313	7	278138 193012
194	Points of Interest - Public Infrastructure Name: Cwmafan Police Office Location: 60 Depot Road, Cwmafan, Port Talbot, SA12 9BA Category: Central and Local Government Class Code: Police Stations Positional Accuracy: Positioned to address or location	A8NE (S)	505	7	278273 192178
195	Points of Interest - Public Infrastructure Name: Outfall Location: SA12 Category: Infrastructure and Facilities Class Code: Waste Storage, Processing and Disposal Positional Accuracy: Positioned to an adjacent address or location	A8NE (S)	618	7	278347 192085
195	Points of Interest - Public Infrastructure Name: Outfall Location: SA12 Category: Infrastructure and Facilities Class Code: Waste Storage, Processing and Disposal Positional Accuracy: Positioned to an adjacent address or location	A8NE (S)	619	7	278332 192078
196	Points of Interest - Public Infrastructure Name: Weir Location: SA12 Category: Water Class Code: Weirs, Sluices and Dams Positional Accuracy: Positioned to an adjacent address or location	A9NW (SE)	650	7	278674 192297
197	Points of Interest - Public Infrastructure Name: Graveyard Location: Not Supplied Category: Infrastructure and Facilities Class Code: Cemeteries and Crematoria Positional Accuracy: Positioned to an adjacent address or location	A8SW (S)	688	7	277961 191966

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
197	Points of Interest - Public Infrastructure Name: Graveyard Location: SA12 Category: Infrastructure and Facilities Class Code: Cemeteries and Crematoria Positional Accuracy: Positioned to an adjacent address or location	A8SW (S)	689	7	277948 191968
198	Points of Interest - Public Infrastructure Name: Weir Location: SA12 Category: Water Class Code: Weirs, Sluices and Dams Positional Accuracy: Positioned to an adjacent address or location	A14SE (E)	776	7	278906 192519
198	Points of Interest - Public Infrastructure Name: Weir Location: SA12 Category: Water Class Code: Weirs, Sluices and Dams Positional Accuracy: Positioned to an adjacent address or location	A14SE (E)	783	7	278913 192521
199	Points of Interest - Public Infrastructure Name: Weir Location: SA12 Category: Water Class Code: Weirs, Sluices and Dams Positional Accuracy: Positioned to an adjacent address or location	A8SW (S)	816	7	278030 191830
200	Points of Interest - Public Infrastructure Name: Refuse Tip (Disused) Location: SA12 Category: Infrastructure and Facilities Class Code: Refuse Disposal Facilities Positional Accuracy: Positioned to an adjacent address or location	A9NE (SE)	931	7	278983 192267
201	Points of Interest - Public Infrastructure Name: Weir Location: SA12 Category: Water Class Code: Weirs, Sluices and Dams Positional Accuracy: Positioned to an adjacent address or location	A14NE (E)	973	7	279080 192946
201	Points of Interest - Public Infrastructure Name: Weir Location: SA12 Category: Water Class Code: Weirs, Sluices and Dams Positional Accuracy: Positioned to an adjacent address or location	A14NE (E)	979	7	279086 192948
202	Points of Interest - Recreational and Environmental Name: Playground Location: (Hoel-Y-Graig), SA12 Category: Recreational Class Code: Playgrounds Positional Accuracy: Positioned to an adjacent address or location	A13NE (E)	269	7	278395 192779
203	Points of Interest - Recreational and Environmental Name: Skateboard Park Location: (Penllyn), SA12 Category: Recreational Class Code: Playgrounds Positional Accuracy: Positioned to address or location	A8NE (S)	402	7	278160 192251
203	Points of Interest - Recreational and Environmental Name: Playground Location: Not Supplied Category: Recreational Class Code: Playgrounds Positional Accuracy: Positioned to an adjacent address or location	A8NE (S)	440	7	278204 192223
204	Points of Interest - Recreational and Environmental Name: Playground Location: Nr Brynna Road, SA12 Category: Recreational Class Code: Playgrounds Positional Accuracy: Positioned to address or location	A12SE (W)	507	7	277591 192477
204	Points of Interest - Recreational and Environmental Name: Playground Location: Not Supplied Category: Recreational Class Code: Playgrounds Positional Accuracy: Positioned to an adjacent address or location	A12SE (W)	508	7	277592 192471

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
205	Points of Interest - Recreational and Environmental Name: Playground Location: (Cae Copor), SA12 Category: Recreational Class Code: Playgrounds Positional Accuracy: Positioned to address or location	A8SW (SW)	740	7	277777 191968
206	Points of Interest - Recreational and Environmental Name: Playground Location: Not Supplied Category: Recreational Class Code: Playgrounds Positional Accuracy: Positioned to an adjacent address or location	A14NE (E)	782	7	278883 192936
206	Points of Interest - Recreational and Environmental Name: Playground Location: Salem Road, SA12 Category: Recreational Class Code: Playgrounds Positional Accuracy: Positioned to address or location	A14NE (E)	791	7	278891 192940
207	Points of Interest - Recreational and Environmental Name: Playground Location: Not Supplied Category: Recreational Class Code: Playgrounds Positional Accuracy: Positioned to an adjacent address or location	A8SE (S)	853	7	278256 191810
207	Points of Interest - Recreational and Environmental Name: Playground Location: Afan Valley Road, SA12 Category: Recreational Class Code: Playgrounds Positional Accuracy: Positioned to an adjacent address or location	A8SE (S)	855	7	278257 191809
208	Points of Interest - Recreational and Environmental Name: Playground Location: (Ynys-Lee), SA12 Category: Recreational Class Code: Playgrounds Positional Accuracy: Positioned to address or location	A8SE (S)	864	7	278417 191849

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
209	Ancient Woodland Name: Not Supplied Reference: 13958 Area(m ²): 62339.3 Type: Ancient and Semi-Natural Woodland	A7NE (SW)	712	2	277690 192047
210	Ancient Woodland Name: Not Supplied Reference: 13955 Area(m ²): 3347.07 Type: Ancient and Semi-Natural Woodland	A8SE (S)	715	2	278194 191939
211	Ancient Woodland Name: Not Supplied Reference: 40118 Area(m ²): 5283.11 Type: Plantation on Ancient Woodland	A19SW (NE)	739	2	278748 193117
212	Ancient Woodland Name: Not Supplied Reference: 41924 Area(m ²): 3462.95 Type: Plantation on Ancient Woodland	A19SW (NE)	746	2	278755 193117
213	Ancient Woodland Name: Not Supplied Reference: 13960 Area(m ²): 2961.26 Type: Ancient and Semi-Natural Woodland	A12NW (W)	786	2	277281 192744
214	Ancient Woodland Name: Not Supplied Reference: 10082 Area(m ²): 143784.02 Type: Ancient and Semi-Natural Woodland	A19SW (NE)	801	2	278774 193185
215	Ancient Woodland Name: Not Supplied Reference: 13954 Area(m ²): 10223.86 Type: Ancient and Semi-Natural Woodland	A8SW (S)	827	2	278072 191817
216	Ancient Woodland Name: Not Supplied Reference: 18262 Area(m ²): 14746.5 Type: Ancient and Semi-Natural Woodland	A19SW (NE)	836	2	278745 193274
217	Ancient Woodland Name: Not Supplied Reference: 7873 Area(m ²): 4201.83 Type: Ancient and Semi-Natural Woodland	A9SW (SE)	921	2	278525 191834
218	Ancient Woodland Name: Not Supplied Reference: 41090 Area(m ²): 2279.86 Type: Plantation on Ancient Woodland	A8SW (S)	925	2	278010 191722
219	Ancient Woodland Name: Not Supplied Reference: 18260 Area(m ²): 1305.67 Type: Ancient and Semi-Natural Woodland	A19SE (NE)	933	2	278907 193228
220	Ancient Woodland Name: Not Supplied Reference: 13953 Area(m ²): 3146.76 Type: Ancient and Semi-Natural Woodland	A9SW (S)	946	2	278447 191773
221	Ancient Woodland Name: Not Supplied Reference: 40118 Area(m ²): 4616.05 Type: Plantation on Ancient Woodland	A19SE (NE)	970	2	278934 193253
222	Ancient Woodland Name: Not Supplied Reference: 18259 Area(m ²): 4533.79 Type: Ancient and Semi-Natural Woodland	A9NE (SE)	983	2	278966 192133

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
223	Ancient Woodland Name: Not Supplied Reference: 13949 Area(m ²): 14670.54 Type: Ancient and Semi-Natural Woodland	A8SE (S)	989	2	278184 191661
224	Ancient Woodland Name: Not Supplied Reference: 13951 Area(m ²): 5978.64 Type: Ancient and Semi-Natural Woodland	A8SW (S)	995	2	277771 191697
225	Ancient Woodland Name: Not Supplied Reference: 41924 Area(m ²): 70.09 Type: Plantation on Ancient Woodland	A19SE (NE)	997	2	278956 193268
226	Forest Parks Name: Not Given Multiple Area: N Area (m2): 1600081 Source: Forestry Commission	A13NE (NE)	337	8	278276 193007

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 July 2021	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 July 2021	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	June 2021	
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	Annually Annually
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 July 2021	Quarterly Quarterly
Water Abstractions Environment Agency - Welsh Region Natural Resources Wales	July 2021 July 2021	Quarterly Quarterly
Water Industry Act Referrals Natural Resources Wales Environment Agency - Welsh Region	July 2021 October 2017	Quarterly Quarterly
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 2017	Annual Rolling Update
Extreme Flooding from Rivers or Sea without Defences Natural Resources Wales	September 2020	Quarterly
Flooding from Rivers or Sea without Defences Natural Resources Wales	September 2020	Quarterly
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	July 2021	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	Annually

Waste	Version	Update Cycle
BGS Recorded Landfill Sites British Geological Survey - National Geoscience Information Service	November 2002	Not Applicable
Historical Landfill Sites Natural Resources Wales	July 2019	Quarterly
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	July 2021 July 2021	Quarterly Quarterly
Licensed Waste Management Facilities (Locations) Natural Resources Wales Environment Agency Wales - South West Area	April 2021 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	Not Applicable
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	April 2018	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	February 2016 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	Not Applicable
BGS Estimated Soil Chemistry British Geological Survey - National Geoscience Information Service	December 2015	Annually
BGS Recorded Mineral Sites British Geological Survey - National Geoscience Information Service	May 2021	Bi-Annually
CBSCB Compensation District Cheshire Brine Subsidence Compensation Board (CBSCB)	August 2011	As notified
Coal Mining Affected Areas The Coal Authority - Property Searches	March 2014	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	Annually
Potential for Compressible Ground Stability Hazards British Geological Survey - National Geoscience Information Service	January 2019	Annually
Potential for Ground Dissolution Stability Hazards British Geological Survey - National Geoscience Information Service	January 2019	Annually
Potential for Landslide Ground Stability Hazards British Geological Survey - National Geoscience Information Service	January 2019	Annually
Potential for Running Sand Ground Stability Hazards British Geological Survey - National Geoscience Information Service	January 2019	Annually
Potential for Shrinking or Swelling Clay Ground Stability Hazards British Geological Survey - National Geoscience Information Service	January 2019	Annually
Radon Potential - Radon Affected Areas British Geological Survey - National Geoscience Information Service	July 2011	Annually
Radon Potential - Radon Protection Measures British Geological Survey - National Geoscience Information Service	July 2011	Annually
Industrial Land Use	Version	Update Cycle
Contemporary Trade Directory Entries Thomson Directories	July 2021	Quarterly
Fuel Station Entries Catalist Ltd - Experian	June 2021	Quarterly
Gas Pipelines National Grid	May 2021	Annually
Points of Interest - Commercial Services PointX	June 2021	Quarterly
Points of Interest - Education and Health PointX	June 2021	Quarterly
Points of Interest - Manufacturing and Production PointX	June 2021	Quarterly
Points of Interest - Public Infrastructure PointX	June 2021	Quarterly
Points of Interest - Recreational and Environmental PointX	June 2021	Quarterly
Underground Electrical Cables National Grid	May 2021	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	October 2020 October 2020	Quarterly Quarterly
Areas of Unadopted Green Belt Bridgend County Borough Council Neath Port Talbot County Borough Council - Planning Services	October 2020 October 2020	Quarterly Quarterly
Areas of Outstanding Natural Beauty Natural Resources Wales	June 2019	Bi-Annually
Environmentally Sensitive Areas The National Assembly for Wales - GI Services (Department of Planning & Countryside)	January 2017	
Forest Parks Forestry Commission	April 1997	Not Applicable
Local Nature Reserves Bridgend County Borough Council Neath Port Talbot County Borough Council	August 2018 August 2018	Bi-Annually Bi-Annually
Marine Nature Reserves Natural Resources Wales	August 2018	Bi-Annually
National Nature Reserves Natural Resources Wales	July 2019	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 July 2019	Bi-Annually
Ramsar Sites Natural Resources Wales	July 2019	Bi-Annually
Sites of Special Scientific Interest Natural Resources Wales	March 2020	Bi-Annually
Special Areas of Conservation Natural Resources Wales	August 2020	Bi-Annually
Special Protection Areas Natural Resources Wales	August 2018	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	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
4	Environment Agency - National Customer Contact Centre (NCCC) PO Box 544, Templeborough, Rotherham, S60 1BY	Telephone: 03708 506 506 Email: enquiries@environment-agency.gov.uk
5	Ordnance Survey Adanac Drive, Southampton, Hampshire, SO16 0AS	Telephone: 03456 05 05 05 Email: customerservices@ordnancesurvey.co.uk Website: www.ordnancesurvey.gov.uk
6	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
7	PointX 7 Abbey Court, Eagle Way, Sowton, Exeter, Devon, EX2 7HY	Website: www.pointx.co.uk
8	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.

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

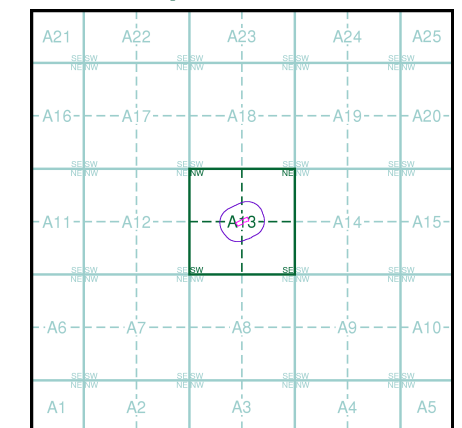


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Historical Mapping & Photography included:

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	1936	5
Glamorganshire	1:10,560	1938 - 1952	6
Historical Aerial Photography	1:10,560	1949	7
Glamorganshire	1:10,560	1951	8
Ordnance Survey Plan	1:10,000	1964	9
Ordnance Survey Plan	1:10,000	1974	10
Ordnance Survey Plan	1:10,000	1980	11
Ordnance Survey Plan	1:10,000	1996	12
10K Raster Mapping	1:10,000	1999	13
10K Raster Mapping	1:10,000	2006	14
VectorMap Local	1:10,000	2021	15

Historical Map - Slice A



Order Details

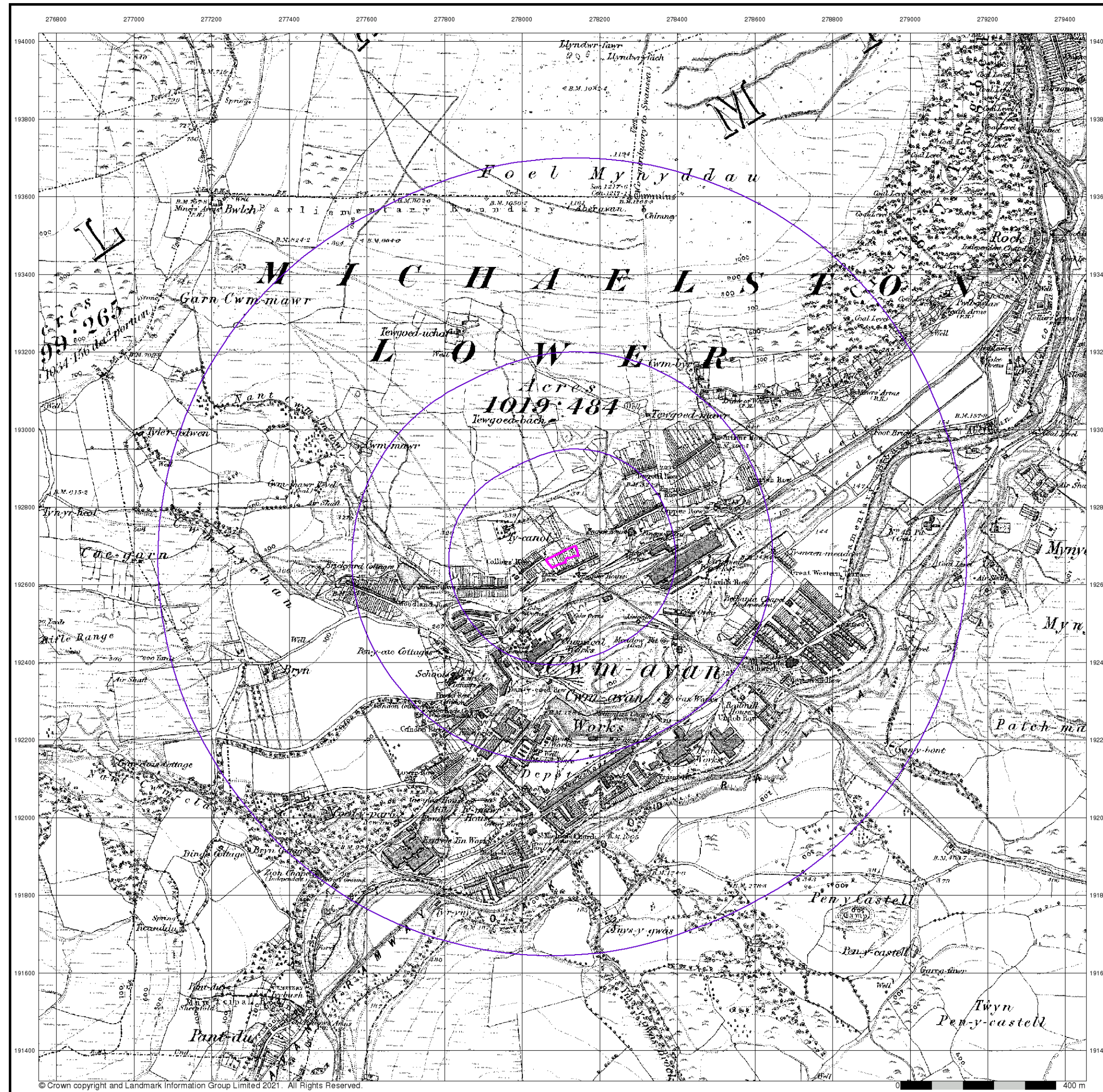
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Customer Ref: 15568
National Grid Reference: 278110, 192670
Slice: A
Site Area (Ha): 0.2
Search Buffer (m): 1000

Site Details

5, Park Row, Cwmavon, PORT TALBOT, SA12 9PW

Landmark
INFORMATION GROUP

Tel: 0844 844 9952
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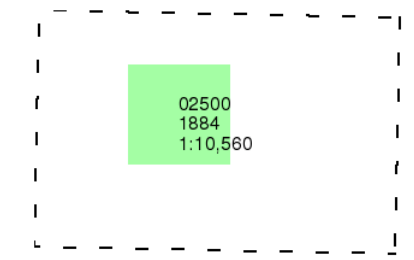
Glamorganshire

Published 1884

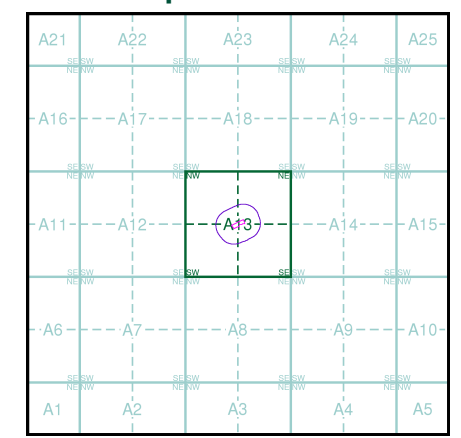
Source map scale - 1:10,560

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)



Historical Map - Slice A



Order Details

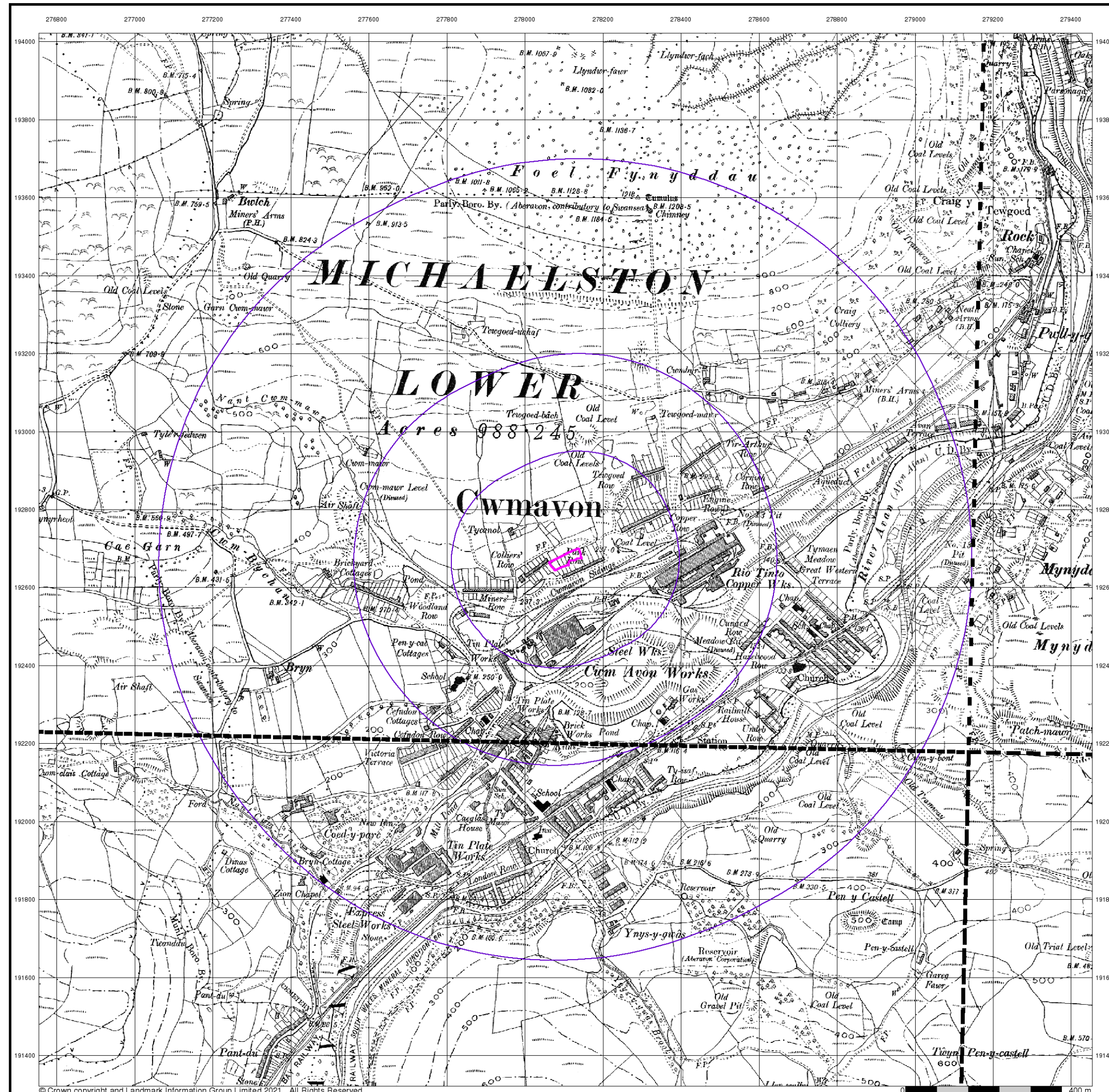
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National Grid Reference: 278110, 192670
Slice: A
Site Area (Ha): 0.2
Search Buffer (m): 1000

Site Details

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Glamorganshire

Published 1900

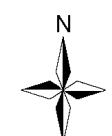
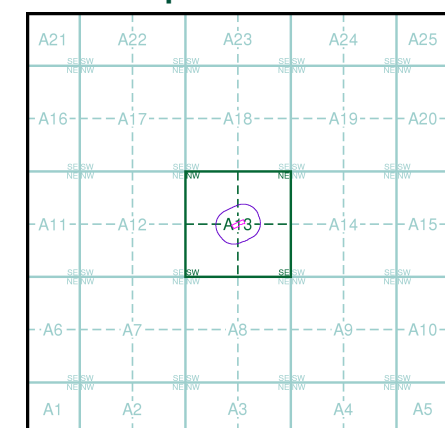
Source map scale - 1:10,560

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)

025NW 1900 1:10,560	025NE 1900 1:10,560
025SW 1900 1:10,560	025SE 1900 1:10,560

Historical Map - Slice A



Order Details

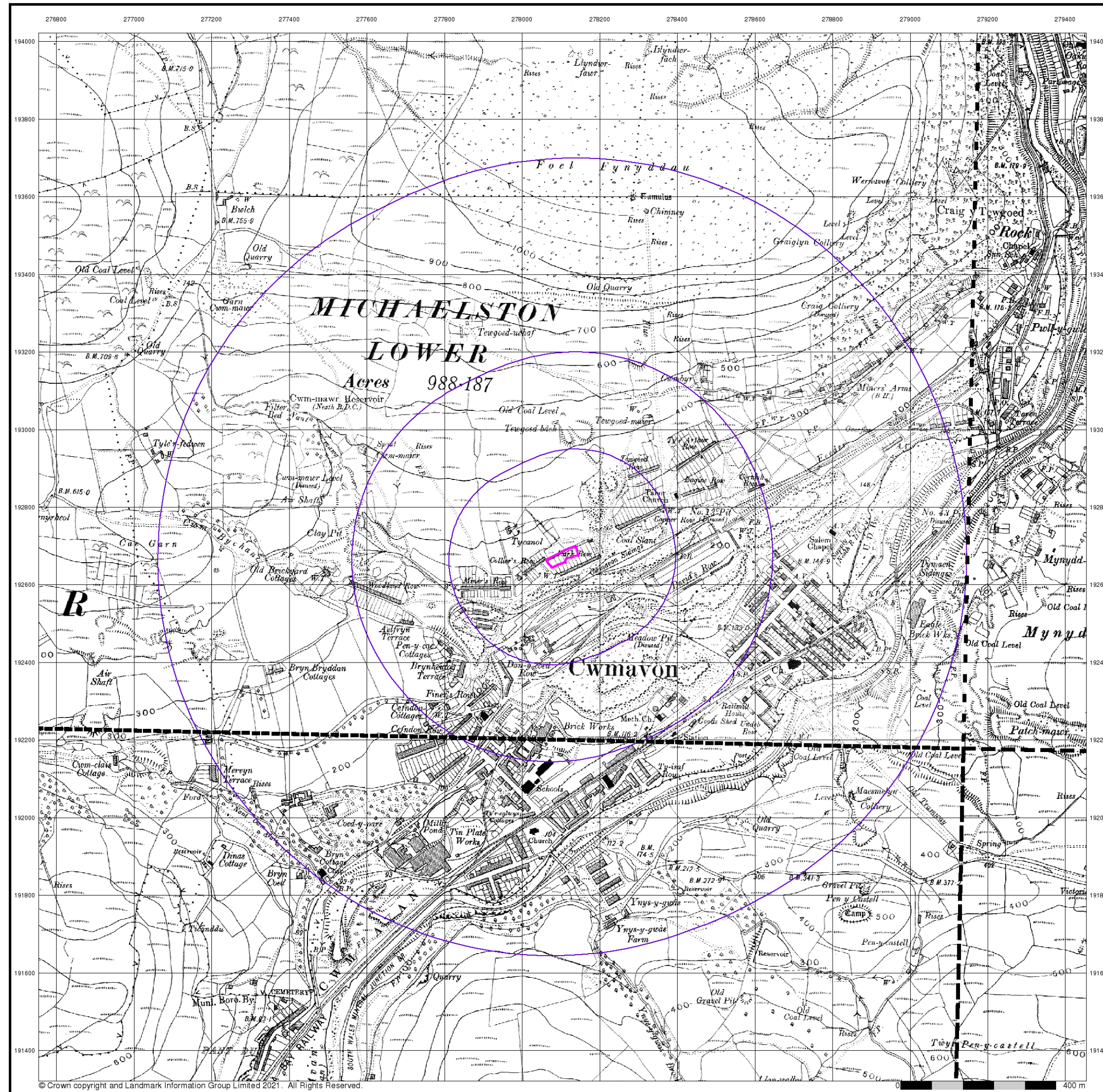
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Customer Ref: 15568
National Grid Reference: 278110, 192670
Slice: A
Site Area (Ha): 0.2
Search Buffer (m): 1000

Site Details

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Geotechnical & Geoenvironmental Specialists

Glamorganshire

Published 1921

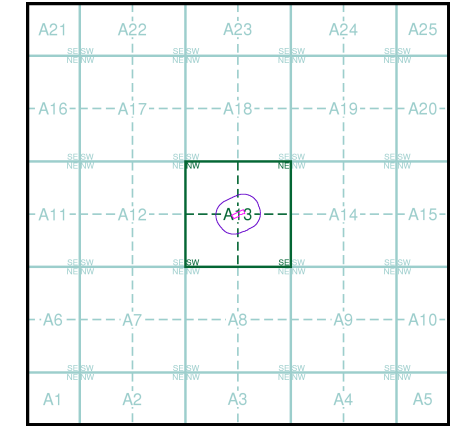
Source map scale - 1:10,560

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)

025NW 1921 1:10,560	025NE 1921 1:10,560
025SW 1921 1:10,560	025SE 1921 1:10,560

Historical Map - Slice A



Order Details

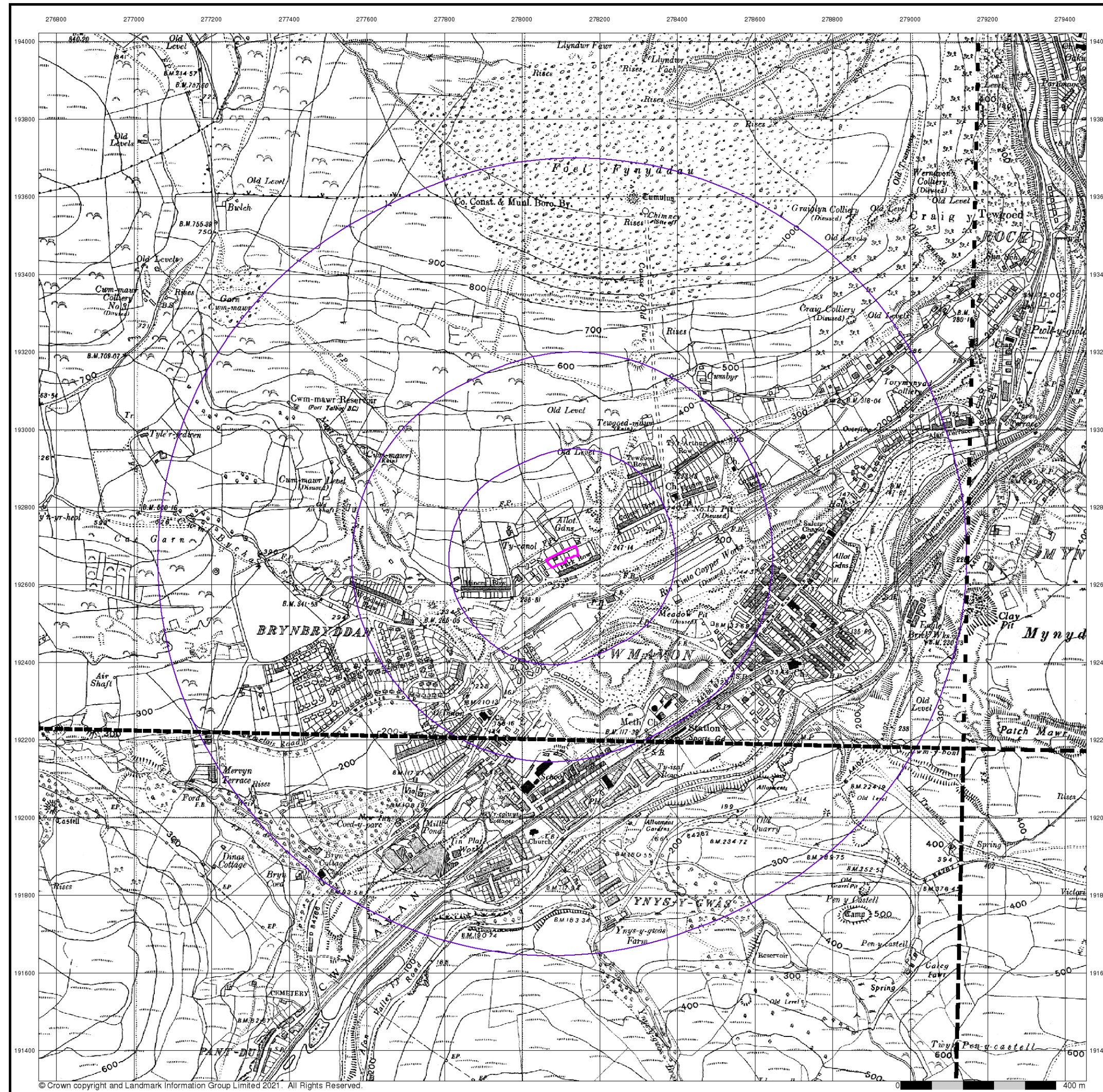
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Slice: A
Site Area (Ha): 0.2
Search Buffer (m): 1000

Site Details

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Glamorganshire

Published 1938 - 1952

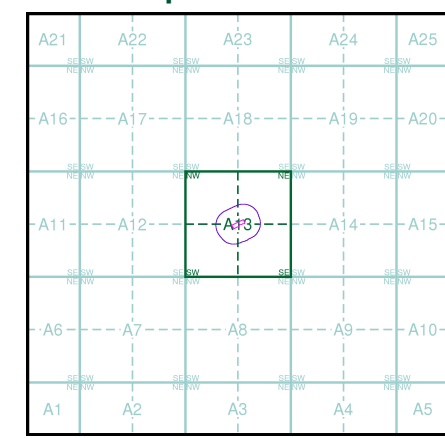
Source map scale - 1:10,560

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)

025NW 1951 1:10,560	025NE 1951 1:10,560
025SW 1952 1:10,560	025SE 1938 1:10,560

Historical Map - Slice A



Order Details

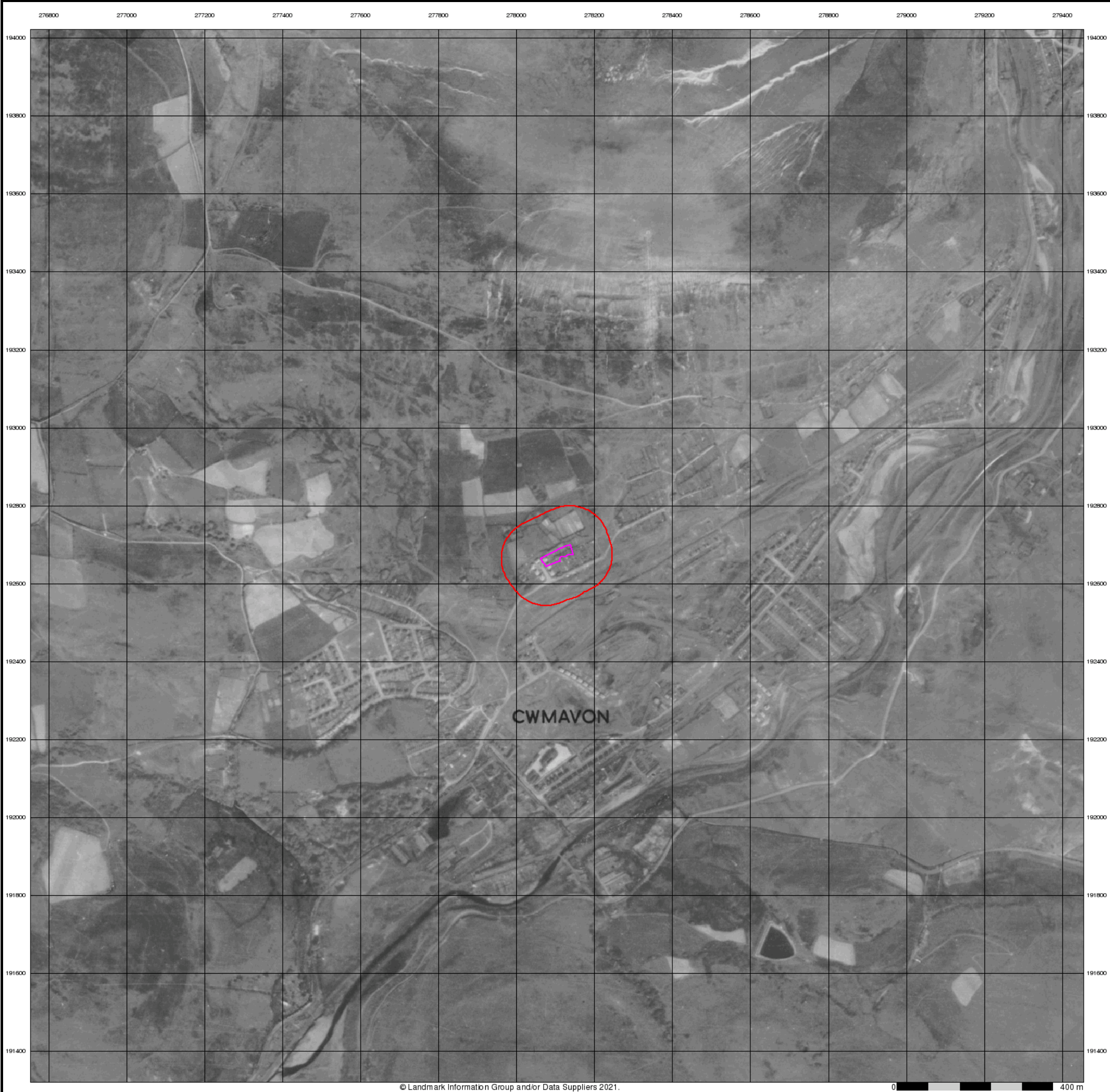
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National Grid Reference: 278110, 192670
Slice: A
Site Area (Ha): 0.2
Search Buffer (m): 1000

Site Details

5, Park Row, Cwmavon, PORT TALBOT, SA12 9PW



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0 400 m



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Historical Aerial Photography

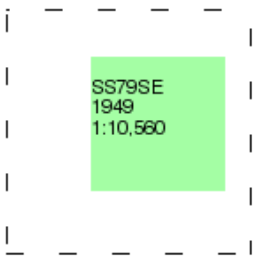
Published 1949

Source map scale - 1:10,560

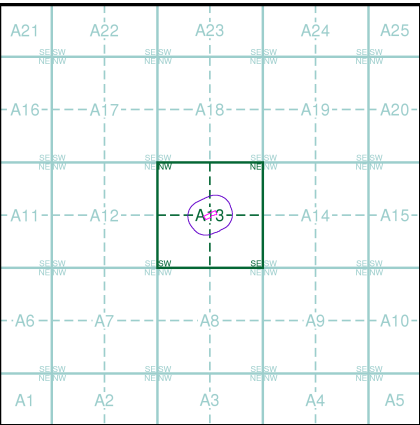
The Historical Aerial Photos were produced by the Ordnance Survey at a scale of 1:1,250 and 1:10,560 from Air Force photography. They were produced between 1944 and 1951 as an interim measure, pending preparation of conventional mapping, due to post war resource shortages. New security measures in the 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.

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Map Name(s) and Date(s)



Historical Aerial Photography - Slice A



Order Details

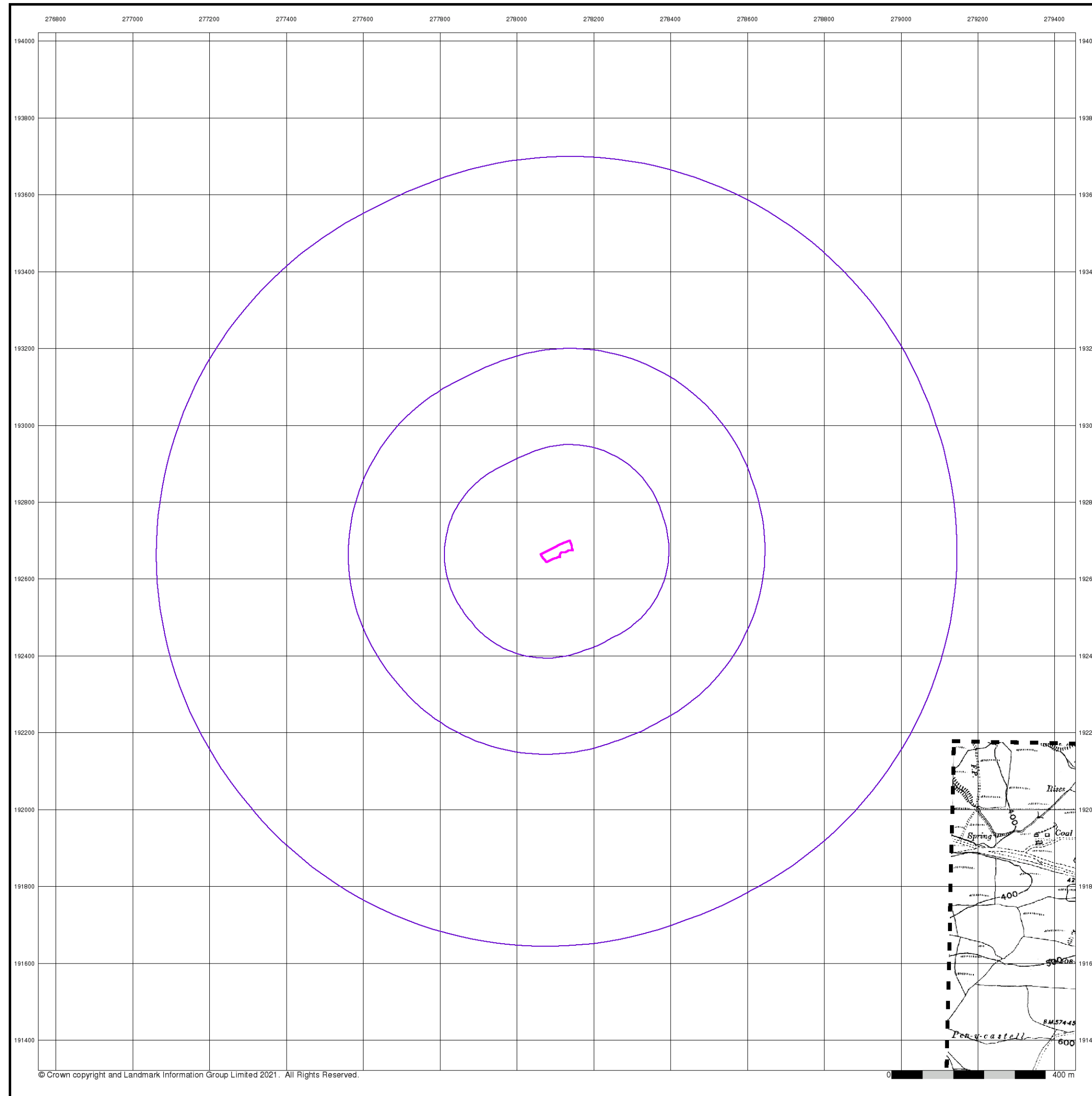
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Customer Ref: 15568
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Slice: A
Site Area (Ha): 0.2
Search Buffer (m): 1000

Site Details

5, Park Row, Cwmavon, PORT TALBOT, SA12 9PW



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Fax: 0844 844 9951
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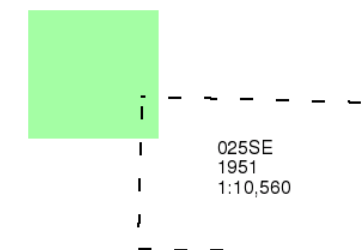
Glamorganshire

Published 1951

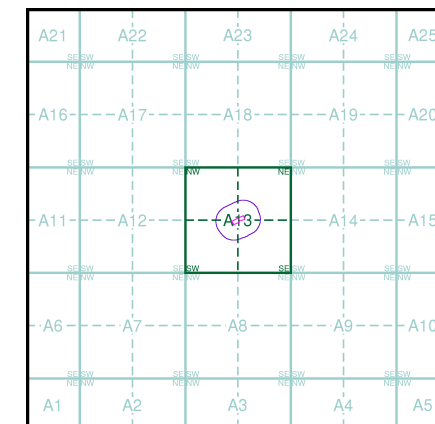
Source map scale - 1:10,560

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)



Historical Map - Slice A



Order Details

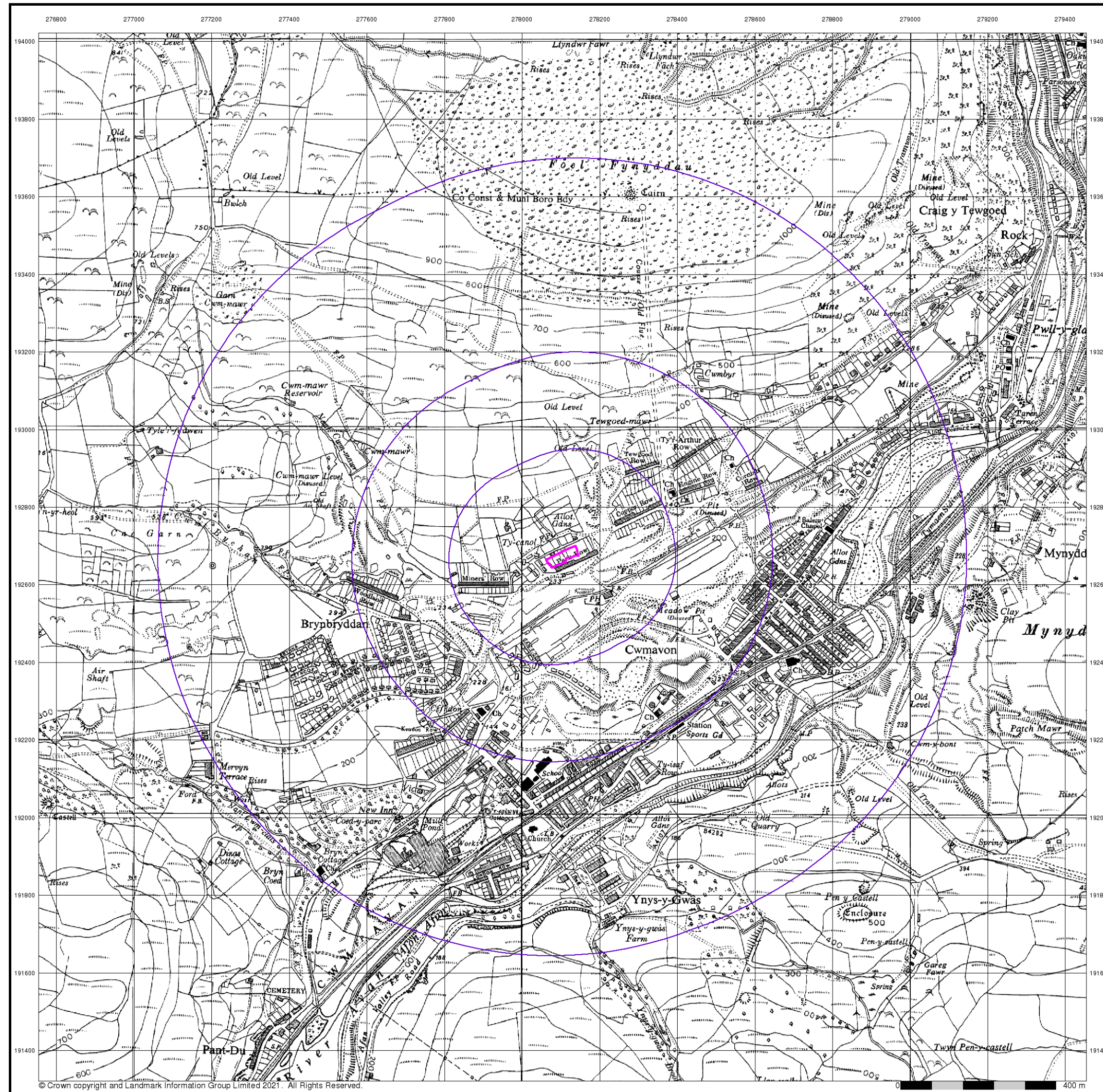
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Customer Ref: 15568
National Grid Reference: 278110, 192670
Slice: A
Site Area (Ha): 0.2
Search Buffer (m): 1000

Site Details

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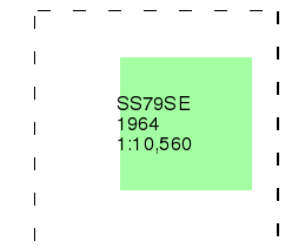
Ordnance Survey Plan

Published 1964

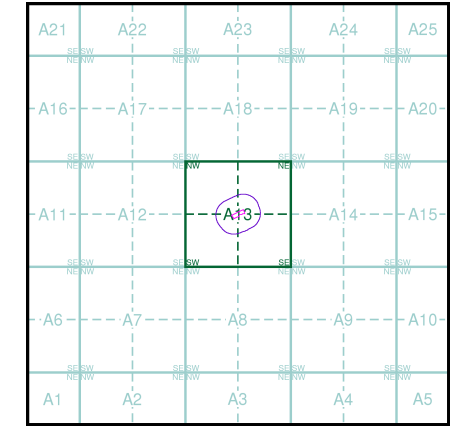
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The historical maps shown were reproduced from maps predominantly held at the scale adopted for England, Wales and Scotland in the 1840's. In 1854 the 1:2,500 scale was adopted for mapping urban areas; these maps were used to update the 1:10,560 maps. 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

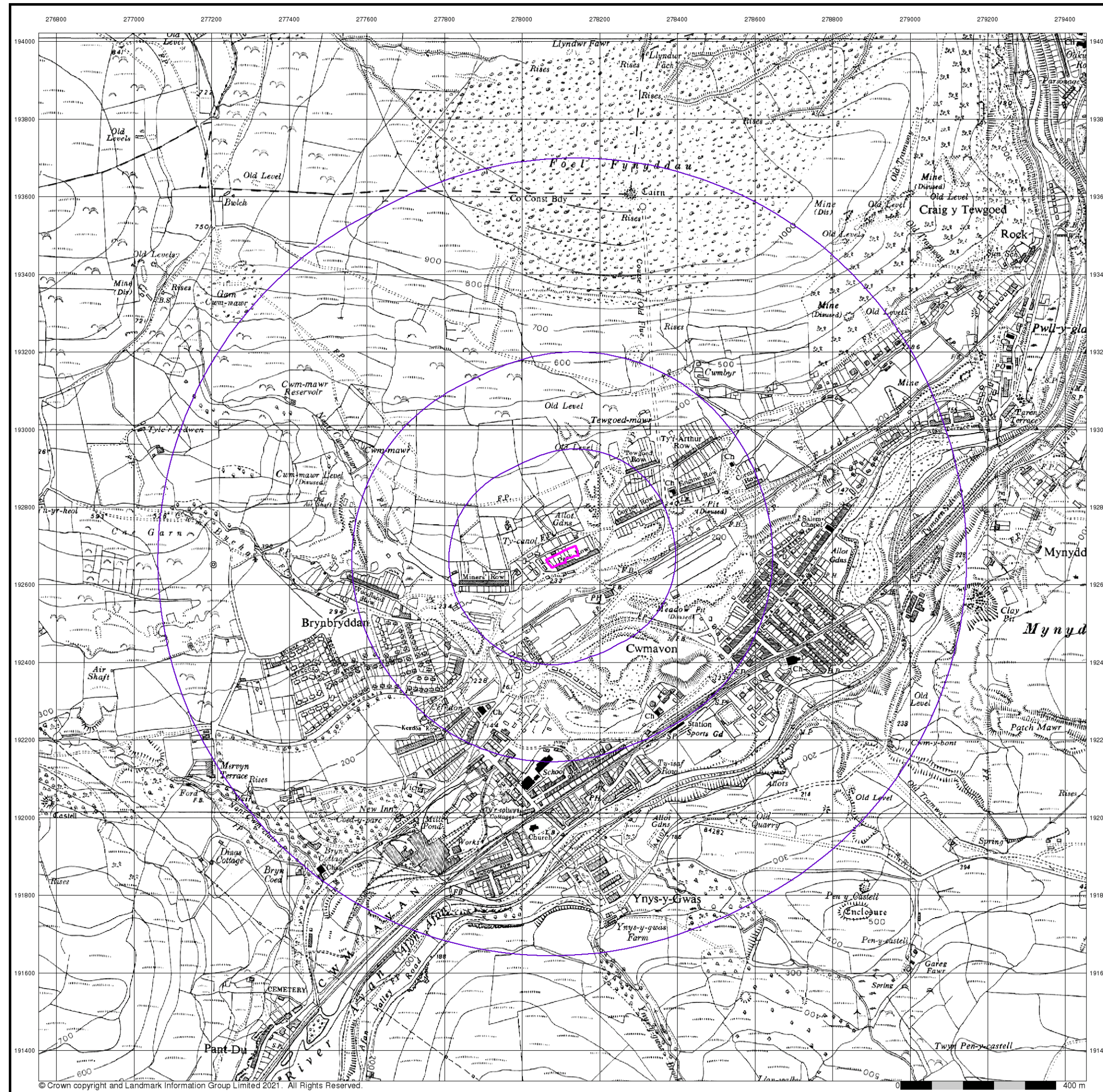
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Search Buffer (m): 1000

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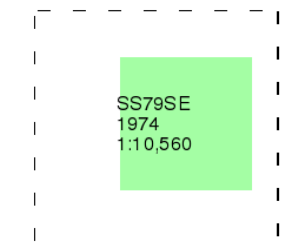
Ordnance Survey Plan

Published 1974

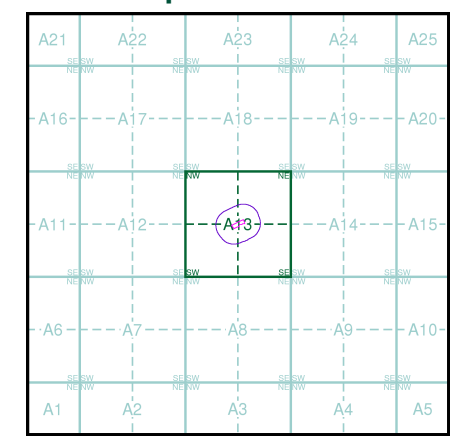
Source map scale - 1:10,000

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

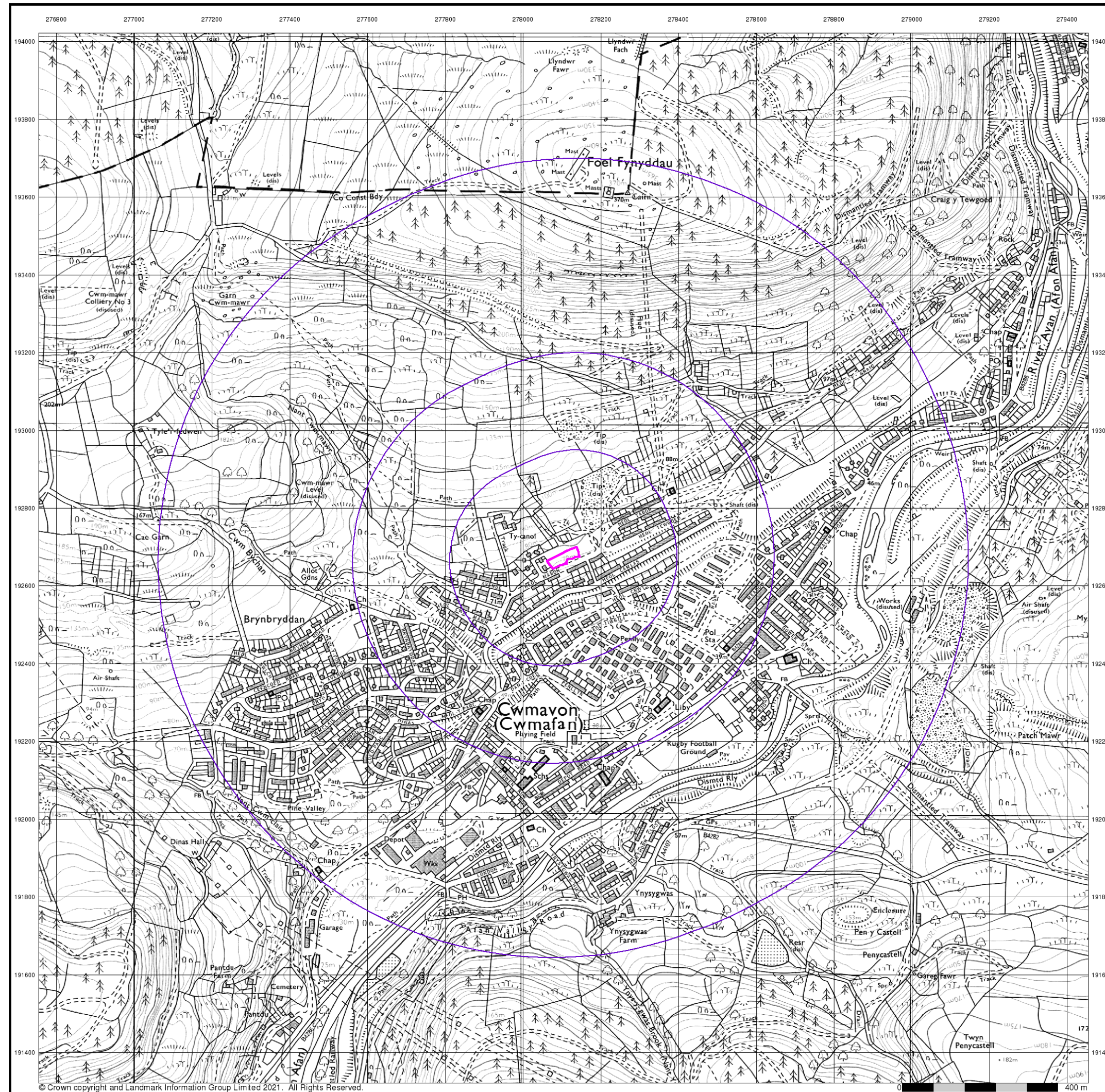
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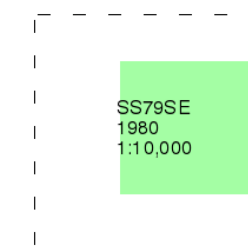
Ordnance Survey Plan

Published 1980

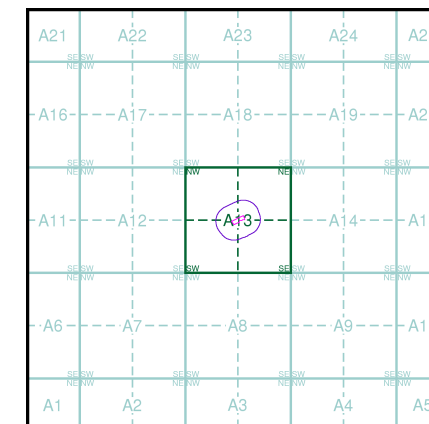
Source map scale - 1:10,000

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Map Name(s) and Date(s)



Historical Map - Slice A



Order Details

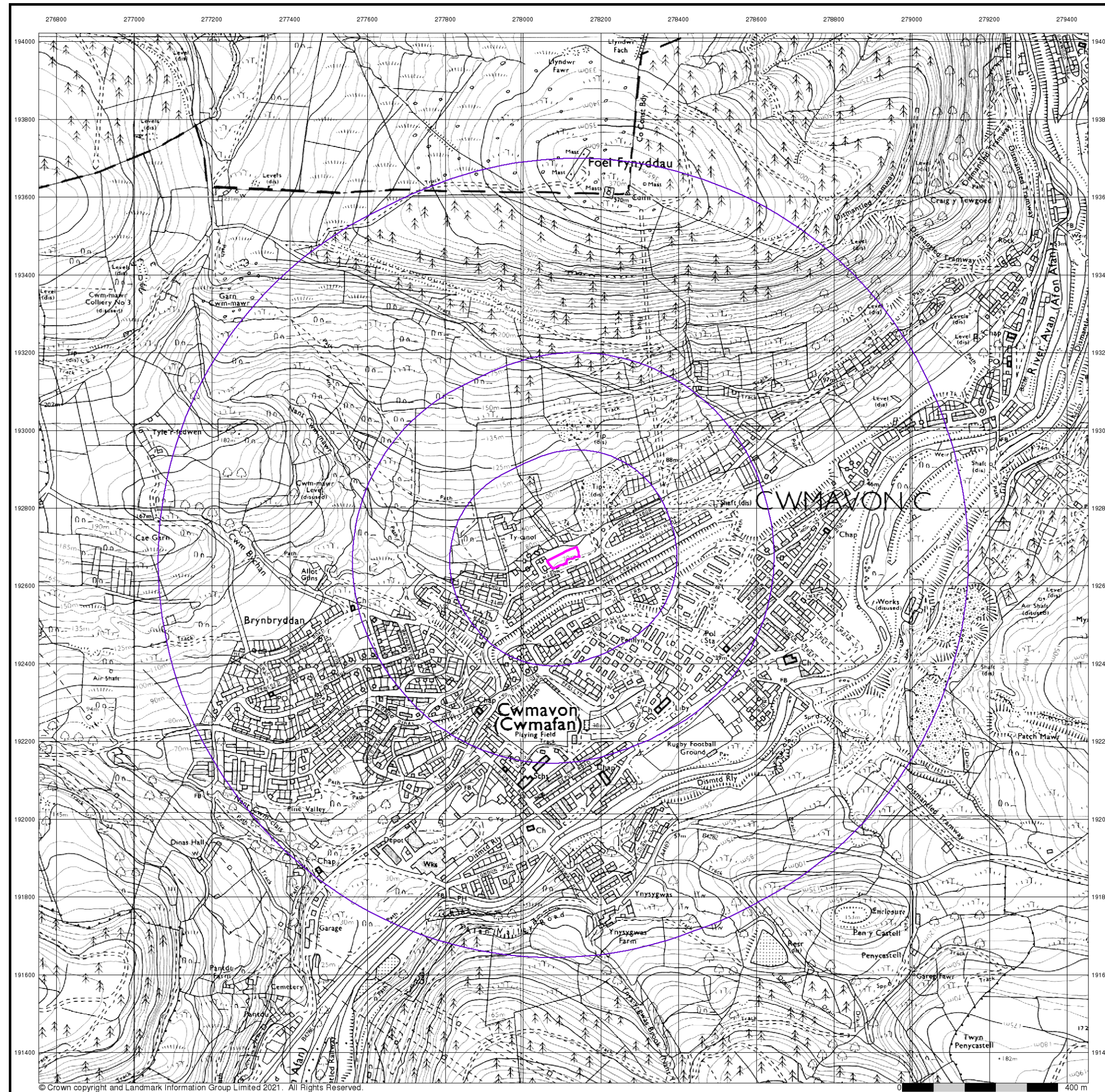
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Slice: A
Site Area (Ha): 0.2
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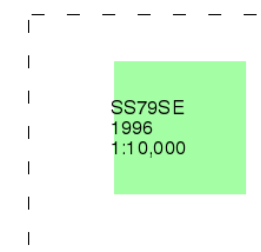
Ordnance Survey Plan

Published 1996

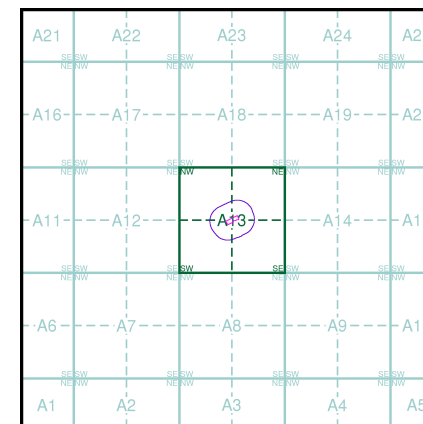
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The historical maps shown were reproduced from maps predominantly held at the scale adopted for England, Wales and Scotland in the 1840's. In 1854 the 1:2,500 scale was adopted for mapping urban areas; these maps were used to update the 1:10,560 maps. 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

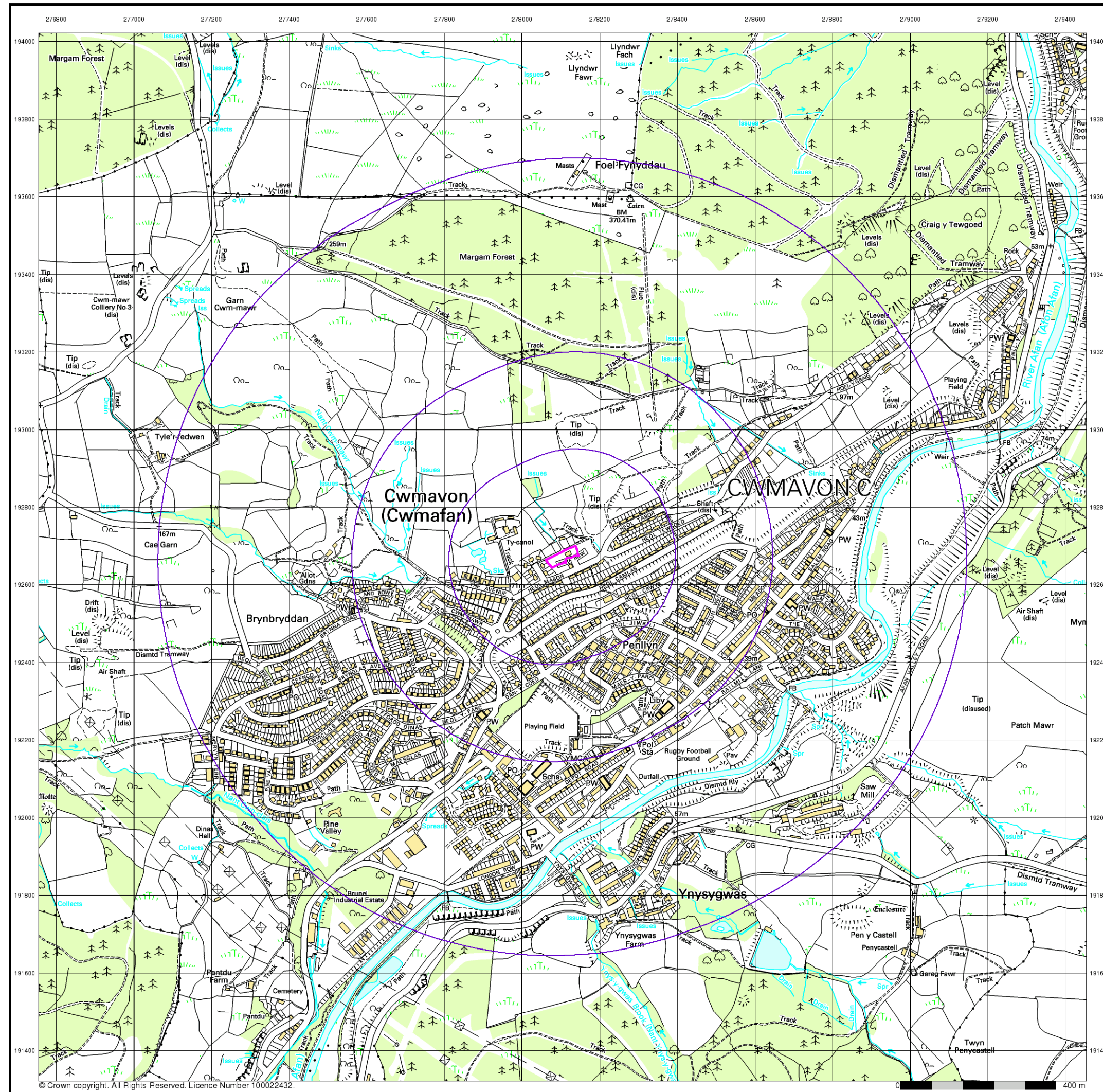
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National Grid Reference: 278110, 192670
Slice: A
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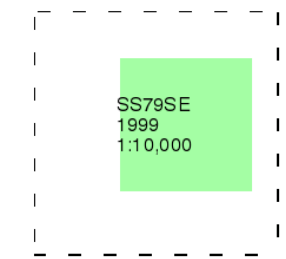
10k Raster Mapping

Published 1999

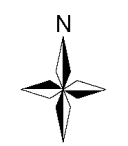
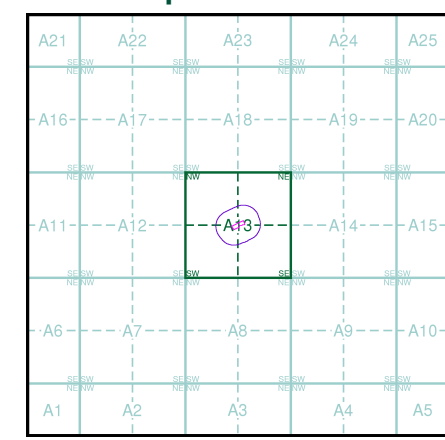
Source map scale - 1:10,000

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)



Historical Map - Slice A



Order Details

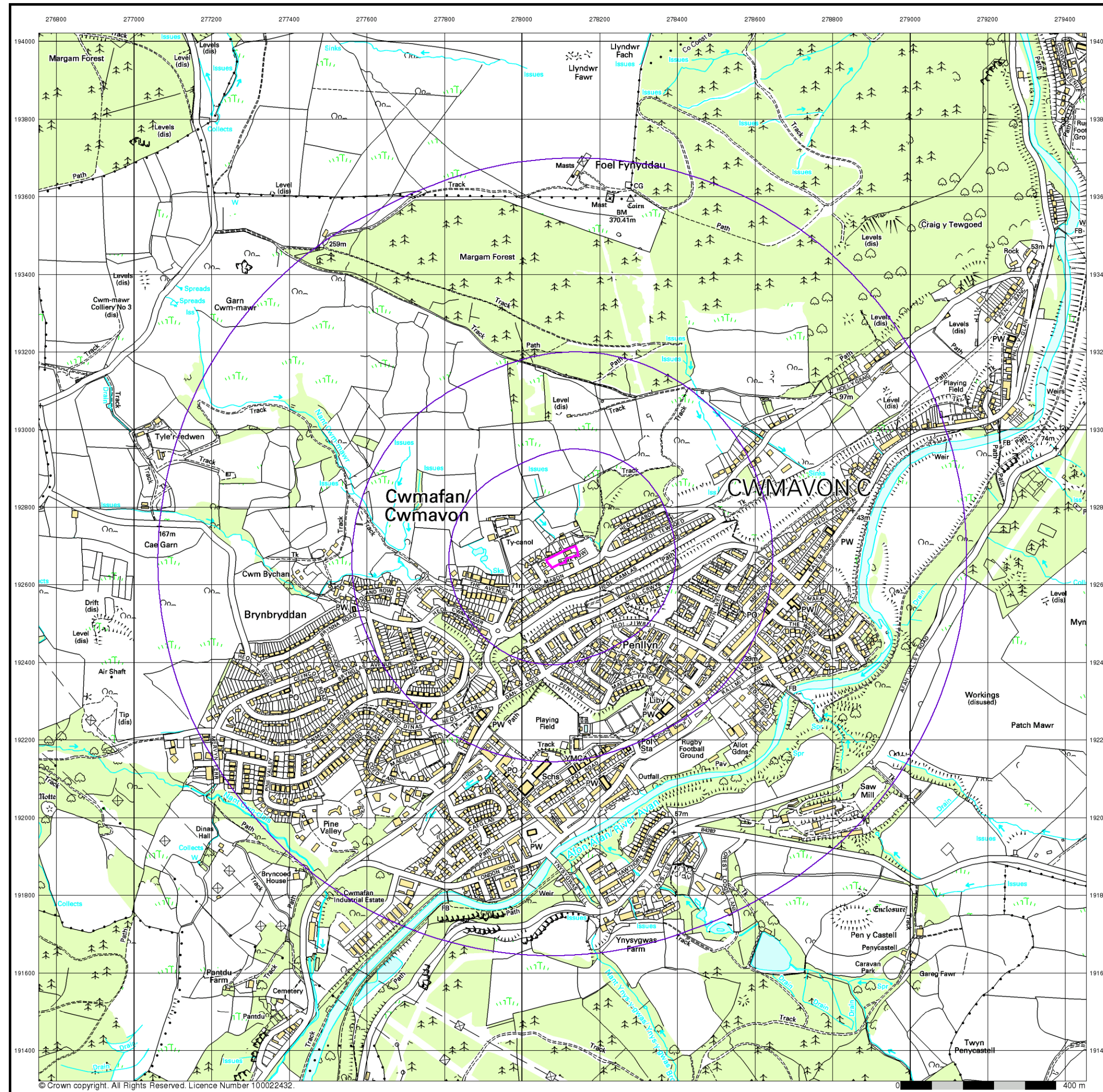
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Customer Ref: 15568
National Grid Reference: 278110, 192670
Slice: A
Site Area (Ha): 0.2
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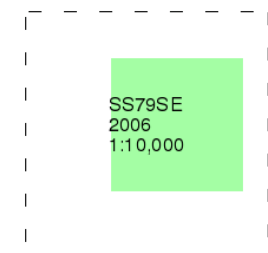
10k Raster Mapping

Published 2006

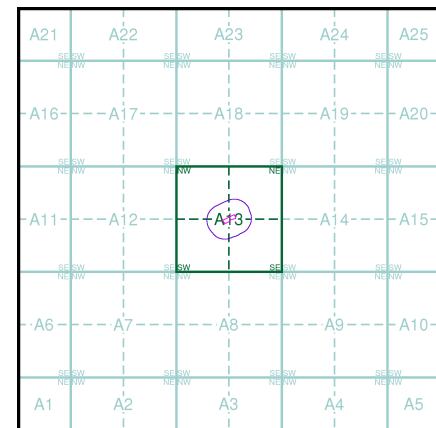
Source map scale - 1:10,000

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)



Historical Map - Slice A



Order Details

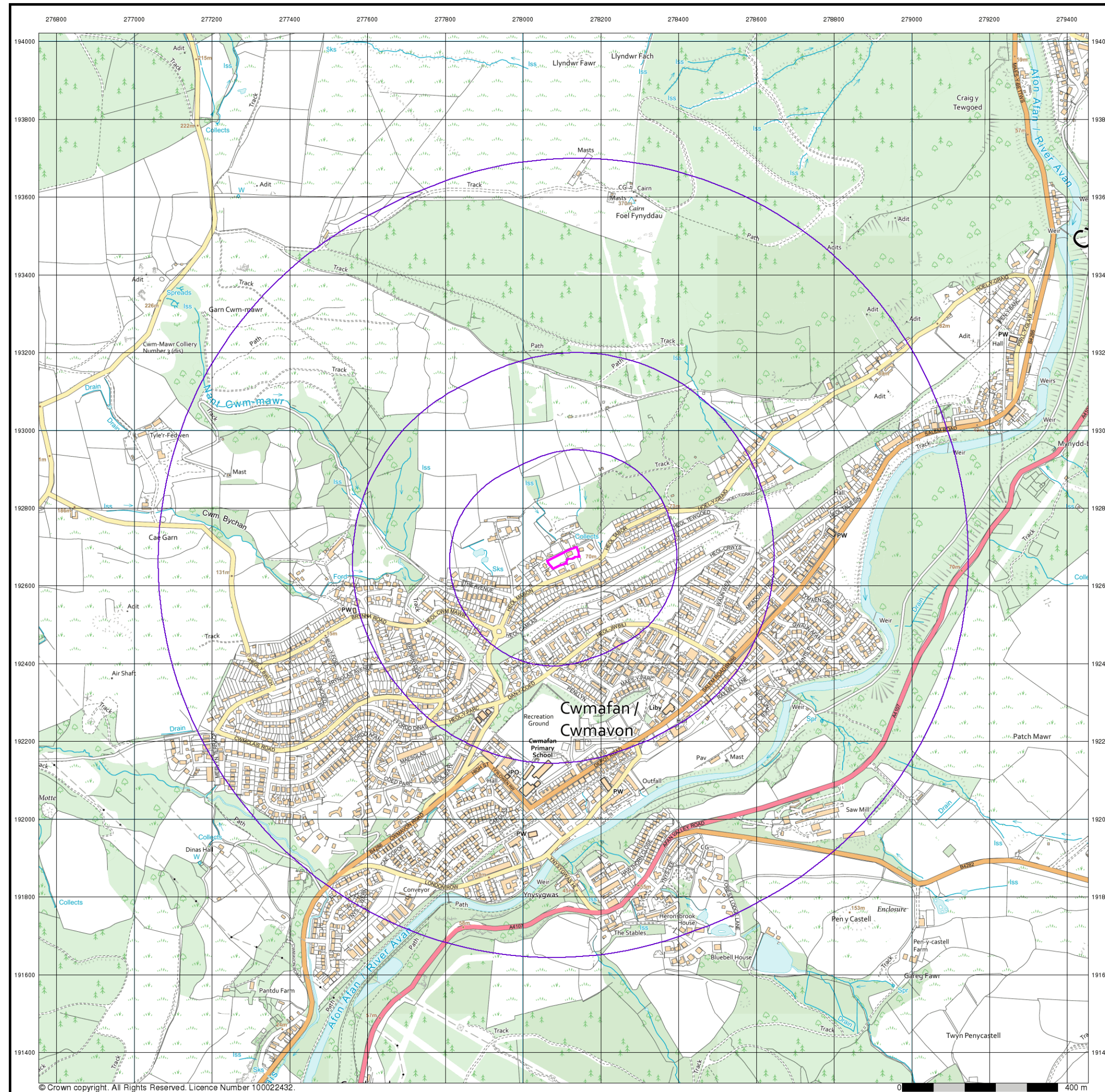
Order Number: 284338045_1_1
Customer Ref: 15568
National Grid Reference: 278110, 192670
Slice: A
Site Area (Ha): 0.2
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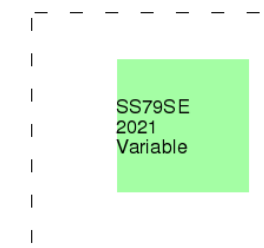
VectorMap Local

Published 2021

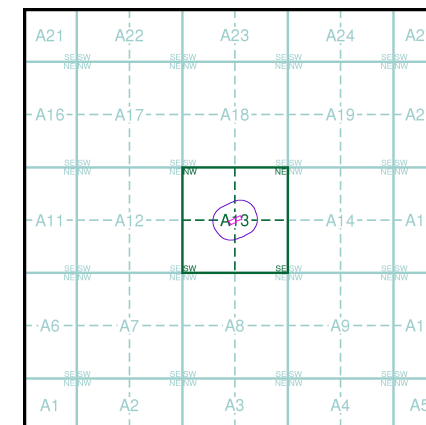
Source map scale - 1:10,000

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)



Historical Map - Slice A



Order Details

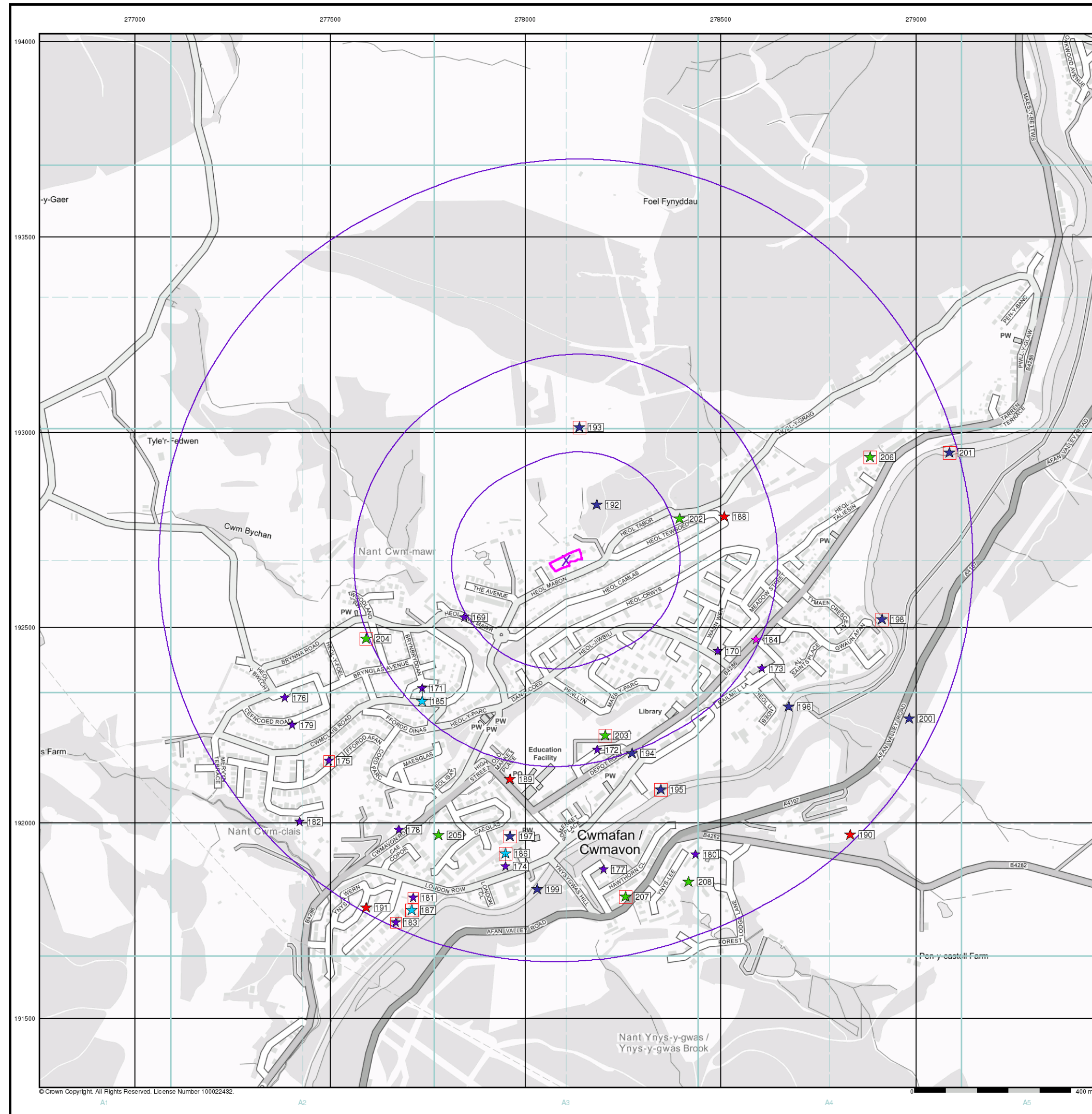
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Slice: A
Site Area (Ha): 0.2
Search Buffer (m): 1000

Site Details

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Industrial Land Use Map

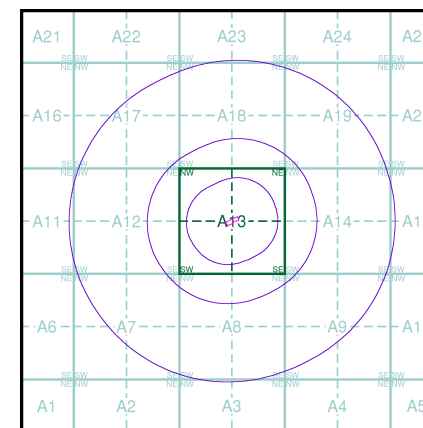
General

- 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

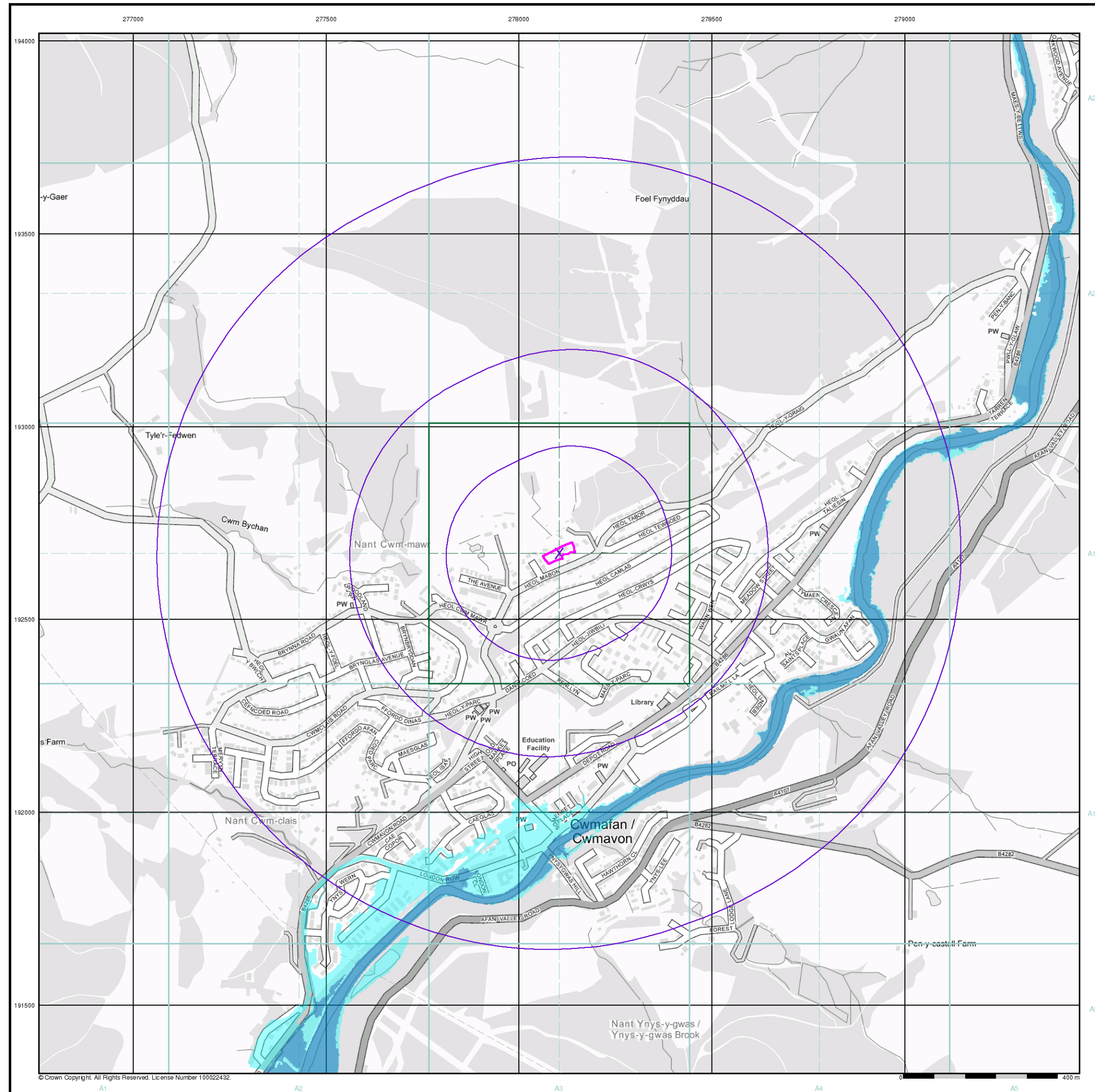
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 Search Buffer (m): 1000

Site Details

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General

Agency and Hydrological (Flood)

Flood Map - Slice A

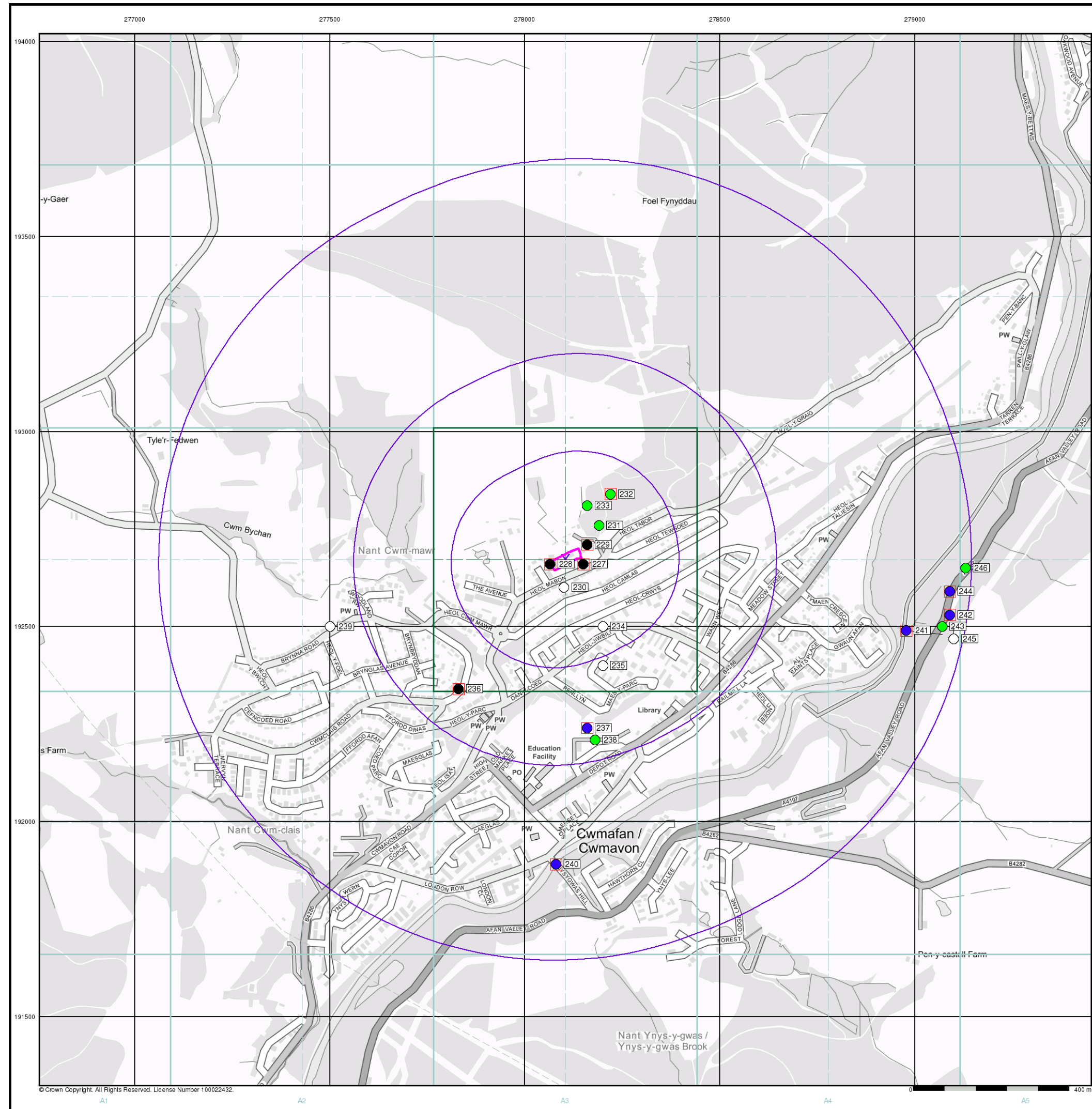


Order Details

Site Details



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General

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

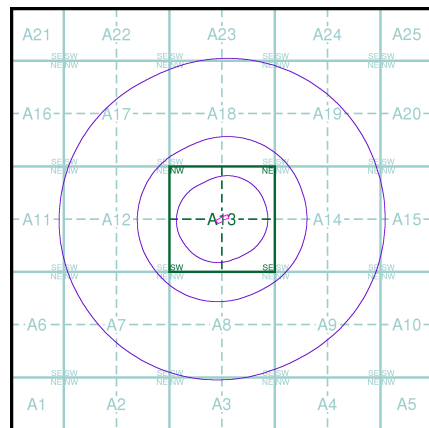
Agency and Hydrological (Boreholes)

-  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: 284338045_1_1
Customer Ref: 15568
National Grid Reference: 278110, 192670
Slice: A
Site Area (Ha): 0.2
Search Buffer (m): 1000

Site Details

5, Park Row, Cwmavon, PORT TALBOT, SA12 9PW

General

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

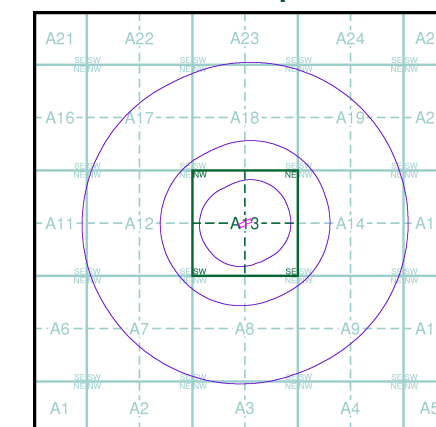
OS Water Network Data

- | | |
|--------------|-------------------------|
| 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
- Spot Height 167.3
- MLW Mean Low Water
- MHW Mean High Water

OS Water Network Map - Slice A

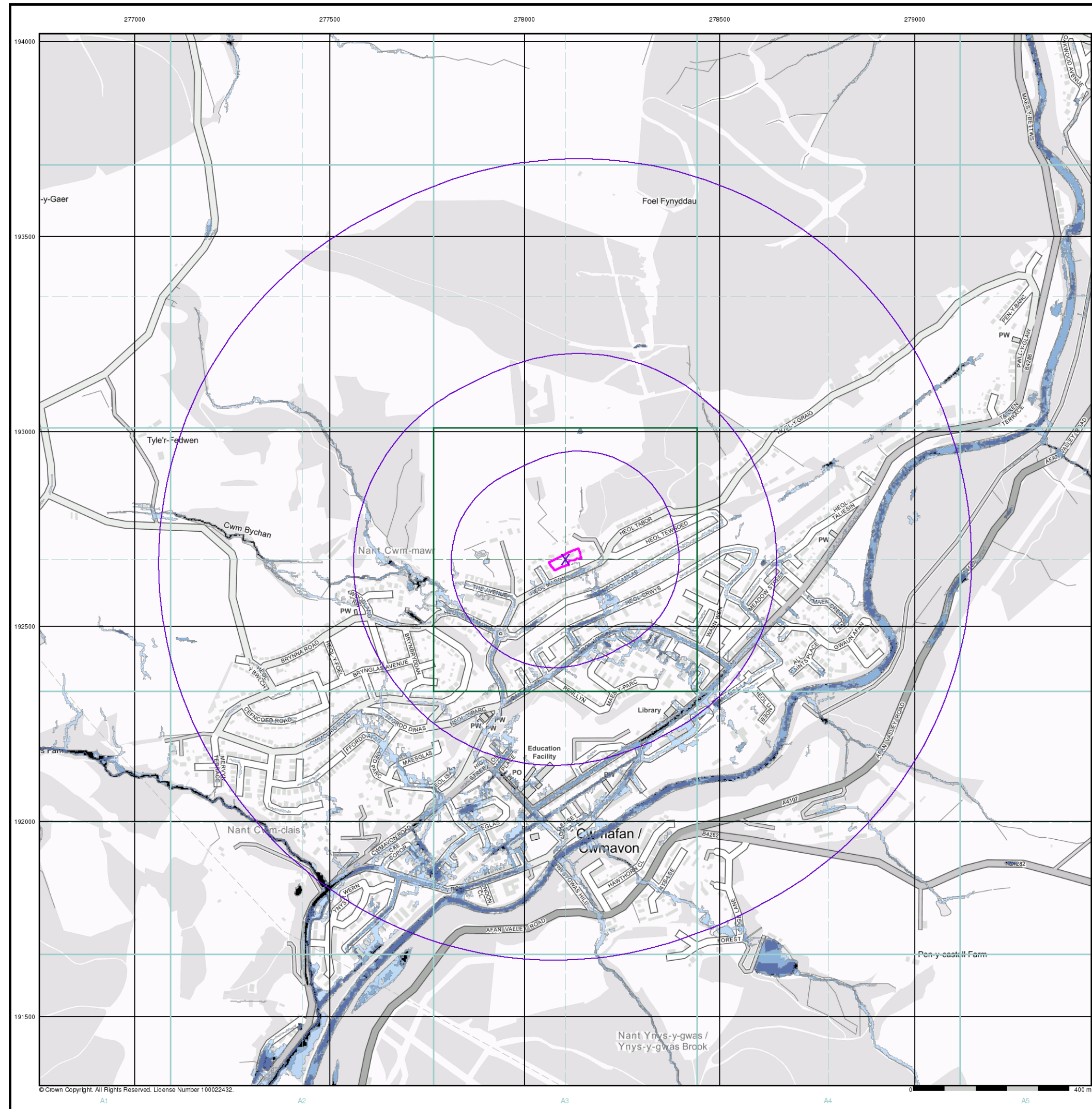


Order Details

Order Number: 284338045_1_1
Customer Ref: 15568
National Grid Reference: 278110, 192670
Slice: A
Site Area (Ha): 0.2
Search Buffer (m): 1000

Site Details

5, Park Row, Cwmavon, PORT TALBOT, SA12 9PW



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General

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

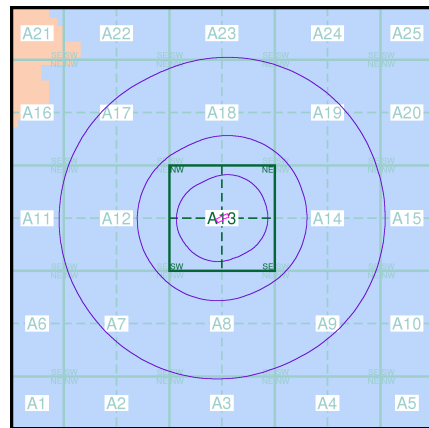
Risk of Flooding from Surface Water

-  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

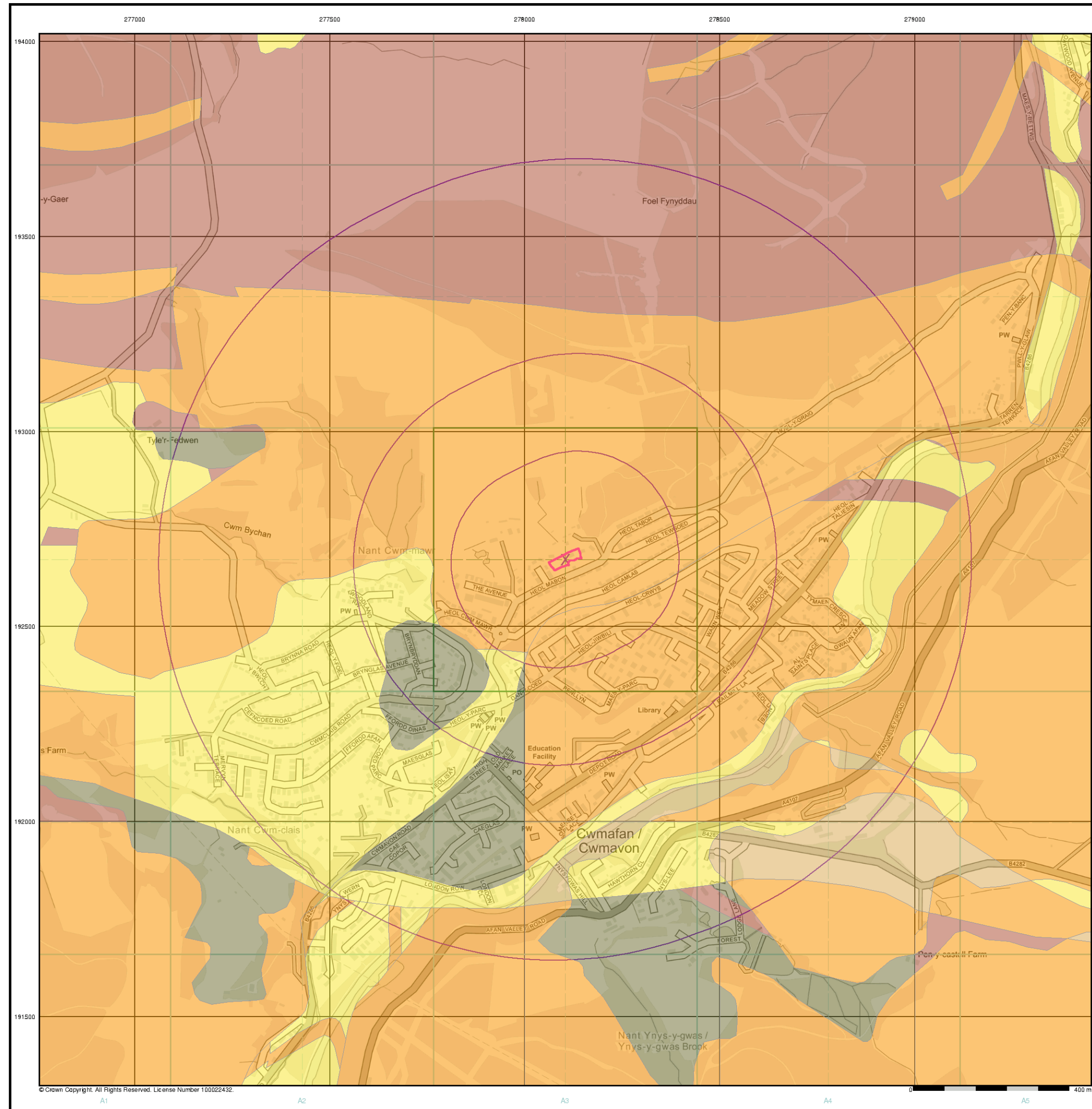


Order Details

Order Number: 284338045_1_1
Customer Ref: 15568
National Grid Reference: 278110, 192670
Slice: A
Site Area (Ha): 0.2
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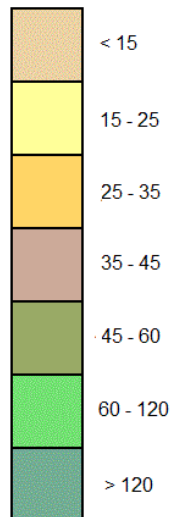
Geotechnical & Geoenvironmental Specialists

General

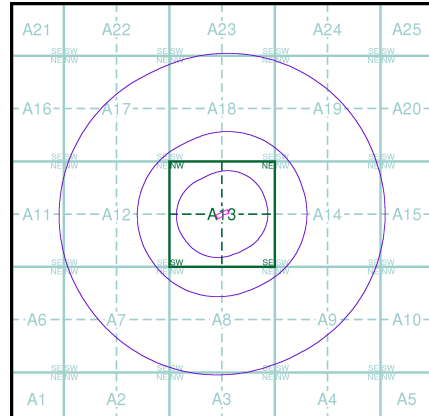
- Specified Site
- Specified Buffer(s)
- Bearing Reference Point

Estimated Soil Chemistry Arsenic

Arsenic Concentrations mg/kg



Estimated Soil Chemistry Arsenic - Slice A



Order Details

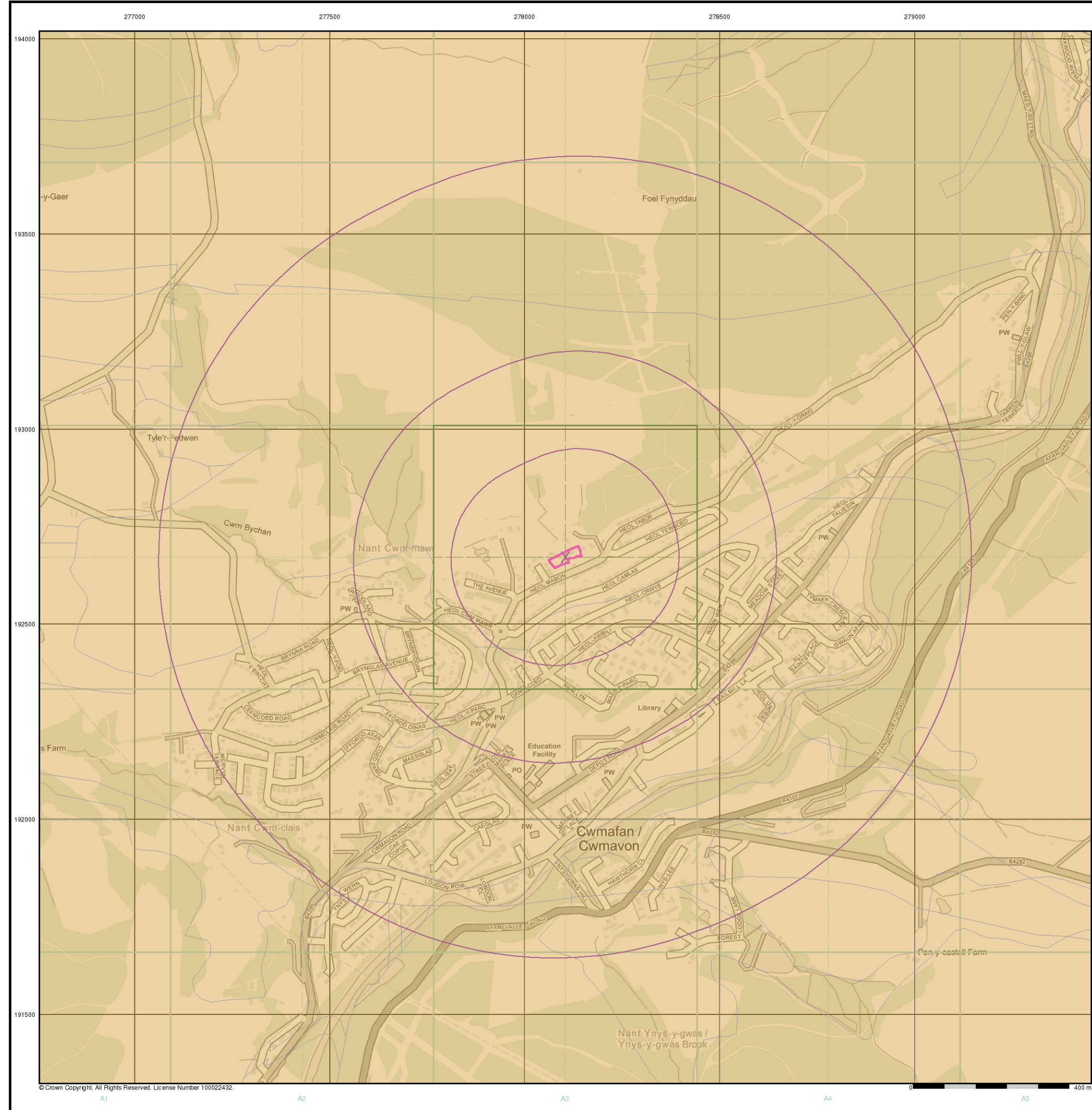
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Slice: A
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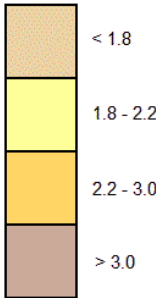
Geotechnical & Geoenvironmental Specialists

General

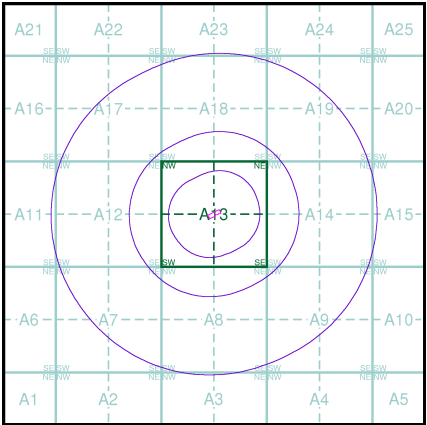
Specified Site Specified Buffer(s) Bearing Reference Point

Estimated Soil Chemistry Cadmium

Cadmium Concentrations mg/kg



Estimated Soil Chemistry Cadmium - Slice A



Order Details

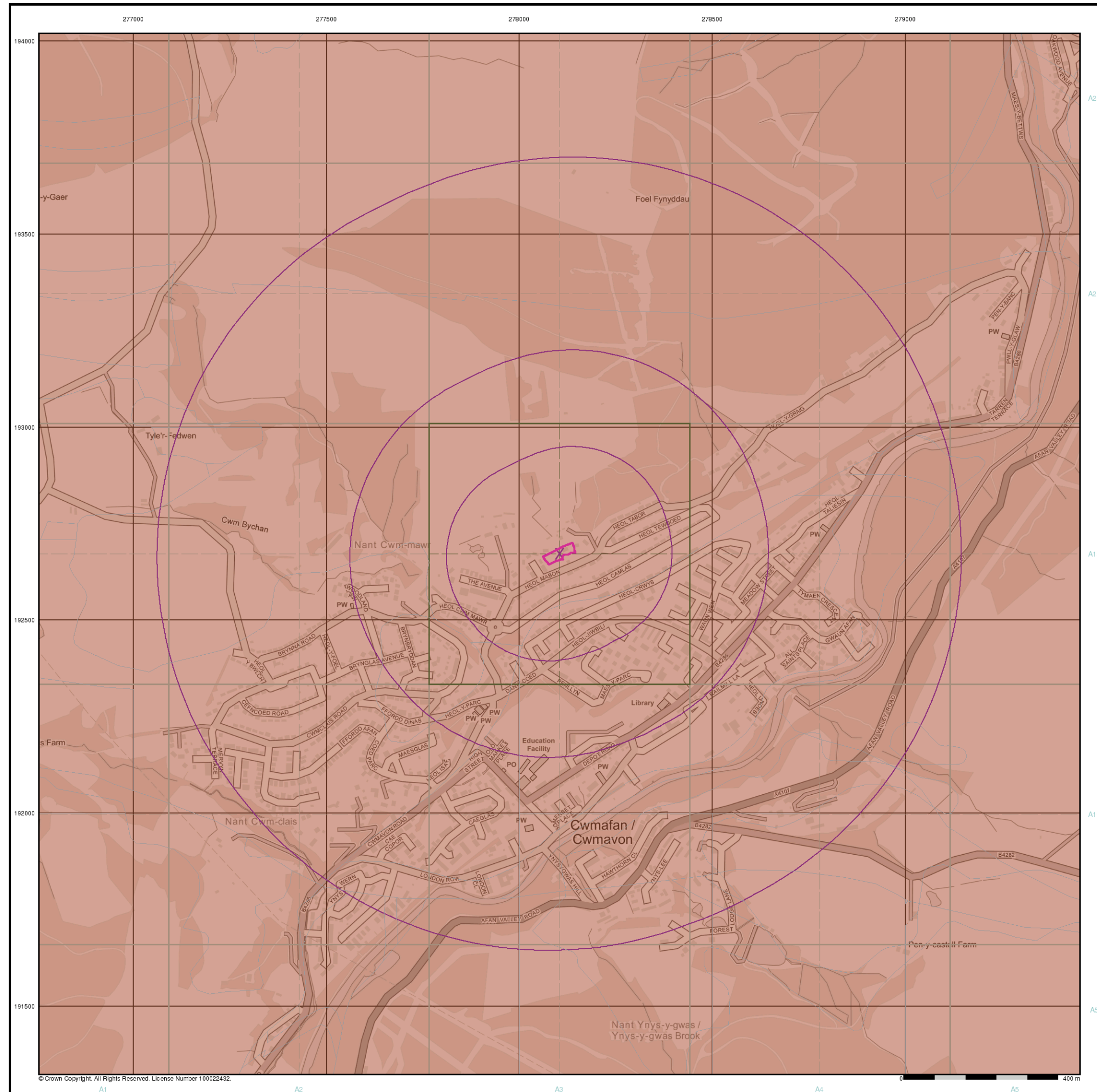
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Search Buffer (m): 1000

Site Details

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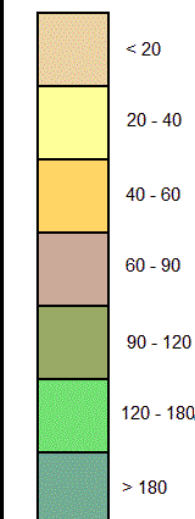
Geotechnical & Geoenvironmental Specialists

General

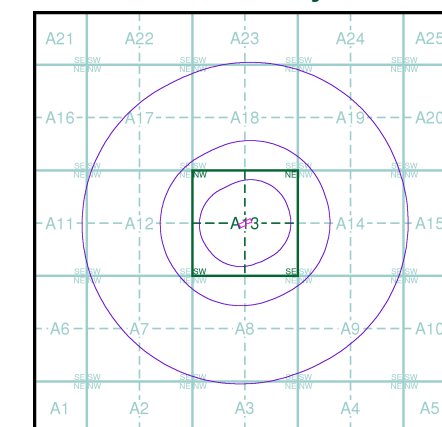
 Specified Site Specified Buffer(s) Bearing Reference Point

Estimated Soil Chemistry Chromium

Chromium Concentrations mg/kg



Estimated Soil Chemistry Chromium - Slice A



Order Details

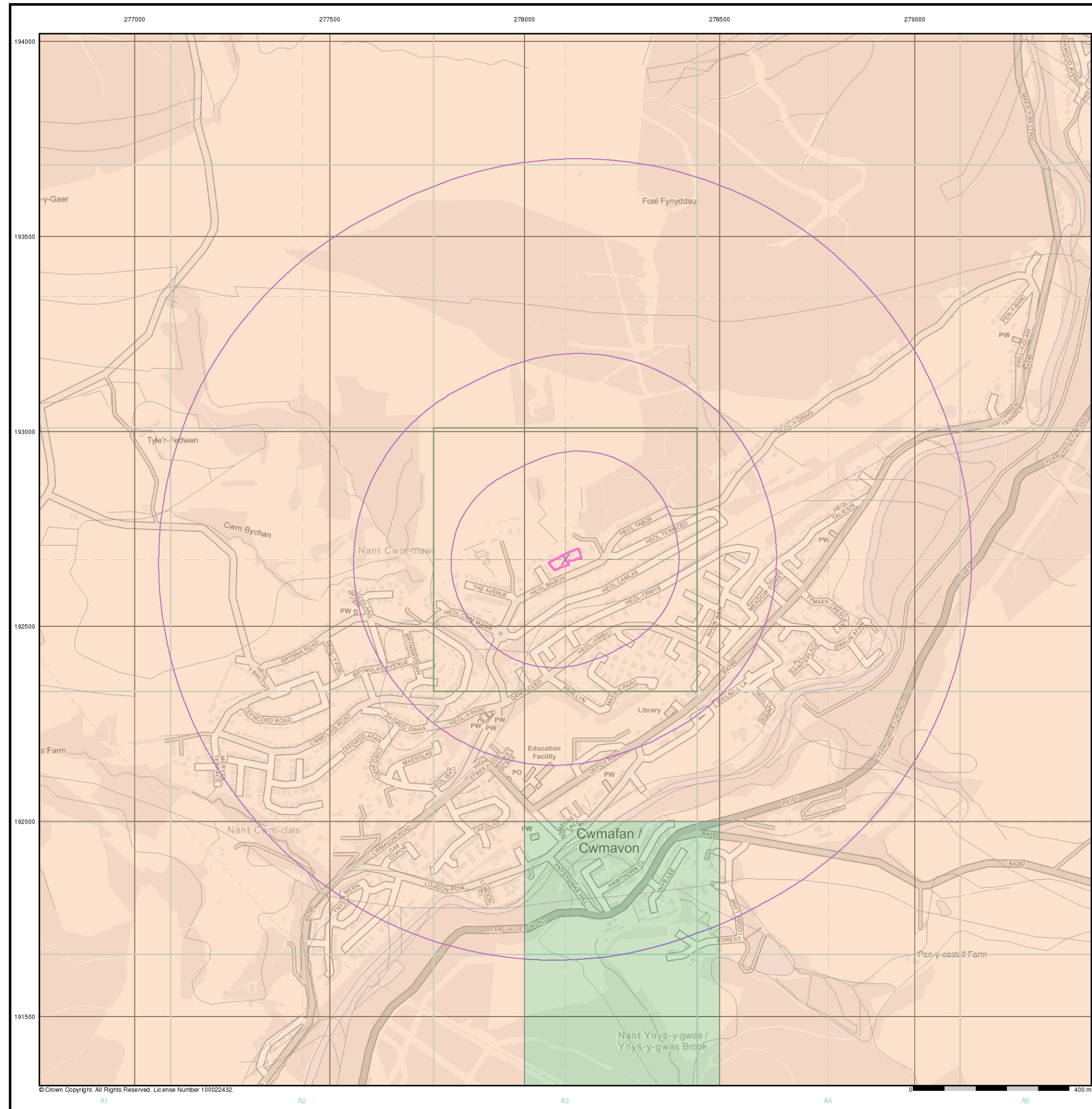
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Customer Ref:	15568
National Grid Reference:	278110, 192670
Slice:	A
Site Area (Ha):	0.2
Search Buffer (m):	1000

Site Details

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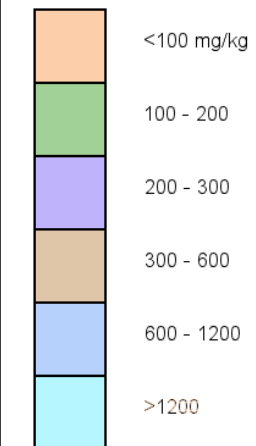
Geotechnical & Geoenvironmental Specialists

General

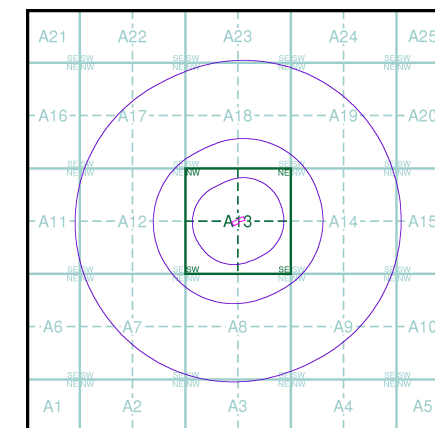
Specified Site Specified Buffer(s) Bearing Reference Point

Estimated Soil Chemistry Lead

Lead Concentrations mg/kg



Estimated Soil Chemistry Lead - Slice A



Order Details

Order Details: 284338045_1_1
Customer Ref: 15568
National Grid Reference: 278110, 192670
Slice: A
Site Area (Ha): 0.2
Search Buffer (m): 1000

Site Details

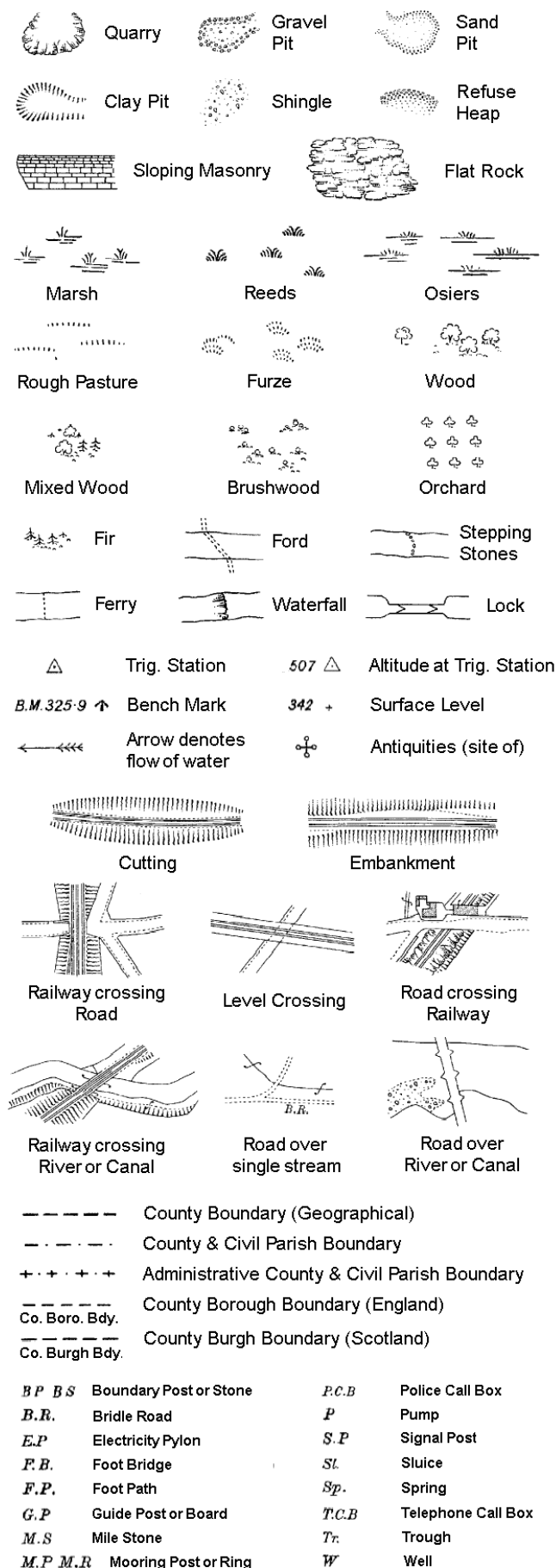
5, Park Row, Cwmavon, PORT TALBOT, SA12 9PW



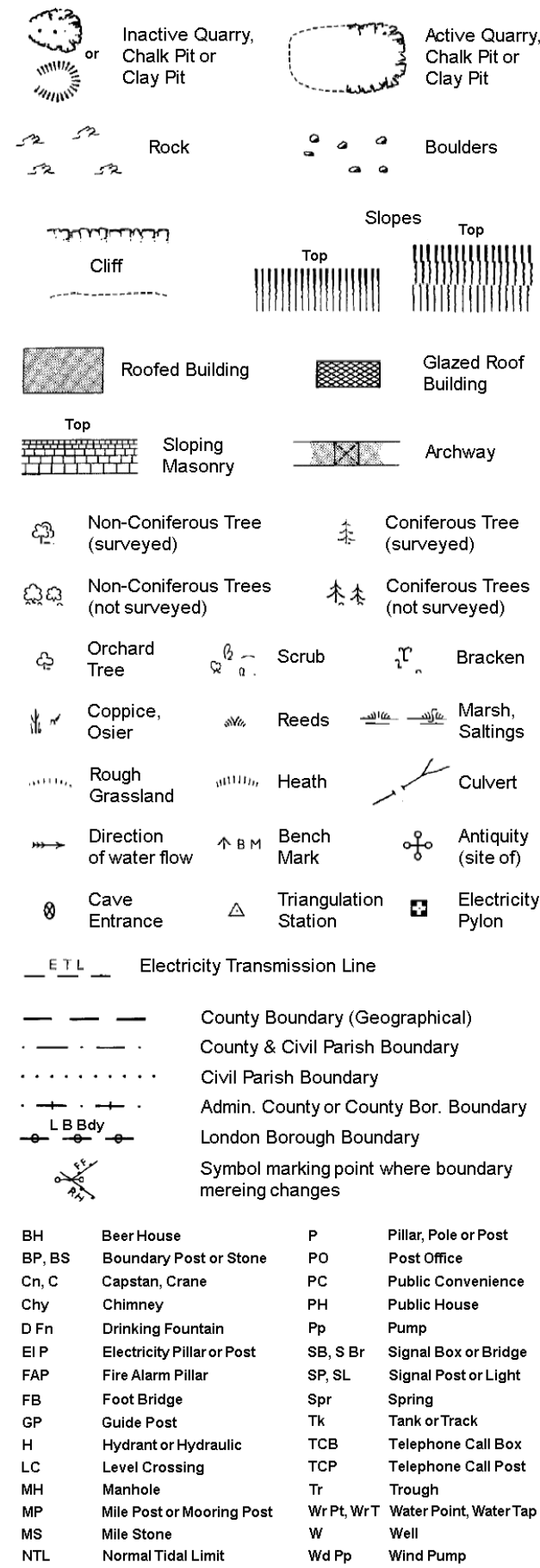
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Fax: 0844 844 9951
Web: www.envirocheck.co.uk

Historical Mapping Legends

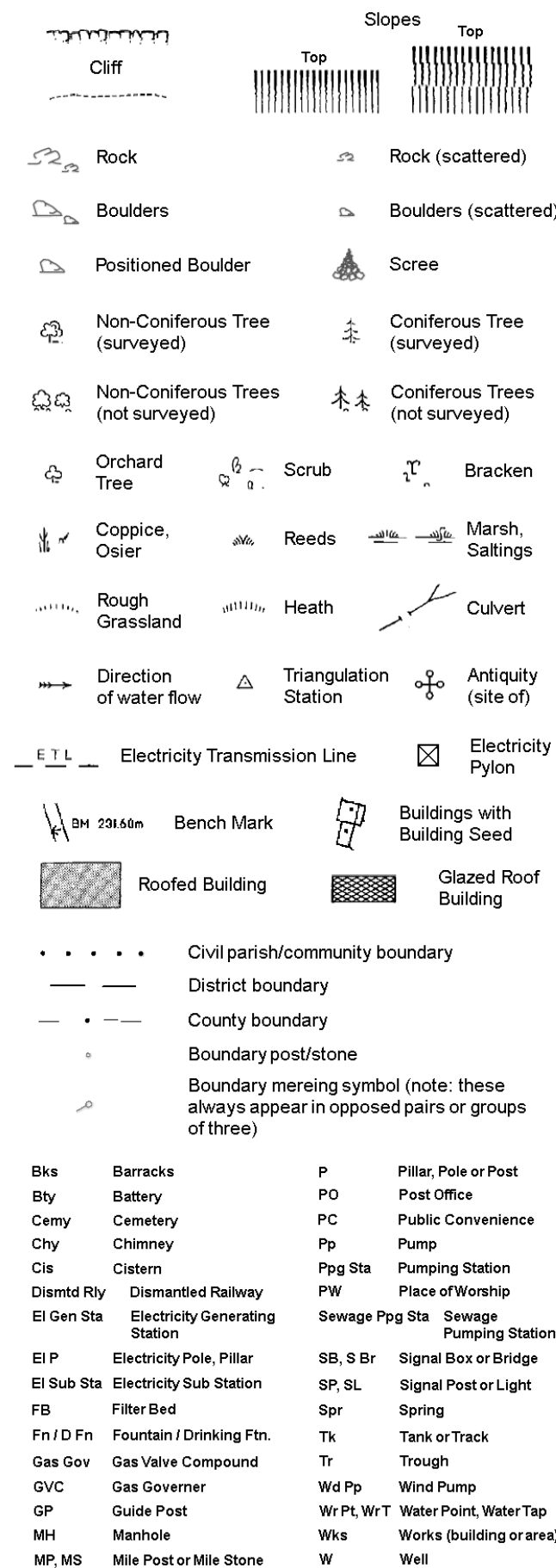
Ordnance Survey County Series and Ordnance Survey Plan 1:2,500



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

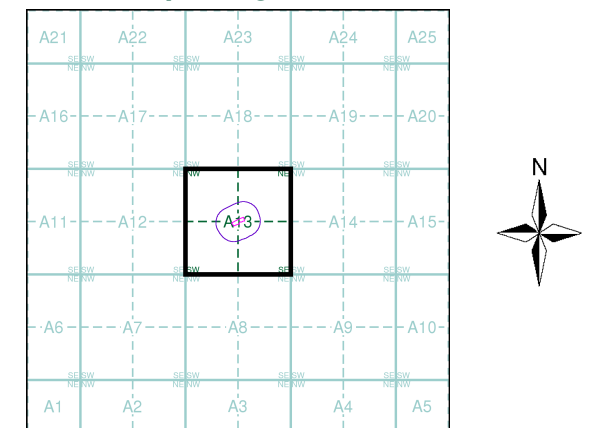


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Historical Mapping & Photography included:

Mapping Type	Scale	Date	Pg
Glamorganshire	1:2,500	1878	2
Glamorganshire	1:2,500	1899	3
Glamorganshire	1:2,500	1919	4
Glamorganshire	1:2,500	1936	5
Ordnance Survey Plan	1:2,500	1965 - 1970	6
Ordnance Survey Plan	1:2,500	1969 - 1978	7
Supply of Unpublished Survey Information	1:2,500	1973	8
Ordnance Survey Plan	1:2,500	1975 - 1983	9
Additional SIMs	1:2,500	1978 - 1986	10
Additional SIMs	1:2,500	1984	11
Large-Scale National Grid Data	1:2,500	1993	12
Large-Scale National Grid Data	1:2,500	1994	13
Historical Aerial Photography	1:2,500	2000	14

Historical Map - Segment A13



Order Details

Order Number: 284338045_1_1
Customer Ref: 15568
National Grid Reference: 278110, 192670
Slice: A
Site Area (Ha): 0.2
Search Buffer (m): 100

Site Details

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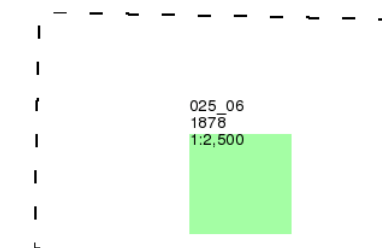
Glamorganshire

Published 1878

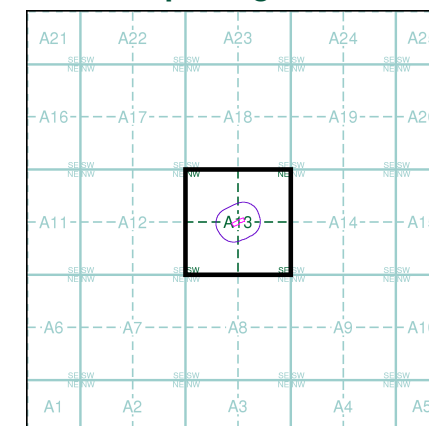
Source map scale - 1:2,500

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

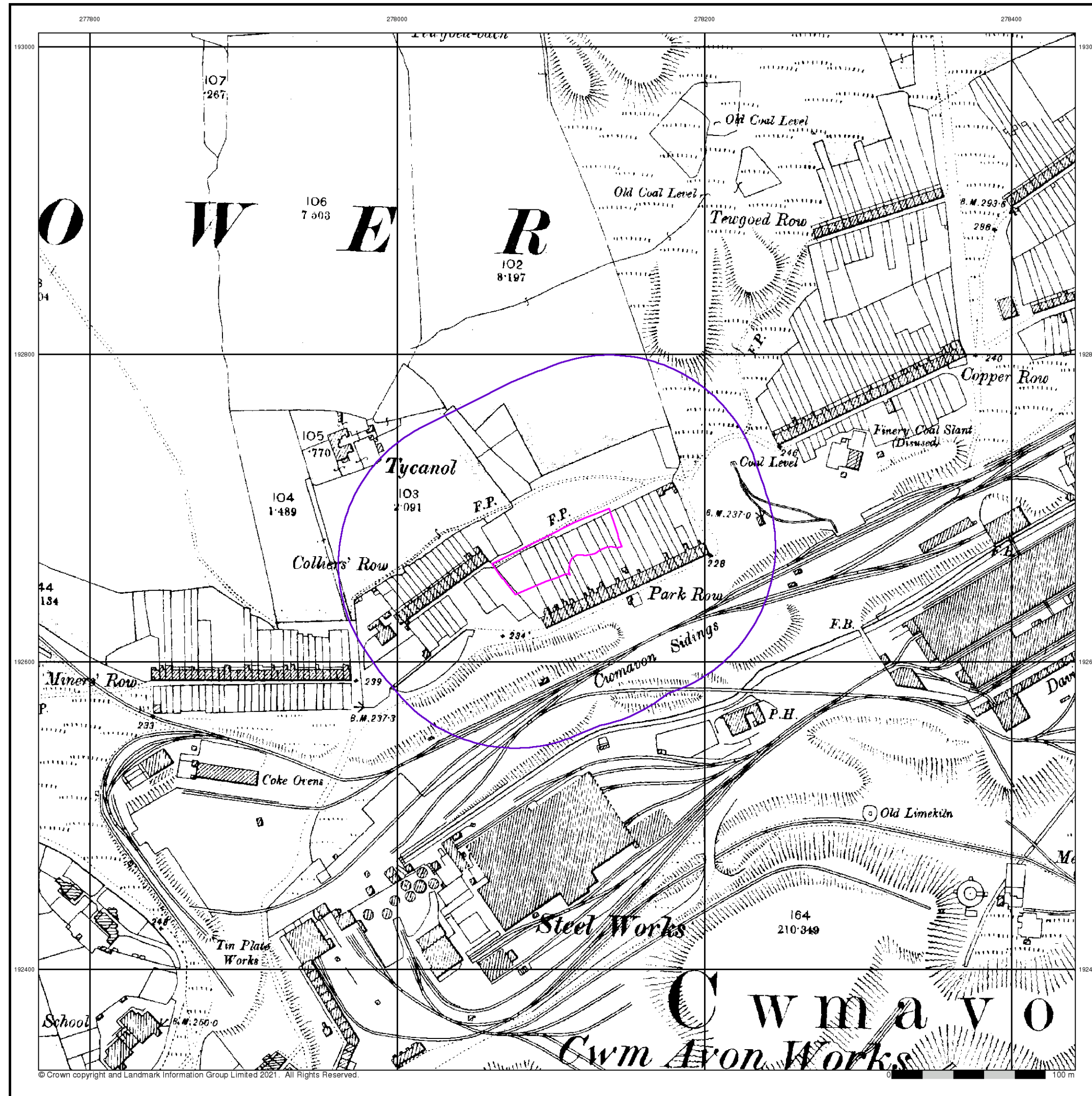
Order Number: 284338045_1_1
Customer Ref: 15568
National Grid Reference: 278110, 192670
Slice: A
Site Area (Ha): 0.2
Search Buffer (m): 100

Site Details

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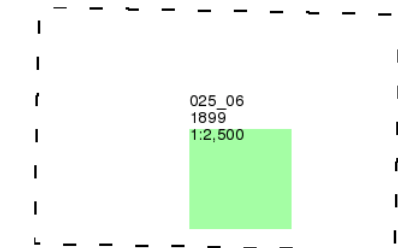
Glamorganshire

Published 1899

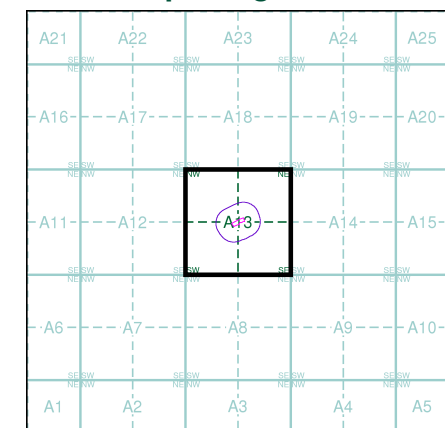
Source map scale - 1:2,500

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

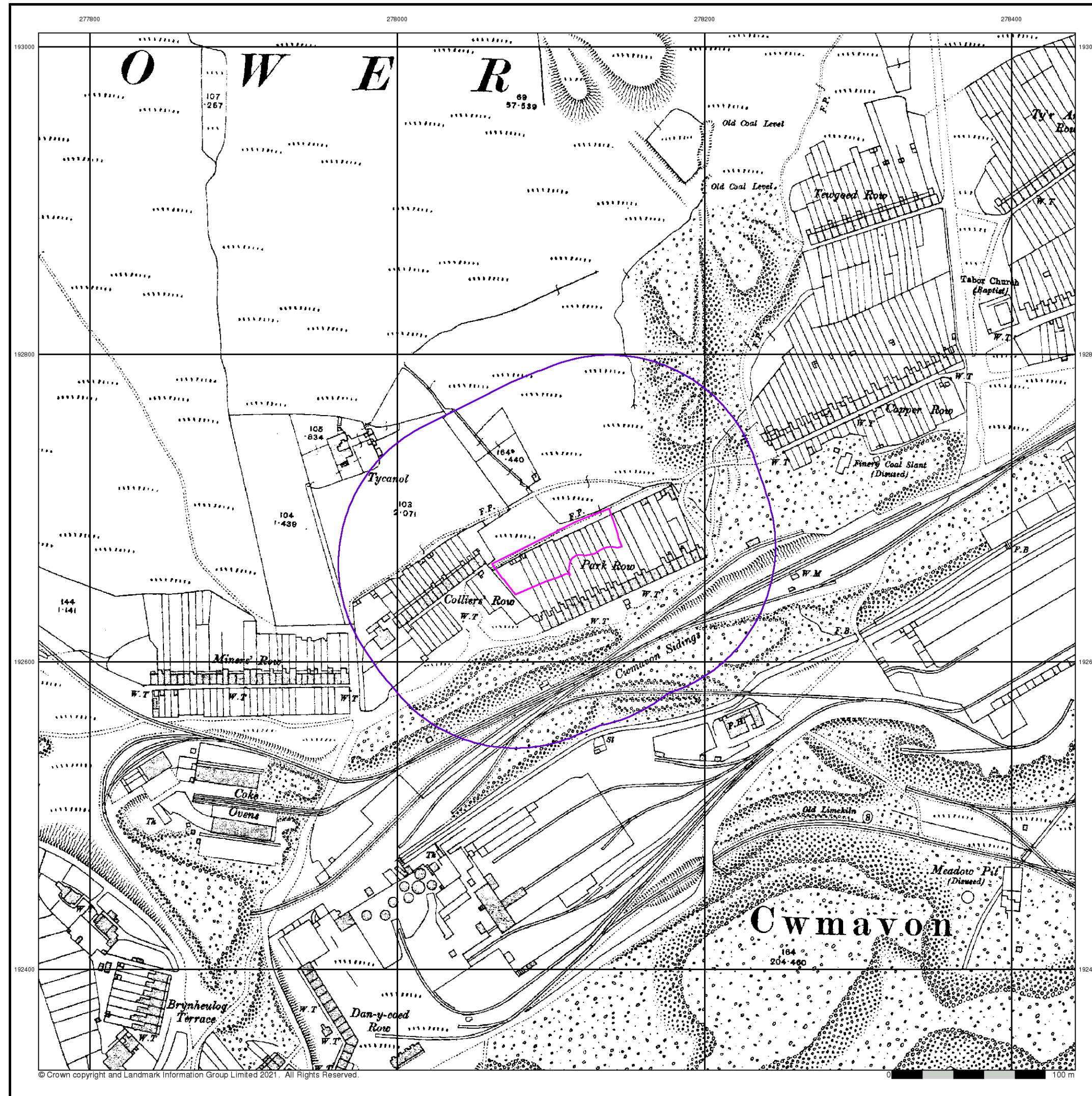
Order Number: 284338045_1_1
Customer Ref: 15568
National Grid Reference: 278110, 192670
Slice: A
Site Area (Ha): 0.2
Search Buffer (m): 100

Site Details

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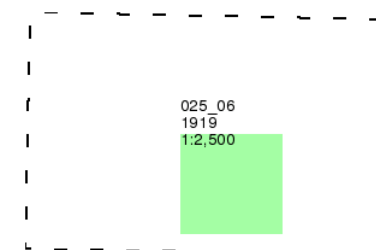
Glamorganshire

Published 1919

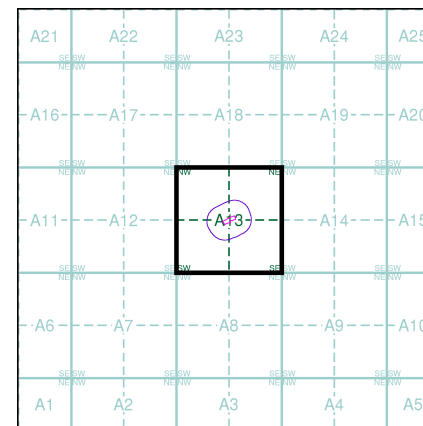
Source map scale - 1:2,500

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

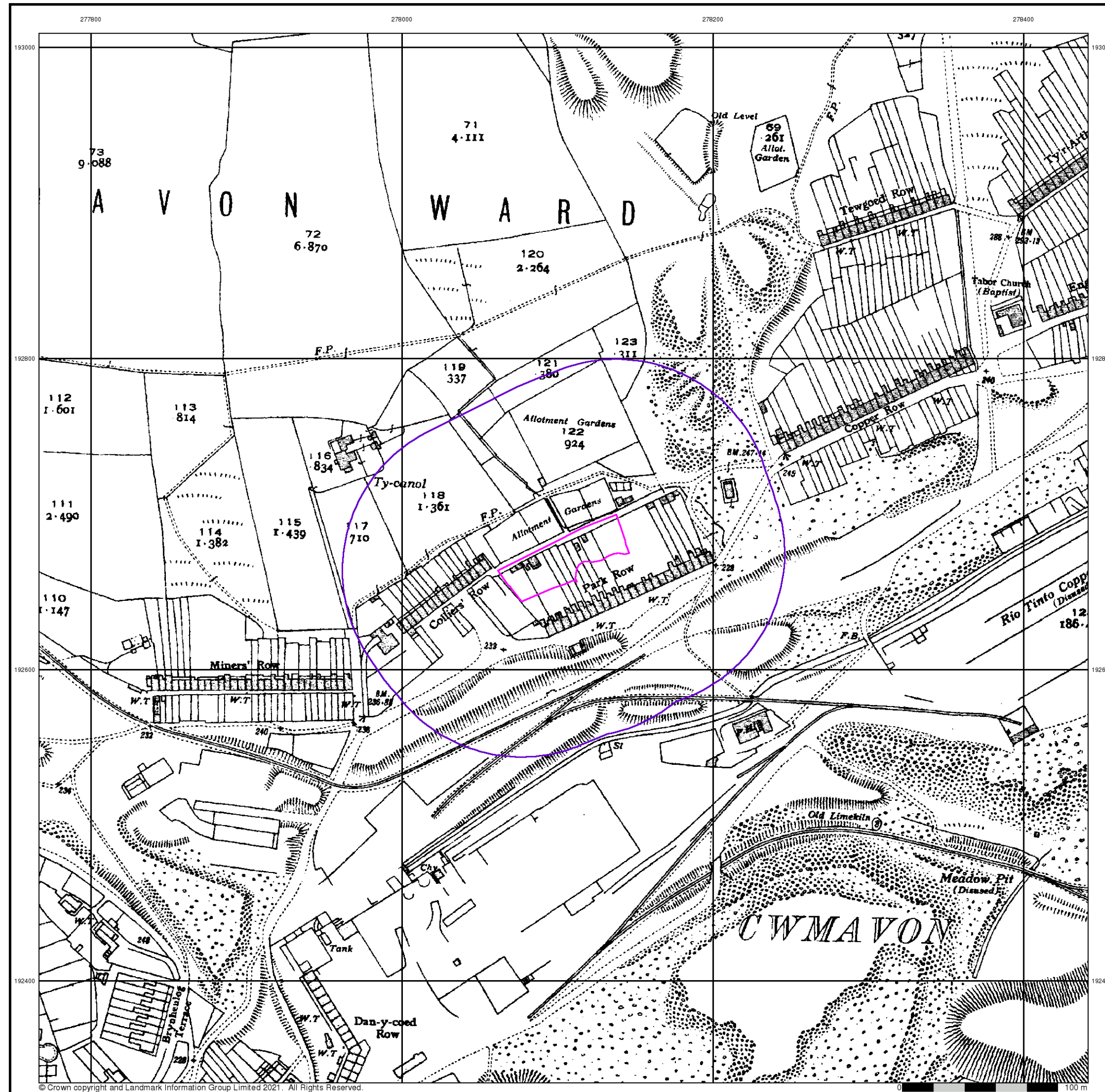
Order Number: 284338045_1_1
Customer Ref: 15568
National Grid Reference: 278110, 192670
Slice: A
Site Area (Ha): 0.2
Search Buffer (m): 100

Site Details

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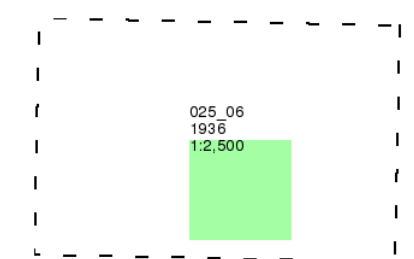
Glamorganshire

Published 1936

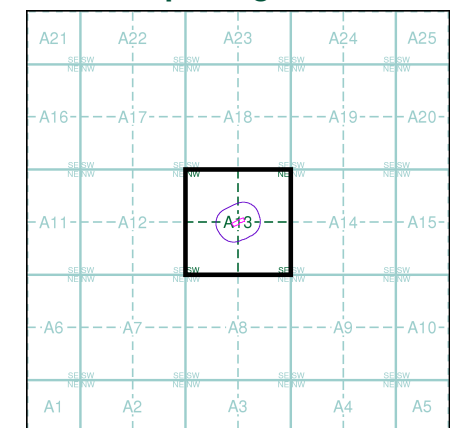
Source map scale - 1:2,500

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Map Name(s) and Date(s)



Historical Map - Segment A13



Order Details

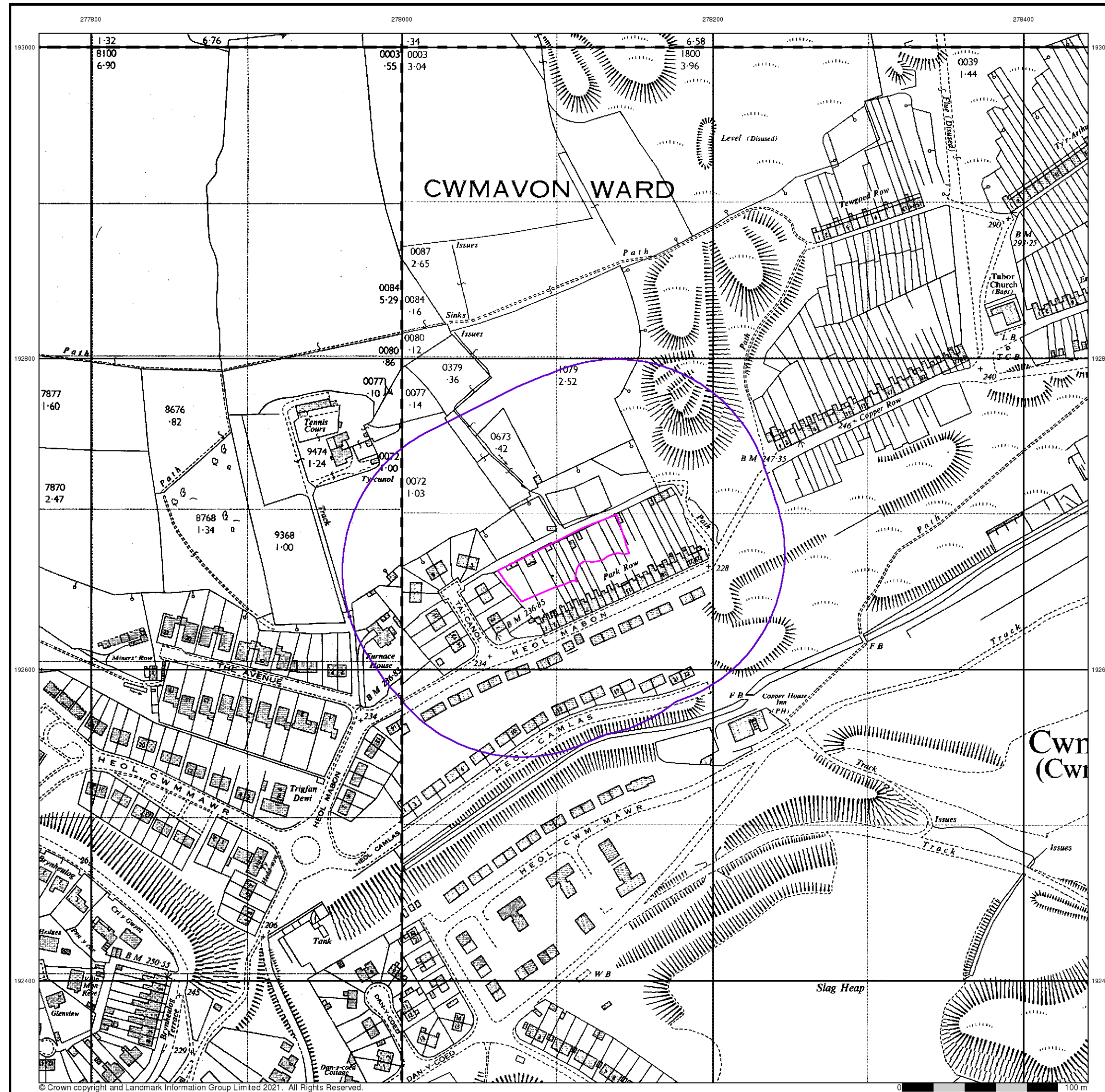
Order Number: 284338045_1_1
Customer Ref: 15568
National Grid Reference: 278110, 192670
Slice: A
Site Area (Ha): 0.2
Search Buffer (m): 100

Site Details

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Ordnance Survey Plan

Published 1965 - 1970

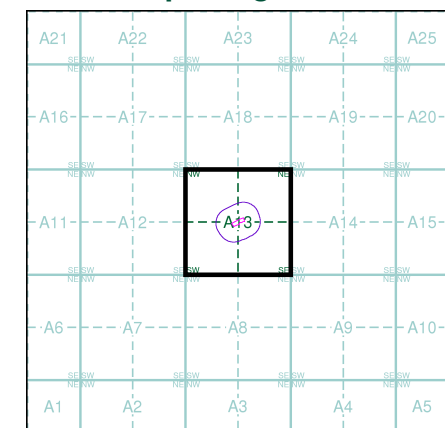
Source map scale - 1:2,500

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)

SS7793 1970 12,500	SS7893 1965 12,500
SS7792 1967 12,500	SS7892 1965 12,500

Historical Map - Segment A13



Order Details

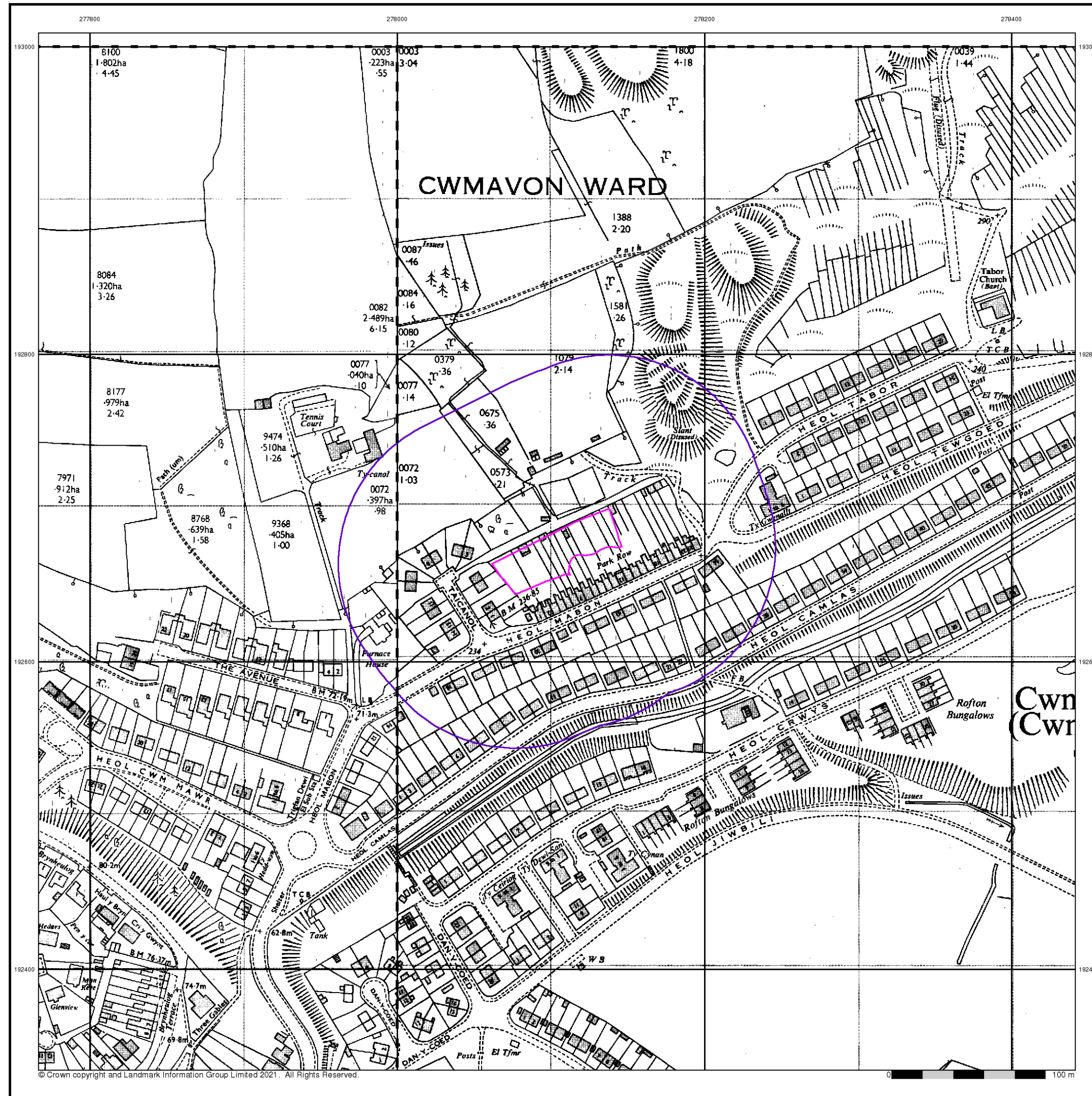
Order Number: 284338045_1_1
Customer Ref: 15568
National Grid Reference: 278110, 192670
Slice: A
Site Area (Ha): 0.2
Search Buffer (m): 100

Site Details

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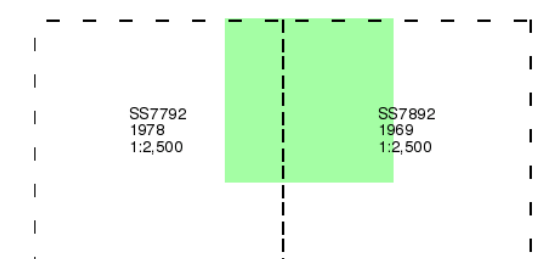
Ordnance Survey Plan

Published 1969 - 1978

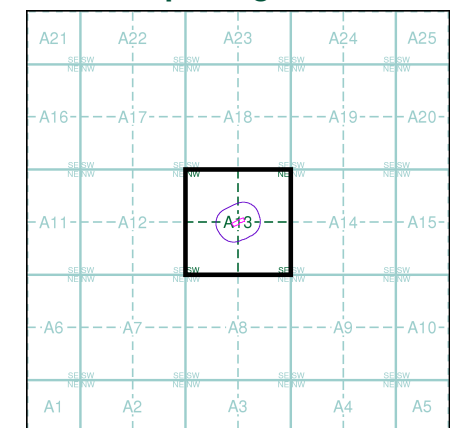
Source map scale - 1:2,500

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

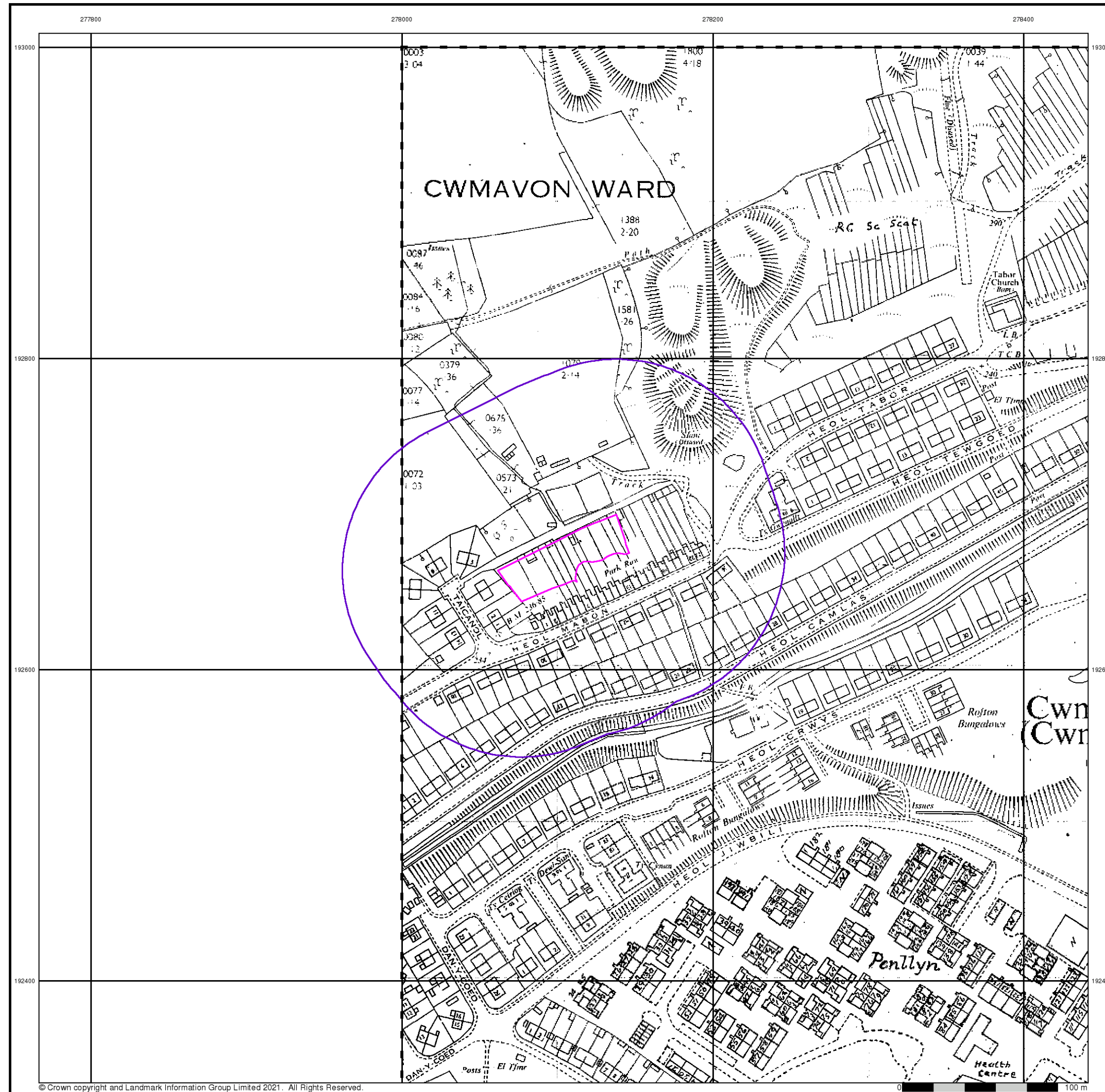
Order Number: 284338045_1_1
Customer Ref: 15568
National Grid Reference: 278110, 192670
Slice: A
Site Area (Ha): 0.2
Search Buffer (m): 100

Site Details

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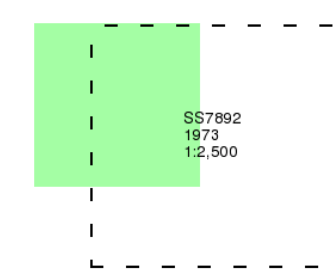
Supply of Unpublished Survey Information

Published 1973

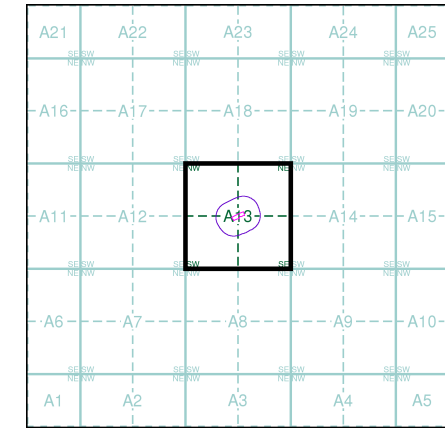
Source map scale - 1:2,500

SUSI maps (Supply of Unpublished Survey Information) were produced between 1972 and 1977, mainly for internal use at Ordnance Survey. These were more of a 'work-in-progress' plan as they showed updates of individual areas on a map. These maps were unpublished, and they do not represent a single moment in time. They were produced at both 1:2,500 and 1:1,250 scales.

Map Name(s) and Date(s)



Historical Map - Segment A13



Order Details

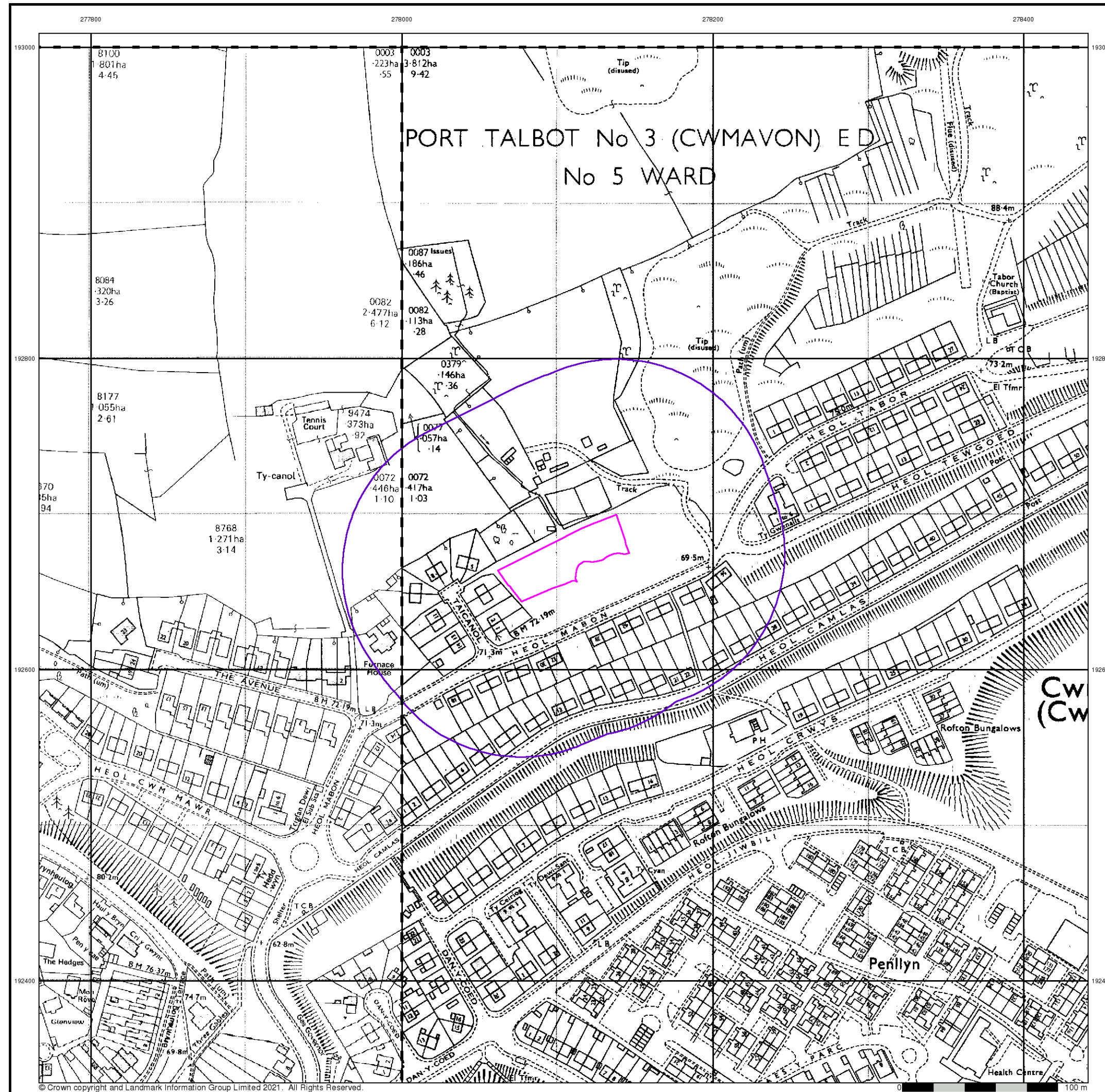
Order Number: 284338045_1_1
Customer Ref: 15568
National Grid Reference: 278110, 192670
Slice: A
Site Area (Ha): 0.2
Search Buffer (m): 100

Site Details

5, Park Row, Cwmafon, PORT TALBOT, SA12 9PW



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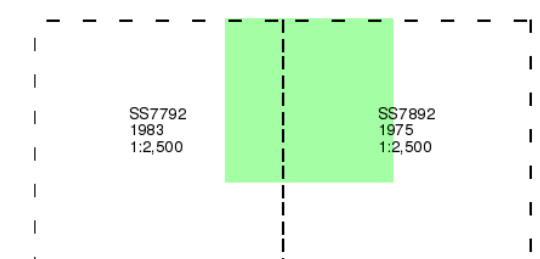
Ordnance Survey Plan

Published 1975 - 1983

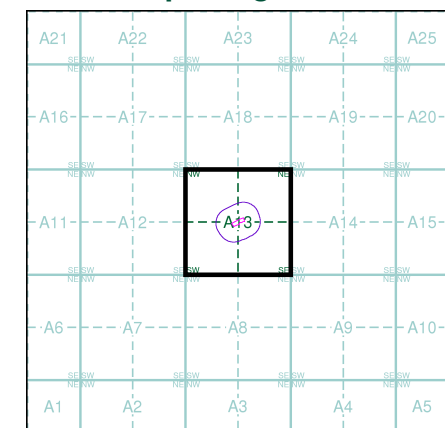
Source map scale - 1:2,500

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: 284338045_1_1
Customer Ref: 15568
National Grid Reference: 278110, 192670
Slice: A
Site Area (Ha): 0.2
Search Buffer (m): 100

Site Details

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Published 1978 - 1986

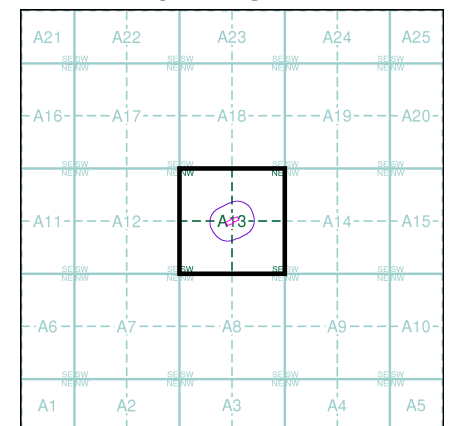
Source map scale - 1:2,500

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)

		SS7893
		1986
		12,500
- - -		- - -
	SS7792 SS7892	
	1983 1978	
	12,500 12,500	

Historical Map - Segment A13



Order Details

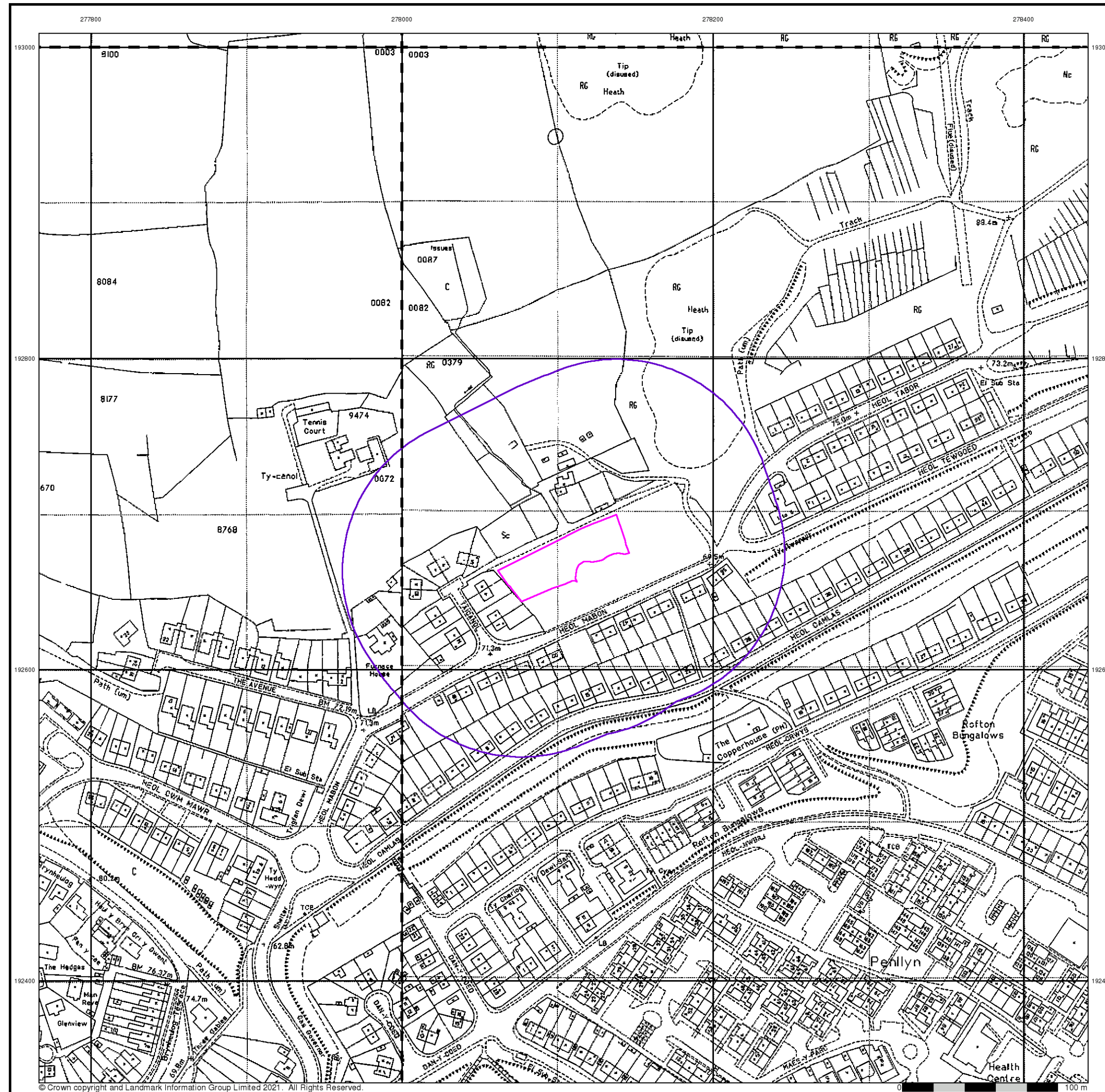
Order Number: 284338045_1_1
Customer Ref: 15568
National Grid Reference: 278110, 192670
Slice: A
Site Area (Ha): 0.2
Search Buffer (m): 100

Site Details

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Large-Scale National Grid Data

Published 1993

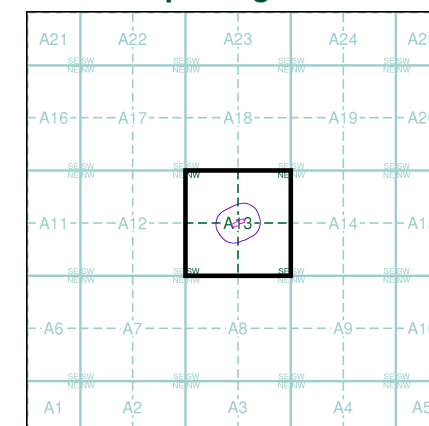
Source map scale - 1:2,500

'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)

SS7793 1993 12,500	SS7893 1993 12,500
SS7792 1993 12,500	SS7892 1993 12,500

Historical Map - Segment A13



Order Details

Order Number: 284338045_1_1
Customer Ref: 15568
National Grid Reference: 278110, 192670
Slice: A
Site Area (Ha): 0.2
Search Buffer (m): 100

Site Details

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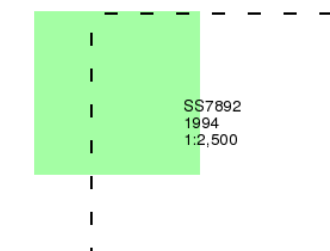
Large-Scale National Grid Data

Published 1994

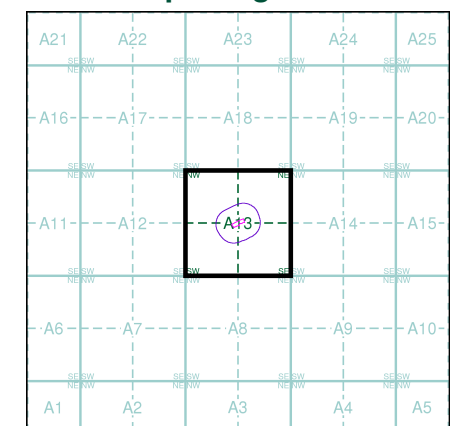
Source map scale - 1:2,500

'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)



Historical Map - Segment A13



Order Details

Order Number: 284338045_1_1
Customer Ref: 15568
National Grid Reference: 278110, 192670
Slice: A
Site Area (Ha): 0.2
Search Buffer (m): 100

Site Details

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0 100 m



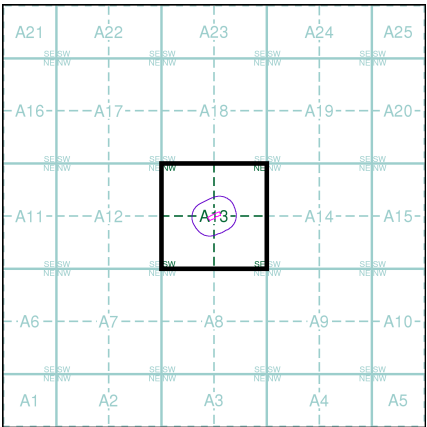
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Historical Aerial Photography

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

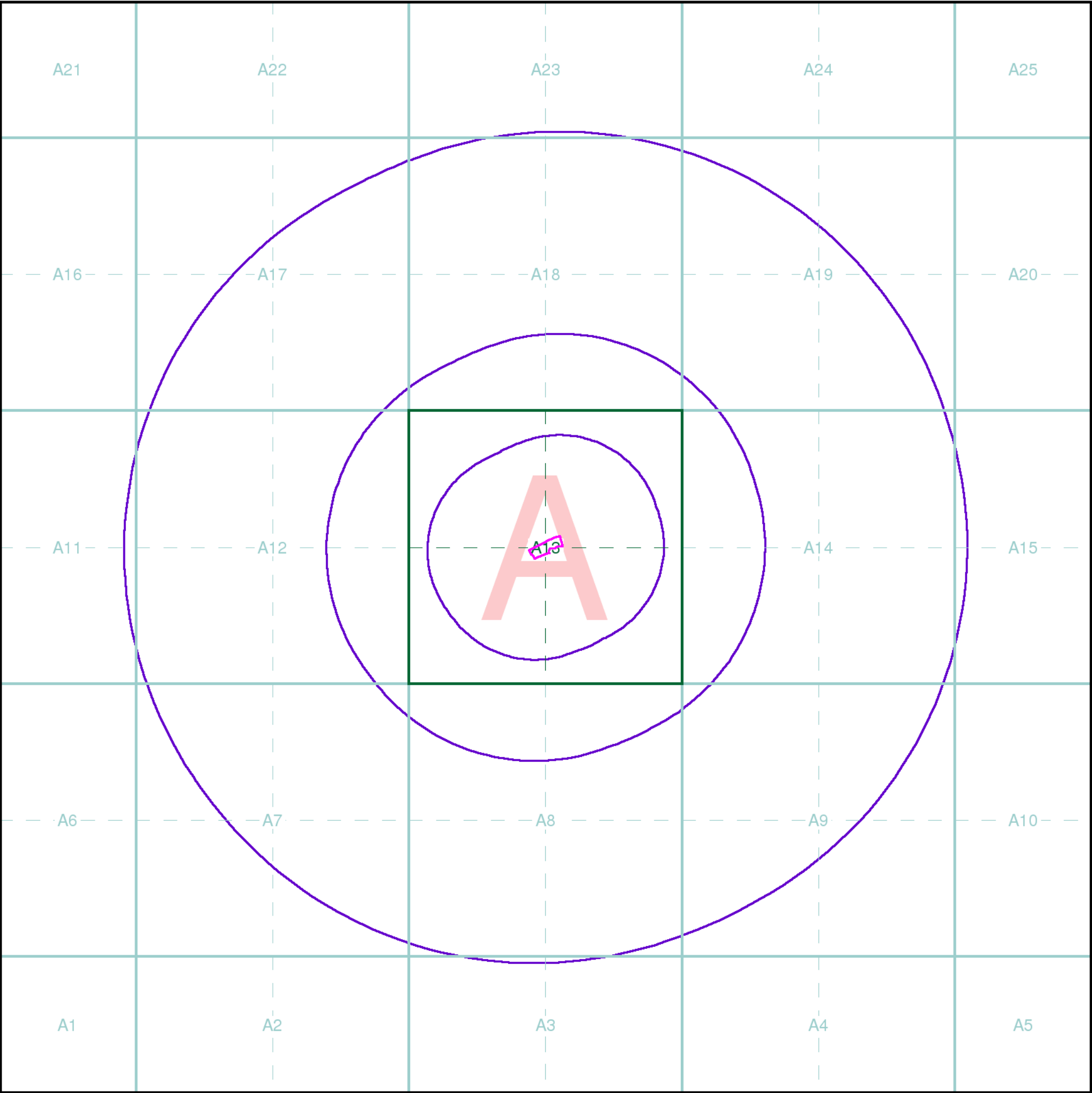
Order Number: 284338045_1_1
Customer Ref: 15568
National Grid Reference: 278110, 192670
Slice: A
Site Area (Ha): 0.2
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Index Map

For ease of identification, your site and buffer have been split into Slices, Segments and Quadrants. These are illustrated on the Index Map opposite and explained further below.

Slice

Each slice represents a 1:10,000 plot area (2.7km x 2.7km) for your site and buffer. A large site and buffer may be made up of several slices (represented by a red outline), that are referenced by letters of the alphabet, starting from the bottom left corner of the slice "grid". This grid does not relate to National Grid lines but is designed to give best fit over the site and buffer.

Segment

A segment represents a 1:2,500 plot area. Segments that have plot files associated with them are shown in dark green, others in light blue. These are numbered from the bottom left hand corner within each slice.

Quadrant

A quadrant is a quarter of a segment. These are labelled as NW, NE, SW, SE and are referenced in the datasheet to allow features to be quickly located on plots. Therefore a feature that has a quadrant reference of A7NW will be in Slice A, Segment 7 and the NW Quadrant.

A selection of organisations who provide data within this report:



Envirocheck reports are compiled from 136 different sources of data.

Client Details

Mr M Lake, Terra Firma (Wales) Ltd, 5 Deryn Court, Wharfdale Road, Pentwyn, Cardiff, CF23 7HB

Order Details

Order Number: 284338045_1_1
Customer Ref: 15568
National Grid Reference: 278100, 192670
Site Area (Ha): 0.2
Search Buffer (m): 1000

Site Details

5, Park Row, Cwmavon, PORT TALBOT, SA12 9PW

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<http://www.landmarkinfo.co.uk/Terms/Show/515>



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**ANNEX B
Coal Authority Report**



The Coal
Authority

CON29M

coal mining report

5 PARK ROW, CWMAVON, NEATH PORT TALBOT, SA12 9PW



Known or potential coal mining risks

Past underground coal mining	Page 4
Future underground coal mining	Page 4



Further action

No further reports from the Coal Authority are required. Further information on any next steps can be found in our Professional opinion.

For more information on our reports please visit
www.groundstability.com



Professional opinion

According to the official mining information records held by the Coal Authority at the time of this search, evidence of, or the potential for, coal mining related features have been identified. In view of the coal mining circumstances we would recommend that any planned or future development should follow detailed technical advice before beginning work on site. Please see **page 3** for further details on **Future development**.

Your reference: **GOCD DR01**
Our reference: **51002564112001**
Date: **20 July 2021**

Client name:
Gareth Owen

If you require any further assistance please
contact our experts on:
0345 762 6848
groundstability@coal.gov.uk

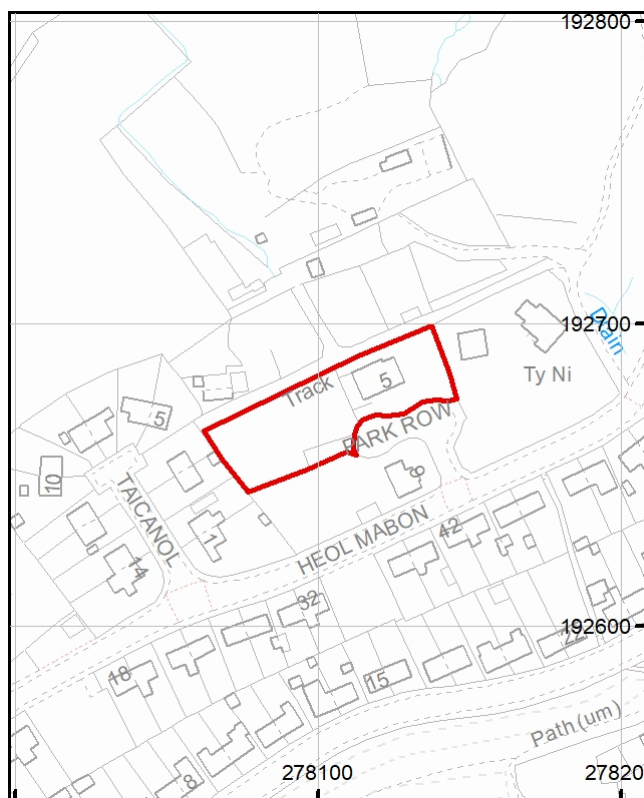


The Law
Society

Enquiry boundary

Key

Approximate position of enquiry boundary shown



We can confirm that the location is
on the coalfield



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This report is prepared in accordance with the latest Law Society's Guidance Notes 2018, the User Guide 2018 and the Coal Authority's Terms and Conditions applicable at the time the report was produced.



Accessibility

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Professional opinion



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. 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.

If you are looking to develop, or undertake works, within a coal mining development high risk area your Local Authority planning department may require a Coal Mining Risk Assessment to be undertaken by a qualified mining geologist or engineer. Should you require any additional information then please contact the Coal Authority on **0345 762 6848** or email **cmra@coal.gov.uk**.

Detailed findings

Information provided by the Coal Authority in this report is compiled in response to the Law Society's CON29M Coal Mining enquiries. The said enquiries are protected by copyright owned by the Law Society of 113 Chancery Lane, London WC2A 1PL.

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1 Past underground coal mining

The property is in a surface area that could be affected by underground mining in 4 seams of coal at 30m to 220m depth, and last worked in 1900.

Any movement in the ground due to coal mining activity associated with these workings should have stopped by now.

In addition the property is in an area where the Coal Authority believes there is coal at or close to the surface. This coal may have been worked at some time in the past. The potential presence of coal workings at or close to the surface should be considered, particularly prior to any site works or future development activity, as ground movement could still be a risk. Your attention is drawn to the Professional opinion sections of the report.

2 Present underground coal mining

The property is not within a surface area that could be affected by present underground mining.

3 Future underground coal mining

The property is not in an area where the Coal Authority has received an application for, and is currently considering whether to grant a licence to remove or work coal by underground methods.

The property is not in an area where a licence has been granted to remove or otherwise work coal using underground methods.

The property is not in an area likely to be affected from any planned future underground coal mining.

However, reserves of coal exist in the local area which could be worked at some time in the future.

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

4 Mine entries

There are no recorded coal mine entries known to the Coal Authority within, or within 20 metres, of the boundary of the property.

5 Coal mining geology

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.

6 Past opencast coal mining

The property is not within the boundary of an opencast site from which coal has been removed by opencast methods.

7 Present opencast coal mining

The property does not lie within 200 metres of the boundary of an opencast site from which coal is being removed by opencast methods.

8 Future opencast coal mining

There are no licence requests outstanding to remove coal by opencast methods within 800 metres of the boundary.

The property is not within 800 metres of the boundary of an opencast site for which a licence to remove coal by opencast methods has been granted.

9 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.

10 Mine gas

The Coal Authority has no record of a mine gas emission requiring action.

11 Hazards related to coal mining

The property has not been subject to remedial works, by or on behalf of the Coal Authority, under its Emergency Surface Hazard Call Out procedures.

Statutory cover



Coal mining subsidence

In the unlikely event of any coal mining related subsidence damage, the Coal Authority or the mine operator has a duty to take remedial action in respect of subsidence caused by the withdrawal of support from land or property in connection with lawful coal mining operations.

When the works are the responsibility of the Coal Authority, our dedicated public safety and subsidence team will manage the claim. The house or land owner ("the owner") is covered for these works under the terms of the Coal Mining Subsidence Act 1991 (as amended by the Coal Industry Act 1994). Please note, this Act does not apply where coal was worked or gotten by virtue of the grant of a gale in the Forest of Dean, or any other part of the Hundred of St. Briavels in the county of Gloucester.

If you believe your land or property is suffering from coal mining subsidence damage and you need more information on what to do next, please use the following link to our website which sets out what your rights are and what you need to consider before making a claim.

www.gov.uk/government/publications/coal-mining-subsidence-damage-notice-form



Coal mining hazards

Our public safety and subsidence team provide a 24 hour a day, 7 days a week hazard reporting service, to help protect the public from hazards caused by past coal workings, such as a mine shaft or shallow working collapse. To report any hazards please call **01623 646 333**. Further information can be found on our website: www.gov.uk/coalauthority.



On behalf of the insurer

Coal Mining Report Insurance Policy Schedule

Policy number: 29204808

The insurer: Liberty Legal Indemnities – underwritten by Liberty Mutual Insurance Europe SE

Binding Authority contract number: RNMFP2103841

Property: 5 PARK ROW, CWMAVON, NEATH PORT TALBOT, SA12 9PW

Report reference number: 51002564112001

Limit of cover: £50,000.00

Dated: 20 July 2021

This policy and schedule shall be read together and any word or expression to which a specific meaning has been attached in either shall bear such meaning wherever it may appear.

Where a Coal Mining Report has been obtained in connection with a sale of the property, cover is provided for the benefit of a purchaser and their lender; in the case of a re-mortgage or where the existing owner chooses to obtain a Coal Mining Report, cover is provided for the benefit of the owner and their lender.

The policy offers protection against loss sustained by the owner of the property if any new problems or adverse entries are revealed in a subsequent Coal Mining Report which were not revealed by the original report to which the policy was attached.

The insured shall at all times comply with the requirements of the Conditions of this Policy.

Coal Mining Report Terms and Conditions can be viewed online at this link:

<https://www.groundstability.com/insurance/terms/20190404/terms.html>

Glossary



Key terms

adit - horizontal or sloped entrance to a mine

coal mining subsidence - ground movement caused by the removal of coal by underground mining

Coal Mining Subsidence Act 1991 - the Act setting out the duties of the Coal Authority to repair damage caused by coal mining subsidence

coal mining subsidence damage - damage to land, buildings or structures caused by the removal of coal by underground mining

coal seams - bed of coal of varying thickness

future opencast coal mining - a licence granted, or licence application received, by the Coal Authority to excavate coal from the surface

future underground coal mining - a licence granted, or licence application received, by the Coal Authority to excavate coal underground. Although it is unlikely, remaining coal reserves could create a possibility for future mining, which would be licensed by the Coal Authority

mine entries - collective name for shafts and adits

payments to owners of former copyhold land - historically, copyhold land gave rights to coal to the copyholder. Legislation was set up to allow others to work this coal, but they had to issue a notice and pay compensation if a copyholder came forward

shaft - vertical entry into a mine

site investigation - investigations of coal mining risks carried out with the Coal Authority's permission

stop notice - a delay to repairs because further coal mining subsidence damage may occur and it would be unwise to carry out permanent repairs

subsidence claim - a formal notice of subsidence damage to the Coal Authority since it was established on 31 October 1994

withdrawal of support - a historic notice informing landowners that the coal beneath their property was going to be worked

working facilities orders - a court order which gave permission, restricted or prevented coal mine workings

ANNEX C
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

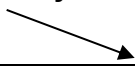
Table A Classification of Consequence	
Classification	Definition
Severe	• Short term (acute) risk to human health likely to result in significant harm • Short term risk to controlled waters • Catastrophic damage to buildings/structures • Short term risk to an ecosystem or organism within the particular 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.



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Tel: 029 2073 5354 **Fax:** 029 2073 5433 **Email:** info@terrafirmawales.co.uk www.terrafirmawales.co.uk

ANNEX B
Exploratory Hole Logs

Borehole Log

Borehole No.

WS01

Sheet 1 of 1

Project Name: 5 Park Row

Project No: 16881

Co-ords:

Hole Type
WLS

Location: Cwmavon, Neath Port Talbot

Level:

Scale
1:50

Client: David & Marie Rees

Dates: 21/10/2021 -

Logged By
MW

Water Strikes	Sample and In Situ Testing			Depth (m)	Level (m)	Well	Legend	Stratum Description	
	Depth (m)	Type	Results						
				0.10				MADE GROUND. Grass over brown organic-rich sandy slightly gravelly CLAY with some roots. Gravel is angular mudstone, sandstone and rare brick.	
	1.00	SPT	N=4 (2,1/1,1,1,1)					MADE GROUND. Very soft to soft brown slightly andy slightly gravelly CLAY. Gravel is angular sandstone and occasional concrete. Low cobble content of angular concrete.	1
				1.50				Soft grey and orangish brown sandy slightly gravelly CLAY. Gravel is angular sandstone.	
	2.00	SPT	N=30 (3,6/6,7,8,9)	2.00				Stiff to very stiff brown sandy slightly gravelly CLAY with occasional lenses of clayey sandy GRAVEL. Gravel is angular sandstone.	2
	3.00	SPT	N=21 (2,2/3,3,5,10)					<u>Becoming stiff from 3.0m.</u>	3
				3.50				Very dense brown slightly clayey very gravelly SAND. Gravel is angular sandstone.	
	4.00	SPT	N=50 (7,15/13,12,13,12)	4.00				End of Borehole at 4.000m	4
									5
									6
									7
									8
									9
									10

Remarks: 1] On completion borehole backfilled with arisings.

Borehole Log

Borehole No.

WS02

Sheet 1 of 1

Project Name: 5 Park Row

Project No: 16881

Co-ords:

Hole Type
WLS

Location: Cwmavon, Neath Port Talbot

Level:

Scale
1:50

Client: David & Marie Rees

Dates: 21/10/2021 -

Logged By
MW

Water Strikes	Sample and In Situ Testing			Depth (m)	Level (m)	Well	Legend	Stratum Description	
	Depth (m)	Type	Results						
				0.20				MADE GROUND. Grass over brown organic-rich sandy slightly gravelly CLAY with some roots. Gravel is angular mudstone, sandstone and rare brick.	
	1.00	SPT	50 (5,9/50 for 285mm)	1.30				Very dense grey and orangish brown clayey very gravelly SAND. Gravel is angular sandstone.	1
	2.00	SPT	50 (5,6/50 for 280mm)	2.00				Very stiff brown and grey sandy slightly gravelly CLAY. Gravel is angular sandstone.	2
								End of Borehole at 2.000m	2
									3
									4
									5
									6
									7
									8
									9
									10

Remarks: 1] On completion borehole backfilled with arisings.

Borehole Log

Borehole No.

WS03

Sheet 1 of 1

Project Name: 5 Park Row

Project No: 16881

Co-ords:

Hole Type
WLS

Location: Cwmavon, Neath Port Talbot

Level:

Scale
1:50

Client: David & Marie Rees

Dates: 21/10/2021 -

Logged By
MW

Water Strikes	Sample and In Situ Testing			Depth (m)	Level (m)	Well	Legend	Stratum Description	
	Depth (m)	Type	Results						
				0.10				MADE GROUND. Grass over brown organic-rich sandy slightly gravelly CLAY with some roots. Gravel is angular mudstone, sandstone and rare brick.	
				0.30				Firm brown and grey slightly sandy CLAY.	
	1.00	SPT	N=0 (0,1/0,0,0,0)	1.25				Very soft dark brown organic-rich silty sandy slightly gravelly CLAY. Occasional fragments of brick, slag, glass, plastic.	1
	2.00	SPT	N=48 (3,5/7,11,15,15)	1.90				Soft grey and orangish brown sandy slightly gravelly CLAY. Gravel is angular sandstone.	
	3.00	SPT	50 (5,5/50 for 285mm)	3.00				Very stiff brown sandy slightly gravelly CLAY with occasional lenses of clayey sandy GRAVEL. Gravel is angular sandstone.	2
								End of Borehole at 3.000m	3
									4
									5
									6
									7
									8
									9
									10

Remarks: 1] On completion borehole backfilled with arisings.

Borehole Log

Borehole No.

WS04

Sheet 1 of 1

Project Name: 5 Park Row

Project No: 16881

Co-ords:

Hole Type
WLS

Location: Cwmavon, Neath Port Talbot

Level:

Scale
1:50

Client: David & Marie Rees

Dates: 21/10/2021 -

Logged By
MW

Water Strikes	Sample and In Situ Testing			Depth (m)	Level (m)	Well	Legend	Stratum Description	
	Depth (m)	Type	Results						
				0.20				MADE GROUND. Grass over brown organic-rich sandy slightly gravelly CLAY with some roots. Gravel is angular mudstone, sandstone and rare brick.	
				0.70				Soft brown sandy slightly gravelly CLAY. Gravel is angular sandstone.	
	1.00	SPT	N=37 (5,7/8,8,11,10)					Very stiff grey and orangish brown sandy slightly gravelly CLAY with low cobble content. Gravel and cobbles are angular sandstone. Occasional lenses of clayey sandy GRAVEL.	1
	2.00	SPT	N=37 (4,7/8,8,11,10)						2
				2.60					
	3.00	SPT	N=50 (5,7/8,10,15,17)	3.00				Very dense brwn slightly clayey very gravelly SAND. Gravel is angular sandstone.	3
								End of Borehole at 3.000m	
									4
									5
									6
									7
									8
									9
									10

Remarks: 1] On completion borehole backfilled with arisings.

ANNEX C
Laboratory Soil Chemical Test Results



Amended Report

Report No.:	21-37065-2		
Initial Date of Issue:	29-Oct-2021	Date of Re-Issue:	11-Nov-2021
Client	Terra Firma (Wales) Ltd		
Client Address:	5 Deryn Court Wharfedale Road Pentwyn Cardiff CF23 7HA		
Contact(s):	michael@terrafirmawales.co.uk		
Project	Cwmafan		
Quotation No.:	Q20-21666	Date Received:	25-Oct-2021
Order No.:	16881-MW	Date Instructed:	25-Oct-2021
No. of Samples:	6		
Turnaround (Wkdays):	14	Results Due:	11-Nov-2021
Date Approved:	11-Nov-2021		
Approved By:			

Details: Glynn Harvey, Technical Manager

Results - Leachate

Project: Cwmafan

Client: Terra Firma (Wales) Ltd	Chemtest Job No.:					21-37065	21-37065	21-37065	21-37065	21-37065
Quotation No.: Q20-21666	Chemtest Sample ID.:					1305399	1305400	1305402	1305403	1305404
	Client Sample ID.:					WS01	WS02	WS03	WS04	WS04
	Sample Type:					SOIL	SOIL	SOIL	SOIL	SOIL
	Top Depth (m):					0.5	0.1	0.5	0.1	0.5
	Date Sampled:					21-Oct-2021	21-Oct-2021	21-Oct-2021	21-Oct-2021	21-Oct-2021
	Time Sampled:					12:00	12:00	12:00	12:00	12:00
Determinand	Accred.	SOP	Type	Units	LOD					
Naphthalene	U	1700	10:1	µg/l	0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10
Acenaphthylene	U	1700	10:1	µg/l	0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10
Acenaphthene	U	1700	10:1	µg/l	0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10
Fluorene	U	1700	10:1	µg/l	0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10
Phenanthrene	U	1700	10:1	µg/l	0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10
Anthracene	U	1700	10:1	µg/l	0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10
Fluoranthene	U	1700	10:1	µg/l	0.10	1.2	< 0.10	< 0.10	< 0.10	< 0.10
Pyrene	U	1700	10:1	µg/l	0.10	0.31	< 0.10	< 0.10	< 0.10	< 0.10
Benzo[a]anthracene	U	1700	10:1	µg/l	0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10
Chrysene	N	1700	10:1	µg/l	0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10
Benzo[b]fluoranthene	U	1700	10:1	µg/l	0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10
Benzo[k]fluoranthene	U	1700	10:1	µg/l	0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10
Benzo[a]pyrene	U	1700	10:1	µg/l	0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10
Indeno(1,2,3-c,d)Pyrene	U	1700	10:1	µg/l	0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10
Dibenz(a,h)Anthracene	U	1700	10:1	µg/l	0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10
Benzo[g,h,i]perylene	U	1700	10:1	µg/l	0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10
Total Of 16 PAH's	N	1700	10:1	µg/l	2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0

Results - Soil

Project: Cwmafan

Client: Terra Firma (Wales) Ltd	Chemtest Job No.:		21-37065	21-37065	21-37065	21-37065	21-37065	21-37065	21-37065
Quotation No.: Q20-21666	Chemtest Sample ID.:		1305399	1305400	1305401	1305402	1305403	1305404	
	Client Sample ID.:		WS01	WS02	WS02	WS03	WS04	WS04	
	Sample Type:		SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	
	Top Depth (m):		0.5	0.1	0.5	0.5	0.1	0.5	
	Date Sampled:		21-Oct-2021	21-Oct-2021	21-Oct-2021	21-Oct-2021	21-Oct-2021	21-Oct-2021	
	Time Sampled:		12:00	12:00	12:00	12:00	12:00	12:00	
	Asbestos Lab:		DURHAM	DURHAM	DURHAM	DURHAM	DURHAM	DURHAM	
Determinand	Accred.	SOP	Units	LOD					
ACM Type	U	2192		N/A	-	-	-	Fibres/Clumps	-
Asbestos Identification	U	2192		N/A	No Asbestos Detected	No Asbestos Detected	No Asbestos Detected	Chrysotile	No Asbestos Detected
Asbestos by Gravimetry	U	2192	%	0.001				<0.001	
Total Asbestos	U	2192	%	0.001				<0.001	
Moisture	N	2030	%	0.020	21	23	12	41	25
Soil Colour	N	2040		N/A	Brown	Brown	Brown	Brown	Brown
Other Material	N	2040		N/A	Stones	Stones	Stones	Stones	Stones
Soil Texture	N	2040		N/A	Sand	Sand	Sand	Sand	Sand
pH	M	2010		4.0	8.4	7.2	7.7	7.5	7.5
Boron (Hot Water Soluble)	M	2120	mg/kg	0.40	< 0.40	0.44	< 0.40	0.81	0.50
Sulphate (2:1 Water Soluble) as SO4	M	2120	g/l	0.010				0.057	
Total Sulphur	M	2175	%	0.010				0.14	
Cyanide (Complex)	M	2300	mg/kg	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
Cyanide (Total)	M	2300	mg/kg	0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50
Sulphate (Acid Soluble)	M	2430	%	0.010	0.039	0.040	< 0.010	0.095	0.032
Arsenic	M	2450	mg/kg	1.0	35	33	8.5	47	62
Beryllium	U	2450	mg/kg	1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Cadmium	M	2450	mg/kg	0.10	0.41	0.64	< 0.10	2.6	1.1
Chromium	M	2450	mg/kg	1.0	11	15	16	30	21
Mercury Low Level	M	2450	mg/kg	0.05	0.24	0.16	0.06	0.36	0.26
Manganese	M	2450	mg/kg	5.0	730	600	710	660	710
Molybdenum	M	2450	mg/kg	2.0	2.0	< 2.0	< 2.0	3.3	2.9
Antimony	N	2450	mg/kg	2.0	2.5	2.4	< 2.0	13	5.8
Copper	M	2450	mg/kg	0.50	120	140	27	440	200
Nickel	M	2450	mg/kg	0.50	17	21	24	71	34
Lead	M	2450	mg/kg	0.50	73	110	16	330	230
Selenium	M	2450	mg/kg	0.20	0.65	0.63	0.35	1.1	0.98
Zinc	M	2450	mg/kg	0.50	200	310	67	890	520
Chromium (Trivalent)	N	2490	mg/kg	1.0	11	15	16	30	21
Chromium (Hexavalent)	N	2490	mg/kg	0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50
Aliphatic TPH >C5-C6	N	2680	mg/kg	1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Aliphatic TPH >C6-C8	N	2680	mg/kg	1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Aliphatic TPH >C8-C10	M	2680	mg/kg	1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Aliphatic TPH >C10-C12	M	2680	mg/kg	1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Aliphatic TPH >C12-C16	M	2680	mg/kg	1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Aliphatic TPH >C16-C21	M	2680	mg/kg	1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0

Results - Soil

Project: Cwmafan

Client: Terra Firma (Wales) Ltd	Chemtest Job No.:				21-37065	21-37065	21-37065	21-37065	21-37065	21-37065
Quotation No.: Q20-21666	Chemtest Sample ID.:				1305399	1305400	1305401	1305402	1305403	1305404
	Client Sample ID.:				WS01	WS02	WS02	WS03	WS04	WS04
	Sample Type:				SOIL	SOIL	SOIL	SOIL	SOIL	SOIL
	Top Depth (m):				0.5	0.1	0.5	0.5	0.1	0.5
	Date Sampled:				21-Oct-2021	21-Oct-2021	21-Oct-2021	21-Oct-2021	21-Oct-2021	21-Oct-2021
	Time Sampled:				12:00	12:00	12:00	12:00	12:00	12:00
	Asbestos Lab:				DURHAM	DURHAM	DURHAM	DURHAM	DURHAM	DURHAM
Determinand	Accred.	SOP	Units	LOD						
Aliphatic TPH >C21-C35	M	2680	mg/kg	1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Aliphatic TPH >C35-C44	N	2680	mg/kg	1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Total Aliphatic Hydrocarbons	N	2680	mg/kg	5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0
Aromatic TPH >C5-C7	N	2680	mg/kg	1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Aromatic TPH >C7-C8	N	2680	mg/kg	1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Aromatic TPH >C8-C10	M	2680	mg/kg	1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Aromatic TPH >C10-C12	M	2680	mg/kg	1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Aromatic TPH >C12-C16	M	2680	mg/kg	1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Aromatic TPH >C16-C21	U	2680	mg/kg	1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Aromatic TPH >C21-C35	M	2680	mg/kg	1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Aromatic TPH >C35-C44	N	2680	mg/kg	1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Total Aromatic Hydrocarbons	N	2680	mg/kg	5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0
Total Petroleum Hydrocarbons	N	2680	mg/kg	10.0	< 10	< 10	< 10	< 10	< 10	< 10
Naphthalene	M	2700	mg/kg	0.10	6.2	5.2	< 0.10	6.3	6.4	2.2
Acenaphthylene	M	2700	mg/kg	0.10	0.16	0.14	< 0.10	0.41	0.10	0.39
Acenaphthene	M	2700	mg/kg	0.10	0.50	0.20	< 0.10	1.0	0.24	0.32
Fluorene	M	2700	mg/kg	0.10	0.21	0.10	< 0.10	0.77	0.14	0.42
Phenanthrene	M	2700	mg/kg	0.10	3.1	1.2	< 0.10	11	1.5	0.46
Anthracene	M	2700	mg/kg	0.10	0.59	0.14	< 0.10	1.8	0.23	0.44
Fluoranthene	M	2700	mg/kg	0.10	5.2	1.9	0.21	16	2.8	0.64
Pyrene	M	2700	mg/kg	0.10	4.3	1.5	0.24	13	2.5	0.49
Benzo[a]anthracene	M	2700	mg/kg	0.10	2.2	0.94	0.13	6.5	1.1	0.43
Chrysene	M	2700	mg/kg	0.10	3.2	1.5	0.29	12	1.8	0.55
Benzo[b]fluoranthene	M	2700	mg/kg	0.10	3.2	1.4	< 0.10	11	1.9	0.46
Benzo[k]fluoranthene	M	2700	mg/kg	0.10	1.3	0.80	< 0.10	4.5	1.2	0.51
Benzo[a]pyrene	M	2700	mg/kg	0.10	2.1	1.1	< 0.10	6.5	1.4	0.44
Indeno(1,2,3-c,d)Pyrene	M	2700	mg/kg	0.10	1.9	0.78	< 0.10	5.3	1.1	0.48
Dibenz(a,h)Anthracene	M	2700	mg/kg	0.10	0.56	0.35	< 0.10	2.0	0.46	0.46
Benzo[g,h,i]perylene	M	2700	mg/kg	0.10	1.5	0.79	< 0.10	4.9	0.68	0.34
Total Of 16 PAH's	M	2700	mg/kg	2.0	36	18	< 2.0	100	24	9.0
Total Phenols	M	2920	mg/kg	0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10
Organic Matter BS1377	N	2930	%	0.10	2.6	2.6	0.80	2.3	3.3	0.60

Test Methods

SOP	Title	Parameters included	Method summary
1700	Speciated Polynuclear Aromatic Hydrocarbons (PAH) in Waters 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)
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
2175	Total Sulphur in Soils	Total Sulphur	Determined by high temperature combustion under oxygen, using an Eltra elemental analyser.
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.
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.
2680	TPH A/A Split	Aliphatics: >C5–C6, >C6–C8,>C8–C10, >C10–C12, >C12–C16, >C16–C21, >C21–C35, >C35– C44Aromatics: >C5–C7, >C7–C8, >C8– C10, >C10–C12, >C12–C16, >C16– C21, >C21– C35, >C35– C44	Dichloromethane 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)
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
640	Characterisation of Waste (Leaching C10)	Waste material including soil, sludges and granular waste	ComplianceTest for Leaching of Granular Waste Material and Sludge

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

ANNEX D
Laboratory Geotechnical Test Results



Contract Number: 56382

Client Ref:

Report Date: **10-11-2021**

Client PO:

Client **Terrafirma Wales Ltd**
5 Deryn Court
Wharfedale Road
Pentwyn
Cardiff
CF23 7HB

Contract Title: **Cwmafan**
For the attention of: **Michael Watkins**

Date Received: **25-10-2021**

Date Completed: **10-11-2021**

Test Description	Qty
Samples Received - @ Non Accredited Test	2
Moisture Content BS 1377:1990 - Part 2 : 3.2 - * UKAS	2
4 Point Liquid & Plastic Limit BS 1377:1990 - Part 2 : 4.3 & 5.3 - * UKAS	2
BRE Reduced Suite includes pH, water & acid soluble sulphate and total sulphur Sub-contracted Test - @ Non Accredited Test	1
Disposal of samples for job	1

Notes: **Observations and Interpretations are outside the UKAS Accreditation**

* - denotes test included in laboratory scope of accreditation

- denotes test carried out by approved contractor

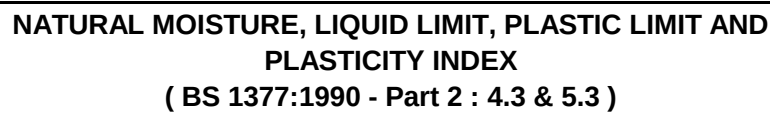
@ - denotes non accredited tests

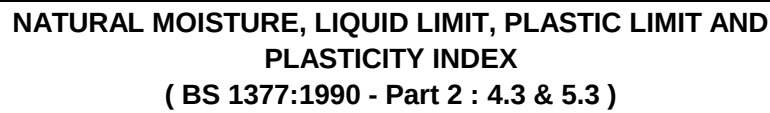
This certificate is issued in accordance with the accreditation requirements of the United Kingdom Accreditation Service. The results reported herein relate only to the material supplied to the laboratory. This certificate shall not be reproduced except in full, without the prior written approval of the laboratory.

Approved Signatories:

Emma Sharp (Business Support Manager) - Paul Evans (Director) - Richard John (Quality/Technical Manager)

Shaun Jones (Laboratory manager) - Shaun Thomas (Site Manager) - Wayne Honey (Quality Assistant / Administrator / Health and Safety Coordinator)

[illegible]

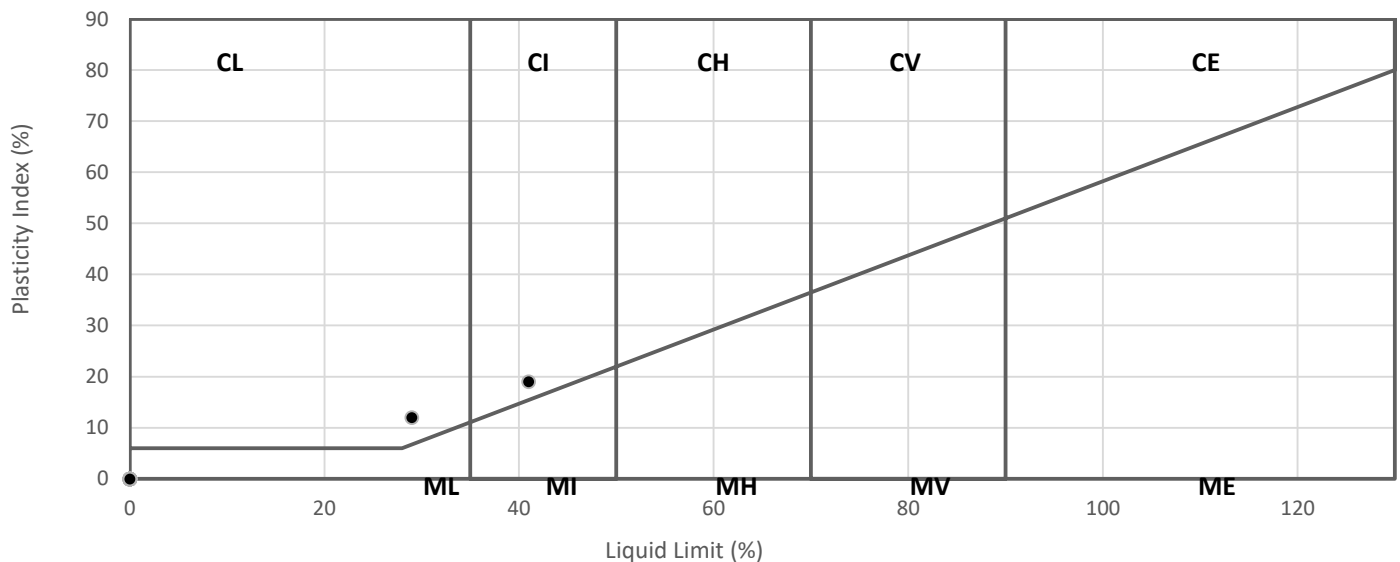


Contract Number	56382	
Project Location	Cwmafan	
Date Tested	04/11/2021	

[illegible]

Symbols: NP : Non Plastic # : Liquid Limit and Plastic Limit Wet Sieved

PLASTICITY CHART FOR CASAGRANDE CLASSIFICATION BS 5930:1999+A2:2010



Operators	Checked	10/11/2021	Richard John (Advanced Testing Manager)
Jordan Williams	Approved	10/11/2021	Paul Evans (Quality/Technical Manager)





DETS

Certificate of Analysis

Certificate Number 21-23050

Issued: 04-Nov-21

Client GEO Site and Testing Services Ltd
Unit 4
Heol Aur
Dafen Ind Est
Dafen
Carmarthenshire
SA14 8QN

Our Reference 21-23050

Client Reference 16881-MW

Order No (not supplied)

Contract Title CWMAFAN

Description One Soil sample.

Date Received 28-Oct-21

Date Started 28-Oct-21

Date Completed 04-Nov-21

Test Procedures Identified by prefix DETSn (details on request).

Notes Opinions and interpretations are outside the laboratory's scope of ISO 17025 accreditation. This certificate is issued in accordance with the accreditation requirements of the United Kingdom Accreditation Service. The results reported herein relate only to the material supplied to the laboratory. This certificate shall not be reproduced except in full, without the prior written approval of the laboratory.

Approved By



Adam Fenwick
Contracts Manager



Summary of Chemical Analysis

Soil Samples

Our Ref 21-23050

Client Ref 16881-MW

Contract Title CWMAFAN

Lab No	1926827
Sample ID	WS01
Depth	1.40
Other ID	
Sample Type	SOIL
Sampling Date	n/s
Sampling Time	n/s

Test	Method	LOD	Units	
Inorganics				
pH	DETSC 2008#		pH	7.6
Sulphate Aqueous Extract as SO ₄	DETSC 2076#	10	mg/l	14
Sulphur as S, Total	DETSC 2320	0.01	%	0.01
Sulphate as SO ₄ , Total	DETSC 2321#	0.01	%	0.02

Information in Support of the Analytical Results

Our Ref 21-23050
 Client Ref 16881-MW
 Contract CWMAFAN

Containers Received & Deviating Samples

Lab No	Sample ID	Date Sampled	Containers Received	Holding time exceeded for tests	Inappropriate container for tests
1926827	WS01 1.40 SOIL		PT 1L	Sample date not supplied, Anions 2:1 (30 days), Total Sulphur ICP (7 days), Total Sulphate ICP (30 days), Metals ICP Prep (182 days), pH + Conductivity (7 days)	

Key: P-Plastic T-Tub

DETS cannot be held responsible for the integrity of samples received whereby the laboratory did not undertake the sampling. In this instance samples received may be deviating. Deviating Sample criteria are based on British and International standards and laboratory trials in conjunction with the UKAS note 'Guidance on Deviating Samples'. All samples received are listed above. However, those samples that have additional comments in relation to hold time, inappropriate containers etc are deviating due to the reasons stated. This means that the analysis is accredited where applicable, but results may be compromised due to sample deviations. If no sampled date (soils) or date+time (waters) has been supplied then samples are deviating. However, if you are able to supply a sampled date (and time for waters) this will prevent samples being reported as deviating where specific hold times are not exceeded and where the container supplied is suitable.

Soil Analysis Notes

Inorganic soil analysis was carried out on a dried sample, crushed to pass a 425µm sieve, in accordance with BS1377.

Organic soil analysis was carried out on an 'as received' sample. Organics results are corrected for moisture and expressed on a dry weight basis.

The Loss on Drying, used to express organics analysis on an air dried basis, is carried out at a temperature of 28°C +/-2°C.

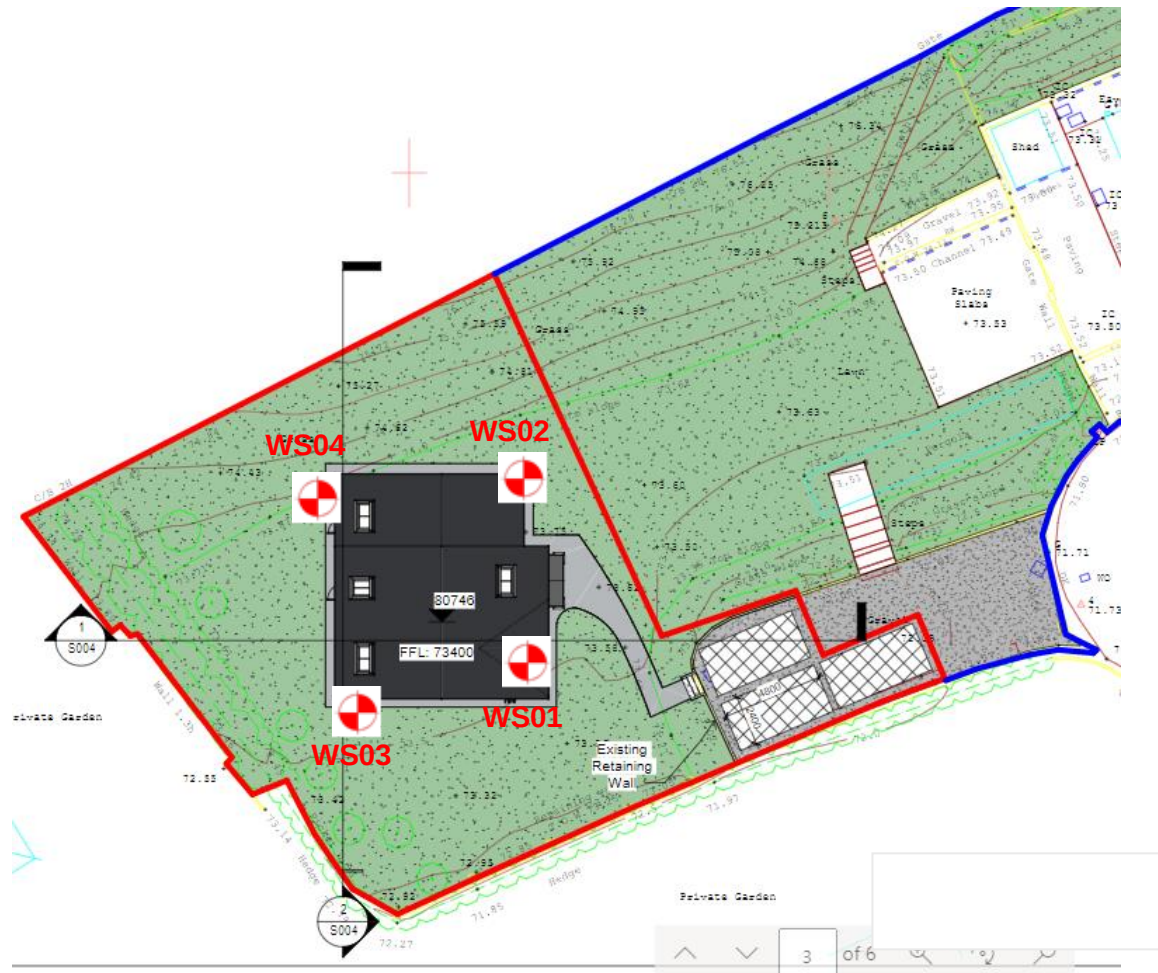
Disposal

From the issue date of this test certificate, samples will be held for the following times prior to disposal :-

Soils - 1 month, Liquids - 2 weeks, Asbestos (test portion) - 6 months

End of Report

DRAWINGS



15568

5 Parc Row, Cwmavon

Exploratory Hole Layout

01

Not To Scale



Terra Firma (Wales) Ltd. 5 Deryn Court, Wharfedale Road, Pentwyn, Cardiff CF23 7HA
Tel: 029 2073 5354 **Fax:** 029 2073 5433 **Email:** info@terrafirmawales.co.uk www.terrafirmawales.co.uk