

**Geotechnical & Geoenvironmental
Site Investigation Report:**
Proposed Residential Development at
Former Clyne Primary School, Clyne

PREPARED FOR:
Mr Jim Slater

August 2017

Job No: 14242




terrafirma

REPORT TITLE : **Geotechnical and Geoenvironmental Report Site Investigation Report: Proposed Residential Development at Former Clyne Primary School, Clyne**

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Executive Summary

Proposed Development and Site Location	Mr Jim Slater is proposing a residential development comprising approximately 29 units (semi-detached and detached houses) with associated access road, car parking areas, garden and hard and soft landscaped areas. The land is located to the south of the B4434, Clyne. The site is roughly rectangular in shape, orientated north east to south west and centred on a National Grid Reference of 281040, 201170 occupying a plan area of approximately 0.84 Hectares / 8,400m ² . The site is currently occupied by Clyne Primary School.
Site History	The site has been field and wood land before the school and playing field were constructed over a number of phases. The school currently occupies the site.
Geology	The site is shown to be underlain by the South Wales Upper Coal Measures Formation which are Carboniferous in age. The majority of the site is seen to be underlain by the Rhondda Beds with the south eastern side of the site underlain by the Brithdir Beds. The boundary between these is the Brithdir Coal seam which is identified as thin and runs just inside and parallel with the south eastern boundary. In the area of the site the dip of the bedrock is seen to be 7° to the south. The bedrock geology is seen to be overlain by superficial deposits in the form of glacial sand and gravel. The historic maps have shown the site to be occupied by a school and a cut and fill exercise may have taken place on the site. Made ground may therefore be present on the site.
Ground Conditions	MADE GROUND: Tarmac / medium dense, grey slightly clayey ashy GRAVEL / loose, dark grey, ashy sandy GRAVEL with slag / very soft, dark grey brown, gravelly CLAY with brick and small ashy patches / medium dense, black, very gravelly ashy SAND Soft to firm, firm and firm to stiff, orange and grey, grey brown, gravelly CLAY with common cobbles. / medium dense, grey, clayey gravelly SAND / dense, brown mottled grey, clayey sandy GRAVEL / firm, grey, slightly sandy slightly gravelly CLAY
Radon	NO radon protection is required for the proposed buildings.
Laboratory Chemical Testing	Arsenic in soils was found above guideline values in three samples and dibenzo(ah)anthracene in one sample. None of the exceedences were found to be leachable
Remediation and Mitigation	If site levels are to remain close to the existing levels and where made ground remains after the site strip a capping system should be utilised. The capping system should comprise of the proposed buildings and roads. Under hard standings such as driveways, paths and patios 600mm of inert suitable granular material should be used. In garden and soft landscaped areas 600mm of suitable inert topsoil /subsoil material should be used. The capping layer under hard standings and in garden and landscaped area should be placed over a geotextile no dig barrier to prevent the mixing of soils. Alternatively if levels are to be reduced the impacted made ground can be excavated and removed from site. Once removed from site and the underlying soils validated there will be no risk to site end users.
Foundation Solution	For the new development deep strip and trench fill foundations, founded in the underlying competent natural material are recommended. Based upon the site investigation the depth to the in-situ founding horizon will be between 1.00m and 2.00m depth below the existing ground level. The floor slabs should be designed as suspended The foundations should penetrate at least 200mm into the founding horizon and in order to prevent any effects from frost heave the foundations should extend to a minimum depth of 450mm. An allowable bearing pressure of 100kN/m² may be used for design purposes. For the given foundation solution and bearing pressure, maximum total settlements of 30mm should result with differential movements of the superstructure not exceeding 1:750.

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SECTION 1 Introduction and Proposed Development

1.1 Introduction

Mr Jim Slater is proposing a residential development comprising approximately 29 units (semi-detached and detached houses) with associated access road, car parking areas, garden and hard and soft landscaped areas. The land is located to the south of the B4434, Clyne.

Roger Casey Associated Limited are the structural and civil engineers for the project.

Terra Firma (Wales) Limited have been commissioned to undertake a geo-environmental assessment and geotechnical investigation of the site.

The main objectives of the geo-environmental assessment programme were to:

- Investigate the potential environmental liabilities at the site associated with any soil contamination
- Provide a summary of the 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 were to:

- Determine the type, strength and bearing characteristics of the shallow superficial and underlying solid geology
- Provide engineering foundation and floor slab recommendations for the development
- Provide recommendations with regard to 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 review of existing data, followed by a field investigation to collect geotechnical and environmental data from selected locations.

1.2 Limitations and Exceptions of Investigation

Mr Jim Slater has requested that a Geo-environmental Site Assessment (GSA) and Geotechnical Investigation (GI) be performed in order to determine if contamination is present beneath the site and to determine an appropriate foundation and floor slab solution for the proposed development.

The GSA and GI were conducted and this report has been prepared for the sole internal reliance of Mr Jim Slater and his 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 geo-environmental 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.

The site investigation was limited by underground services and the existing structures.

SECTION 2 Review of Existing Data

2.1 Physical Setting and Current Site Use

The site is roughly rectangular in shape, orientated north east to south west and centred on a National Grid Reference of 281040 201170 occupying a plan area of approximately 0.84 Hectares / 8,400m². The site is currently occupied by Clyne Primary School. The southern half of the site is occupied by the school buildings and areas of hard standing. The northern half of the site is covered with rough vegetation and used as a playing field.

The boundaries of the development area are defined by the B4434 to the north-west, a fence to the north east and south east and the property boundary of Vernon House to the south west.

The site as a whole is raised above the B4434, it appears that a program of cutting on the southern side of the site and filling on the northern side has been undertaken to form a level area. The majority of the site where the main building and playing field is a level plateau. In the south of the site towards the road are lower tiers around the smaller school building. A series of ramps and steps connect these areas.

The surrounding area is dominated by field land and areas of woods with a small residential area to the north east.

The site location can be seen on **Drawing 01** and the current and proposed site layouts are presented at the rear of the report in **Drawing 02** and **Drawing 03** respectively.

2.2 Site History

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

Table 2.1 Summary of Historical Map Information		
Map Edition and Scale	Key Features on Site	Key Features off Site
1881 (1:2,500)	The northernmost side of the site is an open field. The southern portion of the site is an area of woodland.	The north western boundary is marked by a road. At 20m to the south of the site is a small stream and a second slightly larger stream the Dyfnant locates 80m to the north east. Both streams flow in a north westerly direction. The River Neath locates 230m to the north west and flows in a south westerly direction. Located 45m to the north west of the site is a south west to north east trending rail line. An old coal level located 250m to the west of the site.
1899 (1:2,500)	The southern end of the site is now occupied by a school building which locates close to the north western boundary and a small square feature to the east. The northern end is occupied by an open field and rough pasture.	There are no significant changes in the surrounding area.

2.2 Site History (Continued)

Table 2.1 Summary of Historical Map Information (Continued)		
Map Edition and Scale	Key Features on Site	Key Features off Site
1918 (1:2,500)	A much larger building has now been constructed along the south eastern boundary in the south of the site. Three additional out buildings are also present on the site.	A property has been constructed immediately to the south west of the site and now forms this boundary. Two very small quarries locate 100m to the north east and 120m east of the site. Two houses have been constructed 70m to the north east.
1951-1953 (1:10,560)	No significant changes.	No significant changes
1963-1964 (1:2,500)	The northern half of the site has now been modified and a level plateau formed by cutting along the south eastern boundary. One of the buildings close to the south western boundary has been removed.	The area to the north east of the site has now seen further residential development. A dismantled tramway locates 160m to the east of the site and the topography of the area suggests it passed in close proximity, parallel to the north eastern boundary.
1993 (1:10,000)	No significant changes.	No significant changes.
1999 (1:10,000)	No significant changes.	No significant changes.
2006 (1:10,000)	No significant changes.	No significant changes.
2017 (1:10,000)	No significant changes.	No significant changes.

2.3 Geological Setting

2.3.1 Geology

The 1:10,560 scale geological map of the area (Sheet SN 80 SW) was consulted for geology underlying the site. The site is shown to be underlain by the South Wales Upper Coal Measures Formation which are Carboniferous in age. The formation comprises “grey (productive) coal-bearing mudstones/siltstones with seatearths and minor grey, quartz-rich sandstones, coals and ironstones”. The majority of the site is seen to be underlain by the Rhondda Beds with the south eastern side of the site underlain by the Brithdir Beds. The boundary between these two Beds is the Brithdir Coal seam which is identified as thin and runs just inside and parallel with the south eastern boundary. In the area of the site the dip of the bedrock is seen to be 7° to the south.

The bedrock geology is seen to be overlain by superficial deposits in the form of glacial sand and gravel.

The historic maps have shown the site to be occupied by a school and a cut and fill exercise may have taken place on the site. Made ground may therefore be present on the site.

The underlying geology is not prone to dissolution and the risk of natural cavities in the bedrock is considered very low.

2.3.2 Mining

Terra Firma (Wales) Limited obtained a Coal Authority Mining report for the site. The site is not in a surface area that could be affected by past underground mining.

The report also concludes that there are no known coal mine entries within, or within 20m, of the boundary of the property.

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

There is therefore no risk to the site from past underground mining. The Coal Authority Mining report can be found in **Annex B**.

2.3.3 Radon

The Envirocheck datasheet and maps (**Annex C**) detail that the site is in a lower probability radon area, as less than 1% of homes are estimated to be at or above the action level.

NO radon protection is required for new development on the investigation site.

2.4 Environmental Setting

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

2.4.1 Hydrogeology and Hydrology

The dominant surface water feature in the area is the River Neath which locates 230m to the north-west of the site. The nearest surface water feature is the small stream which locates 21m to the south west of the site. This stream converges with the River Neath approximately 500m to the west of the site. To north east of the site is the Dyfnant at a distance of 80m and this converges with the River Neath 230m north of the site.

A level plateau has been formed for the existing development on the site. The surrounding area falls to the north-west and surface and shallow groundwater beneath the site is likely to flow in a north westerly direction. Given the nature of the surrounding area surface water is likely to infiltrate through the open land with a minor amount collected by surface water drainage systems.

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 bedrock beneath the site has an aquifer designation of 'Secondary A'. These are "permeable layers capable of supporting water supplies at a local rather than strategic scale, and in some cases forming an important source of base flow to rivers. These are generally aquifers formerly classified as minor aquifers".

The superficial deposits are also classed as 'Secondary A'.

2.4.2 Groundwater

There are no groundwater source protection zones within 1km of the site.

There is one groundwater abstraction point within 500m of the site. The abstraction point is located 490m to the north-west of the site. The abstraction point is a stream at Greenhill Cottages, Abergarwed.

2.4.3 Flooding

The maps show that the site does not fall in an area at risk of flooding from the rivers. The Tan 15 Flood Maps show the site to fall in Zone A, an area considered to be at little or no risk of fluvial or coastal/tidal flooding.

2.4.4 Waste

There are no recorded landfill sites (historic or current) within a 1km radius of the site.

2.4.5 Pollution

There are no entries on the Contaminated Land Register within 1km of the site.

There have been 6 recorded pollution incidents to controlled waters within a 500m radius of the site.

Table 2.2 Summary of Pollution Incidents to Controlled Waters				
Distance and Direction (m)	Date	Location	Pollutant	Incident Severity
455 West	03.03.1992	Clyne Viaduct	Unknown	Category 3: Minor
487 North East	10.10.1994	Rees Yard	Mud / Clay / Soil	Category 2: Significant
490 North East	10.10.1994	Down Stream of Past	Unknown	Category 3: Minor
491 North East	29.05.1997	1 mile below cark park on new road	Algae (Natural Occurrence)	Category 3: Minor
494 North East	29.05.1997	At Clyne	Algae (Natural Occurrence)	Category 3: Minor
497 North East	29.05.1997	Neath and Dulais Club car Park	Algae (Natural Occurrence)	Category 3: Minor

Given the direction of groundwater flow in the area there is no risk to the site from these incidents.

2.4.6 Railway Land

The historical maps have identified a rail line to the north west of the site at a distance of 45m. There is no evidence that the line was electrified and there are no transformers indicated on the line. A dismantled tramway also passed immediately the north of the site. There is also no evidence to suggest that this was electrified.

2.4.7 Sensitive Land Use

There are two areas of ancient woodland within 1km of the site. These locate 513m to the north-west and 875m to the south.

2.5 Invasive Species

A site walk over was undertaken to identify any potential occurrences of invasive species with particular attention to Japanese Knotweed. No Japanese Knotweed was identified on the site.

Further information on Japanese Knotweed can be found in the Environment Agency's document Managing Japanese Knotweed on Development Sites (The Knotweed Code of Practice).

Located to the west of the smaller school building is an occurrence of Field Horsetail indicated in the photograph below. While this species is not listed in Schedule 9, Part 11 of the Wildlife and Countryside Act 1981 it has the potential to grow through and damage hard standing. It may therefore be prudent to treat the impacted area.



Figure 2.1 Occurrence of Field Horsetail (not to scale)

Please note that Terra Firma (Wales) Limited are not specialists in this field and the advice of experts may be required.

SECTION 3 Preliminary Human Health and Environmental Risk Assessment

3.1 General

The contaminated land regime is set out in Part IIA 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 IIA was introduced to achieve two aims:

- (1) The identification of contaminated land
- (2) The remediation of contaminated land that poses an unacceptable risk to human health and/or the environment

Under Part IIA 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."

For land to be classified as 'Contaminated Land' there must be a 'pollutant linkage'.

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

3.2 Preliminary Site Conceptual Model

The preceding sections enable a preliminary conceptual model of the site to be drawn up, to illustrate the likely ground conditions beneath the site together with a preliminary assessment of the nature of any underlying aquifers and groundwater movement. The preliminary site conceptual model is used as a model for the design and implementation of the site investigation, whereby areas of potential contamination can be targeted as well as investigating the site as a whole.

3.3 Potential Sources of Contamination and Gas

The potential contamination beneath the site, whether in the matrix of soil or groundwater is related to the sites past use. The site was field land prior to being occupied by the school which is currently present. Where buildings have been present there is the potential for asbestos products to have been used. Any made ground if encountered should be tested for asbestos.

Hard standings are present and vehicles may have been parked in some areas of the site. It would therefore be prudent to test for petroleum hydrocarbons.

A railway and tramway are in close proximity to the site and this is a potentially contaminative land use. As these lines were not electrified and no transformers were present there is no risk from PCBs however petroleum hydrocarbon testing should be undertaken.

No landfills are located within influencing distance of the site and the risk from landfill gas is negligible.

3.3 Potential Sources of Contamination and Gas (Continued)

Two very small quarries locate 100m north and 120m east of the site. These quarries remain open and given the very small size the risk of ground gas is considered negligible. Made ground is anticipated on the site and if significant thicknesses are encountered it should be considered a potential source of ground gas.

3.4 Potential Receptors and Pollution Pathways

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

Construction workers will be excavating in soils and will be exposed via dermal contact with soils and dust, ingestion of soil dust and inhalation of soil dust.

A residential end use is proposed. Once developed, future site users (residents and visitors) will potentially be at risk from contaminated soils through the same pathways as well as through consumption of site grown produce and potable drinking water. Landfill gas, ground gas and radon gas may also present a risk to site end users through inhalation or from the risk of explosion of gases in confined spaces.

Neighbouring site users and passers-by may potentially be exposed to soil dust.

If contamination is identified it may be leachable, enabling it to mobilise through perched groundwater within site soils and impact on deeper groundwater or surface water.

A Preliminary Human Health and Environmental Risk Assessment summarises the above and is detailed in the **Table 3.1 and Table 3.2** on the following pages.

3.5 Preliminary Human Health and Environmental Risk Assessment

Table 3.1 Preliminary Human Health Risk Assessment			
Potential Source	Potential Pathway	Potential Target	Preliminary Risk Assessment
Human Health			
Site Soil	Dermal contact with soil, ingestion of soil/soil dust, inhalation of soil dust	Construction workers	Low Risk COSHH assessment and good level of PPE/hygiene by site workers/ staff; dust suppression measures if required.
Site Soil	Dermal contact with soil, ingestion of soil/soil dust inhalation of soil dust	Passers - by/neighbouring site users	Low Risk Made ground may be present on the site.
Site Soil	Dermal contact with soil, ingestion of soil/soil dust or site grown vegetables, inhalation of soil dust	Site End Users – Residents and visitors.	Low Risk Made ground may be present on the site.
Radon Gas from underlying bedrock	Migration into indoor air	Site End Users – Residents and visitors	Negligible Risk BGS Radon Report confirms NO radon protection measures required.
Landfill gas	Migration through superficial deposits and bedrock and accumulation indoors	Site End Users – Residents and visitors	Negligible Risk There are no historic or active landfills within influencing distance of the site.
Ground gas	Direct from any made ground/buried organic matter on site and accumulation indoors	Site End Users – Residents and visitors	Low Risk Very small quarries 100m north and 120m east of the site. Possible made ground on site.
Vapours	Migration into indoor air	Site End Users – Residents and visitors	Low Risk Made ground may be present on the site.
Site Soils	Permeation of drinking water pipes	Site End Users – Residents and visitors	Negligible Risk Correct class of pipe to be installed on the site.

Table 3.2 Preliminary Environmental Risk Assessment			
Aquatic Environment			
Site Soils	Surface runoff and leaching of contamination into the perched groundwater	Perched groundwater beneath the site	Low Risk Made ground may be present on the site.
Site Soils	Groundwater transport	Unnamed Stream Dyfnant River Neath	Low Risk Made ground may be present on the site.
Site Soils	Groundwater transport	Underlying Bedrock: Secondary A Aquifer (South Wales Upper Coal Measures Formation)	Low Risk Made ground may be present on the site.
Vegetation			
Site Soils	Uptake of phytotoxic contaminants	Vegetation	Low Risk Made ground may be present on the site.
Building Materials			
Site Soils	Damage of building materials	New buildings	Very Low Risk Correct class of concrete to be chosen

3.6 Preliminary Illustrative Site Conceptual Model

The following illustration represents a theorised cross section through the site. The drawing is generalised and not to scale.

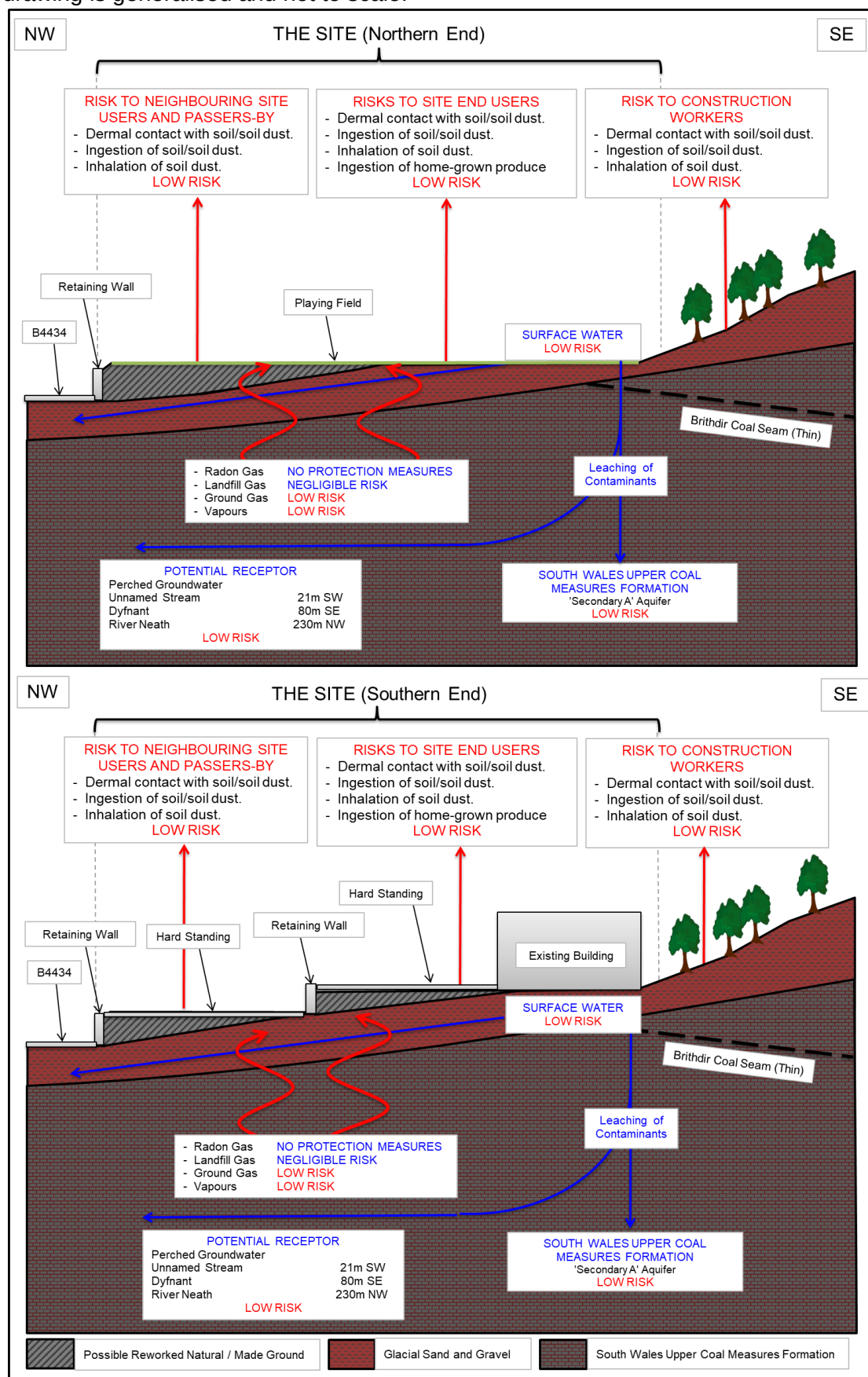


Figure 3.1 Preliminary Illustrative Site Conceptual Model (not to scale)

SECTION 4 Field Investigation

4.1 Site Works

A geotechnical and geo-environmental site investigation comprising 13 mini percussive boreholes undertaken on 4th July 2017 and 7 machine excavated trial pits undertaken on 6th July 2017.

Three falling head permeability tests were undertaken in the boreholes and two soakaway tests were undertaken in the trial pits.

The boreholes were sunk using a GEO mini percussive drilling rig and the trial pits were excavated with a JCB 3CX backhoe mechanical excavator. The proposed locations of the trial pits was determined by Terra Firma (Wales) Limited.

The fieldworks were also supervised by Terra Firma (Wales) Limited, who logged the exploratory holes to the requirements of BS5930:2015.

The boreholes and trial pit logs are presented in **Annex E** and their locations are shown on **Drawing 02** and **Drawing 03**.

4.2 Exploratory Strategy

It is considered that the number and spacing of exploratory holes was adequate to:

- Investigate the presence, nature and distribution of contamination on site in an efficient but cost effective manner.
- Optimise the chances of finding contamination hot spots of various sizes and orientations.
- Provide good representation of the ground conditions beneath the site.
- Provide sufficient data to determine suitable remedial measures if necessary.

4.3 Ground Conditions

The ground conditions encountered by the exploratory holes can in general be summarised as shown in **Table 4.1**.

Table 4.1 Summary of Ground Conditions				
Depth (m)			Thickness (m)	Stratum
GL	-	0.10/1.50	0.10/1.50	MADE GROUND: Tarmac / medium dense, grey slightly clayey ashy GRAVEL / loose, dark grey, ashy sandy GRAVEL with slag / very soft, dark grey brown, gravelly CLAY with brick and small ashy patches / medium dense, black, very gravelly ashy SAND
0.10/1.50	-	>1.00/2.70	-	Soft to firm, firm and firm to stiff, orange and grey, grey brown, gravelly CLAY with common cobbles. / medium dense, grey, clayey gravelly SAND / dense, brown mottled grey, clayey sandy GRAVEL / firm, grey, slightly sandy slightly gravelly CLAY

No conclusive evidence of a filling exercise was found during the site investigation.

4.4 Water Strikes

No groundwater was encountered in the trial pits.

4.5 Stability and Obstructions

Short term instabilities were seen in WS09 and in a number of trail pits.

No man made buried obstructions were encountered however obstructions may be present in association with the existing building.

4.6 Laboratory Chemical Testing

4.6.1 Quality Assurance

During the intrusive investigation, 8 small disturbed soil samples were collected.

Care was taken to ensure that sampling quality assurance occurred during site works. This included the following measures:

- Soil samples were collected by hand with nitrile gloves.
- Clean gloves were used for each sample.
- Soil samples were stored at a temperature below 4 degrees.
- No head space was left in sample containers.
- Appropriate sample containers were used.
- Samples were submitted for laboratory testing within holding times.

4.6.2 Sampling Regime

The sampling regime was conducted in accordance with BS5930:2015 in order to satisfy the following criteria:

- Investigate suspected sources of contamination
- Investigate type and concentration of contamination
- Ensure good representation of the site
- Provide data to advise on remedial measures if necessary

The sample locations and depths are illustrated in the following table:

Table 4.2 Sample Locations and Depths		
Sample	Depth (m)	MCERTS Sample Description
WS01	0.60	Mid brown sandy clay with black patches
WS06	0.40	Mid brown sandy CLAY
WS07	0.30	Sand coloured sandy soil
WS11	0.30	Sandy clay with black patches
TP1	0.10	Brown topsoil
TP3	0.25	Black ash brick fill
TP4	0.10	Brown topsoil
TP5	0.30	Black ash brick fill

4.6.3 Laboratory Soil Analysis

During the site works 8 soil samples were taken and despatched to the laboratories of Concept Life Sciences (CLS) for laboratory chemical testing;

Metals and Metalloids

Lead
Arsenic
Mercury
Cadmium
Chromium III
Chromium VI
Copper
Nickel
Zinc
Selenium

In-Organics

Cyanide
Sulphate

Others

pH (acidity)
Asbestos Screen

Organic Chemicals

Phenols
Polycyclic Aromatic Hydrocarbons (PAH)
Petroleum Hydrocarbons (TPH CWG)

The results are discussed in detail in **Section 5** and the laboratory test results certificates may be found in **Annex F**.

4.6.4 Laboratory Leachate Analysis

The following substances have been tested to determine their leachability. The testing was undertaken by CLS.

Metalloids

Arsenic

Organic Chemicals

Dibenzo(ah)anthracene

The results are discussed in **Section 5** and can be found in **Annex F**.

4.7 Soil Property Testing

4.7.1 Soil Plasticity Testing

During the fieldworks three small disturbed soil samples of the in-situ materials were taken and despatched to the laboratories of Geo Site and Testing Services Limited in Llanelli for plasticity testing.

The tests were undertaken to the appropriate British standards.

The test results are presented in **Annex G** and discussed in detail in **Section 7.3** of this report.

4.7.2 Dynamic Cone Penetrometer (DCP) Testing

During the site investigation four DCP tests were undertaken along the route of the proposed access road.

The tests were undertaken by Terra Firma (Wales) Limited to the appropriate British standard.

The test results are discussed in **Section 7.5** and the test sheets can be found in **Annex H**.

4.7.3 In-situ Permeability Testing

During the site investigation three falling head permeability tests were undertaken in the boreholes and two soakaway tests were undertaken in the trial pits.

The tests in the boreholes were undertaken to the requirements of BS5930:2015 and the trial pit soakaways were undertaken to the requirements of BRE:365.

The test results are discussed in **Section 7.6**.

SECTION 5 Evaluation of Soil Analytical Results

5.1 Soil Assessment Methodology

Comparison of the analytical results has been made with Soil Guideline Values (SGVs) for a residential scenario, sourced from the Land Quality and Management Limited and the Chartered Institute of Environmental Health Suitable 4 Use Levels (S4ULs) for Human Health Risk Assessment. Where S4ULs are not available reference has been made to the Category 4 Screening Levels (C4SLs) and in the absences of this for Cyanide, the Environment Agency Contaminated Land Exposure Assessment (CLEA).

Sulphate results have been compared to British Research Establishment (BRE) guidelines as sulphate levels need only be considered for buried concrete risk assessment only, not human health related.

5.2 Soil Test Results

A summary of the chemical test results which include the regulatory soil guideline values used in the Tier 1 assessment are given in **Tables 5.1** to **Table 5.4** and can be found in **Annex E**.

Table 5.1 Summary of Soil Chemical Test Results: Standard Suite						
Substance	SGV/GAC (mg/kg)	Source	Measured Concentrations (mg/kg)		95% UCL	Number of Exceedences
			Minimum	Maximum		
Arsenic	37	LQM/CIEH	13	83	*	3
Cadmium	11	LQM/CIEH	<0.1	0.5		0
Chromium III	910	LQM/CIEH	13	24	*	0
Chromium VI	6	LQM/CIEH	<1.0	<1.0	*	0
Copper	2400	LQM/CIEH	27	110	*	0
Lead	200	C4SL	20	69	*	0
Mercury	40	LQM/CIEH	<0.5	<0.5	*	0
Nickel	180	LQM/CIEH	14	49	*	0
Selenium	250	LQM/CIEH	<3	<3	*	0
Zinc	3700	LQM/CIEH	54	120	*	0
Cyanide	8	CLEA	<1	<1	*	0
Phenols	120	LQM/CIEH	<1	<1	*	0
Sulphate	2400	BRE	200	2300	*	0
Organic Matter	-	-	2.6	86	*	-
pH	-	-	5.3	7.5	*	-
Total PAH	0.1	LDL	<0.1	39	*	-

Notes:

- CLEA-Soil guideline values for a residential development with plant uptake
- LQM/CIEH - Generic Assessment Criteria for a residential development with plant uptake
- C4SL - Category four screening level for a residential development with plant uptake
- BRE - British Research Establishment
- LDL - Laboratory Detection Limit
- A total of 8 samples were tested
- - no available guideline
- * - Insufficient samples for accurate statistical analysis

5.2 Soil Test Results (Continued)

The samples were also tested for speciated PAH as part of our standard suite.

Table 5.2 Summary of Soil Chemical Test Results: Speciated PAH						
Substance	GAC (mg/kg)	Source	Measured Concentrations of Tested Substances (mg/kg)		95% UCL	Number of Exceedences
			Minimum	Maximum		
Naphthalene	2.3	LQM/CIEH	<0.1	0.50	*	0
Acenaphthylene	170	LQM/CIEH	<0.1	0.60	*	0
Acenaphthene	210	LQM/CIEH	<0.1	<0.1	*	0
Fluorene	170	LQM/CIEH	<0.1	0.2	*	0
Phenanthrene	95	LQM/CIEH	<0.1	4.3	*	0
Anthracene	2400	LQM/CIEH	<0.1	1.2	*	0
Fluoranthene	280	LQM/CIEH	<0.1	8.4	*	0
Pyrene	620	LQM/CIEH	<0.1	5.7	*	0
Benzo(a)anthracene	7.2	LQM/CIEH	<0.1	4.1	*	0
Chrysene	15	LQM/CIEH	<0.1	3.9	*	0
Benzo(b)fluoranthene	2.6	LQM/CIEH	<0.1	2.5	*	0
Benzo(k)fluoranthene	77	LQM/CIEH	<0.1	2.5	*	0
Benzo(a)pyrene	2.2	LQM/CIEH	<0.1	2.0	*	0
Indeno(123cd)pyrene	27	LQM/CIEH	<0.1	1.4	*	0
Dibenzo(ah)anthracene	0.24	LQM/CIEH	<0.1	0.4	*	1
Benzo(ghi)perylene	320	LQM/CIEH	<0.1	1.3	*	0
Total PAH	-	-	<0.1	39	*	-

Notes:

- LQM/CIEH - Generic Assessment Criteria for a residential development with plant uptake.
- Guidelines for a residential land use with plant uptake.
- Thresholds based on 1.0% SOM
- 8 samples were tested for Speciated PAH

5.2 Soil Test Results (Continued)

The 3 samples were tested for petroleum hydrocarbons. The results are summarised below in **Table 5.3**.

Table 5.3 Summary of Soil Chemical Test Results: Petroleum Hydrocarbons						
Substance	SGV/GAC (mg/kg)	Source	Measured Concentrations (mg/kg)		95% UCL	Number of Exceedences
			Minimum	Maximum		
<u>Aliphatic</u>						
PH C5 – C6 Ali	42	LQM/CEIH	<0.10	<0.10	*	0
PH C6 – C8 Ali	100	LQM/CEIH	<0.10	<0.10	*	0
PH C8 – C10 Ali	27	LQM/CEIH	<0.10	<0.10	*	0
PH C10 – C12 Ali	130	LQM/CEIH	<2	<2	*	0
PH C12 – C16 Ali	1100	LQM/CEIH	<2	<2	*	0
PH C16 – C21 Ali	65000#	LQM/CEIH	<2	<2	*	0
PH C21 – C35 Ali	65000#	LQM/CEIH	<2	3	*	0
PH C35 – C40 Ali	65000	LQM/CEIH	<2	5	*	0
<u>Aromatic</u>						
PH C5 – C7 Arom	70	LQM/CEIH	<0.10	<0.10	*	0
PH C7 – C8 Arom	130	LQM/CEIH	<0.10	<0.10	*	0
PH C8 – C10 Arom	34	LQM/CEIH	<0.10	<0.10	*	0
PH C10 – C12 Arom	74	LQM/CEIH	<2	<2	*	0
PH C12 – C16 Arom	140	LQM/CEIH	<2	4	*	0
PH C16 – C21 Arom	260	LQM/CEIH	<2	32	*	0
PH C21 – C35 Arom	1100	LQM/CEIH	<2	76	*	0
PH C35 – C44 Arom	1100	LQMCEIH	<2	3	*	0

Notes:

- LQM/CEIH - Generic Assessment Criteria for a residential development with plant uptake
- CLEA - Soil guideline values for a residential development with plant uptake
- A total of 8 soil samples were tested for Petroleum Hydrocarbons
- Ali - Aliphatic Hydrocarbon
- Arom - Aromatic Hydrocarbon
- LQM/CEIH Based on 1.0% SOM
- # - LQM for Ali C16 - 21 and C21 - C35 based on LQM for EC >16 - 35
- * - Insufficient samples for accurate statistical analysis

5.2 Soil Test Results (Continued)

Asbestos testing was undertaken all eight samples taken from the site. **Table 5.4** below summarises the findings:

Table 5.4 Summary of Soil Chemical Test Results: Asbestos Screen			
Substance	Location	Depth (m)	Result
Asbestos	WS01	0.60	Asbestos Not Detected
	WS06	0.40	Asbestos Not Detected
	WS07	0.30	Asbestos Not Detected
	WS11	0.30	Asbestos Not Detected
	TP1	0.10	Asbestos Not Detected
	TP3	0.25	Asbestos Not Detected
	TP4	0.10	Asbestos Not Detected
	TP5	0.30	Asbestos Not Detected

5.3 Leachate Test Results

Leachate testing for arsenic has been undertaken on three samples and for dibenzo(ah)anthracene on one sample. The results are summarise below in **Table 5.5**.

Table 5.5 Summary of Leachate Chemical Test Results							
Substance	GAC (ug/l)	Source	Measured Concentrations (mg/kg)			95% UCL	Number of Exceedences
			WS11 0.30m	TP3 0.25m	TP5 0.30		
Arsenic	50	WFD	1.1	0.6	0.3	*	0
Dibenzo(ah)anthracene	-	-	<0.01	N/A	N/A	*	0

Notes:

- WFD – Water Framework Directive
- - no available guideline
- * - Insufficient samples for accurate statistical analysis

SECTION 6 Quantitative Risk Assessment

6.1 Contaminants of Concern

6.1.1 Contaminants of Concern in Soil

The chemical analysis has found the substances in the **Table 6.1** below to be above their guideline values.

Table 6.1 Summary of Contaminants of Concern				
Substance	Location	Depth (m)	Guideline (mg/kg)	Result (mg/kg)
Arsenic	WS11	0.30	37	44
	TP3	0.25		83
	TP5	0.30		57
Dibenzo(ah)Anthracene	WS11	0.30	0.24	0.40

All other substances tested for were found to be present at concentrations below their respective human health threshold levels.

6.1.2 Leachable Contaminants of Concern

Leachate testing has been undertaken on the above contaminants of concern. The leachate has identified that the arsenic is below the leachate guideline. There is no guideline value for dibenzo(ah)anthracene however leachate testing has found that concentrations are below laboratory detection limits.

It is therefore considered that there is no risk to the aquatic environment from the contaminants of concern.

Sulphate levels should be considered when assessing concrete for use in construction. Please refer to **Section 7.4**.

6.2 Potential Receptors and Pathways

6.2.1 Human Receptors

Contaminants of concern have been identified on the site and human receptors are therefore at risk from exposure to site soils.

The human receptors are construction workers, neighbouring site users and passers-by and site end users.

6.2.2 Aquatic Environment

Leachate testing has not identified any contaminants of concern it is therefore considered that the risk to the aquatic environment is negligible.

6.3 Mitigation and Remedial Measures

6.3.1 Human Health

At present it is not clear what the proposed levels of the final site are to be and two remedial options are therefore presented.

If site levels are to remain close to the existing levels and where made ground remains after the site strip a capping system should be utilised. The capping system should comprise of the proposed buildings and roads. Under hard standings such as driveways, paths and patios 600mm of inert suitable granular material should be used. In garden and soft landscaped areas 600mm of suitable inert topsoil /subsoil material should be used. The capping layer under hard standings and in garden and landscaped area should be placed over a geotextile no dig barrier to prevent the mixing of soils.

At present the recommendations are made for the whole site however with additional testing on a suitable grid spacing it may be possible to reduce the areas which require capping.

Alternatively if levels are to be reduced the impacted made ground can be excavated and removed from site. Once removed from site and the underlying soils validated there will be no risk to site end users.

As good practise, 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.

If during development works any other unexpected ground conditions or evidence of contamination is found, inspection by a geo-environmental engineer should be made, and any required testing or investigation carried out prior to continuation of works.

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.

Any imported soils and aggregates should be tested and validated as suitable prior to use on site in accordance with the 'Requirements for the Chemical Testing of Imported material for Various End Uses and Validation of Cover Systems' prepared by the Welsh Land Contamination Working Group.

6.3.2 Aquatic Environment

There are not considered to be any risks to the aquatic environment from site soils.

During the construction period, there is a risk to the environment and 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.

6.3.2 Aquatic Environment

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. 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

6.4 Refined Illustrative Site Conceptual Model

A refined site conceptual model is presented below in **Figure 6.1**.

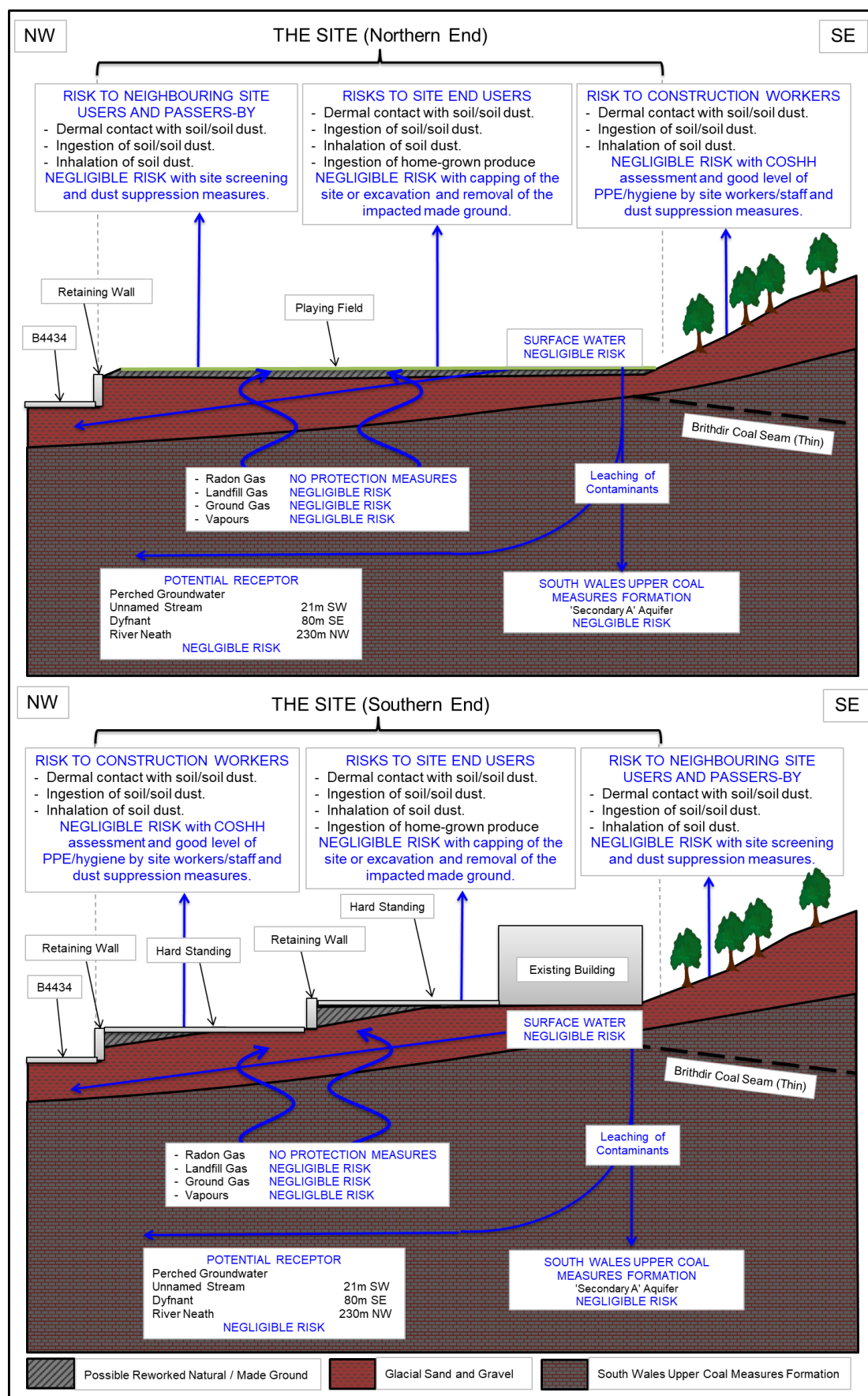


Figure 6.1: Refined Illustrative Site Conceptual Model (not to scale)

SECTION 7 Engineering Recommendations

7.1 Preparation of Site

An appropriate asbestos survey of the existing building should be undertaken. Any deleterious material identified should be removed by a suitably qualified person and disposed of at a suitably licenced landfill prior to demolition

A structural survey of any existing retaining structures should be undertaken if they are to be retained in the new development.

All areas of existing hard standing, top soil and scrub vegetation including all roots should be stripped and removed from beneath the proposed buildings and areas of hard standing. It would also be prudent to treat the area of Field Horsetail prior to prevent possible future damage to hard standings.

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

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

Any reduced levels should be brought up to the required levels with suitable inert mainly granular materials. Department of Transport (DoT) type 2 sub base or similar should be used and should be compacted in layers to the requirements of the Specification for Highway works. The limestone bedrock excavated may also be suitable for reuse on site.

In the western corner of the site is a 2.70m deep brick lined manhole. This should be infilled with the previously mentioned granular material to a suitable specification. If construction is to be undertaken in this area it would be prudent to undertake performance testing at appropriate levels.

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

For the new development deep strip and trench fill foundations, founded in the underlying competent natural material are recommended. Based upon the site investigation the depth to the in-situ founding horizon will be between 1.00m and 2.00m depth below the existing ground level.

The foundations should penetrate at least 200mm into the founding horizon and in order to prevent any effects from frost heave the foundations should extend to a minimum depth of 750mm.

An allowable bearing pressure of 100kN/m² may be used for design purposes. For the given foundation solution and bearing pressure, maximum total settlements of 30mm should result with differential movements of the superstructure not exceeding 1:750.

The floor slabs should be designed as suspended

7.2 Foundation and Floor Slab Solution (Continued)

A 45° line struck from the outermost corner of the proposed foundation should not impinge on the face of a retaining wall or bank, existing or proposed, unless it has been specifically designed to withstand the additional forces.

Construction plant and other vehicular traffic should not be operated on unprotected formations. This does not apply to areas of bedrock.

As a minimum the formation/excavation surfaces must be protected by blinding concrete immediately after exposure. Once again this does not apply to areas of bedrock.

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

7.3 Soil Plasticity Testing

During the investigation samples of the in-situ clays were taken and submitted for plasticity testing (**Annex G**). In line with the NHBC (Chapter 4.2), the modified plasticity index for the sample was calculated.

Table 7.1 Plasticity Test Results					
Sample and Depth (m)	Laboratory Description	Plasticity Index (%)	Passing .425mm	Modified Plasticity Index (%)	Volume Change Potential
TP4 1.00	Brown silty CLAY	34	100	34	Medium
SA1 1.60	Brown fine gravelly silty CLAY	31	89	27.59	Medium
WS10 1.00	Brown fine to medium silty CLAY	27	79	21.33	Medium

Based upon the testing the underlying clay soils should be assumed to have a medium volume change potential.

The National House Building Council (NHBC) Chapter 4.2 gives guidelines as to the appropriate depth of foundation based on the type of tree, distance of the foundation from the tree and the plasticity index of the in-situ materials.

7.4 Retaining Walls

Due to the tiered nature of the site retaining walls will be required.

The effective angles of shearing resistance of the materials likely to be encountered have been determined based upon past experience of the materials and are presented in **Table 7.2** on the following page:

7.4 Retaining Walls (Continued)

Table 7.2 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
Made Ground	18 - 19	0	20
Residual Soils / Weathered Bedrock	18 - 19	0	25 (soft to firm clay) 28 (firm to stiff clay)
Well compacted, suitable materials, compacted as per Specification for Highway Works and other relevant guidance such as British Standards (BS) 6031: 1981. Code of Practise for Earthworks.	18 - 21	0	30

The design and construction of the retaining walls and cut and fill should be in accordance with BS 6031: 1981 Code of Practise for Earthworks and other relevant guidance.

A 45° line taken from the outermost edge of the proposed foundation should not impinge on the face of the retaining walls unless they have been specifically designed to with stand these forces.

It is recommended that the construction of retaining walls be carried out in small sections. The cut face should be inspected by a suitably qualified engineer during the works to determine if any additional precautions are required.

Groundwater was not encountered in the trial pits however appropriate drainage measures should be constructed behind the walls to prevent the build-up of hydrostatic pressure.

If any wall is to be incorporated as part of the proposed building then suitable 'tanking' should be incorporated in its construction.

Allowances should also be made for the removal of soft spots and their replacement with imported suitable selected inert granular materials or suitable inert site won materials.

It is recommended that the temporary cut face is covered with polythene sheeting to protect the face from weathering and also to prevent any minor debris falls impacting upon the site operatives.

The general condition of the temporary cut face should also be inspected on a regular basis. In addition the boundary walls and vicinity behind should be inspected for tension cracks indicative of movement of the temporary cut face.

7.5 Protection of Buried Concrete

Levels of total sulphate within the in-situ materials measured between 200mg/kg to 2300mg/kg and the pH varied between 5.3 and 7.5.

When these results are compared with Table C2 of BRE Digest 1:2005, it indicates that all buried concrete should as a minimum conform Design Sulphate Class 1 and to Aggressive Chemical Environment for Concrete Class AC-3z.

7.6 Access Roads and Car Parking Areas

During the site investigation four DCP test were undertaken. Two tests (DCP1 and DCP2) were undertaken in the playing field and two tests (DCP3 and DCP4) were undertaken through the existing hard standings.

For the road and car parking areas, formations within the natural underlying 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.

7.7 Storm Water Drainage

During the site investigation three falling head permeability tests were undertaken in the boreholes and two soakaway tests were undertaken in the trial pits.

The tests in the boreholes were undertaken to the requirements of BS5930:2015 and the trial pit soakaways were undertaken to the requirements of BRE:365.

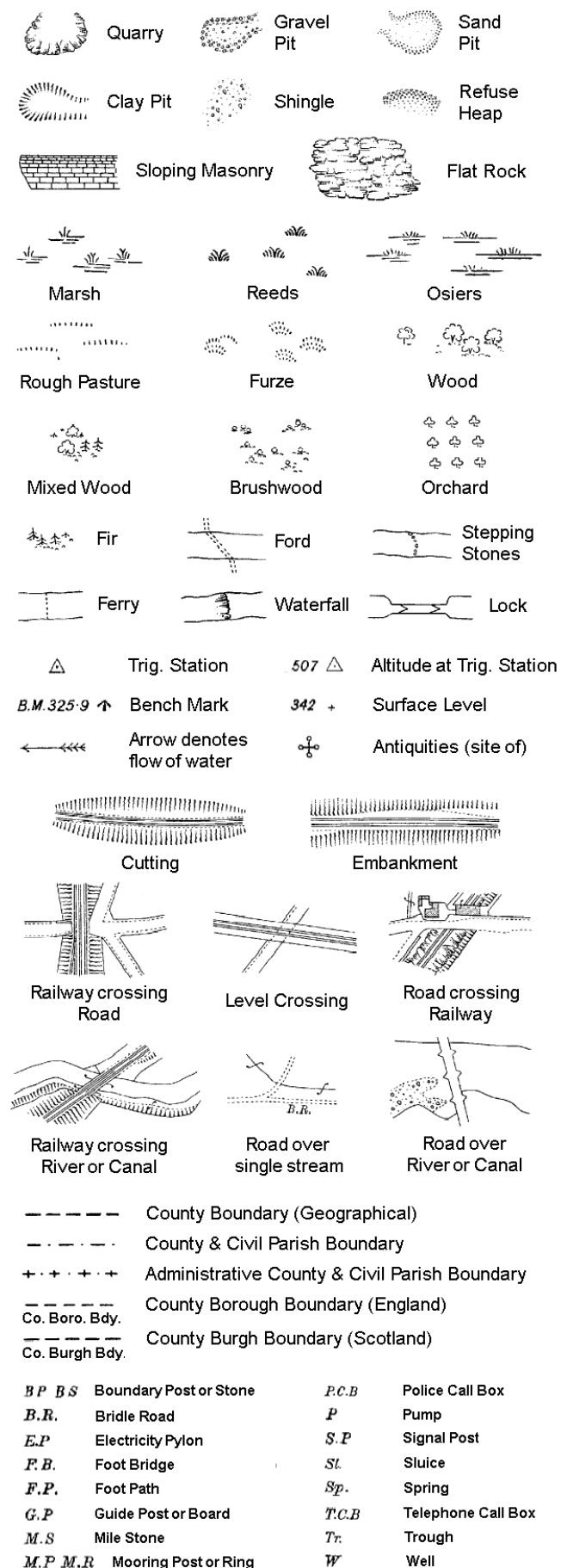
The soakaway tests recorded negligible infiltration and the soils underlying the site are therefore unsuitable for soakaway drainage systems.

ANNEX A
Envirocheck History Report

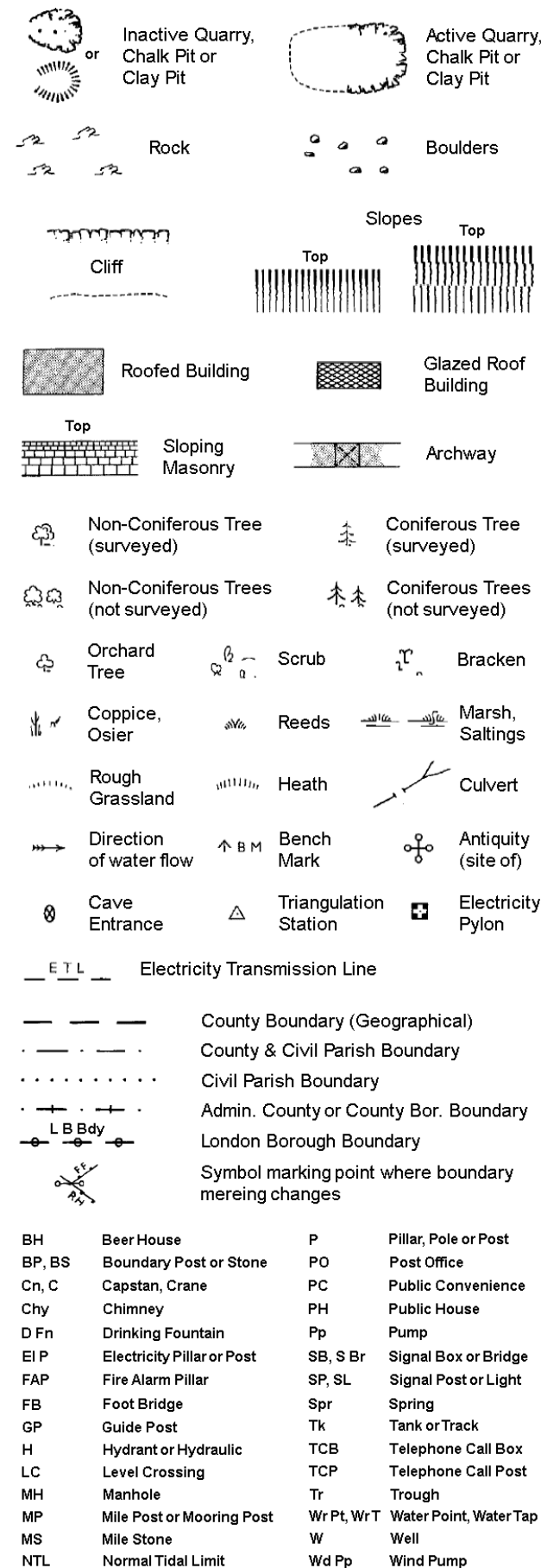


Historical Mapping Legends

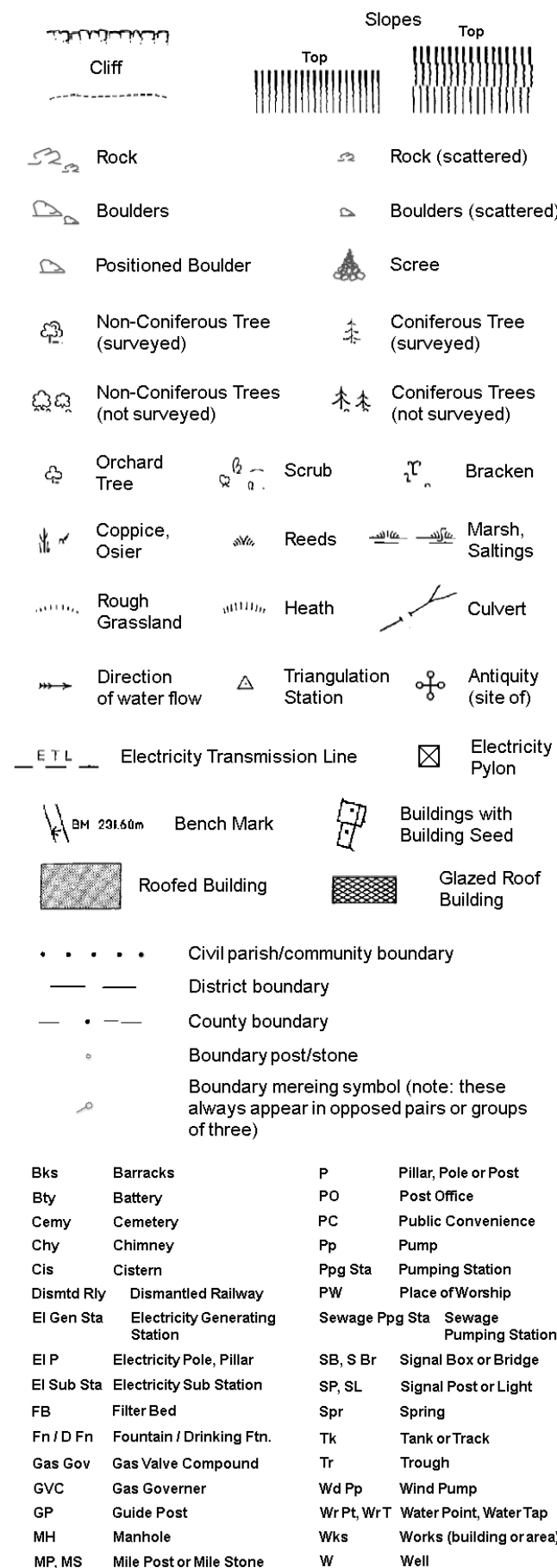
Ordnance Survey County Series and Ordnance Survey Plan 1:2,500



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



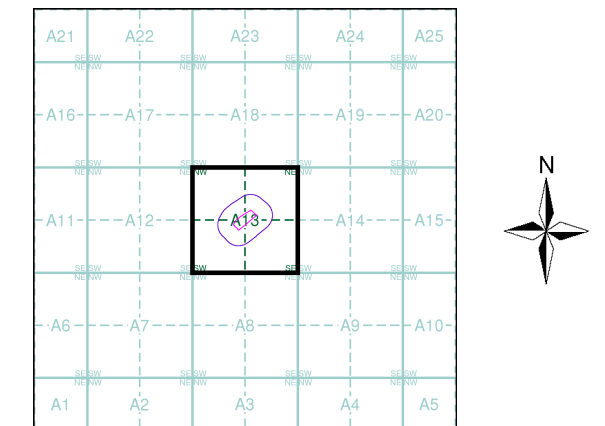
Large-Scale National Grid Data 1:2,500 and 1:1,250



Historical Mapping & Photography included:

Mapping Type	Scale	Date	Pg
Glamorganshire	1:2,500	1881	2
Glamorganshire	1:2,500	1899	3
Glamorganshire	1:2,500	1918	4
Ordnance Survey Plan	1:2,500	1963 - 1964	5
Additional SIMs	1:2,500	1981 - 1992	6
Large-Scale National Grid Data	1:2,500	1993	7
Large-Scale National Grid Data	1:2,500	1996	8
Historical Aerial Photography	1:2,500	2000	9

Historical Map - Segment A13



Order Details

Order Number: 130675084_1_1
Customer Ref: 14242 - Clyne
National Grid Reference: 281040, 201170
Slice: A
Site Area (Ha): 0.84
Search Buffer (m): 100

Site Details

Site at, Clyne, Neath Port Talbot



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



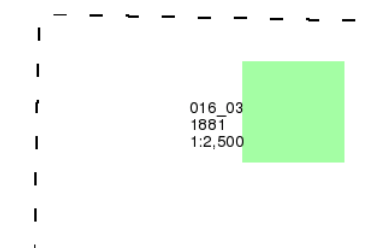
Glamorganshire

Published 1881

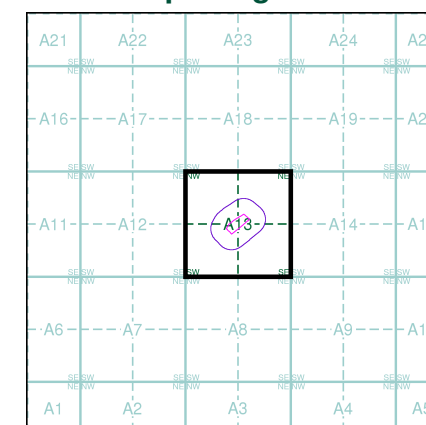
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The historical maps shown were reproduced from maps predominantly held at the scale adopted for England, Wales and Scotland in the 1840's. In 1854 the 1:2,500 scale was adopted for mapping urban areas and by 1896 it covered the whole of what were considered 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

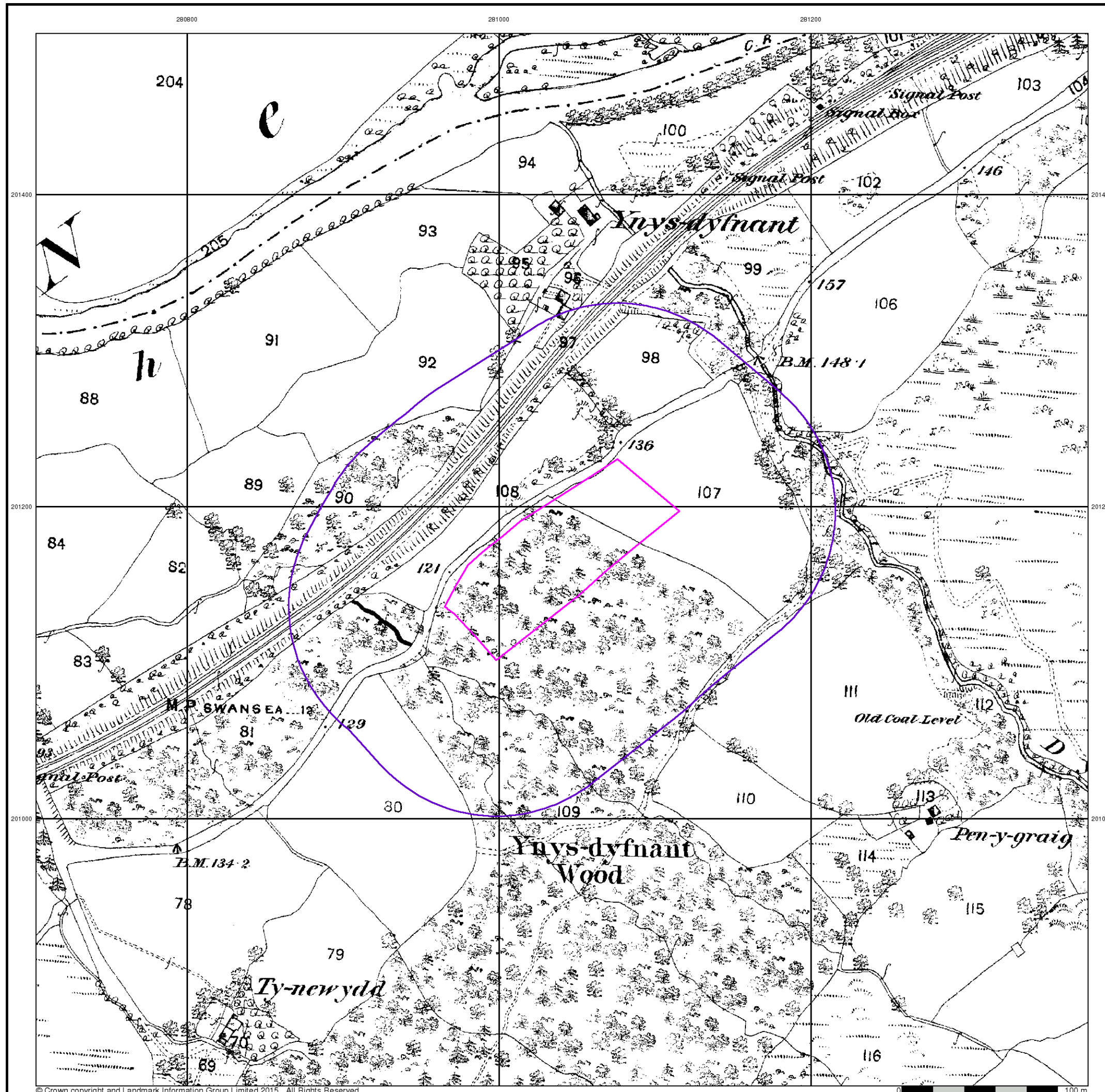
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Slice: A
Site Area (Ha): 0.84
Search Buffer (m): 100

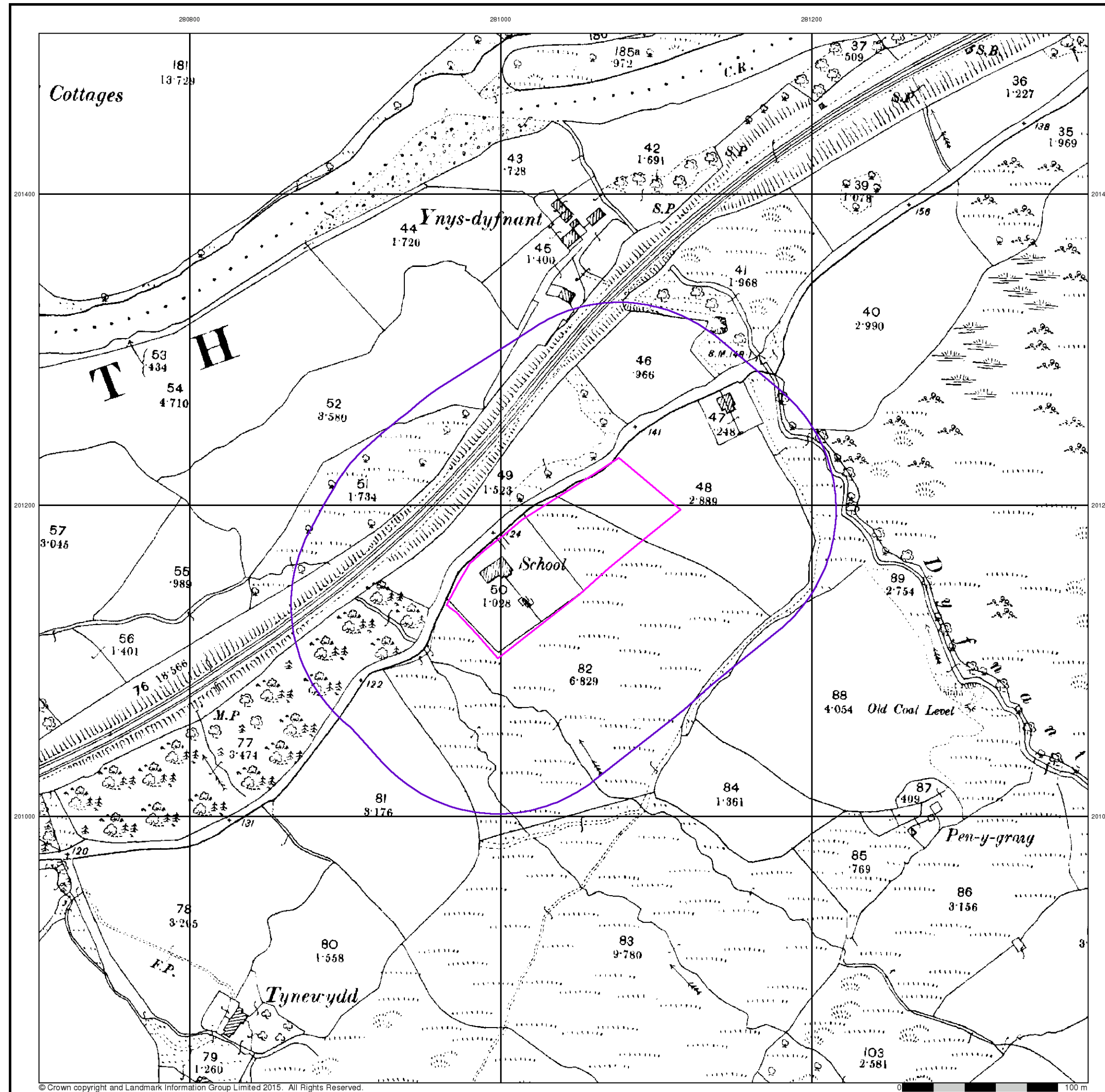
Site Details

Site at, Clyne, Neath Port Talbot

Landmark
INFORMATION GROUP

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





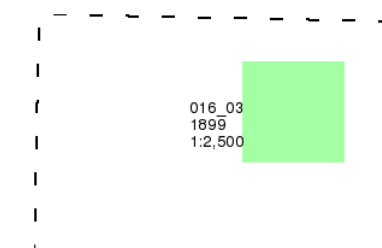
Glamorganshire

Published 1899

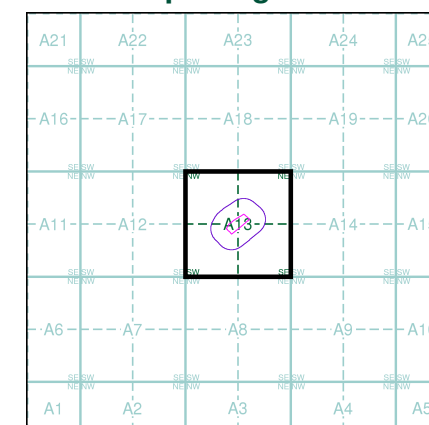
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The historical maps shown were reproduced from maps predominantly held at the scale adopted for England, Wales and Scotland in the 1840's. In 1854 the 1:2,500 scale was adopted for mapping urban areas and by 1896 it covered the whole of what were considered 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: 130675084_1_1
Customer Ref: 14242 - Clyne
National Grid Reference: 281040, 201170
Slice: A
Site Area (Ha): 0.84
Search Buffer (m): 100

Site Details

Site at, Clyne, Neath Port Talbot

Landmark
INFORMATION GROUP

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



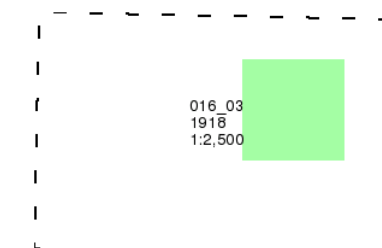
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Published 1918

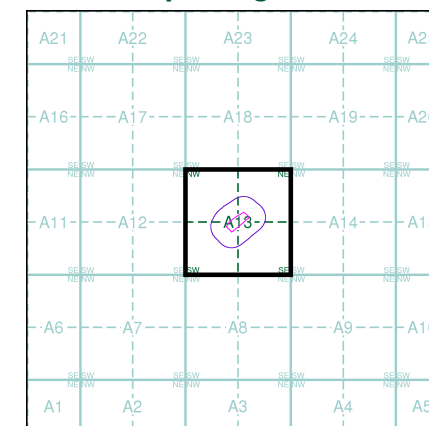
Source map scale - 1:2,500

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

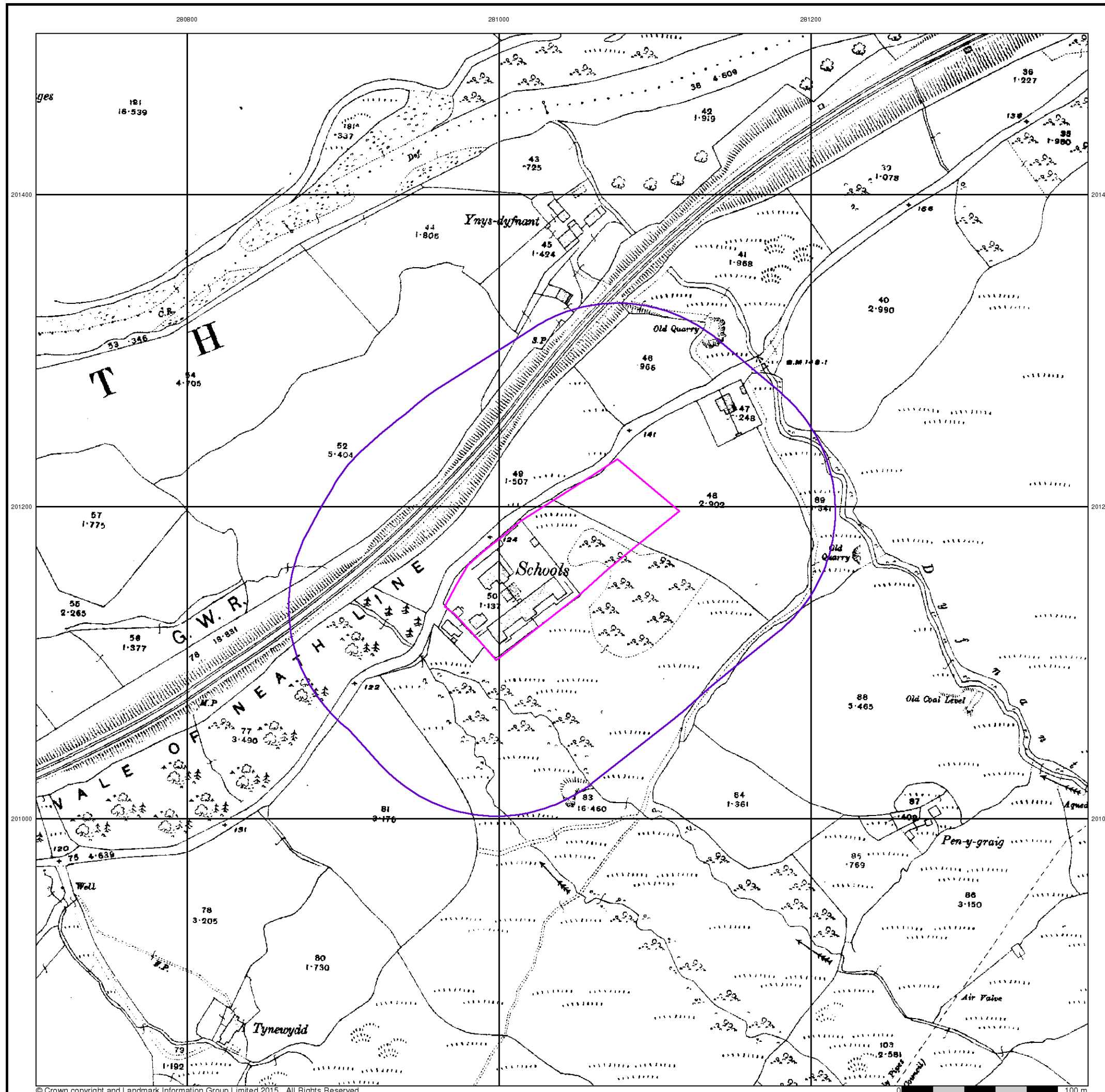
Order Number: 130675084_1_1
Customer Ref: 14242 - Clyne
National Grid Reference: 281040, 201170
Slice: A
Site Area (Ha): 0.84
Search Buffer (m): 100

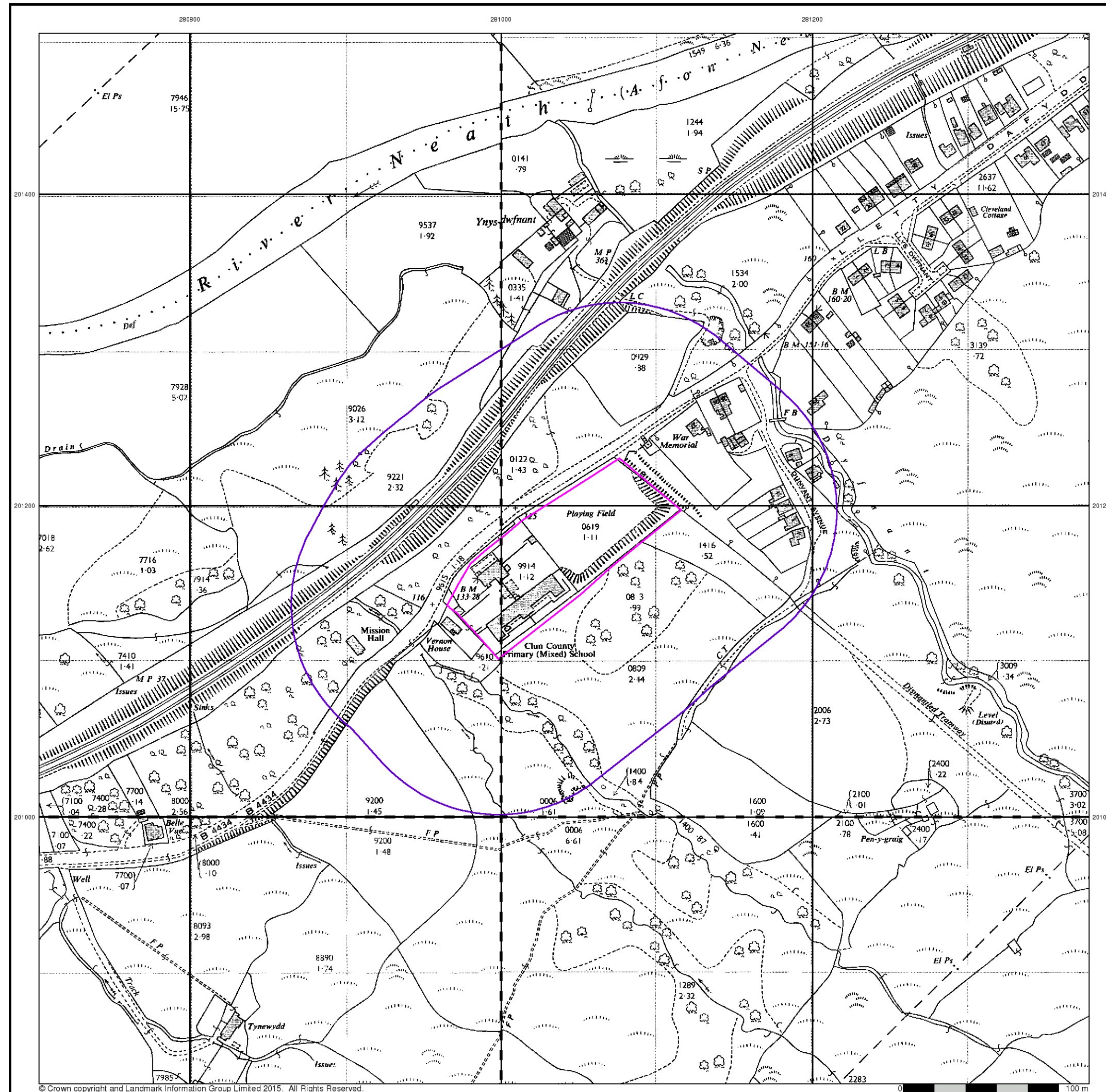
Site Details

Site at, Clyne, Neath Port Talbot



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Ordnance Survey Plan

Published 1963 - 1964

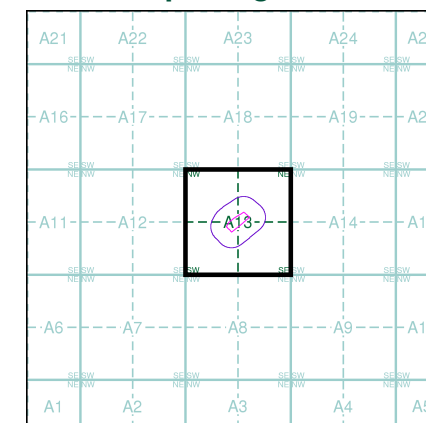
Source map scale - 1:2,500

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)

SN8001 1963 1:2,500	SN8101 1963 1:2,500
SN8000 1964 1:2,500	SN8100 1964 1:2,500

Historical Map - Segment A13



Order Details

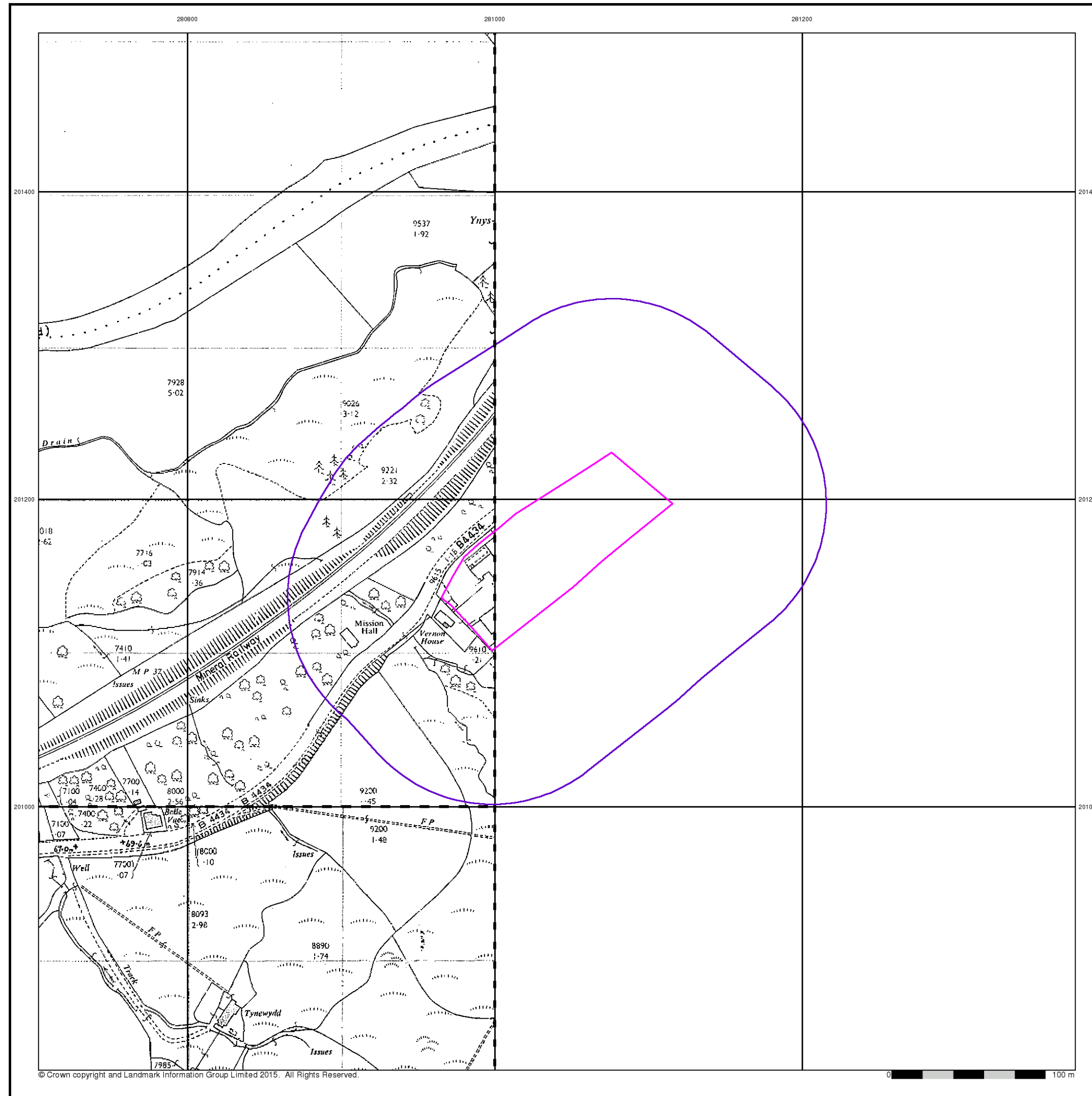
Order Number: 130675084_1_1
Customer Ref: 14242 - Clyne
National Grid Reference: 281040, 201170
Slice: A
Site Area (Ha): 0.84
Search Buffer (m): 100

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Additional SIMs

Published 1981 - 1992

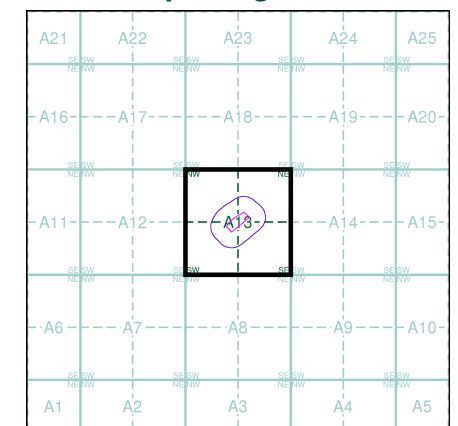
Source map scale - 1:2,500

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)

SN8001	1992	1:2,500
SN8000	1981	1:2,500

Historical Map - Segment A13



Order Details

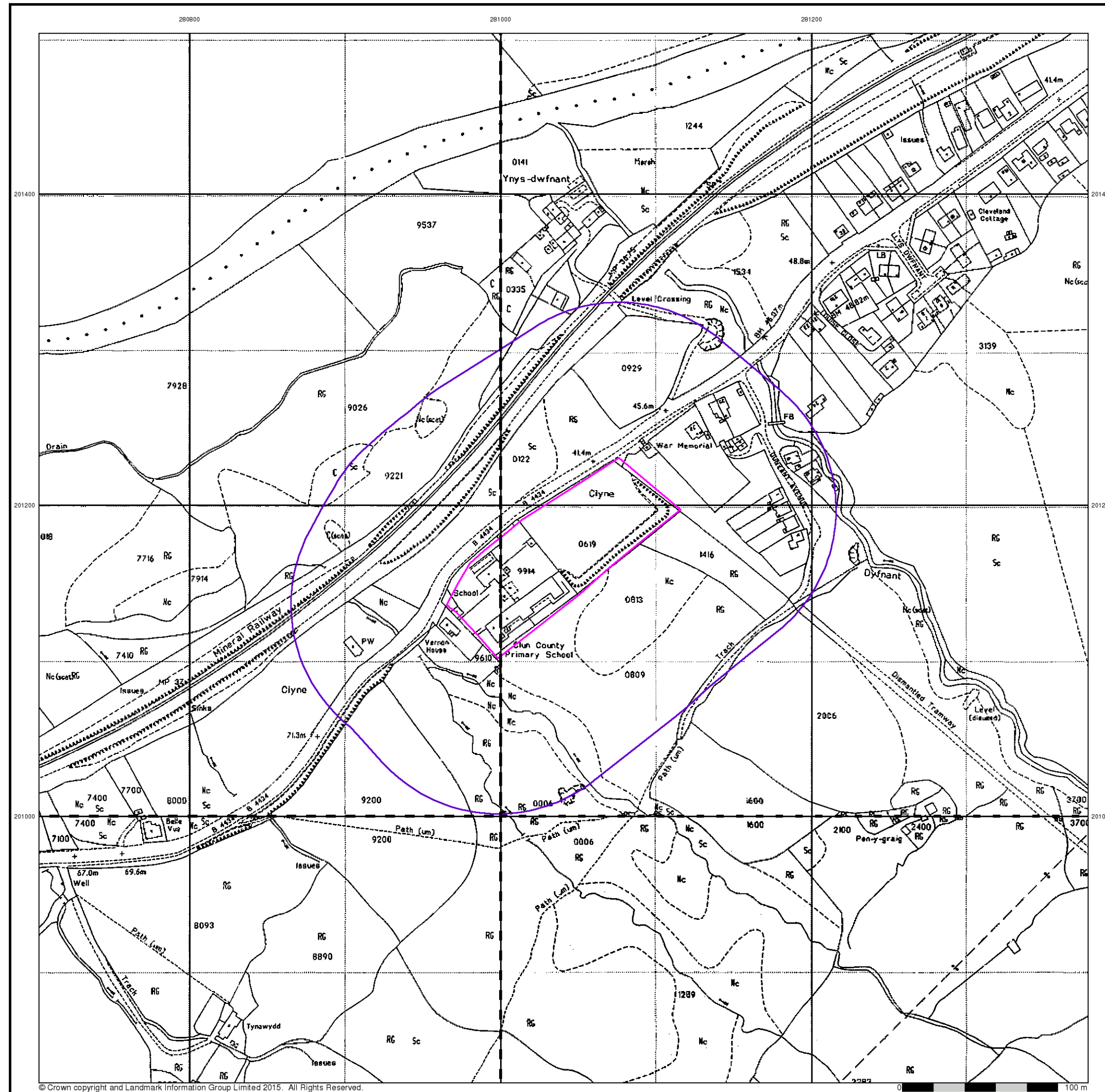
Order Number: 130675084_1_1
Customer Ref: 14242 - Clyne
National Grid Reference: 281040, 201170
Slice: A
Site Area (Ha): 0.84
Search Buffer (m): 100

Site Details

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Large-Scale National Grid Data

Published 1993

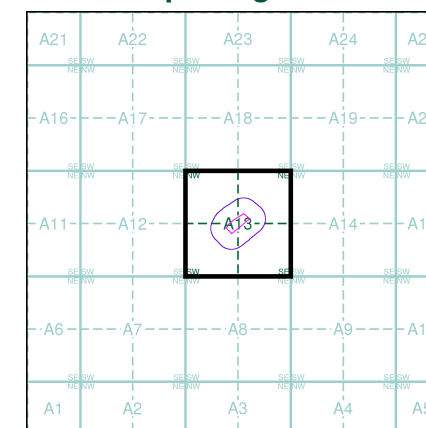
Source map scale - 1:2,500

'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)

SN8001 1993 12,500	SN8101 1993 12,500
SN8000 1993 12,500	SN8100 1993 12,500

Historical Map - Segment A13



Order Details

Order Number: 130675084_1_1
Customer Ref: 14242 - Clyne
National Grid Reference: 281040, 201170
Slice: A
Site Area (Ha): 0.84
Search Buffer (m): 100

Site Details

Site at, Clyne, Neath Port Talbot

Landmark
INFORMATION GROUP

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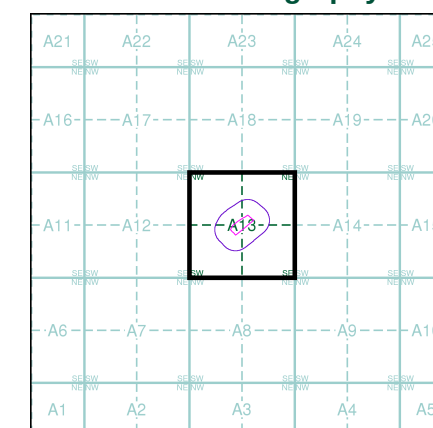


Historical Aerial Photography

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: 130675084_1_1
Customer Ref: 14242 - Clyne
National Grid Reference: 281040, 201170
Slice: A
Site Area (Ha): 0.84
Search Buffer (m): 100

Site Details

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INFORMATION GROUP

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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		
	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		Ch
	CH		F E Sta
	FB		Fn
	GP		MP
	MS		Pol Sta
	PO		PC
	PH		SB
	Spr		TCB
	TCP		W

1:10,000 Raster Mapping

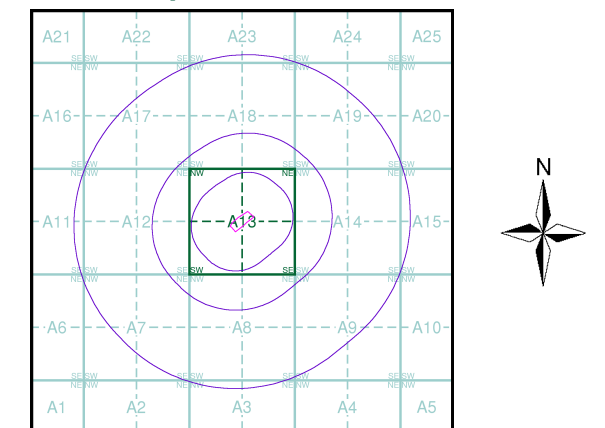
	Gravel Pit		Refuse tip or slag heap
	Rock		Rock (scattered)
	Boulders		Boulders (scattered)
	Shingle		Mud
	Sand		Sand Pit
	Slopes		Top of cliff
	General detail		Underground detail
	Overhead detail		Narrow gauge railway
	Multi-track railway		Single track railway
	County boundary (England only)		Civil, 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



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	1951 - 1953	5
Ordnance Survey Plan	1:10,000	1964 - 1965	6
Ordnance Survey Plan	1:10,000	1973	7
Ordnance Survey Plan	1:10,000	1983 - 1989	8
Ordnance Survey Plan	1:10,000	1992	9
10K Raster Mapping	1:10,000	1999	10
10K Raster Mapping	1:10,000	2006	11
VectorMap Local	1:10,000	2017	12

Historical Map - Slice A



Order Details

Order Number: 130675084_1_1
Customer Ref: 14242 - Clyne
National Grid Reference: 281040, 201170
Slice: A
Site Area (Ha): 0.84
Search Buffer (m): 1000

Site Details

Site at, Clyne, Neath Port Talbot



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Glamorganshire

Published 1884

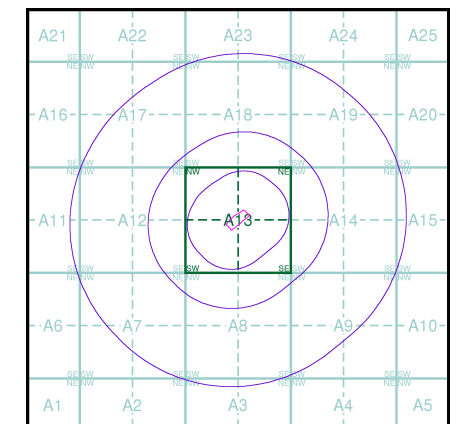
Source map scale - 1:10,560

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)

00900
1884
1:10,560
01600
1884
1:10,560

Historical Map - Slice A



Order Details

Order Number: 130675084_1_1
Customer Ref: 14242 - Clyne
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Slice: A
Site Area (Ha): 0.84
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Landmark
INFORMATION GROUP

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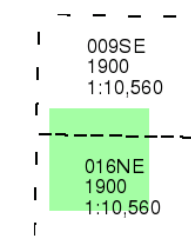
Glamorganshire

Published 1900

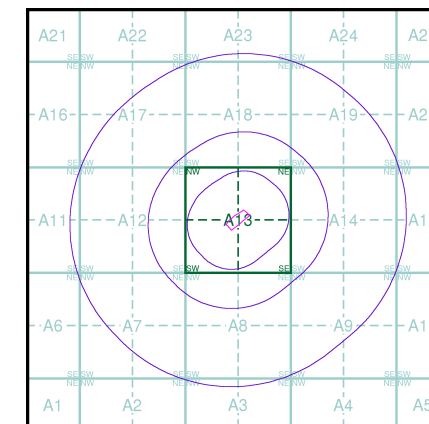
Source map scale - 1:10,560

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)



Historical Map - Slice A



Order Details

Order Number: 130675084_1_1
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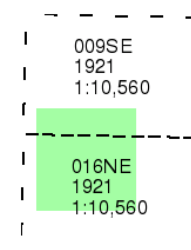
Glamorganshire

Published 1921

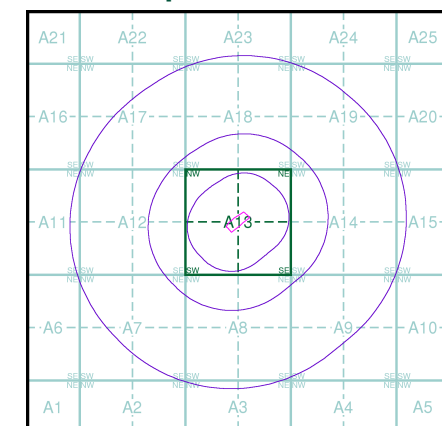
Source map scale - 1:10,560

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)



Historical Map - Slice A



Order Details

Order Number: 130675084_1_1
Customer Ref: 14242 - Clyne
National Grid Reference: 281040, 201170
Slice: A
Site Area (Ha): 0.84
Search Buffer (m): 1000

Site Details

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Glamorganshire

Published 1951 - 1953

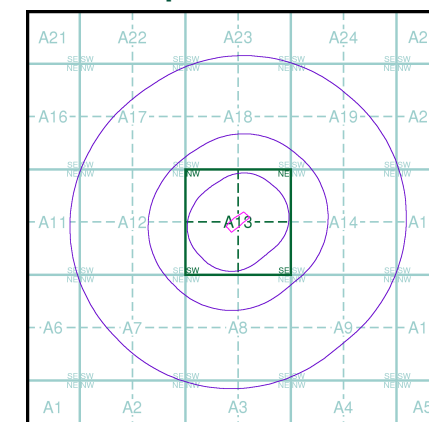
Source map scale - 1:10,560

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

Map Name(s) and Date(s)

009SE
1953
1:10,560
016NE
1951
1:10,560

Historical Map - Slice A



Order Details

Order Number: 130675084_1_1
Customer Ref: 14242 - Clyne
National Grid Reference: 281040, 201170
Slice: A
Site Area (Ha): 0.84
Search Buffer (m): 1000

Site Details

Site at, Clyne, Neath Port Talbot

Landmark
INFORMATION GROUP

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Ordnance Survey Plan

Published 1964 - 1965

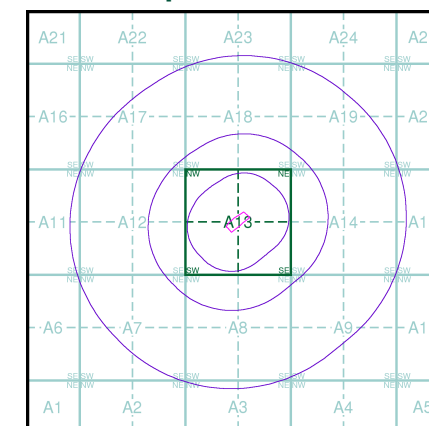
Source map scale - 1:10,000

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

Map Name(s) and Date(s)

SN70SE	SN80SW
1964	1965
1:10,560	1:10,560
SS79NE	SS89NW
1964	1964
1:10,560	1:10,560

Historical Map - Slice A



Order Details

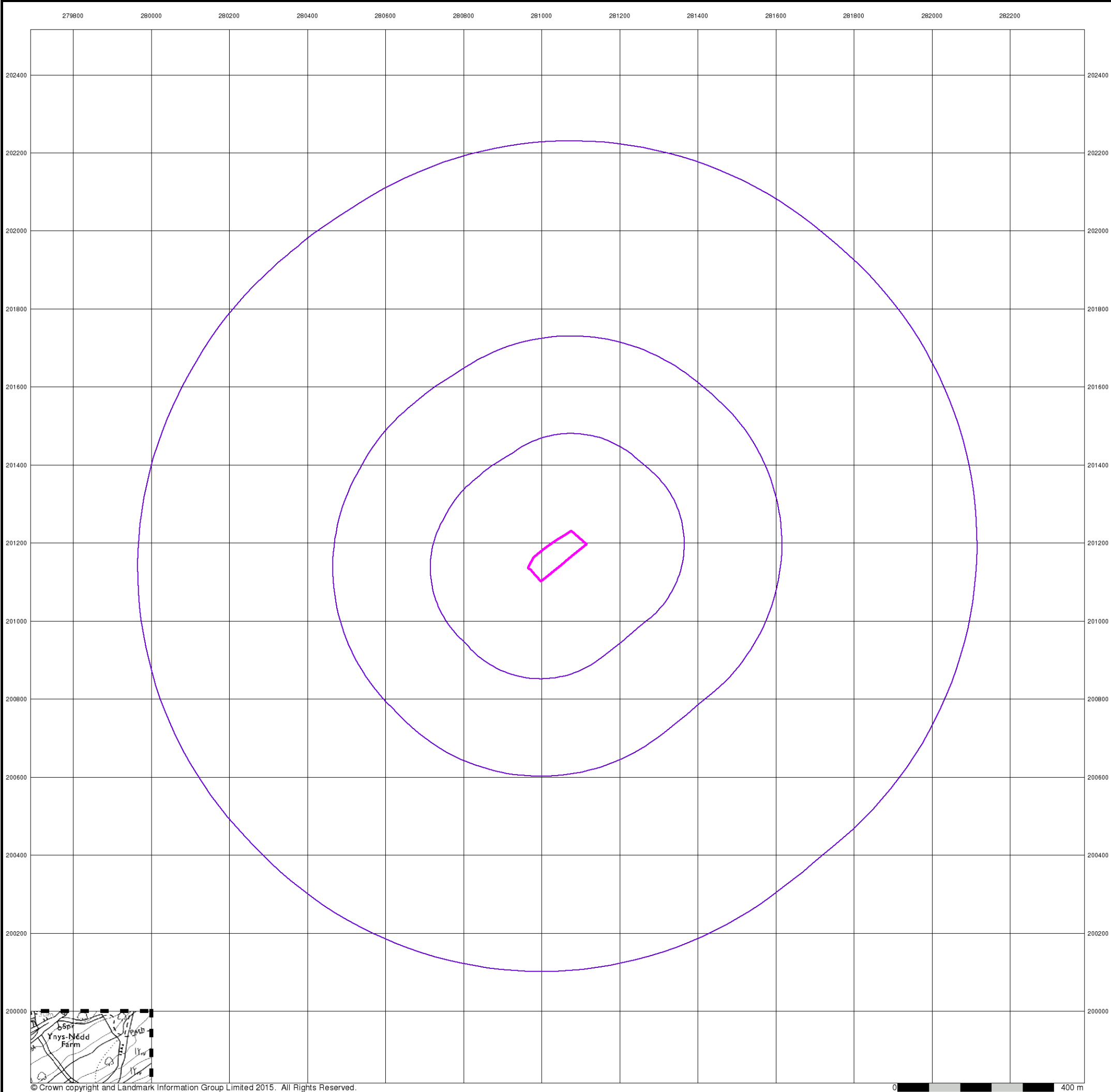
Order Number: 130675084_1_1
Customer Ref: 14242 - Clyne
National Grid Reference: 281040, 201170
Slice: A
Site Area (Ha): 0.84
Search Buffer (m): 1000

Site Details

Site at, Clyne, Neath Port Talbot

Landmark
INFORMATION GROUP

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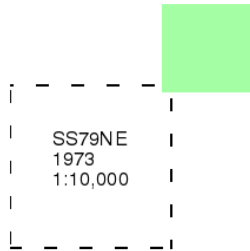
Ordnance Survey Plan

Published 1973

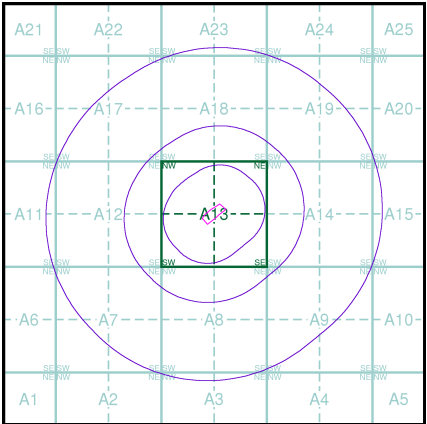
Source map scale - 1:10,000

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

Map Name(s) and Date(s)



Historical Map - Slice A



Order Details

Order Number: 130675084_1_1
Customer Ref: 14242 - Clyne
National Grid Reference: 281040, 201170
Slice: A
Site Area (Ha): 0.84
Search Buffer (m): 1000

Site Details

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Ordnance Survey Plan

Published 1983 - 1989

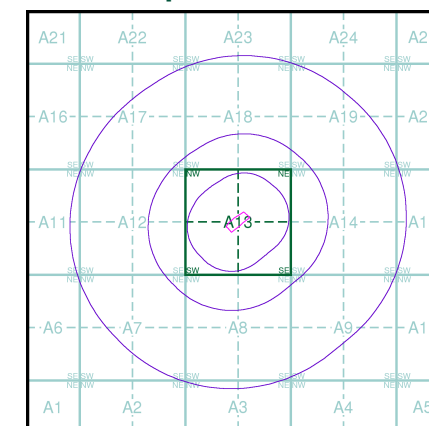
Source map scale - 1:10,000

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)

SN70SE	SN80SW
1989	1988
1:10,000	1:10,000
SS79NE	SS89NW
1983	1988
1:10,000	1:10,000

Historical Map - Slice A



Order Details

Order Number: 130675084_1_1
Customer Ref: 14242 - Clyne
National Grid Reference: 281040, 201170
Slice: A
Site Area (Ha): 0.84
Search Buffer (m): 1000

Site Details

Site at, Clyne, Neath Port Talbot

Landmark
INFORMATION GROUP

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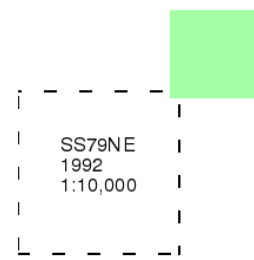
Ordnance Survey Plan

Published 1992

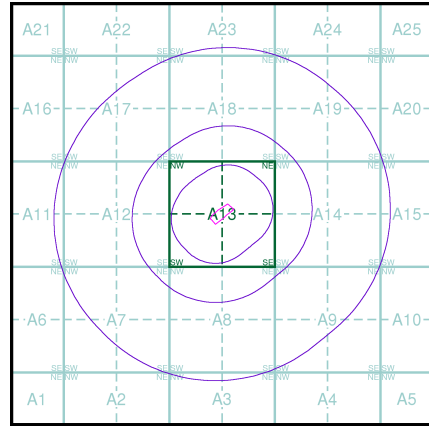
Source map scale - 1:10,000

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

Map Name(s) and Date(s)



Historical Map - Slice A



Order Details

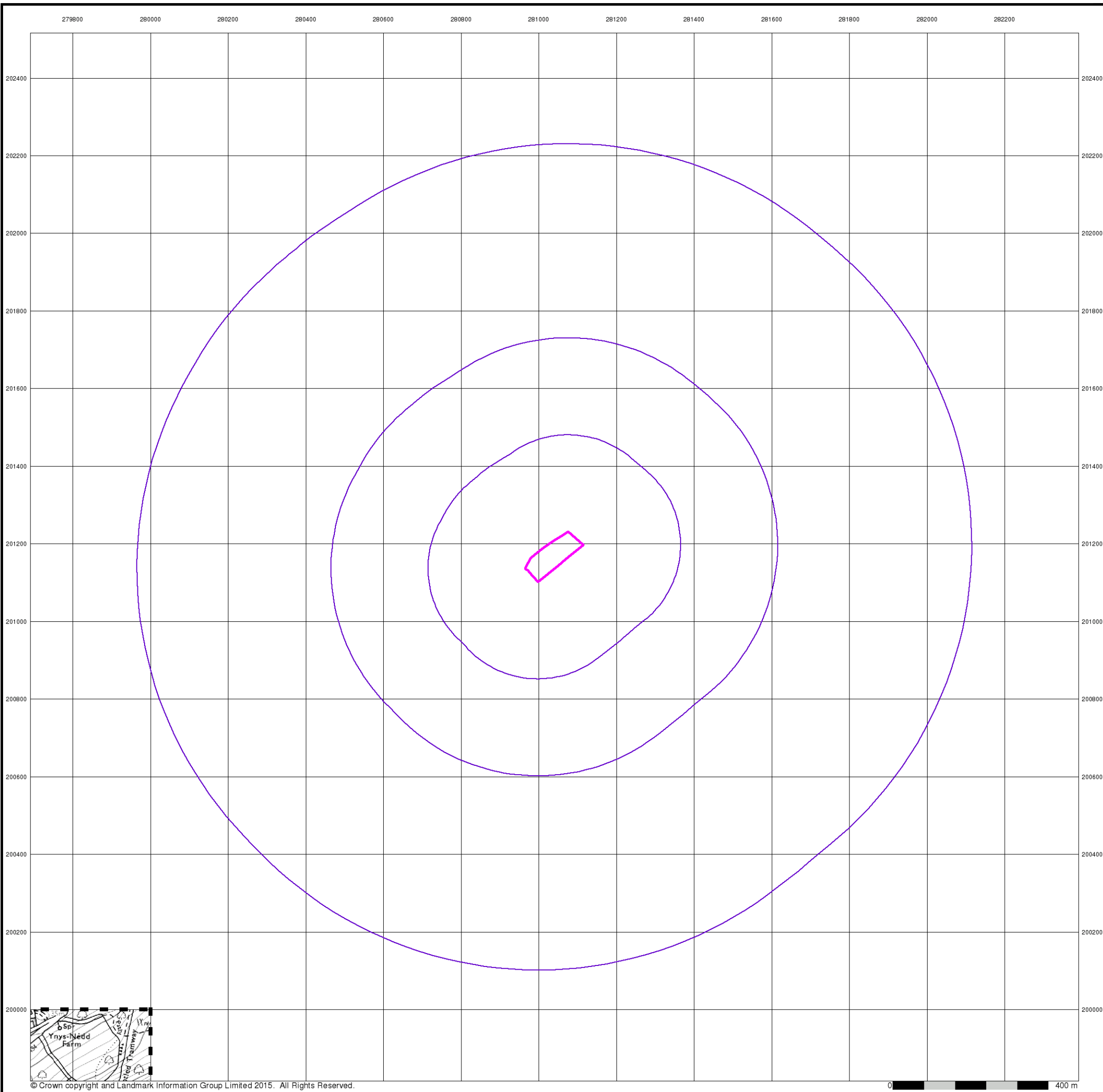
Order Number: 130675084_1_1
Customer Ref: 14242 - Clyne
National Grid Reference: 281040, 201170
Slice: A
Site Area (Ha): 0.84
Search Buffer (m): 1000

Site Details

Site at, Clyne, Neath Port Talbot



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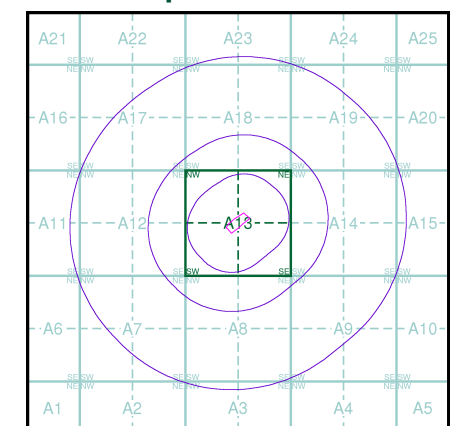


The historical maps shown were produced from the Ordnance Survey's 1:10,000 colour raster mapping. These maps are derived from Landplan which replaced the old 1:10,000 maps originally published in 1970. The data is highly detailed showing buildings, fences and field boundaries as well as all roads, tracks 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)

SN70SE 1999 1:10,000	SN80SW 1999 1:10,000
SS79NE 1999 1:10,000	SS89NW 1999 1:10,000

Historical Map - Slice A



Order Details

Order Number: 130675084_1_1
Customer Ref: 14242 - Clyne
National Grid Reference: 281040, 201170
Slice: A
Site Area (Ha): 0.84
Search Buffer (m): 1000

Site Details

Site at, Clyne, Neath Port Talbot

Landmark[®]
INFORMATION GROUP

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



10k Raster Mapping

Published 2006

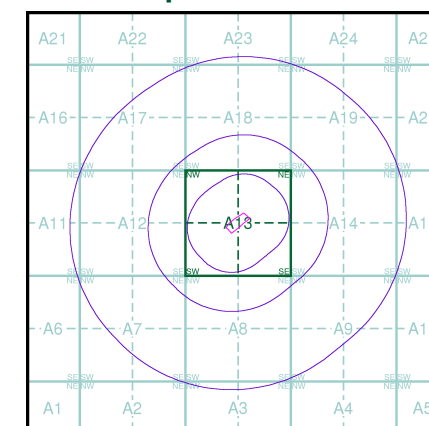
Source map scale - 1:10,000

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)

SN70SE 2006 1:10,000	SN80SW 2006 1:10,000
SS79NE 2006 1:10,000	SS89NW 2006 1:10,000

Historical Map - Slice A



Order Details

Order Number: 130675084_1_1
Customer Ref: 14242 - Clyne
National Grid Reference: 281040, 201170
Slice: A
Site Area (Ha): 0.84
Search Buffer (m): 1000

Site Details

Site at, Clyne, Neath Port Talbot

Landmark
INFORMATION GROUP

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



VectorMap Local

Published 2017

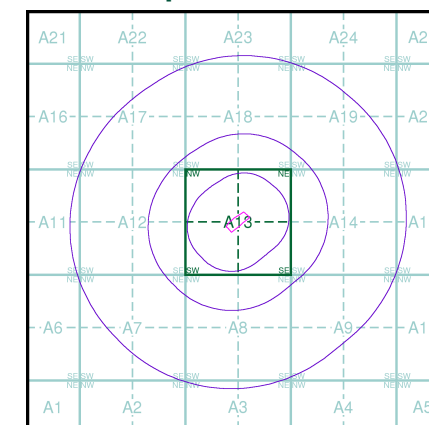
Source map scale - 1:10,000

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)

SN70SE 2017 Variable	SN80SW 2017 Variable
SS79NE 2017 Variable	SS89NW 2017 Variable

Historical Map - Slice A



Order Details

Order Number: 130675084_1_1
Customer Ref: 14242 - Clyne
National Grid Reference: 281040, 201170
Slice: A
Site Area (Ha): 0.84
Search Buffer (m): 1000

Site Details

Site at, Clyne, Neath Port Talbot

Landmark
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ANNEX B
Coal Authority Mining Report



The Coal
Authority

Resolving the **impacts** of mining

CON29M Non-Residential Mining Report

SITE AT,CLYNE
NEATH PORT TALBOT



Date of enquiry:	03 July 2017
Date enquiry received:	03 July 2017
Issue date:	03 July 2017
Our reference:	51001512884001
Your reference:	130675084_2



CON29M Non-Residential Mining Report

This report is based on, and limited to, the records held by the Coal Authority and the Cheshire Brine Subsidence Compensation Board's records, at the time we answer the search.

Client name

LANDMARK INFORMATION GROUP LIMITED

Enquiry address

SITE AT, CLYNE, NEATH PORT TALBOT

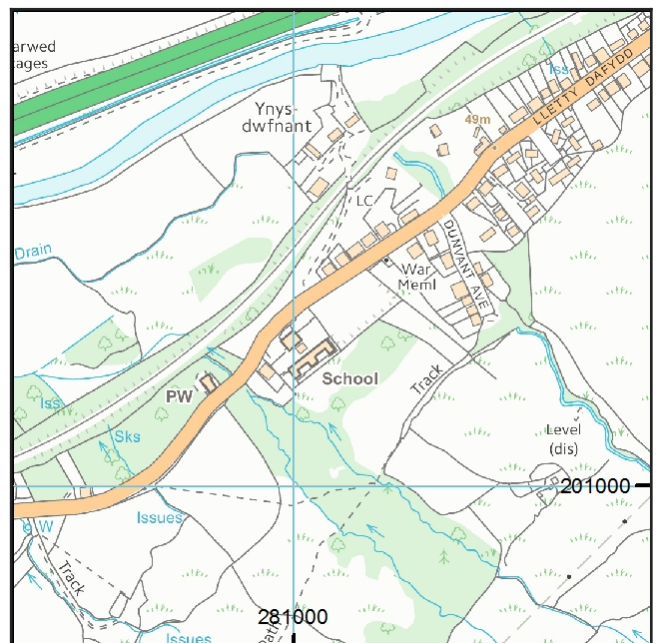
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 /company/the-coal-authority
 /thecoalauthority
 /coalauthority



Approximate position of property



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Summary

Has the search report highlighted evidence or potential of		
1	Past underground coal mining	No
2	Present underground coal mining	No
3	Future underground coal mining	Yes
4	Mine entries	No
5	Coal mining geology	No
6	Past opencast coal mining	No
7	Present opencast coal mining	No
8	Future opencast coal mining	No
9	Coal mining subsidence	No
10	Mine gas	No
11	Hazards related to coal mining	No
12	Withdrawal of support	No
13	Working facilities order	No
14	Payments to owners of former copyhold land	No
15	Information from the Cheshire Brine Subsidence Compensation Board	No

For detailed findings, please go to page 4.

Detailed findings

1. Past underground coal mining

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

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 plans to grant a licence to remove coal using 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 known coal mine entries 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, 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 Authority, under its Emergency Surface Hazard Call Out procedures.

12. Withdrawal of support

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

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

13. Working facilities order

The property is not in an area where an order has been made, under the provisions of the Mines (Working Facilities and Support) Acts 1923 and 1966 or any statutory modification or amendment thereof.

14. Payments to owners of former copyhold land

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

15. Information from the Cheshire Brine Subsidence Compensation Board

The property lies outside the Cheshire Brine Compensation District.

Additional remarks

Information provided by the Coal Authority in this report is compiled in response to the Law Society's Con29M Coal Mining and Brine Subsidence Claim enquiries. The said enquiries are protected by copyright owned by the Law Society of 113 Chancery Lane, London WC2A 1PL. Please note that Brine Subsidence Claim enquiries are only relevant for England and Wales. This report is prepared in accordance with the Law Society's Guidance Notes 2006, the User Guide 2006 and the Coal Authority and Cheshire Brine Board's Terms and Conditions applicable at the time the report was produced.

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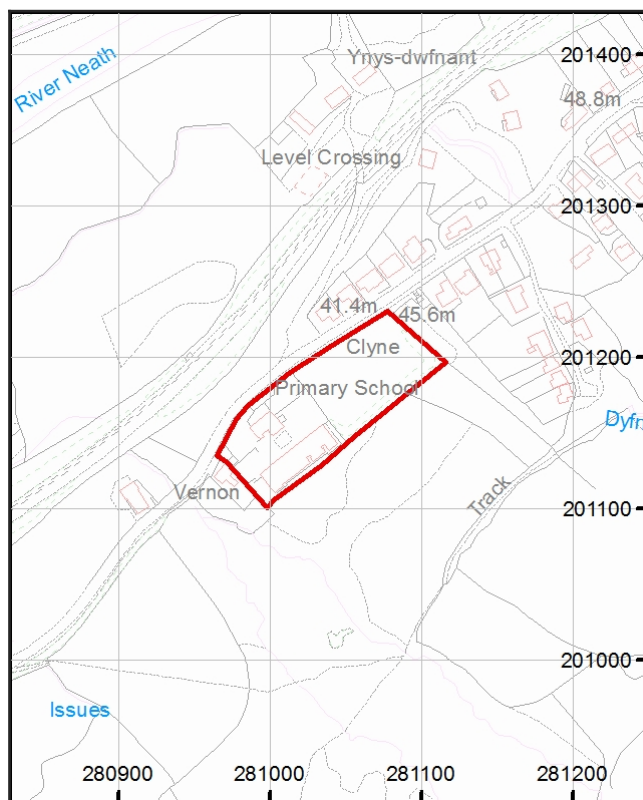
Alternative formats

If you would like this report in an alternative format, please contact our communications team.

Enquiry boundary

Key

Approximate position of enquiry boundary shown



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ANNEX C
Envirocheck Datasheet and Maps

Envirocheck[®] Report:

Datasheet

Order Details:

Order Number:

130675084_1_1

Customer Reference:

14242 - Clyne

National Grid Reference:

281040, 201170

Slice:

A

Site Area (Ha):

0.84

Search Buffer (m):

1000

Site Details:

Site at

Clyne

Neath Port Talbot

Client Details:

Mr A Beattie

Terra Firma (Wales) Ltd

5 Deryn Court

Wharfdale Road

Pentwyn

Cardiff

CF23 7HB

Report Section	Page Number
Summary	-
Agency & Hydrological	1
Waste	33
Hazardous Substances	-
Geological	34
Industrial Land Use	56
Sensitive Land Use	57
Data Currency	58
Data Suppliers	63
Useful Contacts	64

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 the attached 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	Yes	n/a
Contaminated Land Register Entries and Notices					
Discharge Consents	pg 4		1	1	4
Prosecutions Relating to Controlled Waters			n/a	n/a	n/a
Enforcement and Prohibition Notices					
Integrated Pollution Controls					
Integrated Pollution Prevention And Control					
Local Authority Integrated Pollution Prevention And Control					
Local Authority Pollution Prevention and Controls					
Local Authority Pollution Prevention and Control Enforcements					
Nearest Surface Water Feature	pg 5		Yes		
Pollution Incidents to Controlled Waters	pg 6			6	8
Prosecutions Relating to Authorised Processes					
Registered Radioactive Substances					
River Quality	pg 8		1		1
River Quality Biology Sampling Points					
River Quality Chemistry Sampling Points					
Substantiated Pollution Incident Register	pg 8				2
Water Abstractions	pg 9			1	1 (*7)
Water Industry Act Referrals					
Groundwater Vulnerability	pg 11	Yes	n/a	n/a	n/a
Drift Deposits			n/a	n/a	n/a
Bedrock Aquifer Designations	pg 11	Yes	n/a	n/a	n/a
Superficial Aquifer Designations	pg 11	Yes	n/a	n/a	n/a
Source Protection Zones					
Extreme Flooding from Rivers or Sea without Defences	pg 11		Yes	n/a	n/a
Flooding from Rivers or Sea without Defences	pg 11		Yes	n/a	n/a
Areas Benefiting from Flood Defences				n/a	n/a
Flood Water Storage Areas				n/a	n/a
Flood Defences				n/a	n/a
OS Water Network Lines	pg 11		24	55	110

Data Type	Page Number	On Site	0 to 250m	251 to 500m	501 to 1000m (*up to 2000m)
Waste					
BGS Recorded Landfill Sites					
Historical Landfill Sites					
Integrated Pollution Control Registered Waste Sites					
Licensed Waste Management Facilities (Landfill Boundaries)					
Licensed Waste Management Facilities (Locations)					
Local Authority Landfill Coverage	pg 33	1	n/a	n/a	n/a
Local Authority Recorded Landfill Sites					
Potentially Infilled Land (Non-Water)	pg 33		1		9
Potentially Infilled Land (Water)	pg 33				1
Registered Landfill Sites					
Registered Waste Transfer Sites					
Registered Waste Treatment or Disposal Sites					
Hazardous Substances					
Control of Major Accident Hazards Sites (COMAH)					
Explosive Sites					
Notification of Installations Handling Hazardous Substances (NIHHS)					
Planning Hazardous Substance Consents					
Planning Hazardous Substance Enforcements					

Data Type	Page Number	On Site	0 to 250m	251 to 500m	501 to 1000m (*up to 2000m)
Geological					
BGS 1:625,000 Solid Geology	pg 34	Yes	n/a	n/a	n/a
BGS Estimated Soil Chemistry	pg 34	Yes	Yes	Yes	Yes
BGS Recorded Mineral Sites	pg 49		3	1	27
BGS Urban Soil Chemistry					
BGS Urban Soil Chemistry Averages					
CBSCB Compensation District			n/a	n/a	n/a
Coal Mining Affected Areas	pg 54	Yes	n/a	n/a	n/a
Mining Instability	pg 54	Yes	n/a	n/a	n/a
Man-Made Mining Cavities					
Natural Cavities					
Non Coal Mining Areas of Great Britain				n/a	n/a
Potential for Collapsible Ground Stability Hazards	pg 54	Yes		n/a	n/a
Potential for Compressible Ground Stability Hazards	pg 54		Yes	n/a	n/a
Potential for Ground Dissolution Stability Hazards				n/a	n/a
Potential for Landslide Ground Stability Hazards	pg 54	Yes	Yes	n/a	n/a
Potential for Running Sand Ground Stability Hazards	pg 54	Yes	Yes	n/a	n/a
Potential for Shrinking or Swelling Clay Ground Stability Hazards	pg 55	Yes	Yes	n/a	n/a
Radon Potential - Radon Affected Areas			n/a	n/a	n/a
Radon Potential - Radon Protection Measures			n/a	n/a	n/a
Industrial Land Use					
Contemporary Trade Directory Entries	pg 56		1		
Fuel Station Entries					
Points of Interest - Commercial Services	pg 56		1		
Points of Interest - Education and Health					
Points of Interest - Manufacturing and Production	pg 56				2
Points of Interest - Public Infrastructure	pg 56			1	
Points of Interest - Recreational and Environmental	pg 56				4
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 57				2
Areas of Adopted Green Belt					
Areas of Unadopted Green Belt					
Areas of Outstanding Natural Beauty					
Environmentally Sensitive Areas					
Forest Parks					
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	A13NW (E)	0	1	281039 201167
	BGS Groundwater Flooding Susceptibility Flooding Type: Potential for Groundwater Flooding of Property Situated Below Ground Level	A13SE (SE)	0	1	281050 201150
	BGS Groundwater Flooding Susceptibility Flooding Type: Limited Potential for Groundwater Flooding to Occur	A13NE (E)	0	1	281100 201167
	BGS Groundwater Flooding Susceptibility Flooding Type: Limited Potential for Groundwater Flooding to Occur	A13NW (N)	0	1	281039 201200
	BGS Groundwater Flooding Susceptibility Flooding Type: Potential for Groundwater Flooding of Property Situated Below Ground Level	A13NE (NE)	0	1	281100 201200
	BGS Groundwater Flooding Susceptibility Flooding Type: Potential for Groundwater Flooding of Property Situated Below Ground Level	A13NW (W)	0	1	281000 201167
	BGS Groundwater Flooding Susceptibility Flooding Type: Potential for Groundwater Flooding to Occur at Surface	A13SW (W)	15	1	280950 201150
	BGS Groundwater Flooding Susceptibility Flooding Type: Potential for Groundwater Flooding of Property Situated Below Ground Level	A13NW (W)	20	1	280950 201167
	BGS Groundwater Flooding Susceptibility Flooding Type: Limited Potential for Groundwater Flooding to Occur	A13NE (N)	20	1	281050 201250
	BGS Groundwater Flooding Susceptibility Flooding Type: Limited Potential for Groundwater Flooding to Occur	A13NE (E)	35	1	281150 201200
	BGS Groundwater Flooding Susceptibility Flooding Type: Potential for Groundwater Flooding of Property Situated Below Ground Level	A13NW (NW)	48	1	281000 201250
	BGS Groundwater Flooding Susceptibility Flooding Type: Limited Potential for Groundwater Flooding to Occur	A13SW (S)	52	1	281039 201050
	BGS Groundwater Flooding Susceptibility Flooding Type: Potential for Groundwater Flooding of Property Situated Below Ground Level	A13SW (S)	52	1	281000 201050
	BGS Groundwater Flooding Susceptibility Flooding Type: Potential for Groundwater Flooding of Property Situated Below Ground Level	A13NE (NE)	63	1	281150 201250
	BGS Groundwater Flooding Susceptibility Flooding Type: Limited Potential for Groundwater Flooding to Occur	A13SE (SE)	65	1	281100 201100
	BGS Groundwater Flooding Susceptibility Flooding Type: Limited Potential for Groundwater Flooding to Occur	A13NE (N)	70	1	281050 201300
	BGS Groundwater Flooding Susceptibility Flooding Type: Limited Potential for Groundwater Flooding to Occur	A13SE (S)	73	1	281050 201050
	BGS Groundwater Flooding Susceptibility Flooding Type: Potential for Groundwater Flooding of Property Situated Below Ground Level	A13SW (SW)	75	1	280900 201100
	BGS Groundwater Flooding Susceptibility Flooding Type: Limited Potential for Groundwater Flooding to Occur	A13SE (SE)	98	1	281150 201100
	BGS Groundwater Flooding Susceptibility Flooding Type: Potential for Groundwater Flooding to Occur at Surface	A13SW (SW)	108	1	280900 201050
	BGS Groundwater Flooding Susceptibility Flooding Type: Potential for Groundwater Flooding to Occur at Surface	A13NW (W)	116	1	280850 201167
	BGS Groundwater Flooding Susceptibility Flooding Type: Limited Potential for Groundwater Flooding to Occur	A13NE (NE)	134	1	281200 201300

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
	BGS Groundwater Flooding Susceptibility Flooding Type: Limited Potential for Groundwater Flooding to Occur	A13SW (S)	160	1	280950 200950
	BGS Groundwater Flooding Susceptibility Flooding Type: Potential for Groundwater Flooding to Occur at Surface	A13SW (W)	165	1	280800 201150
	BGS Groundwater Flooding Susceptibility Flooding Type: Potential for Groundwater Flooding of Property Situated Below Ground Level	A13NW (W)	166	1	280800 201167
	BGS Groundwater Flooding Susceptibility Flooding Type: Limited Potential for Groundwater Flooding to Occur	A13NW (N)	172	1	281039 201400
	BGS Groundwater Flooding Susceptibility Flooding Type: Limited Potential for Groundwater Flooding to Occur	A13SW (SW)	187	1	280800 201050
	BGS Groundwater Flooding Susceptibility Flooding Type: Potential for Groundwater Flooding to Occur at Surface	A13NW (NW)	196	1	280900 201350
	BGS Groundwater Flooding Susceptibility Flooding Type: Potential for Groundwater Flooding of Property Situated Below Ground Level	A13SW (SW)	213	1	280850 200950
	BGS Groundwater Flooding Susceptibility Flooding Type: Potential for Groundwater Flooding of Property Situated Below Ground Level	A13SW (W)	215	1	280750 201150
	BGS Groundwater Flooding Susceptibility Flooding Type: Potential for Groundwater Flooding of Property Situated Below Ground Level	A13NW (W)	216	1	280750 201167
	BGS Groundwater Flooding Susceptibility Flooding Type: Limited Potential for Groundwater Flooding to Occur	A13SW (W)	218	1	280750 201100
	BGS Groundwater Flooding Susceptibility Flooding Type: Potential for Groundwater Flooding of Property Situated Below Ground Level	A13NE (N)	221	1	281100 201450
	BGS Groundwater Flooding Susceptibility Flooding Type: Limited Potential for Groundwater Flooding to Occur	A13SW (W)	232	1	280750 201050
	BGS Groundwater Flooding Susceptibility Flooding Type: Limited Potential for Groundwater Flooding to Occur	A13NE (N)	232	1	281150 201450
	BGS Groundwater Flooding Susceptibility Flooding Type: Limited Potential for Groundwater Flooding to Occur	A13NE (NE)	240	1	281300 201350
	BGS Groundwater Flooding Susceptibility Flooding Type: Limited Potential for Groundwater Flooding to Occur	A13SW (SW)	251	1	280850 200900
	BGS Groundwater Flooding Susceptibility Flooding Type: Potential for Groundwater Flooding of Property Situated Below Ground Level	A12SE (W)	265	1	280700 201150
	BGS Groundwater Flooding Susceptibility Flooding Type: Limited Potential for Groundwater Flooding to Occur	A14SW (E)	301	1	281400 201100
	BGS Groundwater Flooding Susceptibility Flooding Type: Limited Potential for Groundwater Flooding to Occur	A14SW (E)	321	1	281400 201050
	BGS Groundwater Flooding Susceptibility Flooding Type: Potential for Groundwater Flooding of Property Situated Below Ground Level	A13NE (NE)	321	1	281250 201500
	BGS Groundwater Flooding Susceptibility Flooding Type: Potential for Groundwater Flooding of Property Situated Below Ground Level	A18SE (N)	328	1	281150 201550
	BGS Groundwater Flooding Susceptibility Flooding Type: Limited Potential for Groundwater Flooding to Occur	A18SE (NE)	343	1	281200 201550
	BGS Groundwater Flooding Susceptibility Flooding Type: Potential for Groundwater Flooding of Property Situated Below Ground Level	A13SW (SW)	354	1	280750 200850

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
	BGS Groundwater Flooding Susceptibility Flooding Type: Potential for Groundwater Flooding of Property Situated Below Ground Level	A12SE (SW)	355	1	280700 200900
	BGS Groundwater Flooding Susceptibility Flooding Type: Limited Potential for Groundwater Flooding to Occur	A12SE (SW)	390	1	280700 200850
	BGS Groundwater Flooding Susceptibility Flooding Type: Limited Potential for Groundwater Flooding to Occur	A18SE (NE)	391	1	281300 201550
	BGS Groundwater Flooding Susceptibility Flooding Type: Limited Potential for Groundwater Flooding to Occur	A12NE (W)	401	1	280600 201300
	BGS Groundwater Flooding Susceptibility Flooding Type: Limited Potential for Groundwater Flooding to Occur	A12NE (NW)	402	1	280700 201450
	BGS Groundwater Flooding Susceptibility Flooding Type: Limited Potential for Groundwater Flooding to Occur	A8NW (SW)	404	1	280800 200750
	BGS Groundwater Flooding Susceptibility Flooding Type: Limited Potential for Groundwater Flooding to Occur	A12NE (NW)	407	1	280650 201400
	BGS Groundwater Flooding Susceptibility Flooding Type: Limited Potential for Groundwater Flooding to Occur	A13NW (NW)	407	1	280750 201500
	BGS Groundwater Flooding Susceptibility Flooding Type: Potential for Groundwater Flooding of Property Situated Below Ground Level	A18SE (NE)	409	1	281250 201600
	BGS Groundwater Flooding Susceptibility Flooding Type: Limited Potential for Groundwater Flooding to Occur	A18SW (NW)	418	1	280800 201550
	BGS Groundwater Flooding Susceptibility Flooding Type: Potential for Groundwater Flooding of Property Situated Below Ground Level	A12NE (NW)	423	1	280600 201350
	BGS Groundwater Flooding Susceptibility Flooding Type: Limited Potential for Groundwater Flooding to Occur	A12SE (SW)	426	1	280650 200850
	BGS Groundwater Flooding Susceptibility Flooding Type: Limited Potential for Groundwater Flooding to Occur	A18SE (NE)	433	1	281300 201600
	BGS Groundwater Flooding Susceptibility Flooding Type: Limited Potential for Groundwater Flooding to Occur	A14NW (E)	435	1	281550 201200
	BGS Groundwater Flooding Susceptibility Flooding Type: Potential for Groundwater Flooding of Property Situated Below Ground Level	A12NE (NW)	438	1	280650 201450
	BGS Groundwater Flooding Susceptibility Flooding Type: Potential for Groundwater Flooding to Occur at Surface	A12NE (NW)	439	1	280700 201500
	BGS Groundwater Flooding Susceptibility Flooding Type: Potential for Groundwater Flooding to Occur at Surface	A18SW (NW)	446	1	280750 201550
	BGS Groundwater Flooding Susceptibility Flooding Type: Potential for Groundwater Flooding of Property Situated Below Ground Level	A12NE (NW)	448	1	280600 201400
	BGS Groundwater Flooding Susceptibility Flooding Type: Potential for Groundwater Flooding of Property Situated Below Ground Level	A18SW (NW)	460	1	280800 201600
	BGS Groundwater Flooding Susceptibility Flooding Type: Limited Potential for Groundwater Flooding to Occur	A7NE (SW)	461	1	280650 200800
	BGS Groundwater Flooding Susceptibility Flooding Type: Limited Potential for Groundwater Flooding to Occur	A12SE (SW)	464	1	280600 200850
	BGS Groundwater Flooding Susceptibility Flooding Type: Potential for Groundwater Flooding of Property Situated Below Ground Level	A12SE (W)	467	1	280500 201100

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
	BGS Groundwater Flooding Susceptibility Flooding Type: Potential for Groundwater Flooding of Property Situated Below Ground Level	A12NE (W)	467	1	280550 201350
	BGS Groundwater Flooding Susceptibility Flooding Type: Potential for Groundwater Flooding of Property Situated Below Ground Level	A12NE (NW)	477	1	280600 201450
	BGS Groundwater Flooding Susceptibility Flooding Type: Potential for Groundwater Flooding of Property Situated Below Ground Level	A17SE (NW)	477	1	280700 201550
	BGS Groundwater Flooding Susceptibility Flooding Type: Limited Potential for Groundwater Flooding to Occur	A14SW (E)	478	1	281550 201000
	BGS Groundwater Flooding Susceptibility Flooding Type: Limited Potential for Groundwater Flooding to Occur	A14NW (E)	488	1	281600 201250
	BGS Groundwater Flooding Susceptibility Flooding Type: Potential for Groundwater Flooding to Occur at Surface	A12NE (NW)	491	1	280550 201400
	BGS Groundwater Flooding Susceptibility Flooding Type: Limited Potential for Groundwater Flooding to Occur	A19SW (NE)	492	1	281400 201600
	BGS Groundwater Flooding Susceptibility Flooding Type: Potential for Groundwater Flooding of Property Situated Below Ground Level	A12NE (W)	494	1	280500 201300
	BGS Groundwater Flooding Susceptibility Flooding Type: Limited Potential for Groundwater Flooding to Occur	A7NE (SW)	497	1	280600 200800
1	Discharge Consents Operator: Mrs Roma Lewis Property Type: Recreational & Cultural Location: Clyne Free Mission, ., Clyne, Neath, Neath Port Talbot, Sa11 4bw Authority: Natural Resources Wales Catchment Area: Not Given Reference: Bm0023101 Permit Version: 1 Effective Date: 30th July 1982 Issued Date: 30th July 1982 Revocation Date: 31st October 1996 Discharge Type: Unspecified Discharge: Land/Soakaway Environment: Receiving Water: Underground Strata Status: Lapsed (under Environment Act 1995, Schedule 23) Positional Accuracy: Located by supplier to within 100m	A13SW (W)	71	2	280900 201110
2	Discharge Consents Operator: The Coal Authority Property Type: Coal Extraction, Deep Mine Location: Ynysarwed Abandoned Minewater Tw, Treatment Works Ynysarwed, Near Neath, Sa11 4de Authority: Natural Resources Wales Catchment Area: Not Given Reference: Bp027580101 Permit Version: 1 Effective Date: 16th April 1999 Issued Date: 16th April 1999 Revocation Date: Not Supplied Discharge Type: Minewater Discharge: Freshwater Stream/River Environment: Receiving Water: River Neath Status: New Consent (Water Resources Act 1991, Section 88 & Schedule 10 as amended by Environment Act 1995) Positional Accuracy: Located by supplier to within 100m	A12NE (W)	470	2	280500 201200

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
3	Discharge Consents Operator: Mr David Bevan Property Type: Livestock Production, Food Production Location: Ynysbwlog Farm Resolven Neath Authority: Natural Resources Wales Catchment Area: Not Given Reference: Bk0504401 Permit Version: 2 Effective Date: 19th September 1995 Issued Date: 18th September 1995 Revocation Date: 6th February 1998 Discharge Type: Unspecified Discharge: Not Supplied Environment: Receiving Water: Unnamed Tributary Of The River Status: Consent expired Positional Accuracy: Located by supplier to within 100m	A12NE (W)	547	2	280450 201320
3	Discharge Consents Operator: Mr David Bevan Property Type: Livestock Production, Food Production Location: Ynysbwlog Farm Resolven Neath Authority: Natural Resources Wales Catchment Area: Not Supplied Reference: Bk0504401 Permit Version: 1 Effective Date: 26th November 1962 Issued Date: 26th November 1962 Revocation Date: 18th September 1995 Discharge Type: Unspecified Discharge: Not Supplied Environment: Receiving Water: Unnamed Tributary Of The River Status: Authorisation revokedRevoked Positional Accuracy: Located by supplier to within 10m	A12NE (W)	547	2	280450 201320
4	Discharge Consents Operator: The Coal Authority Property Type: Coal Extraction, Deep Mine Location: Ynysgarwed Abandoned Minewater Tw, Treatment Works Ynysgarwed, Near Neath, Sa11 4de Authority: Natural Resources Wales Catchment Area: River Neath Reference: BP0267801 Permit Version: 1 Effective Date: 4th September 1998 Issued Date: 4th September 1998 Revocation Date: Not Supplied Discharge Type: Trade Effluent Discharge: Canal Environment: Receiving Water: Neath Canal Status: New Consent (Water Resources Act 1991, Section 88 & Schedule 10 as amended by Environment Act 1995) Positional Accuracy: Located by supplier to within 100m	A18SW (N)	589	2	280800 201750
5	Discharge Consents Operator: Dwr Cymru Cyfyngedig Property Type: Sewage Disposal Works - Water Company Location: Ynysgarwed Stw Ynysgarwed Neath, Ynysgarwed, Neath Port Talbot Cbc Authority: Natural Resources Wales Catchment Area: Not Supplied Reference: Ba1014501 Permit Version: 1 Effective Date: 1st March 1982 Issued Date: 1st March 1982 Revocation Date: 4th January 1988 Discharge Type: Sewage Discharges - Final/Treated Effluent - Water Company Discharge: Not Supplied Environment: Receiving Water: Neath Canal Status: Authorisation revokedRevoked Positional Accuracy: Located by supplier to within 100m	A19NW (N)	928	2	281400 202100
	Nearest Surface Water Feature	A13SW (SW)	21	-	280986 201086

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
6	Pollution Incidents to Controlled Waters Property Type: Not Given Location: Clyne Viaduct, ABERDULAIS Authority: Environment Agency, Welsh Region Pollutant: Unknown Note: Not Supplied Incident Date: 3rd March 1992 Incident Reference: 3905 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 10m	A12NE (W)	455	3	280514 201190
7	Pollution Incidents to Controlled Waters Property Type: Road Location: Rees Yard Authority: Environment Agency, Welsh Region Pollutant: Mud/Clay/Soil Note: Not Supplied Incident Date: 10th October 1994 Incident Reference: 21685 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	A14NW (NE)	487	3	281500 201495
7	Pollution Incidents to Controlled Waters Property Type: Road Location: Down Stream Of Past, ABERGARWED Authority: Environment Agency, Welsh Region Pollutant: Unknown Note: Not Supplied Incident Date: 10th October 1994 Incident Reference: 21685 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	A14NW (NE)	490	3	281500 201500
7	Pollution Incidents to Controlled Waters Property Type: Not Given Location: Approx 1 Mile, Below New Car Park, On New Road Below, ABERGARWED Authority: Environment Agency, Welsh Region Pollutant: Algae Note: Natural Occurrence Incident Date: 29th May 1997 Incident Reference: 32428 Catchment Area: Not Given Receiving Water: Not Given Cause of Incident: Natural Causes Incident Severity: Category 3 - Minor Incident Positional Accuracy: Located by supplier to within 100m	A14NW (NE)	491	3	281505 201495
7	Pollution Incidents to Controlled Waters Property Type: Not Given Location: At Clyne, About 1/2 Mile Authority: Environment Agency, Welsh Region Pollutant: Algae Note: Natural Occurrence Incident Date: 29th May 1997 Incident Reference: 32428 Catchment Area: Not Given Receiving Water: Not Given Cause of Incident: Natural Causes Incident Severity: Category 3 - Minor Incident Positional Accuracy: Located by supplier to within 100m	A14NW (NE)	494	3	281505 201500
7	Pollution Incidents to Controlled Waters Property Type: Not Given Location: Neath And Dulais Club Car Park Authority: Environment Agency, Welsh Region Pollutant: Algae Note: Natural Occurrence Incident Date: 29th May 1997 Incident Reference: 32428 Catchment Area: Not Given Receiving Water: Not Given Cause of Incident: Natural Causes Incident Severity: Category 3 - Minor Incident Positional Accuracy: Located by supplier to within 100m	A19SW (NE)	497	3	281505 201505

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
8	Pollution Incidents to Controlled Waters Property Type: Abandoned mine Location: Ynysbwlog Authority: Environment Agency, Welsh Region Pollutant: Mud/Clay/Soil Note: Neglect Incident Date: 3rd January 1995 Incident Reference: 22564 Catchment Area: Not Given Receiving Water: Not Given Cause of Incident: Effluent Discharge Incident Severity: Category 3 - Minor Incident Positional Accuracy: Located by supplier to within 100m	A12NE (NW)	509	3	280600 201500
9	Pollution Incidents to Controlled Waters Property Type: Not Given Location: Ynysbwlog Ynys, Arwed Authority: Environment Agency, Welsh Region Pollutant: Crude Sewage Note: Emergency Overflow Incident Date: 22nd January 1996 Incident Reference: 27287 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	A12NE (W)	528	3	280450 201250
10	Pollution Incidents to Controlled Waters Property Type: Coal Location: Adjacent Neath, Canal, Ynysarwed Farm Authority: Environment Agency, Welsh Region Pollutant: Mud/Clay/Soil Note: Natural Causes Incident Date: 26th September 1995 Incident Reference: 26453 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	A18SE (N)	570	3	281100 201800
11	Pollution Incidents to Controlled Waters Property Type: Abandoned mine Location: Ynysbwlog Authority: Environment Agency, Welsh Region Pollutant: Chemicals - Other Organic Note: Neglect Incident Date: 30th January 1995 Incident Reference: 22600 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	A12NE (NW)	587	3	280500 201500
12	Pollution Incidents to Controlled Waters Property Type: Abandoned mine Location: Neath And Fields, Ynysbwlog Authority: Environment Agency, Welsh Region Pollutant: Crude Sewage Note: Inadequate Design/Capacity Incident Date: 8th February 1995 Incident Reference: 22642 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	A12NE (W)	589	3	280400 201300
13	Pollution Incidents to Controlled Waters Property Type: Abandoned mine Location: Ynysbwlog Authority: Environment Agency, Welsh Region Pollutant: Unknown Note: Neglect Incident Date: 6th December 1994 Incident Reference: 21938 Catchment Area: Not Given Receiving Water: Not Given Cause of Incident: Effluent Discharge Incident Severity: Category 3 - Minor Incident Positional Accuracy: Located by supplier to within 100m	A17SE (NW)	598	3	280700 201700

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
14	Pollution Incidents to Controlled Waters Property Type: Not Given Location: Ynysarwed Authority: Environment Agency, Welsh Region Pollutant: Mining Water Note: Neath Canal Overflow To Tributary Of River Neath; Overflow Incident Date: 19th November 1997 Incident Reference: 34190 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	A12SW (W)	666	3	280300 201100
15	Pollution Incidents to Controlled Waters Property Type: Metalliferous Mine Workings Location: Canal, Aqueduct Authority: Environment Agency, Welsh Region Pollutant: Rubble/Litter Or Solids Note: Emergency Overflow Incident Date: 12th January 1996 Incident Reference: 27170 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)	997	3	280480 200250
	River Quality Name: Neath GQA Grade: River Quality B Reach: Conf.Dulais-Conf.Abergarwed Canal Weir Estimated Distance (km): 6.2 Flow Rate: Flow less than 10 cumecs Flow Type: River Year: 2000	A13NW (NW)	151	3	280940 201323
	River Quality Name: Neath Canal GQA Grade: River Quality C Reach: Aberdulais Aqueduct - Abergarwed Weir Estimated Distance (km): 6.5 Flow Rate: Flow greater than 80 cumecs Flow Type: Canal Year: 2000	A18SW (NW)	511	3	280742 201623
16	Substantiated Pollution Incident Register Authority: Natural Resources Wales Incident Date: 13th June 2007 Incident Reference: 502979 Water Impact: Category 2 - Significant Incident Air Impact: Category 4 - No Impact Land Impact: Category 4 - No Impact Positional Accuracy: Located by supplier to within 10m Pollutant: Inert : Construction / Demolition Material	A12SW (W)	654	2	280312 201107
17	Substantiated Pollution Incident Register Authority: Natural Resources Wales Incident Date: 24th January 2002 Incident Reference: 54153 Water Impact: Category 3 - Minor Incident Air Impact: Category 1 - Major Incident Land Impact: Category 3 - Minor Incident Positional Accuracy: Located by supplier to within 10m Pollutant: Contaminated Water: Firefighting Run-Off Pollutant: Inorganic Chemicals : Acids	A19SW (NE)	671	2	281500 201750

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
18	Water Abstractions Operator: Neath Canal Navigation Licence Number: 21/58/72/0007 Permit Version: Not Supplied Location: Location Description Not Available Authority: Environment Agency, Welsh Region Abstraction: General Industrial Abstraction Type: Not Supplied Source: River Daily Rate (m3): 0 Yearly Rate (m3): 0 Details: Stream At Greenhill Cottages; Abergarwed Authorised Start: Not Supplied Authorised End: Not Supplied Permit Start Date: Not Supplied Permit End Date: Not Supplied Positional Accuracy: Located by supplier to within 100m	A12NE (NW)	490	3	280570 201430
19	Water Abstractions Operator: The Coal Authority Licence Number: Wa/058/0072/001 Permit Version: 1 Location: Mine Adit At Ynysarwed Authority: Natural Resources Wales Abstraction: Environmental: Pump & Treat: Pollution Remediation Abstraction Type: Water may be abstracted from a single point Source: Groundwater Daily Rate (m3): Not Supplied Yearly Rate (m3): Not Supplied Details: Not Applicable Authorised Start: 01 April Authorised End: 31 March Permit Start Date: 4th November 2009 Permit End Date: Not Supplied Positional Accuracy: Located by supplier to within 10m	A18SW (N)	568	2	280856 201754
	Water Abstractions Operator: Neath Canal Navigation Licence Number: 21/58/72/0007 Permit Version: Not Supplied Location: Location Description Not Available Authority: Environment Agency, Welsh Region Abstraction: General Industrial Abstraction Type: Not Supplied Source: River Daily Rate (m3): 0 Yearly Rate (m3): 0 Details: Stag Brook Authorised Start: Not Supplied Authorised End: Not Supplied Permit Start Date: Not Supplied Permit End Date: Not Supplied Positional Accuracy: Located by supplier to within 100m	A24SW (NE)	1117	3	281630 202200
	Water Abstractions Operator: Neath Canal Navigation Licence Number: 21/58/72/0007 Permit Version: 101 Location: River Neath Adjacent To Abergarwed Weir Authority: Environment Agency, Welsh Region Abstraction: Private Water Undertaking: General Use (Medium Loss) Abstraction Type: Water may be abstracted from a single point Source: Surface Daily Rate (m3): Not Supplied Yearly Rate (m3): Not Supplied Details: Not Supplied Authorised Start: 01 January Authorised End: 31 December Permit Start Date: 1st April 2005 Permit End Date: Not Supplied Positional Accuracy: Located by supplier to within 10m	A24SW (NE)	1140	3	281690 202190

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
	Water Abstractions Operator: Neath Canal Navigation Licence Number: 21/58/72/0035 Permit Version: 2 Location: River Neath At Abergarwed Authority: Natural Resources Wales Abstraction: Private Water Undertaking: Transfer between sources Abstraction Type: Water may be abstracted from a single point Source: Surface Daily Rate (m3): Not Supplied Yearly Rate (m3): Not Supplied Details: River Neath At Abergarwed Authorised Start: 01 January Authorised End: 31 December Permit Start Date: 6th February 2009 Permit End Date: Not Supplied Positional Accuracy: Located by supplier to within 10m	A24SE (NE)	1187	2	281730 202220
	Water Abstractions Operator: Neath Canal Navigation Licence Number: 21/58/72/0035 Permit Version: 2 Location: River Neath At Abergarwed Authority: Natural Resources Wales Abstraction: Private Water Undertaking: Transfer between sources Abstraction Type: Water may be abstracted from a single point Source: Surface Daily Rate (m3): Not Supplied Yearly Rate (m3): Not Supplied Details: Not Supplied Authorised Start: 01 January Authorised End: 31 December Permit Start Date: 6th February 2009 Permit End Date: Not Supplied Positional Accuracy: Located by supplier to within 10m	A24SE (NE)	1187	2	281730 202220
	Water Abstractions Operator: Neath Canal Navigation Licence Number: 21/58/72/0035 Permit Version: 1 Location: River Neath At Abergarwed Authority: Environment Agency, Welsh Region Abstraction: Private Water Undertaking: Transfer between sources Abstraction Type: Water may be abstracted from a single point Source: Surface Daily Rate (m3): Not Supplied Yearly Rate (m3): Not Supplied Details: River Neath At Abergarwed Authorised Start: 01 January Authorised End: 31 December Permit Start Date: 26th March 2008 Permit End Date: Not Supplied Positional Accuracy: Located by supplier to within 10m	A24SE (NE)	1187	3	281730 202220
	Water Abstractions Operator: Trw Cam Gears Ltd Licence Number: 21/58/72/0018 Permit Version: 100 Location: Nant Y Gleisiad Authority: Environment Agency, Welsh Region Abstraction: Other Industrial/Commercial/Public Services: Non-Evaporative Cooling Abstraction Type: Water may be abstracted from a single point Source: Surface Daily Rate (m3): Not Supplied Yearly Rate (m3): Not Supplied Details: Nant Y Gleisiad Authorised Start: 01 January Authorised End: 31 December Permit Start Date: 11th November 1988 Permit End Date: Not Supplied Positional Accuracy: Located by supplier to within 100m	A25SE (NE)	1879	3	282550 202410

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
	Water Abstractions Operator: Neath Canal Navigation Licence Number: 21/58/72/0007 Permit Version: Not Supplied Location: Location Description Not Available Authority: Environment Agency, Welsh Region Abstraction: General Industrial Abstraction Type: Not Supplied Source: River Daily Rate (m3): 0 Yearly Rate (m3): 0 Details: Stream At Ynysnedd; Clyne To Neath Canal Authorised Start: Not Supplied Authorised End: Not Supplied Permit Start Date: Not Supplied Permit End Date: Not Supplied Positional Accuracy: Located by supplier to within 100m	A1NW (SW)	1917	3	279500 199900
	Groundwater Vulnerability Soil Classification: Soils of High Leaching Potential (H2) - Deep, permeable, coarse textured soils which readily transmit a wide range of pollutants because of their rapid drainage and low attenuation potential Map Sheet: Sheet 35 West Glamorgan Scale: 1:100,000	A13NW (E)	0	3	281039 201167
	Drift Deposits None				
	Bedrock Aquifer Designations Aquifer Designation: Secondary Aquifer - A	A13NW (E)	0	1	281039 201167
	Superficial Aquifer Designations Aquifer Designation: Secondary Aquifer - A	A13NW (E)	0	1	281039 201167
	Extreme Flooding from Rivers or Sea without Defences Type: Extent of Extreme Flooding from Rivers or Sea without Defences Flood Plain Type: Fluvial Models Boundary Accuracy: As Supplied	A13NW (NW)	81	2	280961 201253
	Extreme Flooding from Rivers or Sea without Defences Type: Extent of Extreme Flooding from Rivers or Sea without Defences Flood Plain Type: Fluvial Models Boundary Accuracy: As Supplied	A13NW (NW)	87	2	280927 201235
	Flooding from Rivers or Sea without Defences Type: Extent of Flooding from Rivers or Sea without Defences Flood Plain Type: Fluvial Models Boundary Accuracy: As Supplied	A13NW (NW)	86	2	280964 201261
	Areas Benefiting from Flood Defences None				
	Flood Water Storage Areas None				
	Flood Defences None				
20	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 858.8 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Neath Primacy: 1	A13SW (SW)	21	4	280986 201086
21	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 18.5 Watercourse Level: Underground Permanent: True Watercourse Name: Not Supplied Catchment Name: Neath Primacy: 1	A13SW (SW)	36	4	280950 201102

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
22	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 9.5 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Neath Primacy: 1	A13SW (SW)	36	4	280950 201102
23	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 477.4 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Neath Primacy: 1	A13SW (SW)	37	4	280963 201085
24	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: Neath Primacy: 1	A13SW (SW)	38	4	280934 201114
25	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 26.4 Watercourse Level: Underground Permanent: True Watercourse Name: Not Supplied Catchment Name: Neath Primacy: 1	A13SW (W)	62	4	280904 201137
26	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 176.8 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Neath Primacy: 1	A13SW (W)	79	4	280889 201159
27	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 90.2 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Neath Primacy: 1	A13NE (NE)	85	4	281180 201253
28	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 41.5 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Neath Primacy: 1	A13NE (E)	106	4	281216 201229
29	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 9.4 Watercourse Level: Underground Permanent: True Watercourse Name: Not Supplied Catchment Name: Neath Primacy: 1	A13NE (NE)	109	4	281168 201295
30	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 31.9 Watercourse Level: Underground Permanent: True Watercourse Name: Not Supplied Catchment Name: Neath Primacy: 1	A13NE (E)	110	4	281225 201197

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
31	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 81.4 Watercourse Level: On ground surface Permanent: True Watercourse Name: Dyfnant Catchment Name: Neath Primacy: 1	A13NE (NE)	111	4	281162 201302
32	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 392.7 Watercourse Level: On ground surface Permanent: True Watercourse Name: Dyfnant Catchment Name: Neath Primacy: 1	A13NE (E)	126	4	281237 201167
33	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 131.0 Watercourse Level: Not Supplied Permanent: True Watercourse Name: Dyfnant Catchment Name: Neath Primacy: 1	A13NE (N)	126	4	281107 201352
34	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 593.5 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Neath Primacy: 1	A13NW (NW)	145	4	280915 201296
35	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 105.5 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Neath Primacy: 1	A13NW (W)	163	4	280809 201180
36	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 43.5 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Neath Primacy: 1	A13SW (SW)	175	4	280884 200969
37	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 62.2 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Neath Primacy: 1	A13SW (SW)	178	4	280803 201065
38	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 25.8 Watercourse Level: Underground Permanent: True Watercourse Name: Not Supplied Catchment Name: Neath Primacy: 1	A13SW (SW)	180	4	280852 200996
39	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 44.5 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Neath Primacy: 1	A13SW (W)	214	4	280758 201084

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
40	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 208.4 Watercourse Level: On ground surface Permanent: True Watercourse Name: Afon Nedd Catchment Name: Neath Primacy: 1	A13NW (N)	229	4	281036 201458
41	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 548.9 Watercourse Level: On ground surface Permanent: True Watercourse Name: Afon Nedd Catchment Name: Neath Primacy: 1	A13NW (NW)	231	4	280896 201405
42	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 6.2 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Neath Primacy: 1	A13SW (W)	238	4	280728 201116
43	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 140.9 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Neath Primacy: 1	A13SW (W)	243	4	280723 201119
44	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 447.8 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Neath Primacy: 1	A13NW (N)	259	4	280932 201454
45	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 464.5 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Neath Primacy: 1	A13NE (N)	273	4	281088 201503
46	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 44.5 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Neath Primacy: 1	A13SW (SW)	281	4	280872 200851
47	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 20.4 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Neath Primacy: 1	A13NE (NE)	301	4	281272 201458
48	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 28.0 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Neath Primacy: 1	A13SW (SW)	303	4	280840 200844

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
49	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 597.2 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Neath Primacy: 1	A13SW (SW)	303	4	280840 200844
50	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 152.6 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Neath Primacy: 1	A13SW (SW)	306	4	280714 200961
51	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 3.1 Watercourse Level: Underground Permanent: True Watercourse Name: Not Supplied Catchment Name: Neath Primacy: 1	A13SW (SW)	307	4	280815 200856
52	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 68.4 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Neath Primacy: 1	A13SW (SW)	307	4	280813 200858
53	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 15.8 Watercourse Level: Underground Permanent: True Watercourse Name: Not Supplied Catchment Name: Neath Primacy: 1	A13NE (NE)	310	4	281264 201476
54	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 33.7 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Neath Primacy: 1	A13NE (NE)	312	4	281252 201487
55	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 24.4 Watercourse Level: Underground Permanent: True Watercourse Name: Not Supplied Catchment Name: Neath Primacy: 1	A12SE (W)	312	4	280675 201023
56	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 34.9 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Neath Primacy: 1	A12SE (W)	312	4	280671 201031
57	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 187.1 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Neath Primacy: 1	A18SW (N)	313	4	280970 201524

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
58	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 427.1 Watercourse Level: On ground surface Permanent: True Watercourse Name: Afon Nedd Catchment Name: Neath Primacy: 1	A18SE (NE)	327	4	281236 201515
59	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 3.7 Watercourse Level: Underground Permanent: True Watercourse Name: Not Supplied Catchment Name: Neath Primacy: 1	A13SW (SW)	328	4	280755 200882
60	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 54.4 Watercourse Level: Not Supplied Permanent: True Watercourse Name: Not Supplied Catchment Name: Neath Primacy: 1	A12SE (W)	330	4	280647 201050
61	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 87.1 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Neath Primacy: 1	A8NW (SW)	370	4	280784 200801
62	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 54.3 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Neath Primacy: 1	A12SE (W)	376	4	280596 201068
63	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 10.6 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Neath Primacy: 1	A8NE (SE)	406	4	281264 200795
64	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 219.2 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Neath Primacy: 1	A8NE (SE)	407	4	281257 200788
65	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 113.2 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Neath Primacy: 1	A8NE (SE)	407	4	281257 200788
66	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 18.5 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Neath Primacy: 1	A19SW (NE)	412	4	281380 201513

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
67	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 66.7 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Neath Primacy: 1	A12NE (W)	421	4	280551 201209
68	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 13.6 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Neath Primacy: 1	A12SE (W)	425	4	280545 201075
69	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 96.2 Watercourse Level: On ground surface Permanent: True Watercourse Name: Afon Nedd Catchment Name: Neath Primacy: 1	A12NE (W)	436	4	280545 201251
70	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 32.9 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Neath Primacy: 1	A12NE (W)	436	4	280545 201251
71	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 72.2 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Neath Primacy: 1	A12SE (W)	438	4	280533 201069
72	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 23.9 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Neath Primacy: 2	A12SE (W)	438	4	280533 201069
73	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 97.0 Watercourse Level: On ground surface Permanent: True Watercourse Name: Afon Nedd Catchment Name: Neath Primacy: 1	A12SE (W)	446	4	280520 201159
74	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 82.9 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Neath Primacy: 1	A12NE (NW)	450	4	280650 201470
75	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 97.5 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Neath Primacy: 1	A8NW (SW)	451	4	280709 200757

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
76	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 65.3 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Neath Primacy: 1	A8NW (SW)	451	4	280709 200757
77	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 207.6 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Neath Primacy: 1	A18SW (NW)	452	4	280711 201532
78	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 54.1 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Neath Primacy: 1	A12NE (NW)	459	4	280594 201409
79	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 19.9 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Neath Primacy: 1	A12NE (NW)	459	4	280594 201409
80	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 49.6 Watercourse Level: Underground Permanent: True Watercourse Name: Not Supplied Catchment Name: Neath Primacy: 1	A12NE (W)	461	4	280528 201278
81	OS Water Network Lines Watercourse Form: Canal Watercourse Length: 1091.7 Watercourse Level: On ground surface Permanent: True Watercourse Name: Neath Canal Catchment Name: Neath Primacy: 1	A18SW (NW)	465	4	280705 201543
82	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 9.4 Watercourse Level: Underground Permanent: True Watercourse Name: Not Supplied Catchment Name: Neath Primacy: 1	A18SW (NW)	468	4	280805 201613
83	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 338.8 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Neath Primacy: 1	A14SW (SE)	469	4	281508 200940
84	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 145.0 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Neath Primacy: 1	A14SW (SE)	469	4	281508 200940

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
85	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 105.8 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Neath Primacy: 1	A18SW (NW)	476	4	280797 201616
86	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 4.4 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Neath Primacy: 1	A12NE (NW)	480	4	280552 201379
87	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 10.5 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Neath Primacy: 1	A12NE (NW)	481	4	280549 201376
88	OS Water Network Lines Watercourse Form: Canal Watercourse Length: 353.2 Watercourse Level: On ground surface Permanent: True Watercourse Name: Neath Canal Catchment Name: Neath Primacy: 1	A12NE (NW)	482	4	280581 201432
89	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 166.0 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Neath Primacy: 1	A12NE (NW)	482	4	280581 201432
90	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: Neath Primacy: 1	A12NE (W)	484	4	280541 201369
91	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 247.9 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Neath Primacy: 1	A8NW (S)	485	4	280859 200638
92	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 2.4 Watercourse Level: Underground Permanent: True Watercourse Name: Not Supplied Catchment Name: Neath Primacy: 1	A12NE (W)	487	4	280537 201367
93	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 30.2 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Neath Primacy: 1	A12NE (W)	488	4	280535 201366

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
94	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 280.1 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Neath Primacy: 1	A18SW (N)	494	4	280943 201709
95	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 148.7 Watercourse Level: On ground surface Permanent: True Watercourse Name: Afon Nedd Catchment Name: Neath Primacy: 1	A12SE (W)	497	4	280471 201086
96	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 1.6 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Neath Primacy: 1	A12NE (W)	497	4	280505 201323
97	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 481.6 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Neath Primacy: 1	A12NE (W)	498	4	280504 201324
98	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 18.3 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Neath Primacy: 1	A12NE (W)	498	4	280504 201324
99	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 84.8 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Neath Primacy: 1	A8NW (SW)	504	4	280712 200687
100	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 12.0 Watercourse Level: Underground Permanent: True Watercourse Name: Not Supplied Catchment Name: Neath Primacy: 1	A12NE (W)	504	4	280511 201353
101	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 13.0 Watercourse Level: Underground Permanent: True Watercourse Name: Not Supplied Catchment Name: Neath Primacy: 1	A18SW (N)	507	4	280880 201697
102	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 46.2 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Neath Primacy: 1	A7NE (SW)	508	4	280660 200724

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
103	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 207.9 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Neath Primacy: 1	A7NE (SW)	509	4	280639 200741
104	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 260.9 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Neath Primacy: 1	A18SW (N)	510	4	280867 201695
105	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 116.7 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Neath Primacy: 1	A7NE (SW)	514	4	280681 200698
106	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 73.2 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Neath Primacy: 1	A7NE (SW)	514	4	280681 200698
107	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 142.8 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Neath Primacy: 1	A8NE (SE)	516	4	281313 200694
108	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 87.1 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Neath Primacy: 1	A8NE (SE)	516	4	281313 200694
109	OS Water Network Lines Watercourse Form: Lake Watercourse Length: 36.7 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Neath Primacy: 1	A18SE (N)	525	4	281154 201750
110	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 81.1 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Neath Primacy: 1	A8NW (SW)	532	4	280764 200624
111	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 19.5 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Neath Primacy: 1	A18SE (N)	554	4	281182 201774

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
112	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: Neath Primacy: 1	A18SW (N)	556	4	280857 201741
113	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 3.2 Watercourse Level: Underground Permanent: True Watercourse Name: Not Supplied Catchment Name: Neath Primacy: 1	A7NE (SW)	559	4	280693 200635
114	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 6.7 Watercourse Level: Underground Permanent: True Watercourse Name: Not Supplied Catchment Name: Neath Primacy: 1	A18SE (N)	571	4	281194 201789
115	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 176.4 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Neath Primacy: 1	A14NW (NE)	576	4	281634 201446
116	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 96.6 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Neath Primacy: 1	A18SE (N)	576	4	281199 201793
117	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 39.8 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Neath Primacy: 1	A8NW (SW)	581	4	280752 200576
118	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 113.0 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Neath Primacy: 1	A14SW (SE)	599	4	281634 200898
119	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 66.7 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Neath Primacy: 1	A14SW (SE)	599	4	281634 200898
120	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 151.1 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Neath Primacy: 1	A8NW (SW)	604	4	280713 200569

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
121	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 40.0 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Neath Primacy: 1	A8NW (SW)	604	4	280712 200570
122	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 67.7 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Neath Primacy: 1	A7NE (SW)	609	4	280677 200585
123	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 158.6 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Neath Primacy: 1	A17SE (NW)	613	4	280529 201577
124	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 120.2 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Neath Primacy: 1	A17SE (NW)	614	4	280527 201576
125	OS Water Network Lines Watercourse Form: Canal Watercourse Length: 110.9 Watercourse Level: On ground surface Permanent: True Watercourse Name: Neath Canal Catchment Name: Neath Primacy: 1	A12SW (W)	614	4	280351 201155
126	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 408.2 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Neath Primacy: 1	A18SE (NE)	622	4	281331 201797
127	OS Water Network Lines Watercourse Form: Canal Watercourse Length: 41.2 Watercourse Level: suspendedOrElevated Permanent: True Watercourse Name: Neath Canal Catchment Name: Neath Primacy: 1	A12SW (W)	630	4	280336 201117
128	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 30.9 Watercourse Level: On ground surface Permanent: True Watercourse Name: Neath Canal Catchment Name: Neath Primacy: 1	A12SW (W)	639	4	280327 201107
129	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 16.9 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Neath Primacy: 1	A12NW (W)	639	4	280332 201220

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
130	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 28.0 Watercourse Level: Underground Permanent: True Watercourse Name: Not Supplied Catchment Name: Neath Primacy: 1	A18NE (N)	641	4	281059 201870
131	OS Water Network Lines Watercourse Form: Canal Watercourse Length: 12.7 Watercourse Level: On ground surface Permanent: True Watercourse Name: Neath Canal Catchment Name: Neath Primacy: 1	A12SW (W)	652	4	280316 201081
132	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 37.9 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Neath Primacy: 1	A14SW (E)	654	4	281698 200900
133	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 170.7 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Neath Primacy: 1	A18NE (N)	657	4	281271 201858
134	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 76.7 Watercourse Level: Underground Permanent: True Watercourse Name: Not Supplied Catchment Name: Neath Primacy: 1	A18NE (N)	657	4	281082 201887
135	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 482.9 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Neath Primacy: 1	A18NE (N)	657	4	281082 201887
136	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 214.0 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Neath Primacy: 1	A19SW (NE)	658	4	281529 201709
137	OS Water Network Lines Watercourse Form: Canal Watercourse Length: 820.4 Watercourse Level: On ground surface Permanent: True Watercourse Name: Neath Canal Catchment Name: Neath Primacy: 1	A12SW (W)	661	4	280307 201071
138	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 916.2 Watercourse Level: On ground surface Permanent: True Watercourse Name: Afon Nedd Catchment Name: Neath Primacy: 1	A12SW (W)	663	4	280303 201106

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
139	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 24.9 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Neath Primacy: 1	A12NW (W)	674	4	280295 201206
140	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 2.9 Watercourse Level: Underground Permanent: True Watercourse Name: Not Supplied Catchment Name: Neath Primacy: 1	A7NE (SW)	674	4	280476 200673
141	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 10.5 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Neath Primacy: 1	A7NE (SW)	675	4	280474 200674
142	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 113.8 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Neath Primacy: 1	A7NE (SW)	682	4	280466 200673
143	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 159.7 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Neath Primacy: 1	A14SE (E)	682	4	281734 200911
144	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 213.9 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Neath Primacy: 1	A7NE (SW)	682	4	280466 200673
145	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 103.9 Watercourse Level: On ground surface Permanent: True Watercourse Name: Dyfnant Catchment Name: Neath Primacy: 1	A14SE (E)	683	4	281731 200902
146	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 19.5 Watercourse Level: Underground Permanent: True Watercourse Name: Not Supplied Catchment Name: Neath Primacy: 1	A9NW (SE)	684	4	281681 200813
147	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 262.2 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Neath Primacy: 1	A9NW (SE)	688	4	281673 200795

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
148	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 4.2 Watercourse Level: Underground Permanent: True Watercourse Name: Not Supplied Catchment Name: Neath Primacy: 1	A9NW (SE)	698	4	281585 200681
149	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 227.1 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Neath Primacy: 1	A9NW (SE)	701	4	281584 200677
150	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 160.0 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Neath Primacy: 1	A18NW (N)	712	4	281026 201941
151	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 40.1 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Neath Primacy: 1	A19SW (NE)	713	4	281617 201703
152	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 75.5 Watercourse Level: Not Supplied Permanent: True Watercourse Name: Not Supplied Catchment Name: Neath Primacy: 1	A19SW (NE)	716	4	281636 201689
153	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 222.7 Watercourse Level: On ground surface Permanent: True Watercourse Name: Afon Nedd Catchment Name: Neath Primacy: 1	A19SW (NE)	719	4	281610 201718
154	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 354.7 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Neath Primacy: 1	A17SE (NW)	721	4	280479 201680
155	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 2.5 Watercourse Level: Underground Permanent: True Watercourse Name: Not Supplied Catchment Name: Neath Primacy: 1	A9NW (SE)	725	4	281525 200595
156	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 36.6 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Neath Primacy: 1	A9NW (SE)	728	4	281527 200593

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
157	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 55.7 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Neath Primacy: 1	A19SW (NE)	736	4	281698 201647
158	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 339.1 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Neath Primacy: 1	A14SE (E)	772	4	281858 200984
159	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 35.9 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Neath Primacy: 1	A14SE (E)	772	4	281858 200984
160	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 460.3 Watercourse Level: On ground surface Permanent: True Watercourse Name: Dyfnant Catchment Name: Neath Primacy: 1	A14SE (E)	784	4	281820 200855
161	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 52.5 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Neath Primacy: 1	A14SE (E)	784	4	281820 200855
162	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 149.6 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Neath Primacy: 1	A14SE (E)	802	4	281880 200957
163	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 214.8 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Neath Primacy: 1	A14SE (E)	802	4	281880 200957
164	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 16.3 Watercourse Level: Underground Permanent: True Watercourse Name: Not Supplied Catchment Name: Neath Primacy: 1	A18NW (N)	812	4	280897 202022
165	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 14.7 Watercourse Level: Underground Permanent: True Watercourse Name: Not Supplied Catchment Name: Neath Primacy: 1	A7NW (SW)	826	4	280268 200693

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
166	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 488.1 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Neath Primacy: 1	A18NW (N)	828	4	280889 202036
167	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 268.7 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Neath Primacy: 1	A7NW (SW)	841	4	280256 200685
168	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 154.5 Watercourse Level: On ground surface Permanent: True Watercourse Name: Twrch Brook Catchment Name: Neath Primacy: 1	A7SE (SW)	861	4	280516 200389
169	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 341.0 Watercourse Level: On ground surface Permanent: True Watercourse Name: Twrch Brook Catchment Name: Neath Primacy: 1	A8SW (S)	872	4	280800 200253
170	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 162.8 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Neath Primacy: 1	A14SE (E)	873	4	281931 200886
171	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 136.4 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Neath Primacy: 1	A7SE (SW)	873	4	280444 200429
172	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 291.5 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Neath Primacy: 1	A7SE (SW)	889	4	280595 200309
173	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 50.4 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Neath Primacy: 2	A7SE (SW)	891	4	280480 200378
174	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 600.9 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Neath Primacy: 1	A17SW (NW)	900	4	280232 201662

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
175	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 367.5 Watercourse Level: On ground surface Permanent: True Watercourse Name: Twrch Brook Catchment Name: Neath Primacy: 1	A8SW (S)	900	4	280915 200206
176	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 224.0 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Neath Primacy: 1	A8SW (S)	903	4	280901 200205
177	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 65.9 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Neath Primacy: 1	A9NE (SE)	912	4	281755 200548
178	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 77.9 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Neath Primacy: 1	A9NE (SE)	912	4	281755 200548
179	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 42.8 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Neath Primacy: 1	A17SW (NW)	913	4	280201 201637
180	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 28.4 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Neath Primacy: 1	A8SE (S)	916	4	281273 200229
181	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 42.9 Watercourse Level: Underground Permanent: True Watercourse Name: Not Supplied Catchment Name: Neath Primacy: 1	A7SE (SW)	918	4	280376 200427
182	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 33.3 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Neath Primacy: 1	A8SE (S)	932	4	281321 200227
183	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 294.2 Watercourse Level: On ground surface Permanent: True Watercourse Name: Afon Nedd Catchment Name: Neath Primacy: 1	A19NE (NE)	937	4	281774 201863

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
184	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 38.5 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Neath Primacy: 1	A19NE (NE)	937	4	281774 201863
185	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 123.4 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Neath Primacy: 1	A19NW (NE)	938	4	281430 202098
186	OS Water Network Lines Watercourse Form: Canal Watercourse Length: 92.7 Watercourse Level: On ground surface Permanent: True Watercourse Name: Neath Canal Catchment Name: Neath Primacy: 1	A19NW (NE)	938	4	281430 202098
187	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 3.7 Watercourse Level: Underground Permanent: True Watercourse Name: Not Supplied Catchment Name: Neath Primacy: 2	A7SE (SW)	938	4	280461 200334
188	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 13.5 Watercourse Level: Underground Permanent: True Watercourse Name: Not Supplied Catchment Name: Neath Primacy: 1	A19SE (NE)	939	4	281799 201841
189	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 23.6 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Neath Primacy: 1	A19SE (NE)	940	4	281809 201831
190	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 86.7 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Neath Primacy: 1	A8SE (S)	940	4	281293 200210
191	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 9.8 Watercourse Level: Underground Permanent: True Watercourse Name: Not Supplied Catchment Name: Neath Primacy: 1	A19SE (NE)	941	4	281832 201807
192	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 19.8 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Neath Primacy: 1	A19SE (NE)	941	4	281832 201807

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
193	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 77.6 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Neath Primacy: 2	A7SE (SW)	941	4	280460 200330
194	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 30.3 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Neath Primacy: 1	A7SW (SW)	949	4	280333 200425
195	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 346.8 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Neath Primacy: 1	A17SW (NW)	951	4	280178 201673
196	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 120.9 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Neath Primacy: 1	A3NW (S)	962	4	280895 200146
197	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: Neath Primacy: 1	A11SE (W)	963	4	280028 200919
198	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 51.4 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Neath Primacy: 1	A7SE (SW)	966	4	280368 200370
199	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 72.6 Watercourse Level: Not Supplied Permanent: True Watercourse Name: Not Supplied Catchment Name: Neath Primacy: 1	A7SE (SW)	966	4	280368 200370
200	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 30.7 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Neath Primacy: 1	A7SW (SW)	974	4	280321 200402
201	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 57.2 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Neath Primacy: 1	A7SW (SW)	974	4	280326 200397

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
202	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 118.6 Watercourse Level: On ground surface Permanent: True Watercourse Name: Twrch Brook Catchment Name: Neath Primacy: 1	A7SW (SW)	975	4	280304 200417
203	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 500.9 Watercourse Level: On ground surface Permanent: True Watercourse Name: Twrch Brook Catchment Name: Neath Primacy: 1	A3NE (S)	977	4	281230 200153
204	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 56.0 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Neath Primacy: 1	A7SE (SW)	993	4	280405 200307
205	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 154.8 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Neath Primacy: 1	A23SE (N)	996	4	281335 202191
206	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 20.3 Watercourse Level: Underground Permanent: True Watercourse Name: Not Supplied Catchment Name: Neath Primacy: 1	A23SE (N)	996	4	281335 202191
207	OS Water Network Lines Watercourse Form: Lake Watercourse Length: 5.3 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Neath Primacy: 1	A17NE (NW)	998	4	280389 201968
208	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 931.8 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Neath Primacy: 1	A17NE (NW)	999	4	280392 201972

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
	Local Authority Landfill Coverage Name: Neath Port Talbot County Borough Council - Has supplied landfill data		0	5	281039 201167
209	Potentially Infilled Land (Non-Water) Bearing Ref: NE Use: Unknown Filled Ground (Pit, quarry etc) Date of Mapping: 1988	A13NE (NE)	107	-	281133 201320
210	Potentially Infilled Land (Non-Water) Bearing Ref: NW Use: Unknown Filled Ground (Pit, quarry etc) Date of Mapping: 1988	A17SE (NW)	509	-	280663 201562
211	Potentially Infilled Land (Non-Water) Bearing Ref: NW Use: Unknown Filled Ground (Pit, quarry etc) Date of Mapping: 1988	A18SW (NW)	535	-	280795 201686
212	Potentially Infilled Land (Non-Water) Bearing Ref: NW Use: Unknown Filled Ground (Pit, quarry etc) Date of Mapping: 1988	A12NW (NW)	728	-	280327 201486
213	Potentially Infilled Land (Non-Water) Bearing Ref: W Use: Unknown Filled Ground (Pit, quarry etc) Date of Mapping: 1988	A12NW (W)	813	-	280157 201224
214	Potentially Infilled Land (Non-Water) Bearing Ref: S Use: Unknown Filled Ground (Pit, quarry etc) Date of Mapping: 1988	A8SW (S)	872	-	280713 200278
215	Potentially Infilled Land (Non-Water) Bearing Ref: SW Use: Unknown Filled Ground (Pit, quarry etc) Date of Mapping: 1988	A7SE (SW)	875	-	280441 200428
216	Potentially Infilled Land (Non-Water) Bearing Ref: SW Use: Unknown Filled Ground (Pit, quarry etc) Date of Mapping: 1988	A7NW (SW)	883	-	280313 200541
217	Potentially Infilled Land (Non-Water) Bearing Ref: NE Use: Unknown Filled Ground (Pit, quarry etc) Date of Mapping: 1988	A19SE (NE)	890	-	281880 201651
218	Potentially Infilled Land (Non-Water) Bearing Ref: NE Use: Unknown Filled Ground (Pit, quarry etc) Date of Mapping: 1988	A19NE (NE)	1000	-	281844 201882
219	Potentially Infilled Land (Water) Use: Unknown Filled Ground (Pond, marsh, river, stream, dock etc) Date of Mapping: 1953	A19NW (N)	931	-	281380 202110

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
	BGS 1:625,000 Solid Geology Description: South Wales Upper Coal Measures Formation	A13NW (E)	0	1	281039 201167
	BGS Estimated Soil Chemistry Source: British Geological Survey, National Geoscience Information Service Soil Sample Type: Sediment Arsenic Concentration: 15 - 25 mg/kg Cadmium Concentration: 3.0 - 6.0 mg/kg Chromium Concentration: 60 - 90 mg/kg Lead Concentration: <100 mg/kg Nickel Concentration: 15 - 30 mg/kg	A13NW (W)	0	1	281000 201167
	BGS Estimated Soil Chemistry Source: British Geological Survey, National Geoscience Information Service Soil Sample Type: Sediment Arsenic Concentration: 45 - 60 mg/kg Cadmium Concentration: 3.0 - 6.0 mg/kg Chromium Concentration: 60 - 90 mg/kg Lead Concentration: <100 mg/kg Nickel Concentration: 30 - 45 mg/kg	A13SW (W)	0	1	281000 201163
	BGS Estimated Soil Chemistry Source: British Geological Survey, National Geoscience Information Service Soil Sample Type: Sediment Arsenic Concentration: 15 - 25 mg/kg Cadmium Concentration: 2.2 - 3.0 mg/kg Chromium Concentration: 60 - 90 mg/kg Lead Concentration: <100 mg/kg Nickel Concentration: 15 - 30 mg/kg	A13NW (NW)	0	1	281026 201183
	BGS Estimated Soil Chemistry Source: British Geological Survey, National Geoscience Information Service Soil Sample Type: Sediment Arsenic Concentration: 35 - 45 mg/kg Cadmium Concentration: 2.2 - 3.0 mg/kg Chromium Concentration: 60 - 90 mg/kg Lead Concentration: <100 mg/kg Nickel Concentration: 30 - 45 mg/kg	A13NW (E)	0	1	281039 201167
	BGS Estimated Soil Chemistry Source: British Geological Survey, National Geoscience Information Service Soil Sample Type: Sediment Arsenic Concentration: 15 - 25 mg/kg Cadmium Concentration: 2.2 - 3.0 mg/kg Chromium Concentration: 60 - 90 mg/kg Lead Concentration: <100 mg/kg Nickel Concentration: 15 - 30 mg/kg	A13SE (SE)	3	1	281058 201145
	BGS Estimated Soil Chemistry Source: British Geological Survey, National Geoscience Information Service Soil Sample Type: Sediment Arsenic Concentration: 15 - 25 mg/kg Cadmium Concentration: 3.0 - 6.0 mg/kg Chromium Concentration: 60 - 90 mg/kg Lead Concentration: <100 mg/kg Nickel Concentration: 15 - 30 mg/kg	A13SW (SW)	7	1	281000 201096

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 45 - 60 mg/kg Concentration: Cadmium 2.2 - 3.0 mg/kg Concentration: Chromium 60 - 90 mg/kg Concentration: Lead Concentration: <100 mg/kg Nickel 30 - 45 mg/kg Concentration:	A13SE (SE)	63	1	281110 201089
	BGS Estimated Soil Chemistry Source: British Geological Survey, National Geoscience Information Service Soil Sample Type: Sediment Arsenic 25 - 35 mg/kg Concentration: Cadmium 3.0 - 6.0 mg/kg Concentration: Chromium 60 - 90 mg/kg Concentration: Lead Concentration: <100 mg/kg Nickel 15 - 30 mg/kg Concentration:	A13NW (NW)	85	1	280932 201242
	BGS Estimated Soil Chemistry Source: British Geological Survey, National Geoscience Information Service Soil Sample Type: Sediment Arsenic 15 - 25 mg/kg Concentration: Cadmium 3.0 - 6.0 mg/kg Concentration: Chromium 60 - 90 mg/kg Concentration: Lead Concentration: 100 - 200 mg/kg Nickel 15 - 30 mg/kg Concentration:	A13SW (S)	102	1	281000 201000
	BGS Estimated Soil Chemistry Source: British Geological Survey, National Geoscience Information Service Soil Sample Type: Sediment Arsenic 45 - 60 mg/kg Concentration: Cadmium 3.0 - 6.0 mg/kg Concentration: Chromium 60 - 90 mg/kg Concentration: Lead Concentration: 100 - 200 mg/kg Nickel 30 - 45 mg/kg Concentration:	A13SW (S)	107	1	281000 200995
	BGS Estimated Soil Chemistry Source: British Geological Survey, National Geoscience Information Service Soil Sample Type: Sediment Arsenic 35 - 45 mg/kg Concentration: Cadmium 2.2 - 3.0 mg/kg Concentration: Chromium 60 - 90 mg/kg Concentration: Lead Concentration: <100 mg/kg Nickel 15 - 30 mg/kg Concentration:	A13SE (SE)	149	1	281164 201045
	BGS Estimated Soil Chemistry Source: British Geological Survey, National Geoscience Information Service Soil Sample Type: Sediment Arsenic 35 - 45 mg/kg Concentration: Cadmium 3.0 - 6.0 mg/kg Concentration: Chromium 60 - 90 mg/kg Concentration: Lead Concentration: 100 - 200 mg/kg Nickel 30 - 45 mg/kg Concentration:	A13SW (SW)	151	1	280888 201000

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
	BGS Estimated Soil Chemistry Source: British Geological Survey, National Geoscience Information Service Soil Sample Type: Sediment Arsenic: 25 - 35 mg/kg Concentration: Cadmium: 2.2 - 3.0 mg/kg Concentration: Chromium: 60 - 90 mg/kg Concentration: Lead Concentration: <100 mg/kg Nickel: 15 - 30 mg/kg Concentration:	A13SE (SE)	163	1	281132 201000
	BGS Estimated Soil Chemistry Source: British Geological Survey, National Geoscience Information Service Soil Sample Type: Sediment Arsenic: 15 - 25 mg/kg Concentration: Cadmium: 3.0 - 6.0 mg/kg Concentration: Chromium: 60 - 90 mg/kg Concentration: Lead Concentration: <100 mg/kg Nickel: 30 - 45 mg/kg Concentration:	A13NW (NW)	222	1	280904 201384
	BGS Estimated Soil Chemistry Source: British Geological Survey, National Geoscience Information Service Soil Sample Type: Sediment Arsenic: 15 - 25 mg/kg Concentration: Cadmium: 3.0 - 6.0 mg/kg Concentration: Chromium: 60 - 90 mg/kg Concentration: Lead Concentration: 100 - 200 mg/kg Nickel: 15 - 30 mg/kg Concentration:	A13SW (SW)	225	1	280786 201000
	BGS Estimated Soil Chemistry Source: British Geological Survey, National Geoscience Information Service Soil Sample Type: Sediment Arsenic: 15 - 25 mg/kg Concentration: Cadmium: 2.2 - 3.0 mg/kg Concentration: Chromium: 60 - 90 mg/kg Concentration: Lead Concentration: <100 mg/kg Nickel: 30 - 45 mg/kg Concentration:	A13NW (N)	227	1	281000 201444
	BGS Estimated Soil Chemistry Source: British Geological Survey, National Geoscience Information Service Soil Sample Type: Sediment Arsenic: 35 - 45 mg/kg Concentration: Cadmium: 3.0 - 6.0 mg/kg Concentration: Chromium: 60 - 90 mg/kg Concentration: Lead Concentration: 100 - 200 mg/kg Nickel: 15 - 30 mg/kg Concentration:	A13SW (S)	233	1	281000 200869
	BGS Estimated Soil Chemistry Source: British Geological Survey, National Geoscience Information Service Soil Sample Type: Sediment Arsenic: 35 - 45 mg/kg Concentration: Cadmium: 2.2 - 3.0 mg/kg Concentration: Chromium: 60 - 90 mg/kg Concentration: Lead Concentration: <100 mg/kg Nickel: 15 - 30 mg/kg Concentration:	A13SE (E)	258	1	281353 201098

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 - 2.2 mg/kg Concentration: Chromium 60 - 90 mg/kg Concentration: Lead Concentration: <100 mg/kg Nickel 15 - 30 mg/kg Concentration:	A13NE (N)	270	1	281090 201500
	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 - 2.2 mg/kg Concentration: Chromium 60 - 90 mg/kg Concentration: Lead Concentration: <100 mg/kg Nickel 30 - 45 mg/kg Concentration:	A13NW (N)	270	1	281039 201500
	BGS Estimated Soil Chemistry Source: British Geological Survey, National Geoscience Information Service Soil Sample Type: Sediment Arsenic 15 - 25 mg/kg Concentration: Cadmium 3.0 - 6.0 mg/kg Concentration: Chromium 60 - 90 mg/kg Concentration: Lead Concentration: 100 - 200 mg/kg Nickel 30 - 45 mg/kg Concentration:	A13NW (N)	280	1	281000 201500
	BGS Estimated Soil Chemistry Source: British Geological Survey, National Geoscience Information Service Soil Sample Type: Sediment Arsenic 45 - 60 mg/kg Concentration: Cadmium 3.0 - 6.0 mg/kg Concentration: Chromium 60 - 90 mg/kg Concentration: Lead Concentration: 100 - 200 mg/kg Nickel 30 - 45 mg/kg Concentration:	A8NW (S)	290	1	281000 200812
	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 - 2.2 mg/kg Concentration: Chromium 60 - 90 mg/kg Concentration: Lead Concentration: <100 mg/kg Nickel 15 - 30 mg/kg Concentration:	A14NW (E)	385	1	281500 201180
	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 - 2.2 mg/kg Concentration: Chromium 60 - 90 mg/kg Concentration: Lead Concentration: <100 mg/kg Nickel 30 - 45 mg/kg Concentration:	A14NW (E)	385	1	281500 201167

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 45 - 60 mg/kg Concentration: Cadmium 1.8 - 2.2 mg/kg Concentration: Chromium 60 - 90 mg/kg Concentration: Lead Concentration: <100 mg/kg Nickel 30 - 45 mg/kg Concentration:	A14NW (E)	389	1	281500 201250
	BGS Estimated Soil Chemistry Source: British Geological Survey, National Geoscience Information Service Soil Sample Type: Sediment Arsenic 25 - 35 mg/kg Concentration: Cadmium 3.0 - 6.0 mg/kg Concentration: Chromium 60 - 90 mg/kg Concentration: Lead Concentration: <100 mg/kg Nickel 15 - 30 mg/kg Concentration:	A12NE (NW)	410	1	280687 201449
	BGS Estimated Soil Chemistry Source: British Geological Survey, National Geoscience Information Service Soil Sample Type: Sediment Arsenic 35 - 45 mg/kg Concentration: Cadmium 2.2 - 3.0 mg/kg Concentration: Chromium 60 - 90 mg/kg Concentration: Lead Concentration: <100 mg/kg Nickel 15 - 30 mg/kg Concentration:	A14SW (E)	410	1	281476 201000
	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 - 2.2 mg/kg Concentration: Chromium 60 - 90 mg/kg Concentration: Lead Concentration: <100 mg/kg Nickel 15 - 30 mg/kg Concentration:	A14SW (E)	411	1	281500 201053
	BGS Estimated Soil Chemistry Source: British Geological Survey, National Geoscience Information Service Soil Sample Type: Sediment Arsenic 25 - 35 mg/kg Concentration: Cadmium 2.2 - 3.0 mg/kg Concentration: Chromium 60 - 90 mg/kg Concentration: Lead Concentration: <100 mg/kg Nickel 15 - 30 mg/kg Concentration:	A14SW (SE)	412	1	281468 200980
	BGS Estimated Soil Chemistry Source: British Geological Survey, National Geoscience Information Service Soil Sample Type: Sediment Arsenic 25 - 35 mg/kg Concentration: Cadmium 3.0 - 6.0 mg/kg Concentration: Chromium 60 - 90 mg/kg Concentration: Lead Concentration: 100 - 200 mg/kg Nickel 15 - 30 mg/kg Concentration:	A13NW (NW)	424	1	280723 201500

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 45 - 60 mg/kg Concentration: Cadmium 3.0 - 6.0 mg/kg Concentration: Chromium 60 - 90 mg/kg Concentration: Lead Concentration: <100 mg/kg Nickel 30 - 45 mg/kg Concentration:	A12NE (NW)	449	1	280682 201500
	BGS Estimated Soil Chemistry Source: British Geological Survey, National Geoscience Information Service Soil Sample Type: Sediment Arsenic 45 - 60 mg/kg Concentration: Cadmium 3.0 - 6.0 mg/kg Concentration: Chromium 60 - 90 mg/kg Concentration: Lead Concentration: 100 - 200 mg/kg Nickel 30 - 45 mg/kg Concentration:	A17SE (NW)	450	1	280690 201508
	BGS Estimated Soil Chemistry Source: British Geological Survey, National Geoscience Information Service Soil Sample Type: Sediment Arsenic 35 - 45 mg/kg Concentration: Cadmium 3.0 - 6.0 mg/kg Concentration: Chromium 60 - 90 mg/kg Concentration: Lead Concentration: 100 - 200 mg/kg Nickel 15 - 30 mg/kg Concentration:	A18SW (NW)	468	1	280791 201603
	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 - 2.2 mg/kg Concentration: Chromium 60 - 90 mg/kg Concentration: Lead Concentration: <100 mg/kg Nickel 30 - 45 mg/kg Concentration:	A14SW (E)	469	1	281543 201000
	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 - 2.2 mg/kg Concentration: Chromium 60 - 90 mg/kg Concentration: Lead Concentration: <100 mg/kg Nickel 15 - 30 mg/kg Concentration:	A14NW (NE)	471	1	281500 201468
	BGS Estimated Soil Chemistry Source: British Geological Survey, National Geoscience Information Service Soil Sample Type: Sediment Arsenic 45 - 60 mg/kg Concentration: Cadmium 2.2 - 3.0 mg/kg Concentration: Chromium 60 - 90 mg/kg Concentration: Lead Concentration: <100 mg/kg Nickel 30 - 45 mg/kg Concentration:	A14SW (E)	471	1	281542 200997

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:	A14NW (NE)	490	1	281500 201500
	BGS Estimated Soil Chemistry Source: British Geological Survey, National Geoscience Information Service Soil Sample Type: Sediment Arsenic 25 - 35 mg/kg Concentration: Cadmium 2.2 - 3.0 mg/kg Concentration: Chromium 60 - 90 mg/kg Concentration: Lead Concentration: <100 mg/kg Nickel 15 - 30 mg/kg Concentration:	A9NW (SE)	494	1	281405 200790
	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 30 - 45 mg/kg Concentration:	A14NW (NE)	528	1	281548 201500
	BGS Estimated Soil Chemistry Source: British Geological Survey, National Geoscience Information Service Soil Sample Type: Sediment Arsenic 15 - 25 mg/kg Concentration: Cadmium 3.0 - 6.0 mg/kg Concentration: Chromium 60 - 90 mg/kg Concentration: Lead Concentration: <100 mg/kg Nickel 15 - 30 mg/kg Concentration:	A12NE (W)	538	1	280451 201292
	BGS Estimated Soil Chemistry Source: British Geological Survey, National Geoscience Information Service Soil Sample Type: Sediment Arsenic 45 - 60 mg/kg Concentration: Cadmium 3.0 - 6.0 mg/kg Concentration: Chromium 60 - 90 mg/kg Concentration: Lead Concentration: <100 mg/kg Nickel 30 - 45 mg/kg Concentration:	A12SE (W)	555	1	280419 201041
	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 - 2.2 mg/kg Concentration: Chromium 60 - 90 mg/kg Concentration: Lead Concentration: <100 mg/kg Nickel 15 - 30 mg/kg Concentration:	A18SW (N)	570	1	281000 201795

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 45 - 60 mg/kg Concentration: Cadmium 2.2 - 3.0 mg/kg Concentration: Chromium 60 - 90 mg/kg Concentration: Lead Concentration: 100 - 200 mg/kg Nickel 30 - 45 mg/kg Concentration:	A8NW (S)	602	1	281039 200500
	BGS Estimated Soil Chemistry Source: British Geological Survey, National Geoscience Information Service Soil Sample Type: Sediment Arsenic 45 - 60 mg/kg Concentration: Cadmium 3.0 - 6.0 mg/kg Concentration: Chromium 60 - 90 mg/kg Concentration: Lead Concentration: 200 - 300 mg/kg Nickel 30 - 45 mg/kg Concentration:	A8NW (S)	602	1	281000 200500
	BGS Estimated Soil Chemistry Source: British Geological Survey, National Geoscience Information Service Soil Sample Type: Sediment Arsenic 35 - 45 mg/kg Concentration: Cadmium 3.0 - 6.0 mg/kg Concentration: Chromium 60 - 90 mg/kg Concentration: Lead Concentration: 100 - 200 mg/kg Nickel 30 - 45 mg/kg Concentration:	A12SW (W)	620	1	280360 201000
	BGS Estimated Soil Chemistry Source: British Geological Survey, National Geoscience Information Service Soil Sample Type: Sediment Arsenic 35 - 45 mg/kg Concentration: Cadmium 3.0 - 6.0 mg/kg Concentration: Chromium 60 - 90 mg/kg Concentration: Lead Concentration: 200 - 300 mg/kg Nickel 15 - 30 mg/kg Concentration:	A8NW (S)	620	1	280852 200500
	BGS Estimated Soil Chemistry Source: British Geological Survey, National Geoscience Information Service Soil Sample Type: Sediment Arsenic 25 - 35 mg/kg Concentration: Cadmium 2.2 - 3.0 mg/kg Concentration: Chromium 60 - 90 mg/kg Concentration: Lead Concentration: 100 - 200 mg/kg Nickel 15 - 30 mg/kg Concentration:	A8NE (S)	625	1	281164 200500
	BGS Estimated Soil Chemistry Source: British Geological Survey, National Geoscience Information Service Soil Sample Type: Sediment Arsenic 15 - 25 mg/kg Concentration: Cadmium 3.0 - 6.0 mg/kg Concentration: Chromium 60 - 90 mg/kg Concentration: Lead Concentration: <100 mg/kg Nickel 15 - 30 mg/kg Concentration:	A12SW (W)	636	1	280336 201048

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: 3.0 - 6.0 mg/kg Concentration: Chromium: 60 - 90 mg/kg Concentration: Lead Concentration: 200 - 300 mg/kg Nickel: 15 - 30 mg/kg Concentration:	A8NW (SW)	666	1	280715 200500
	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:	A19SW (NE)	697	1	281500 201784
	BGS Estimated Soil Chemistry Source: British Geological Survey, National Geoscience Information Service Soil Sample Type: Sediment Arsenic: 25 - 35 mg/kg Concentration: Cadmium: 2.2 - 3.0 mg/kg Concentration: Chromium: 60 - 90 mg/kg Concentration: Lead Concentration: <100 mg/kg Nickel: 15 - 30 mg/kg Concentration:	A9NW (SE)	701	1	281503 200608
	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 (NE)	705	1	281752 201500
	BGS Estimated Soil Chemistry Source: British Geological Survey, National Geoscience Information Service Soil Sample Type: Sediment Arsenic: 25 - 35 mg/kg Concentration: Cadmium: 3.0 - 6.0 mg/kg Concentration: Chromium: 60 - 90 mg/kg Concentration: Lead Concentration: 100 - 200 mg/kg Nickel: 15 - 30 mg/kg Concentration:	A12SW (W)	731	1	280247 201000
	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 - 2.2 mg/kg Concentration: Chromium: 60 - 90 mg/kg Concentration: Lead Concentration: <100 mg/kg Nickel: 30 - 45 mg/kg Concentration:	A18NW (N)	736	1	281000 201962

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
	BGS Estimated Soil Chemistry Source: British Geological Survey, National Geoscience Information Service Soil Sample Type: Sediment Arsenic: 25 - 35 mg/kg Concentration: Cadmium: 2.2 - 3.0 mg/kg Concentration: Chromium: 60 - 90 mg/kg Concentration: Lead Concentration: 100 - 200 mg/kg Nickel: 15 - 30 mg/kg Concentration:	A9NW (SE)	748	1	281442 200500
	BGS Estimated Soil Chemistry Source: British Geological Survey, National Geoscience Information Service Soil Sample Type: Sediment Arsenic: 45 - 60 mg/kg Concentration: Cadmium: 2.2 - 3.0 mg/kg Concentration: Chromium: 60 - 90 mg/kg Concentration: Lead Concentration: <100 mg/kg Nickel: 30 - 45 mg/kg Concentration:	A9NW (SE)	758	1	281505 200537
	BGS Estimated Soil Chemistry Source: British Geological Survey, National Geoscience Information Service Soil Sample Type: Sediment Arsenic: 35 - 45 mg/kg Concentration: Cadmium: <1.8 mg/kg Concentration: Chromium: 60 - 90 mg/kg Concentration: Lead Concentration: <100 mg/kg Nickel: 30 - 45 mg/kg Concentration:	A18NE (N)	770	1	281042 202000
	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: 30 - 45 mg/kg Concentration:	A18NW (N)	771	1	281039 202000
	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 - 2.2 mg/kg Concentration: Chromium: 60 - 90 mg/kg Concentration: Lead Concentration: <100 mg/kg Nickel: 15 - 30 mg/kg Concentration:	A18NE (N)	772	1	281180 201995
	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 - 2.2 mg/kg Concentration: Chromium: 60 - 90 mg/kg Concentration: Lead Concentration: <100 mg/kg Nickel: 30 - 45 mg/kg Concentration:	A18NW (N)	774	1	281000 202000

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:	A18NE (N)	775	1	281164 202000
	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: 30 - 45 mg/kg Concentration:	A14NE (NE)	781	1	281835 201500
	BGS Estimated Soil Chemistry Source: British Geological Survey, National Geoscience Information Service Soil Sample Type: Sediment Arsenic: 15 - 25 mg/kg Concentration: Cadmium: 2.2 - 3.0 mg/kg Concentration: Chromium: 60 - 90 mg/kg Concentration: Lead Concentration: 100 - 200 mg/kg Nickel: 15 - 30 mg/kg Concentration:	A7NE (SW)	782	1	280500 200500
	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:	A9NW (SE)	784	1	281500 200500
	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: 30 - 45 mg/kg Concentration:	A9NW (SE)	788	1	281507 200500
	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 - 2.2 mg/kg Concentration: Chromium: 60 - 90 mg/kg Concentration: Lead Concentration: <100 mg/kg Nickel: 15 - 30 mg/kg Concentration:	A18NW (N)	806	1	280949 202026

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 45 - 60 mg/kg Concentration: Cadmium 3.0 - 6.0 mg/kg Concentration: Chromium 60 - 90 mg/kg Concentration: Lead Concentration: 100 - 200 mg/kg Nickel 30 - 45 mg/kg Concentration:	A12SW (W)	821	1	280156 201000
	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 - 2.2 mg/kg Concentration: Chromium 60 - 90 mg/kg Concentration: Lead Concentration: <100 mg/kg Nickel 15 - 30 mg/kg Concentration:	A14SE (E)	871	1	281964 201000
	BGS Estimated Soil Chemistry Source: British Geological Survey, National Geoscience Information Service Soil Sample Type: Sediment Arsenic 35 - 45 mg/kg Concentration: Cadmium <1.8 mg/kg Concentration: Chromium 60 - 90 mg/kg Concentration: Lead Concentration: <100 mg/kg Nickel 30 - 45 mg/kg Concentration:	A14NE (E)	885	1	282000 201167
	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:	A9SW (SE)	891	1	281658 200491
	BGS Estimated Soil Chemistry Source: British Geological Survey, National Geoscience Information Service Soil Sample Type: Sediment Arsenic 25 - 35 mg/kg Concentration: Cadmium 2.2 - 3.0 mg/kg Concentration: Chromium 60 - 90 mg/kg Concentration: Lead Concentration: <100 mg/kg Nickel 15 - 30 mg/kg Concentration:	A9NW (SE)	894	1	281675 200500
	BGS Estimated Soil Chemistry Source: British Geological Survey, National Geoscience Information Service Soil Sample Type: Sediment Arsenic 35 - 45 mg/kg Concentration: Cadmium 2.2 - 3.0 mg/kg Concentration: Chromium 60 - 90 mg/kg Concentration: Lead Concentration: 100 - 200 mg/kg Nickel 30 - 45 mg/kg Concentration:	A7NW (SW)	895	1	280336 200500

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:	A14SE (E)	902	1	282000 201025
	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)	910	1	282000 201410
	BGS Estimated Soil Chemistry Source: British Geological Survey, National Geoscience Information Service Soil Sample Type: Sediment Arsenic 35 - 45 mg/kg Concentration: Cadmium 3.0 - 6.0 mg/kg Concentration: Chromium 60 - 90 mg/kg Concentration: Lead Concentration: <100 mg/kg Nickel 15 - 30 mg/kg Concentration:	A12NW (W)	924	1	280080 201400
	BGS Estimated Soil Chemistry Source: British Geological Survey, National Geoscience Information Service Soil Sample Type: Sediment Arsenic 45 - 60 mg/kg Concentration: Cadmium 2.2 - 3.0 mg/kg Concentration: Chromium 60 - 90 mg/kg Concentration: Lead Concentration: 100 - 200 mg/kg Nickel 30 - 45 mg/kg Concentration:	A7SE (SW)	925	1	280500 200322
	BGS Estimated Soil Chemistry Source: British Geological Survey, National Geoscience Information Service Soil Sample Type: Sediment Arsenic 35 - 45 mg/kg Concentration: Cadmium <1.8 mg/kg Concentration: Chromium 60 - 90 mg/kg Concentration: Lead Concentration: <100 mg/kg Nickel 30 - 45 mg/kg Concentration:	A14NE (E)	926	1	282000 201471
	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 - 2.2 mg/kg Concentration: Chromium 60 - 90 mg/kg Concentration: Lead Concentration: <100 mg/kg Nickel 15 - 30 mg/kg Concentration:	A17NE (NW)	943	1	280621 202059

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 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:	A14SE (E)	946	1	282000 200863
	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 30 - 45 mg/kg Concentration:	A23SW (N)	955	1	281000 202182
	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 - 2.2 mg/kg Concentration: Chromium 60 - 90 mg/kg Concentration: Lead Concentration: <100 mg/kg Nickel 15 - 30 mg/kg Concentration:	A17NE (NW)	957	1	280514 202007
	BGS Estimated Soil Chemistry Source: British Geological Survey, National Geoscience Information Service Soil Sample Type: Sediment Arsenic 15 - 25 mg/kg Concentration: Cadmium 2.2 - 3.0 mg/kg Concentration: Chromium 60 - 90 mg/kg Concentration: Lead Concentration: 100 - 200 mg/kg Nickel 15 - 30 mg/kg Concentration:	A7NW (SW)	959	1	280248 200500
	BGS Estimated Soil Chemistry Source: British Geological Survey, National Geoscience Information Service Soil Sample Type: Sediment Arsenic 35 - 45 mg/kg Concentration: Cadmium <1.8 mg/kg Concentration: Chromium 60 - 90 mg/kg Concentration: Lead Concentration: <100 mg/kg Nickel 30 - 45 mg/kg Concentration:	A19NE (NE)	960	1	281806 201863
	BGS Estimated Soil Chemistry Source: British Geological Survey, National Geoscience Information Service Soil Sample Type: Sediment Arsenic 35 - 45 mg/kg Concentration: Cadmium 3.0 - 6.0 mg/kg Concentration: Chromium 60 - 90 mg/kg Concentration: Lead Concentration: <100 mg/kg Nickel 15 - 30 mg/kg Concentration:	A17NE (NW)	967	1	280500 202009

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:	A9NE (E)	971	1	282000 200798
	BGS Estimated Soil Chemistry Source: British Geological Survey, National Geoscience Information Service Soil Sample Type: Sediment Arsenic 45 - 60 mg/kg Concentration: Cadmium 2.2 - 3.0 mg/kg Concentration: Chromium 60 - 90 mg/kg Concentration: Lead Concentration: 100 - 200 mg/kg Nickel 30 - 45 mg/kg Concentration:	A11SE (W)	975	1	280000 201000
	BGS Estimated Soil Chemistry Source: British Geological Survey, National Geoscience Information Service Soil Sample Type: Sediment Arsenic 45 - 60 mg/kg Concentration: Cadmium 2.2 - 3.0 mg/kg Concentration: Chromium 60 - 90 mg/kg Concentration: Lead Concentration: <100 mg/kg Nickel 30 - 45 mg/kg Concentration:	A9NE (SE)	975	1	281796 200500
	BGS Estimated Soil Chemistry Source: British Geological Survey, National Geoscience Information Service Soil Sample Type: Sediment Arsenic 35 - 45 mg/kg Concentration: Cadmium 3.0 - 6.0 mg/kg Concentration: Chromium 60 - 90 mg/kg Concentration: Lead Concentration: <100 mg/kg Nickel 30 - 45 mg/kg Concentration:	A11NE (W)	979	1	280000 201296
	BGS Estimated Soil Chemistry Source: British Geological Survey, National Geoscience Information Service Soil Sample Type: Sediment Arsenic 35 - 45 mg/kg Concentration: Cadmium <1.8 mg/kg Concentration: Chromium 60 - 90 mg/kg Concentration: Lead Concentration: <100 mg/kg Nickel 30 - 45 mg/kg Concentration:	A19SE (NE)	987	1	282000 201635
	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 - 2.2 mg/kg Concentration: Chromium 60 - 90 mg/kg Concentration: Lead Concentration: <100 mg/kg Nickel 30 - 45 mg/kg Concentration:	A17NE (NW)	993	1	280500 202040

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
220	BGS Recorded Mineral Sites Site Name: Ynys-Dyfnant Location: , Resolven, Neath, West Glamorgan Source: British Geological Survey, National Geoscience Information Service Reference: 154214 Type: Opencast Status: Ceased Operator: Not Supplied Operator Location: Not Supplied Periodic Type: Carboniferous Geology: Rhondda Member Commodity: Sandstone Positional Accuracy: Located by supplier to within 10m	A13NE (NE)	110	1	281140 201319
221	BGS Recorded Mineral Sites Site Name: Ynys-Dyfnant Location: , Resolven, Neath, West Glamorgan Source: British Geological Survey, National Geoscience Information Service Reference: 154215 Type: Opencast Status: Ceased Operator: Not Supplied Operator Location: Not Supplied Periodic Type: Carboniferous Geology: Brithdir Member Commodity: Sandstone Positional Accuracy: Located by supplier to within 10m	A13NE (E)	125	1	281239 201179
222	BGS Recorded Mineral Sites Site Name: Ynys-Dyfnant Location: , Resolven, Neath, West Glamorgan Source: British Geological Survey, National Geoscience Information Service Reference: 154216 Type: Underground Status: Ceased Operator: Not Supplied Operator Location: Not Supplied Periodic Type: Carboniferous Geology: Brithdir Member Commodity: Coal - Deep Positional Accuracy: Located by supplier to within 10m	A13SE (E)	192	1	281276 201093
223	BGS Recorded Mineral Sites Site Name: Greenhill Cottages Gravel Pit Location: , Resolven, Neath, West Glamorgan Source: British Geological Survey, National Geoscience Information Service Reference: 154213 Type: Opencast Status: Ceased Operator: Not Supplied Operator Location: Not Supplied Periodic Type: Quaternary Geology: Alluvium Commodity: Sand and Gravel Positional Accuracy: Located by supplier to within 10m	A18SW (NW)	456	1	280787 201586
224	BGS Recorded Mineral Sites Site Name: Greenhill Cottages Location: , Resolven, Neath, West Glamorgan Source: British Geological Survey, National Geoscience Information Service Reference: 154212 Type: Underground Status: Ceased Operator: Not Supplied Operator Location: Not Supplied Periodic Type: Carboniferous Geology: Rhondda Member Commodity: Coal - Deep Positional Accuracy: Located by supplier to within 10m	A18SW (NW)	529	1	280809 201687
225	BGS Recorded Mineral Sites Site Name: Graig Fach Location: , Resolven, Neath, West Glamorgan Source: British Geological Survey, National Geoscience Information Service Reference: 154190 Type: Opencast Status: Ceased Operator: Not Supplied Operator Location: Not Supplied Periodic Type: Carboniferous Geology: Rhondda Member Commodity: Sandstone Positional Accuracy: Located by supplier to within 10m	A17SE (NW)	547	1	280582 201537

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
226	BGS Recorded Mineral Sites Site Name: Tynewydd Wood Location: , Resolven, Neath, West Glamorgan Source: British Geological Survey, National Geoscience Information Service Reference: 154229 Type: Underground Status: Ceased Operator: Not Supplied Operator Location: Not Supplied Periodic Type: Carboniferous Geology: Brithdir Member Commodity: Coal - Deep Positional Accuracy: Located by supplier to within 10m	A8NW (S)	598	1	280857 200521
227	BGS Recorded Mineral Sites Site Name: Lower Ynisarwed Drift Location: , Abergarwed, Glynneath, West Glamorgan Source: British Geological Survey, National Geoscience Information Service Reference: 140842 Type: Underground Status: Ceased Operator: Not Supplied Operator Location: Not Supplied Periodic Type: Carboniferous Geology: No.2 Rhondda Coal (South Wales) Commodity: Coal - Deep Positional Accuracy: Located by supplier to within 10m	A18SW (N)	618	1	280910 201825
227	BGS Recorded Mineral Sites Site Name: Lower Ynisarwed Drift Location: , Abergarwed, Glynneath, West Glamorgan Source: British Geological Survey, National Geoscience Information Service Reference: 140843 Type: Underground Status: Ceased Operator: Not Supplied Operator Location: Not Supplied Periodic Type: Carboniferous Geology: No.1 Rhondda Coal (South Wales) Commodity: Coal - Deep Positional Accuracy: Located by supplier to within 10m	A18SW (N)	618	1	280910 201825
228	BGS Recorded Mineral Sites Site Name: Ynisarwed Colliery Drifts Location: , Abergarwed, Glynneath, West Glamorgan Source: British Geological Survey, National Geoscience Information Service Reference: 140849 Type: Underground Status: Ceased Operator: Not Supplied Operator Location: Not Supplied Periodic Type: Carboniferous Geology: No.1 Rhondda Coal (South Wales) Commodity: Coal - Deep Positional Accuracy: Located by supplier to within 10m	A17SE (NW)	636	1	280531 201613
229	BGS Recorded Mineral Sites Site Name: Ynisarwed Colliery Drifts Location: , Abergarwed, Glynneath, West Glamorgan Source: British Geological Survey, National Geoscience Information Service Reference: 140850 Type: Underground Status: Ceased Operator: Not Supplied Operator Location: Not Supplied Periodic Type: Carboniferous Geology: No.1 Rhondda Coal (South Wales) Commodity: Coal - Deep Positional Accuracy: Located by supplier to within 10m	A17SE (NW)	647	1	280617 201701
230	BGS Recorded Mineral Sites Site Name: Ynisarwed Colliery Drifts Location: , Abergarwed, Glynneath, West Glamorgan Source: British Geological Survey, National Geoscience Information Service Reference: 140851 Type: Underground Status: Ceased Operator: Not Supplied Operator Location: Not Supplied Periodic Type: Carboniferous Geology: No.1 Rhondda Coal (South Wales) Commodity: Coal - Deep Positional Accuracy: Located by supplier to within 10m	A18SW (NW)	676	1	280703 201794

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
231	BGS Recorded Mineral Sites Site Name: Craig Ynys-Arwed Location: , Resolven, Neath, Glamorgan Source: British Geological Survey, National Geoscience Information Service Reference: 151857 Type: Underground Status: Ceased Operator: Not Supplied Operator Location: Not Supplied Periodic Type: Carboniferous Geology: Rhondda Member Commodity: Coal - Deep Positional Accuracy: Located by supplier to within 10m	A18NW (N)	695	1	280843 201885
231	BGS Recorded Mineral Sites Site Name: Craig Ynys-Arwed Location: , Resolven, Neath, Glamorgan Source: British Geological Survey, National Geoscience Information Service Reference: 151856 Type: Underground Status: Ceased Operator: Not Supplied Operator Location: Not Supplied Periodic Type: Carboniferous Geology: Rhondda Member Commodity: Coal - Deep Positional Accuracy: Located by supplier to within 10m	A18NW (N)	731	1	280809 201910
232	BGS Recorded Mineral Sites Site Name: Graig Fach Location: , Resolven, Neath, West Glamorgan Source: British Geological Survey, National Geoscience Information Service Reference: 154208 Type: Underground Status: Ceased Operator: Not Supplied Operator Location: Not Supplied Periodic Type: Carboniferous Geology: Rhondda Member Commodity: Coal - Deep Positional Accuracy: Located by supplier to within 10m	A12NW (NW)	718	1	280341 201490
232	BGS Recorded Mineral Sites Site Name: Hendre-Gledren Location: , Resolven, Neath, West Glamorgan Source: British Geological Survey, National Geoscience Information Service Reference: 154209 Type: Opencast Status: Ceased Operator: Not Supplied Operator Location: Not Supplied Periodic Type: Carboniferous Geology: Rhondda Member Commodity: Sandstone Positional Accuracy: Located by supplier to within 10m	A12NW (W)	729	1	280315 201464
233	BGS Recorded Mineral Sites Site Name: Pen-Y-Graig Location: , Resolven, Neath, West Glamorgan Source: British Geological Survey, National Geoscience Information Service Reference: 154241 Type: Underground Status: Ceased Operator: Not Supplied Operator Location: Not Supplied Periodic Type: Carboniferous Geology: Brithdir Member Commodity: Coal - Deep Positional Accuracy: Located by supplier to within 10m	A14SE (E)	765	1	281800 200856
234	BGS Recorded Mineral Sites Site Name: Ynisarwed Colliery Drifts Location: , Abergarwed, Glynneath, West Glamorgan Source: British Geological Survey, National Geoscience Information Service Reference: 140844 Type: Underground Status: Ceased Operator: Not Supplied Operator Location: Not Supplied Periodic Type: Carboniferous Geology: No.1 Rhondda Coal (South Wales) Commodity: Coal - Deep Positional Accuracy: Located by supplier to within 10m	A18NW (N)	780	1	280845 201975

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
235	BGS Recorded Mineral Sites Site Name: Ynisarwed Colliery Drifts Location: , Abergarwed, Glynneath, West Glamorgan Source: British Geological Survey, National Geoscience Information Service Reference: 140845 Type: Underground Status: Ceased Operator: Not Supplied Operator Location: Not Supplied Periodic Type: Carboniferous Geology: No.1 Rhondda Coal (South Wales) Commodity: Coal - Deep Positional Accuracy: Located by supplier to within 10m	A18NW (N)	807	1	280869 202010
235	BGS Recorded Mineral Sites Site Name: Ynisarwed Colliery Drifts Location: , Abergarwed, Glynneath, West Glamorgan Source: British Geological Survey, National Geoscience Information Service Reference: 140846 Type: Underground Status: Ceased Operator: Not Supplied Operator Location: Not Supplied Periodic Type: Carboniferous Geology: No.1 Rhondda Coal (South Wales) Commodity: Coal - Deep Positional Accuracy: Located by supplier to within 10m	A18NW (N)	834	1	280891 202043
236	BGS Recorded Mineral Sites Site Name: Craig Ynys-Bwllog Location: , Resolven, Neath, West Glamorgan Source: British Geological Survey, National Geoscience Information Service Reference: 154211 Type: Underground Status: Ceased Operator: Not Supplied Operator Location: Not Supplied Periodic Type: Carboniferous Geology: Rhondda Member Commodity: Coal - Deep Positional Accuracy: Located by supplier to within 10m	A12NW (W)	834	1	280140 201253
237	BGS Recorded Mineral Sites Site Name: Craig Ynys-Bwllog Location: , Resolven, Neath, West Glamorgan Source: British Geological Survey, National Geoscience Information Service Reference: 154210 Type: Underground Status: Ceased Operator: Not Supplied Operator Location: Not Supplied Periodic Type: Carboniferous Geology: Rhondda Member Commodity: Coal - Deep Positional Accuracy: Located by supplier to within 10m	A12NW (W)	837	1	280148 201315
238	BGS Recorded Mineral Sites Site Name: Blaen-Twrch Location: , Resolven, Neath, West Glamorgan Source: British Geological Survey, National Geoscience Information Service Reference: 154228 Type: Underground Status: Ceased Operator: Not Supplied Operator Location: Not Supplied Periodic Type: Carboniferous Geology: Brithdir Member Commodity: Coal - Deep Positional Accuracy: Located by supplier to within 10m	A8SE (S)	858	1	281307 200302
239	BGS Recorded Mineral Sites Site Name: Clyne Cottages Location: , Resolven, Neath, West Glamorgan Source: British Geological Survey, National Geoscience Information Service Reference: 154242 Type: Opencast Status: Ceased Operator: Not Supplied Operator Location: Not Supplied Periodic Type: Carboniferous Geology: Brithdir Member Commodity: Sandstone Positional Accuracy: Located by supplier to within 10m	A7SE (SW)	869	1	280550 200358

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
240	BGS Recorded Mineral Sites Site Name: Ynisarwed Colliery Drifts Location: , Abergarwed, Glynneath, West Glamorgan Source: British Geological Survey, National Geoscience Information Service Reference: 140848 Type: Underground Status: Ceased Operator: Not Supplied Operator Location: Not Supplied Periodic Type: Carboniferous Geology: No.1 Rhondda Coal (South Wales) Commodity: Coal - Deep Positional Accuracy: Located by supplier to within 10m	A18NW (N)	871	1	280924 202088
240	BGS Recorded Mineral Sites Site Name: Ynisarwed Colliery Drifts Location: , Abergarwed, Glynneath, West Glamorgan Source: British Geological Survey, National Geoscience Information Service Reference: 140847 Type: Underground Status: Ceased Operator: Not Supplied Operator Location: Not Supplied Periodic Type: Carboniferous Geology: No.1 Rhondda Coal (South Wales) Commodity: Coal - Deep Positional Accuracy: Located by supplier to within 10m	A18NW (N)	871	1	280924 202088
241	BGS Recorded Mineral Sites Site Name: Pen-Cae'R-Felin Wood Location: , Resolven, Neath, West Glamorgan Source: British Geological Survey, National Geoscience Information Service Reference: 154191 Type: Opencast Status: Ceased Operator: Not Supplied Operator Location: Not Supplied Periodic Type: Carboniferous Geology: Rhondda Member Commodity: Sandstone Positional Accuracy: Located by supplier to within 10m	A19SE (NE)	883	1	281878 201642
242	BGS Recorded Mineral Sites Site Name: Clyne Cottages Location: , Resolven, Neath, West Glamorgan Source: British Geological Survey, National Geoscience Information Service Reference: 154199 Type: Underground Status: Ceased Operator: Not Supplied Operator Location: Not Supplied Periodic Type: Carboniferous Geology: Brithdir Member Commodity: Coal - Deep Positional Accuracy: Located by supplier to within 10m	A7SE (S)	889	1	280689 200269
243	BGS Recorded Mineral Sites Site Name: Ystrad-Owen Location: , Resolven, Neath, West Glamorgan Source: British Geological Survey, National Geoscience Information Service Reference: 154233 Type: Opencast Status: Ceased Operator: Not Supplied Operator Location: Not Supplied Periodic Type: Carboniferous Geology: Brithdir Member Commodity: Sandstone Positional Accuracy: Located by supplier to within 10m	A8SE (S)	943	1	281044 200160
244	BGS Recorded Mineral Sites Site Name: Blaen-Twrch Location: , Resolven, Neath, West Glamorgan Source: British Geological Survey, National Geoscience Information Service Reference: 154234 Type: Underground Status: Ceased Operator: Not Supplied Operator Location: Not Supplied Periodic Type: Carboniferous Geology: Brithdir Member Commodity: Coal - Deep Positional Accuracy: Located by supplier to within 10m	A9SW (S)	946	1	281415 200253

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
245	BGS Recorded Mineral Sites Site Name: Blaen-Twrch Location: , Resolven, Neath, West Glamorgan Source: British Geological Survey, National Geoscience Information Service Reference: 154227 Type: Underground Status: Ceased Operator: Not Supplied Operator Location: Not Supplied Periodic Type: Carboniferous Geology: Hughes Member Commodity: Coal - Deep Positional Accuracy: Located by supplier to within 10m	A9SW (SE)	979	1	281574 200311
	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.	A13NW (E)	0	6	281039 201167
	Mining Instability Mining Evidence: Inconclusive Coal Mining Source: Ove Arup & Partners Boundary Quality: As Supplied	A13NW (E)	0	-	281039 201167
	Non Coal Mining Areas of Great Britain No Hazard				
	Potential for Collapsible Ground Stability Hazards Hazard Potential: Very Low Source: British Geological Survey, National Geoscience Information Service	A13NW (E)	0	1	281039 201167
	Potential for Collapsible Ground Stability Hazards Hazard Potential: No Hazard Source: British Geological Survey, National Geoscience Information Service	A13NW (NW)	85	1	280932 201242
	Potential for Compressible Ground Stability Hazards Hazard Potential: No Hazard Source: British Geological Survey, National Geoscience Information Service	A13NW (E)	0	1	281039 201167
	Potential for Compressible Ground Stability Hazards Hazard Potential: Moderate Source: British Geological Survey, National Geoscience Information Service	A13NW (NW)	85	1	280932 201242
	Potential for Ground Dissolution Stability Hazards Hazard Potential: No Hazard Source: British Geological Survey, National Geoscience Information Service	A13NW (E)	0	1	281039 201167
	Potential for Landslide Ground Stability Hazards Hazard Potential: Very Low Source: British Geological Survey, National Geoscience Information Service	A13NW (E)	0	1	281039 201167
	Potential for Landslide Ground Stability Hazards Hazard Potential: Low Source: British Geological Survey, National Geoscience Information Service	A13NW (NW)	85	1	280932 201242
	Potential for Landslide Ground Stability Hazards Hazard Potential: Low Source: British Geological Survey, National Geoscience Information Service	A13SE (SE)	149	1	281164 201045
	Potential for Landslide Ground Stability Hazards Hazard Potential: Low Source: British Geological Survey, National Geoscience Information Service	A13NW (N)	156	1	281022 201377
	Potential for Landslide Ground Stability Hazards Hazard Potential: Low Source: British Geological Survey, National Geoscience Information Service	A13SW (W)	165	1	280800 201136
	Potential for Running Sand Ground Stability Hazards Hazard Potential: Very Low Source: British Geological Survey, National Geoscience Information Service	A13NW (E)	0	1	281039 201167
	Potential for Running Sand Ground Stability Hazards Hazard Potential: No Hazard Source: British Geological Survey, National Geoscience Information Service	A13SE (SE)	63	1	281110 201089

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
	Potential for Running Sand Ground Stability Hazards Hazard Potential: Low Source: British Geological Survey, National Geoscience Information Service	A13NW (NW)	85	1	280932 201242
	Potential for Shrinking or Swelling Clay Ground Stability Hazards Hazard Potential: Very Low Source: British Geological Survey, National Geoscience Information Service	A13NW (E)	0	1	281039 201167
	Potential for Shrinking or Swelling Clay Ground Stability Hazards Hazard Potential: No Hazard Source: British Geological Survey, National Geoscience Information Service	A13NW (NW)	0	1	281026 201183
	Potential for Shrinking or Swelling Clay Ground Stability Hazards Hazard Potential: Very Low Source: British Geological Survey, National Geoscience Information Service	A13NW (NW)	85	1	280932 201242
	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	A13NW (E)	0	1	281039 201167
	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	A13NW (E)	0	1	281039 201167

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
246	Contemporary Trade Directory Entries Name: I Davies Location: 26, Lletty Dafydd, Clyne, Neath, West Glamorgan, SA11 4BG Classification: Road Haulage Services Status: Inactive Positional Accuracy: Automatically positioned to the address	A13NE (NE)	68	-	281146 201261
247	Points of Interest - Commercial Services Name: I Davies Location: 26 Lletty Dafydd, Clyne, Neath, SA11 4BG Category: Transport, Storage and Delivery Class Code: Distribution and Haulage Positional Accuracy: Positioned to address or location	A13NE (NE)	68	7	281146 201261
248	Points of Interest - Manufacturing and Production Name: Mine (Disused) Location: SA11 Category: Extractive Industries Class Code: Unspecified Quarries Or Mines Positional Accuracy: Positioned to an adjacent address or location	A18NW (N)	836	7	280948 202056
249	Points of Interest - Manufacturing and Production Name: Sheep Wash Location: SA11 Category: Farming Class Code: Sheep Dips and Washes Positional Accuracy: Positioned to address or location	A17SW (NW)	855	7	280236 201584
250	Points of Interest - Public Infrastructure Name: Weir Location: SA11 Category: Water Class Code: Weirs, Sluices and Dams Positional Accuracy: Positioned to an adjacent address or location	A12NE (NW)	343	7	280676 201321
251	Points of Interest - Recreational and Environmental Name: Play Area Location: (Maes Pwll), SA11 Category: Recreational Class Code: Playgrounds Positional Accuracy: Positioned to address or location	A12SE (W)	565	7	280439 200930
251	Points of Interest - Recreational and Environmental Name: Play Area Location: Not Supplied Category: Recreational Class Code: Playgrounds Positional Accuracy: Positioned to an adjacent address or location	A12SE (W)	568	7	280436 200931
252	Points of Interest - Recreational and Environmental Name: Playground Location: (Ynys-Yr-Afon), SA11 Category: Recreational Class Code: Playgrounds Positional Accuracy: Positioned to address or location	A7NW (SW)	776	7	280279 200774
253	Points of Interest - Recreational and Environmental Name: Playground Location: Wellfield, SA11 Category: Recreational Class Code: Playgrounds Positional Accuracy: Positioned to address or location	A19SE (NE)	999	7	281938 201764

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
254	Ancient Woodland Name: Not Supplied Reference: 139 Area(m ²): 500916.42 Type: Plantation on Ancient Woodland	A12NE (NW)	513	2	280580 201483
255	Ancient Woodland Name: Not Supplied Reference: 802 Area(m ²): 23906.82 Type: Ancient and Semi-Natural Woodland	A8SW (S)	875	2	280795 200251

Agency & Hydrological	Version	Update Cycle
Contaminated Land Register Entries and Notices Powys County Council - Public Protection Department Neath Port Talbot County Borough Council - Environmental Health Department	February 2015 March 2015	Annual Rolling Update Annual Rolling Update
Discharge Consents Environment Agency - Welsh Region Natural Resources Wales	August 2014 January 2017	Quarterly Quarterly
Enforcement and Prohibition Notices Environment Agency - Welsh Region	March 2013	As notified
Integrated Pollution Controls Environment Agency - Welsh Region	October 2008	Not Applicable
Integrated Pollution Prevention And Control Environment Agency - Welsh Region Natural Resources Wales	April 2017 November 2016	Quarterly Quarterly
Local Authority Integrated Pollution Prevention And Control Neath Port Talbot County Borough Council - Environmental Health Department Powys County Council - Public Protection Department	August 2012 May 2014	Annual Rolling Update Annual Rolling Update
Local Authority Pollution Prevention and Controls Neath Port Talbot County Borough Council - Environmental Health Department Powys County Council - Public Protection Department	March 2014 May 2014	Annual Rolling Update Annual Rolling Update
Local Authority Pollution Prevention and Control Enforcements Neath Port Talbot County Borough Council - Environmental Health Department Powys County Council - Public Protection Department	March 2014 May 2014	Annual Rolling Update Annual Rolling Update
Nearest Surface Water Feature Ordnance Survey	May 2017	
Pollution Incidents to Controlled Waters Environment Agency - Welsh Region	December 1998	Not Applicable
Prosecutions Relating to Authorised Processes Environment Agency - Welsh Region Natural Resources Wales	March 2013 March 2013	As notified As notified
Prosecutions Relating to Controlled Waters Environment Agency - Welsh Region Natural Resources Wales	March 2013 March 2013	As notified As notified
Registered Radioactive Substances Natural Resources Wales Environment Agency - Welsh Region	January 2015 January 2015	As notified
River Quality Environment Agency - Head Office	November 2001	Not Applicable
Substantiated Pollution Incident Register Environment Agency Wales - South East Area Environment Agency Wales - South West Area Natural Resources Wales	April 2017 April 2017 January 2017	Quarterly Quarterly Quarterly
Water Abstractions Environment Agency - Welsh Region Natural Resources Wales	April 2017 January 2017	Quarterly Quarterly
Water Industry Act Referrals Environment Agency - Welsh Region Natural Resources Wales	April 2017 October 2015	Quarterly Quarterly
Groundwater Vulnerability Environment Agency - Head Office	April 2015	Not Applicable
Drift Deposits Environment Agency - Head Office	January 1999	Not Applicable

Agency & Hydrological	Version	Update Cycle
Bedrock Aquifer Designations British Geological Survey - National Geoscience Information Service	August 2015	As notified
Superficial Aquifer Designations British Geological Survey - National Geoscience Information Service	August 2015	As notified
Source Protection Zones Natural Resources Wales	November 2016	Quarterly
Extreme Flooding from Rivers or Sea without Defences Natural Resources Wales	May 2017	Quarterly
Flooding from Rivers or Sea without Defences Natural Resources Wales	May 2017	Quarterly
Areas Benefiting from Flood Defences Natural Resources Wales	May 2017	Quarterly
Flood Water Storage Areas Natural Resources Wales	May 2017	Quarterly
Flood Defences Natural Resources Wales	May 2017	Quarterly
OS Water Network Lines Ordnance Survey	April 2017	6 Weekly
Surface Water 1 in 30 year Flood Extent Natural Resources Wales	October 2013	As notified
Surface Water 1 in 100 year Flood Extent Natural Resources Wales	October 2013	As notified
Surface Water 1 in 1000 year Flood Extent Natural Resources Wales	October 2013	As notified
Surface Water Suitability Natural Resources Wales	October 2013	As notified
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	June 1996	Not Applicable
Historical Landfill Sites Natural Resources Wales	May 2017	Quarterly
Integrated Pollution Control Registered Waste Sites Environment Agency - Welsh Region	October 2008	Not Applicable
Licensed Waste Management Facilities (Landfill Boundaries) Environment Agency Wales - South East Area Environment Agency Wales - South West Area Natural Resources Wales	May 2017 May 2017 May 2017	Quarterly Quarterly Quarterly
Licensed Waste Management Facilities (Locations) Natural Resources Wales Environment Agency Wales - South East Area Environment Agency Wales - South West Area	January 2017 May 2017 May 2017	Quarterly Quarterly Quarterly
Local Authority Landfill Coverage Neath Port Talbot County Borough Council - Environmental Health Department Powys County Council	May 2000 May 2000	Not Applicable Not Applicable
Local Authority Recorded Landfill Sites Powys County Council Neath Port Talbot County Borough Council - Environmental Health Department	May 2000 September 2003	Not Applicable Not Applicable
Potentially Infilled Land (Non-Water) Landmark Information Group Limited	December 1999	Not Applicable
Potentially Infilled Land (Water) Landmark Information Group Limited	December 1999	Not Applicable
Registered Landfill Sites Environment Agency Wales - South East Area Environment Agency Wales - South West Area	March 2003 March 2003	Not Applicable Not Applicable
Registered Waste Transfer Sites Environment Agency Wales - South East Area Environment Agency Wales - South West Area	March 2003 March 2003	Not Applicable Not Applicable
Registered Waste Treatment or Disposal Sites Environment Agency Wales - South East Area Environment Agency Wales - South West Area	March 2003 March 2003	Not Applicable Not Applicable
Hazardous Substances	Version	Update Cycle
Control of Major Accident Hazards Sites (COMAH) Health and Safety Executive	March 2017	Bi-Annually
Explosive Sites Health and Safety Executive	March 2017	Bi-Annually
Notification of Installations Handling Hazardous Substances (NIHHS) Health and Safety Executive	November 2000	Not Applicable
Planning Hazardous Substance Enforcements Powys County Council - Planning Department Neath Port Talbot County Borough Council - Planning Department	February 2016 October 2015	Annual Rolling Update Annual Rolling Update
Planning Hazardous Substance Consents Powys County Council - Planning Department Neath Port Talbot County Borough Council - Planning Department	February 2016 October 2015	Annual Rolling Update Annual Rolling Update

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	October 2015	As notified
BGS Recorded Mineral Sites British Geological Survey - National Geoscience Information Service	April 2017	Bi-Annually
CBSCB Compensation District Cheshire Brine Subsidence Compensation Board (CBSCB)	August 2011	Not Applicable
Coal Mining Affected Areas The Coal Authority - Property Searches	March 2014	As notified
Mining Instability Ove Arup & Partners	October 2000	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	June 2015	Annually
Potential for Compressible Ground Stability Hazards British Geological Survey - National Geoscience Information Service	June 2015	Annually
Potential for Ground Dissolution Stability Hazards British Geological Survey - National Geoscience Information Service	June 2015	Annually
Potential for Landslide Ground Stability Hazards British Geological Survey - National Geoscience Information Service	June 2015	Annually
Potential for Running Sand Ground Stability Hazards British Geological Survey - National Geoscience Information Service	June 2015	Annually
Potential for Shrinking or Swelling Clay Ground Stability Hazards British Geological Survey - National Geoscience Information Service	June 2015	Annually
Radon Potential - Radon Affected Areas British Geological Survey - National Geoscience Information Service	July 2011	As notified
Radon Potential - Radon Protection Measures British Geological Survey - National Geoscience Information Service	July 2011	As notified
Industrial Land Use	Version	Update Cycle
Contemporary Trade Directory Entries Thomson Directories	March 2017	Quarterly
Fuel Station Entries Catalist Ltd - Experian	May 2017	Quarterly
Gas Pipelines National Grid	July 2014	Quarterly
Points of Interest - Commercial Services PointX	December 2016	Quarterly
Points of Interest - Education and Health PointX	December 2016	Quarterly
Points of Interest - Manufacturing and Production PointX	December 2016	Quarterly
Points of Interest - Public Infrastructure PointX	December 2016	Quarterly
Points of Interest - Recreational and Environmental PointX	December 2016	Quarterly
Underground Electrical Cables National Grid	December 2015	Bi-Annually

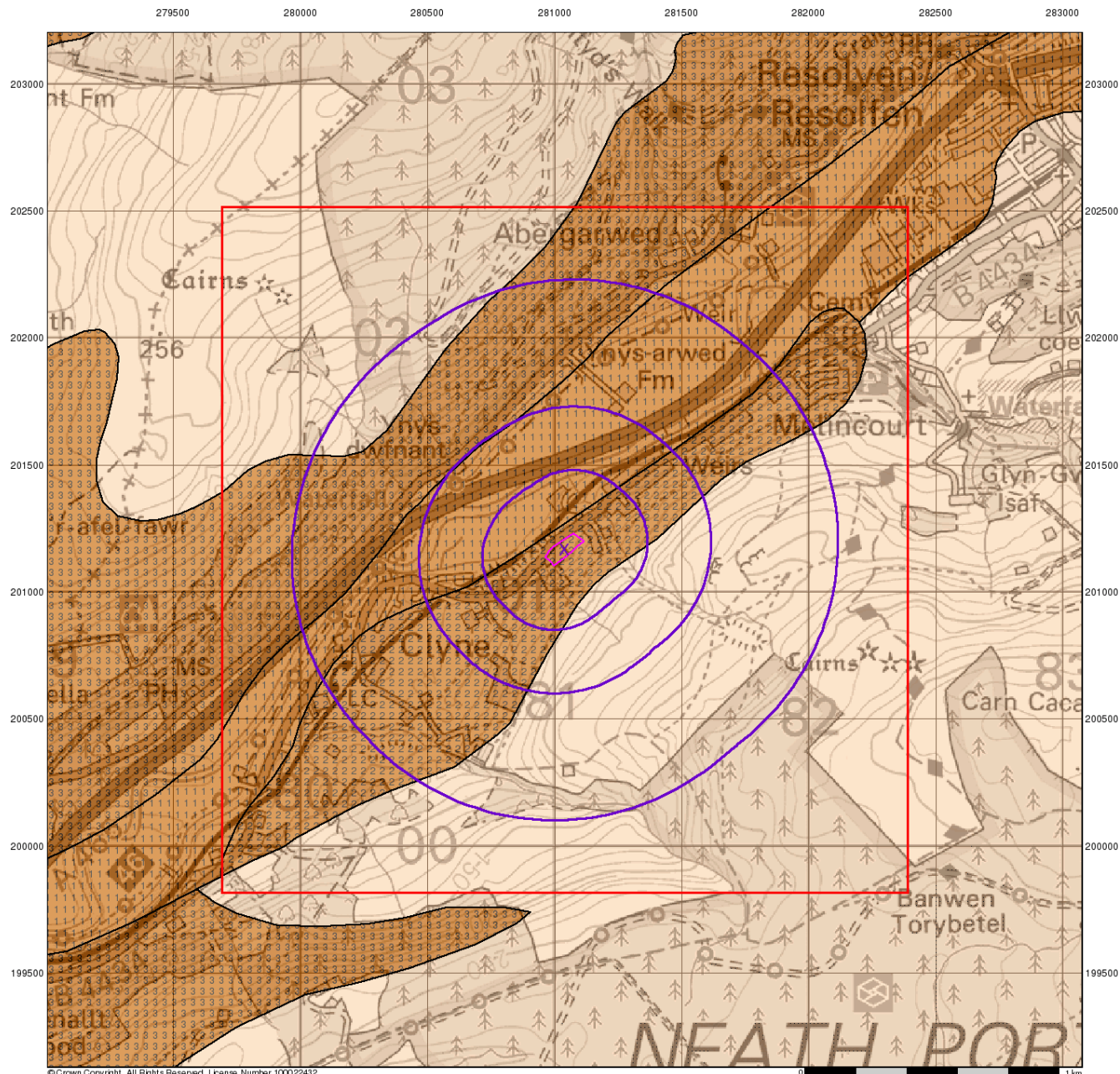
Sensitive Land Use	Version	Update Cycle
Ancient Woodland Natural Resources Wales	January 2014	Bi-Annually
Areas of Outstanding Natural Beauty Natural Resources Wales	January 2017	Bi-Annually
Environmentally Sensitive Areas The National Assembly for Wales - GI Services (Department of Planning & Countryside)	January 2017	Annually
Forest Parks Forestry Commission	April 1997	Not Applicable
Local Nature Reserves Neath Port Talbot County Borough Council Powys County Council	June 2017 June 2017	Bi-Annually Bi-Annually
Marine Nature Reserves Natural Resources Wales	January 2017	Bi-Annually
National Nature Reserves Natural Resources Wales	January 2017	Bi-Annually
National Parks Natural Resources Wales	February 2017	Annually
Nitrate Vulnerable Zones Natural Resources Wales The National Assembly for Wales - GI Services (Department of Planning & Countryside)	June 2017 October 2005	Bi-Annually Annually
Ramsar Sites Natural Resources Wales	January 2017	Bi-Annually
Sites of Special Scientific Interest Natural Resources Wales	January 2017	Bi-Annually
Special Areas of Conservation Natural Resources Wales	January 2017	Bi-Annually
Special Protection Areas Natural Resources Wales	January 2017	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	
Peter Brett Associates	

Contact	Name and Address	Contact Details
1	British Geological Survey - Enquiry Service British Geological Survey, Kingsley Dunham Centre, Keyworth, Nottingham, Nottinghamshire, NG12 5GG	Telephone: 0115 936 3143 Fax: 0115 936 3276 Email: enquiries@bgs.ac.uk Website: www.bgs.ac.uk
2	Natural Resources Wales Ty Cambria, 29 Newport Road, Cardiff, CF24 0TP	Telephone: 0300 065 3000 Email: enquiries@naturalresourceswales.gov.uk
3	Environment Agency - National Customer Contact Centre (NCCC) PO Box 544, Templeborough, Rotherham, S60 1BY	Telephone: 03708 506 506 Email: enquiries@environment-agency.gov.uk
4	Ordnance Survey Adanac Drive, Southampton, Hampshire, SO16 0AS	Telephone: 023 8079 2000 Email: customerservices@ordnancesurvey.co.uk Website: www.ordnancesurvey.gov.uk
5	Neath Port Talbot County Borough Council - Environmental Health Department Room 322, Neath Civic Centre, Neath, West Glamorgan, SA11 3QZ	Telephone: 01639 763333 Fax: 01693 763444 Website: www.neath-porttalbot.gov.uk
6	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
7	PointX 7 Abbey Court, Eagle Way, Sowton, Exeter, Devon, EX2 7HY	Website: www.pointx.co.uk
-	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.



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0 1 km



Groundwater Vulnerability

General

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

Agency and Hydrological

Geological Classes

Major Aquifer (Highly Permeable)

Minor Aquifer (Variably Permeable)

Non Aquifer (Negligibly Permeable)

Water or Sea

Drift Deposit

Soil Classes

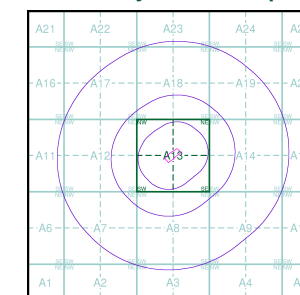
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Intermediate (I) 1, 2
Low

High (H) 1, 2, 3, U
Intermediate (I) 1, 2
Low

High (H) 1, 2, 3, U
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Intermediate (I) 1, 2
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Site Sensitivity Context Map - Slice A



Order Details

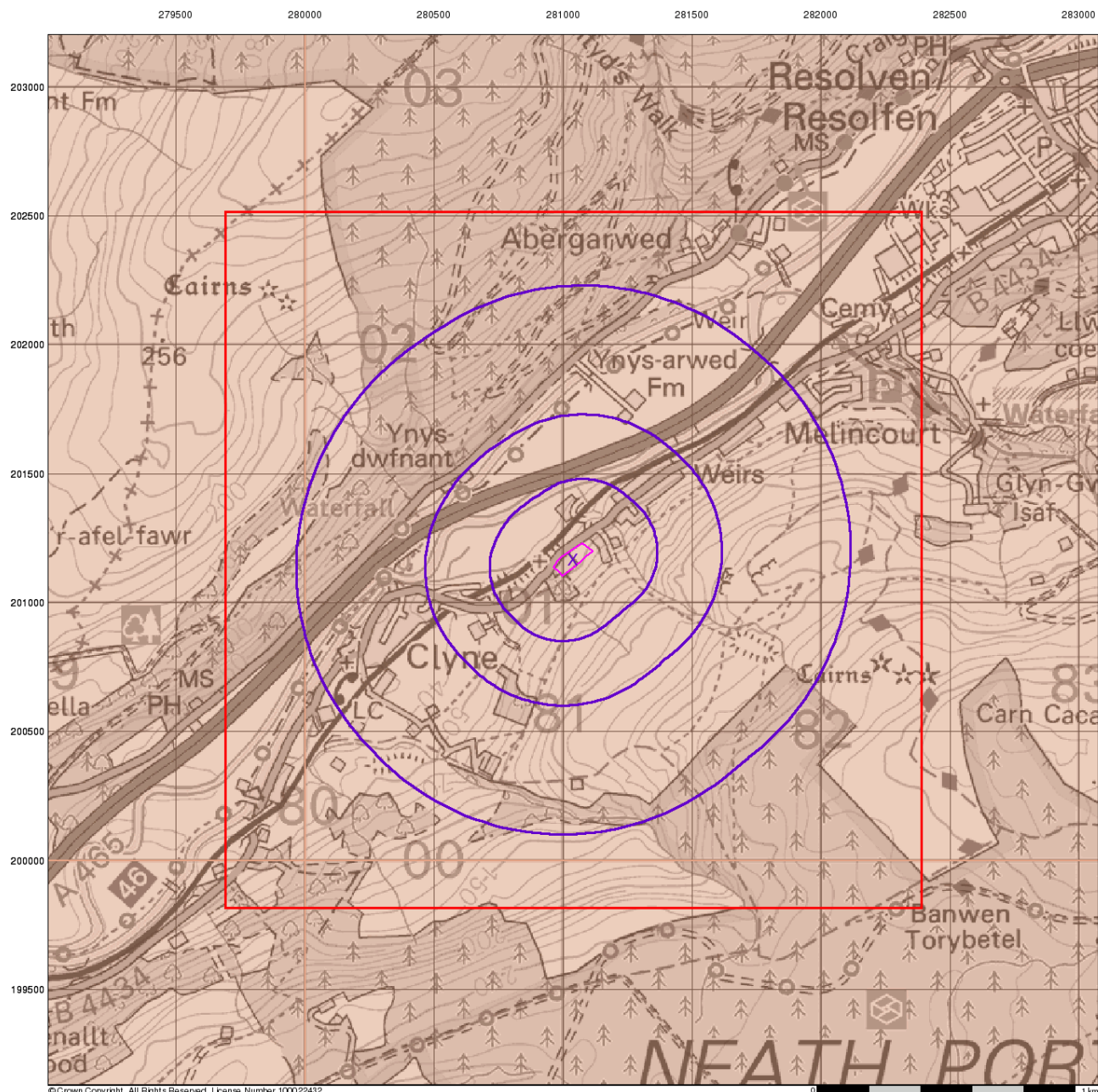
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Customer Ref: 14242 - Clyne
National Grid Reference: 281040, 201170
Slice: A
Site Area (Ha): 0.84
Search Buffer (m): 1000

Site Details

Site at, Clyne, Neath Port Talbot



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



Bedrock Aquifer Designation

General

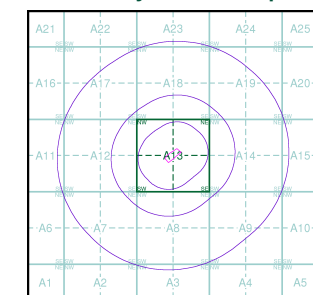
- Specified Site
- Specified Buffer(s)
- Bearing Reference Point
- Slice
- Map ID

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

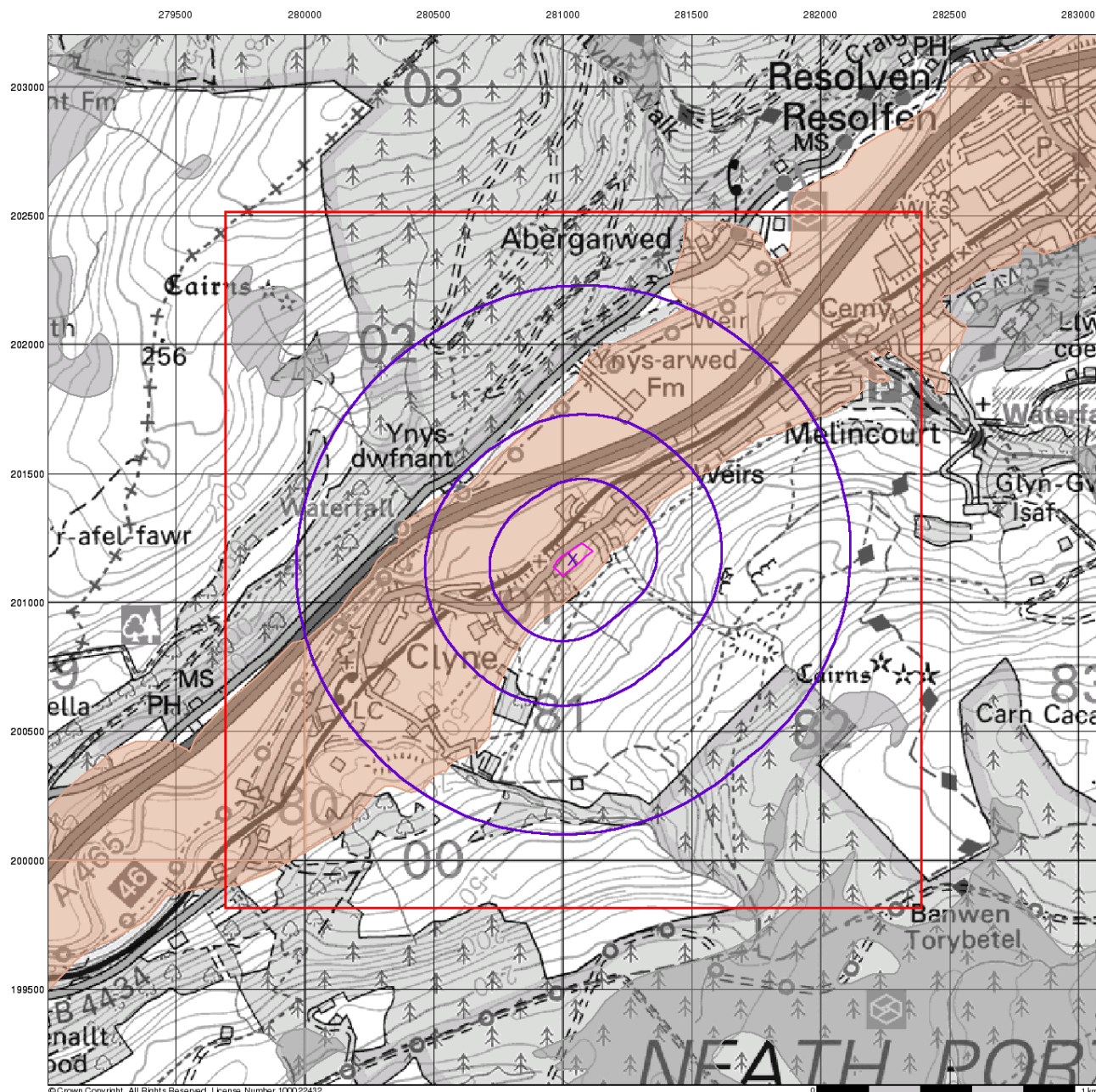
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 Slice: A
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 Search Buffer (m): 1000

Site Details

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Superficial Aquifer Designation

General

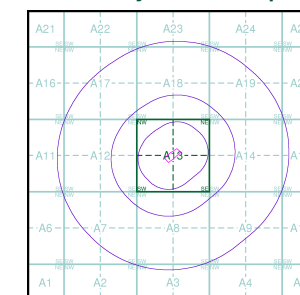
- Specified Site
- Specified Buffer(s)
- X Bearing Reference Point
- Slice
- B Map ID

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

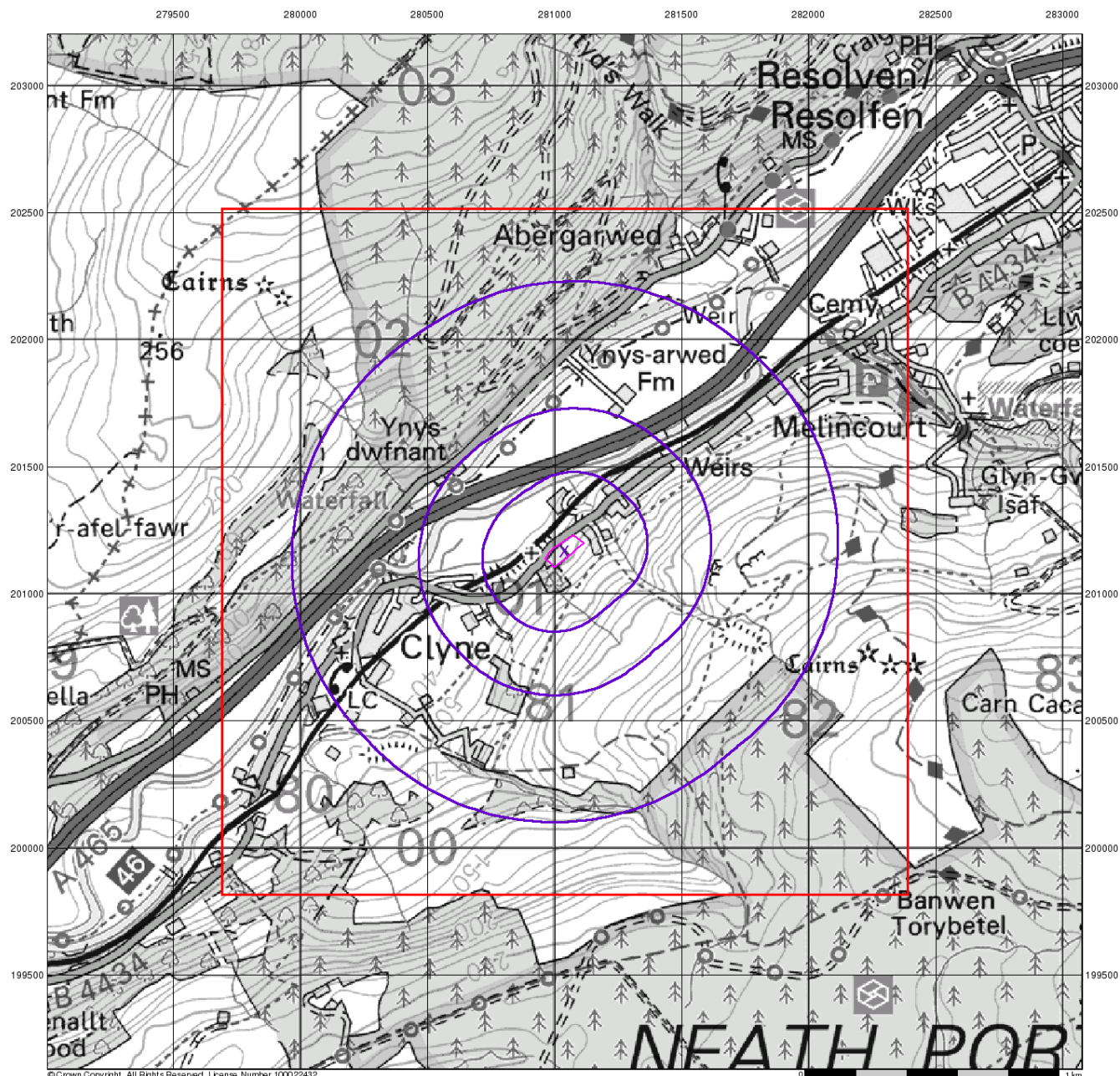
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 Customer Ref: 14242 - Clyne
 National Grid Reference: 281040, 201170
 Slice: A
 Site Area (Ha): 0.84
 Search Buffer (m): 1000

Site Details

Site at, Clyne, Neath Port Talbot



Tel: 0844 844 9952
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Source Protection Zones

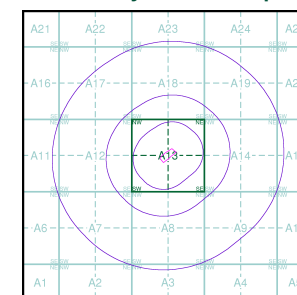
General

- 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)
- Source Protection Zone Borehole

Site Sensitivity Context Map - Slice A



Order Details

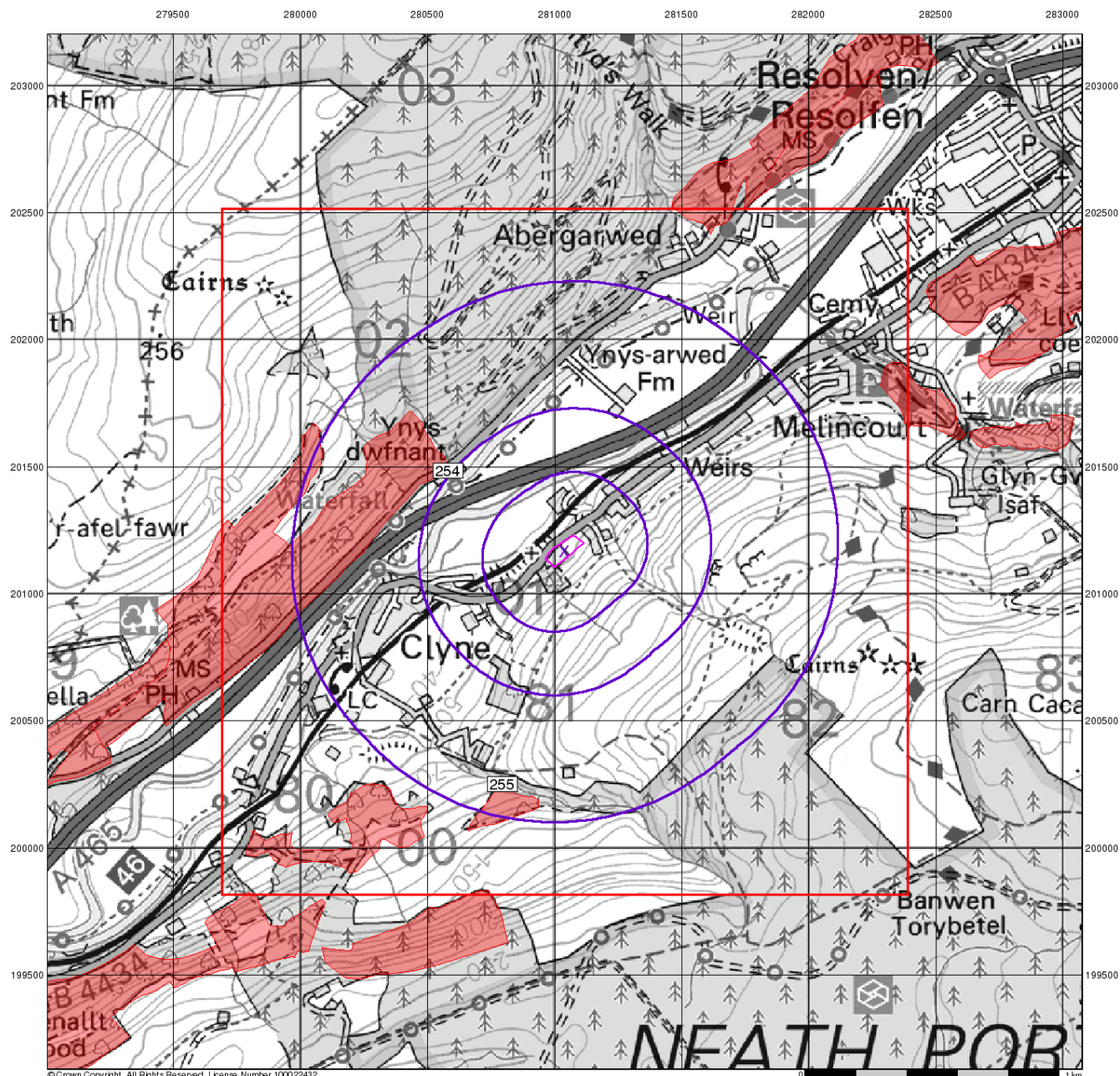
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 Customer Ref: 14242 - Clyne
 National Grid Reference: 281040, 201170
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 Search Buffer (m): 1000

Site Details

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Sensitive Land Uses

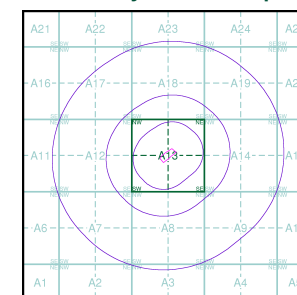
General

- 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

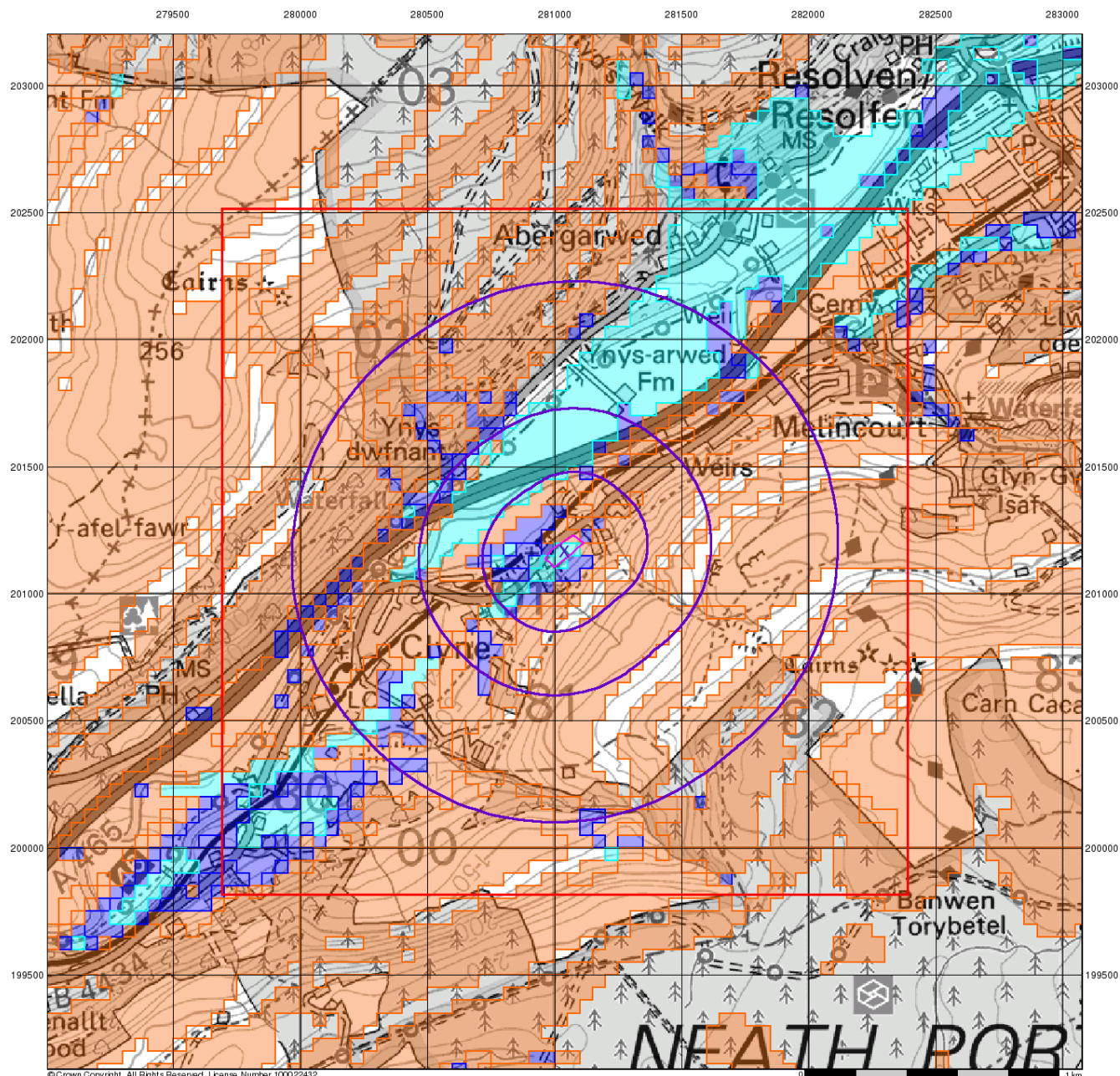
Order Number: 130675084_1_1
 Customer Ref: 14242 - Clyne
 National Grid Reference: 281040, 201170
 Slice: A
 Site Area (Ha): 0.84
 Search Buffer (m): 1000

Site Details

Site at, Clyne, Neath Port Talbot



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 Fax: 0844 844 9951
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BGS Flood GFS Data

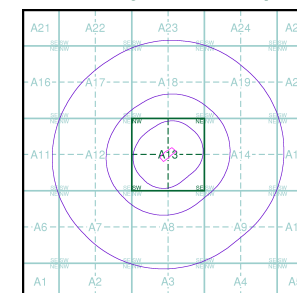
General

- 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: 130675084_1_1
 Customer Ref: 14242 - Clyne
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 Slice: A
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Geology 1:50,000 Maps Legends

Artificial Ground and Landslip

Map Colour	Lex Code	Rock Name	Rock Type	Min and Max Age
	MGR	Made Ground (Undivided)	Artificial Deposit	Holocene - Holocene
	LSGR	Landscaped Ground (Undivided)	Artificially Modified Ground	Holocene - Holocene
	SLIP	Landslide Deposit	Unknown/Unclassified Entry	Quaternary - Quaternary

Superficial Geology

Map Colour	Lex Code	Rock Name	Rock Type	Min and Max Age
	ALV	Alluvium	Clay, Silt, Sand and Gravel	Flandrian - Flandrian
	GFDUD	Glaciofluvial Deposits, Devensian	Sand and Gravel	Devensian - Devensian
	TILLD	Till, Devensian	Diamicton	Devensian - Devensian
	HMGDD	Hummocky (Moundy) Glacial Deposits, Devensian	Sand and Gravel	Devensian - Devensian
	ALF	Alluvial Fan Deposits	Sand and Gravel	Quaternary - Quaternary
	PEAT	Peat	Peat [Unlithified Deposits Coding Scheme]	Quaternary - Quaternary

Bedrock and Faults

Map Colour	Lex Code	Rock Name	Rock Type	Min and Max Age
	BD	Brithdir Member	Sandstone	Westphalian D - Westphalian D
	BD	Brithdir Member	Mudstone, Siltstone and Sandstone	Westphalian D - Westphalian D
	H	Hughes Member	Mudstone, Siltstone and Sandstone	Westphalian D - Westphalian D
	H	Hughes Member	Sandstone	Westphalian D - Westphalian D
	RA	Rhondda Member	Sandstone	Westphalian D - Bolsovian
	RA	Rhondda Member	Mudstone, Siltstone and Sandstone	Westphalian D - Bolsovian
	LLFB	Llynfi Member	Mudstone, Siltstone and Sandstone	Bolsovian - Bolsovian

Map Colour	Lex Code	Rock Name	Rock Type	Min and Max Age
	SWUCM	South Wales Upper Coal Measures Formation	Mudstone, Siltstone and Sandstone	Westphalian D - Bolsovian
	SWMCM	South Wales Middle Coal Measures Formation	Mudstone, Siltstone and Sandstone	Bolsovian - Duckmantian
		Rock Segments		
		Faults		



Geology 1:50,000 Maps

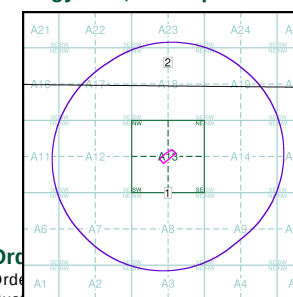
This report contains geological map extracts taken from the BGS Digital Geological map of Great Britain at 1:50,000 scale and is designed for users carrying out preliminary site assessments who require geological maps for the area around the site. This mapping may be more up to date than previously published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

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

Geology 1:50,000 Maps Coverage

Map ID:	1	Map ID:	2
Map Sheet No:	248	Map Sheet No:	231
Map Name:	Pontypridd	Map Name:	Merthyr Tydfil
Map Date:	1975	Map Date:	1979
Bedrock Geology:	Available	Bedrock Geology:	Available
Superficial Geology:	Available	Superficial Geology:	Available
Artificial Geology:	Not Available	Artificial Geology:	Available
Faults:	Not Supplied	Faults:	Not Supplied
Landslip:	Available	Landslip:	Available
Rock Segments:	Not Supplied	Rock Segments:	Not Supplied

Geology 1:50,000 Maps - Slice A



Order

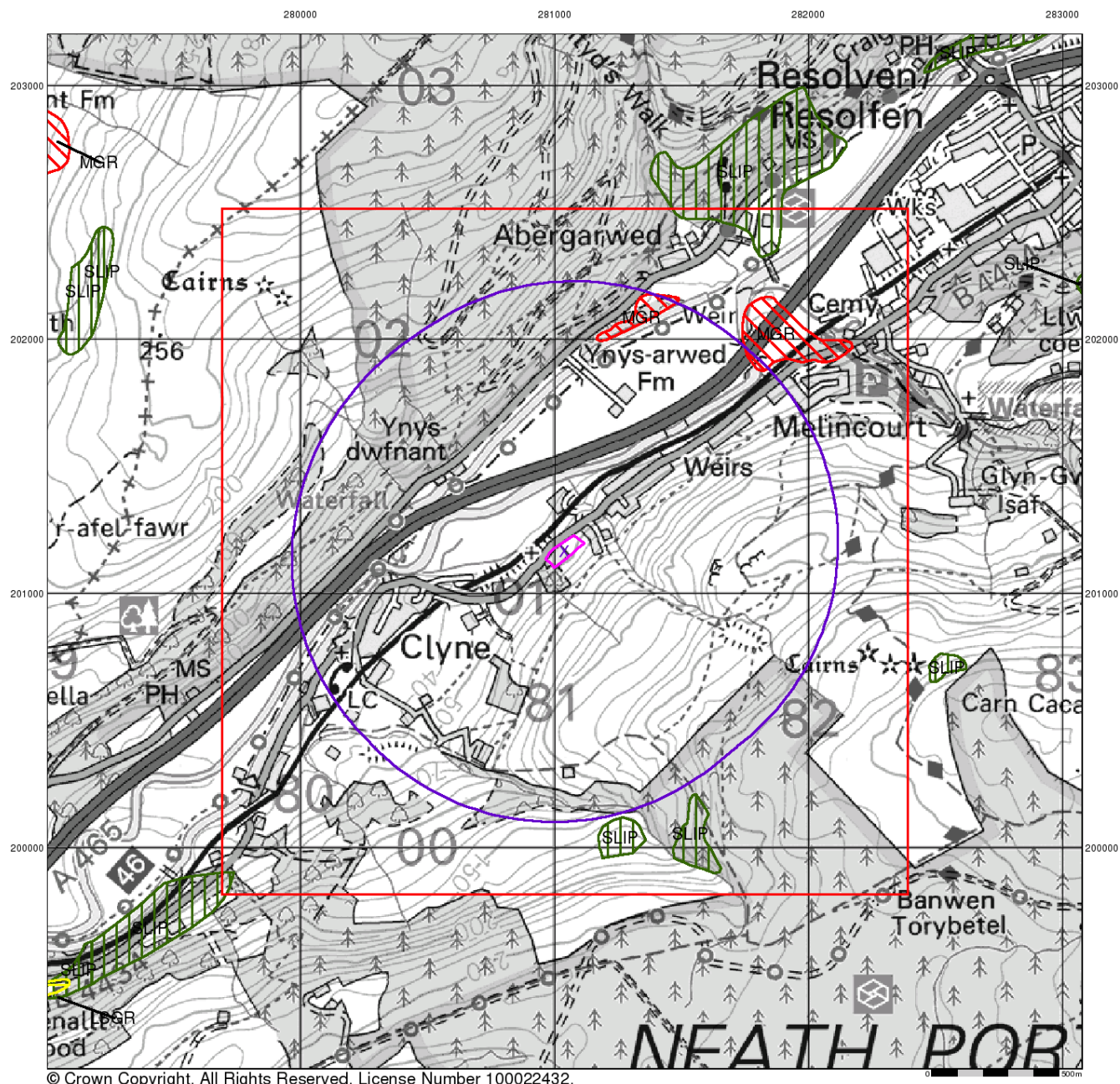
Customer Reference: 281040
National Grid Reference: 281040, 201170
Slice: A
Site Area (Ha): 0.84
Search Buffer (m): 1000

Site Details:

Site at, Clyne, Neath Port Talbot

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Artificial Ground and Landslip

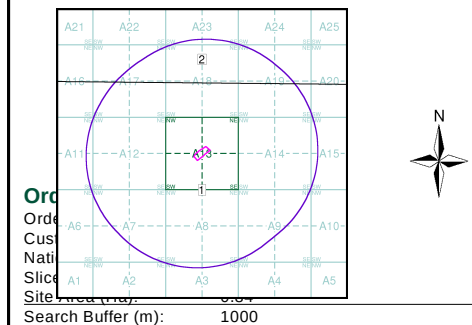
Artificial ground is a term used by BGS for those areas where the ground surface has been significantly modified by human activity. Information about previously developed ground is especially important, as it is often associated with potentially contaminated material, unpredictable engineering conditions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

Artificial ground includes:

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

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

Artificial Ground and Landslip Map - Slice A

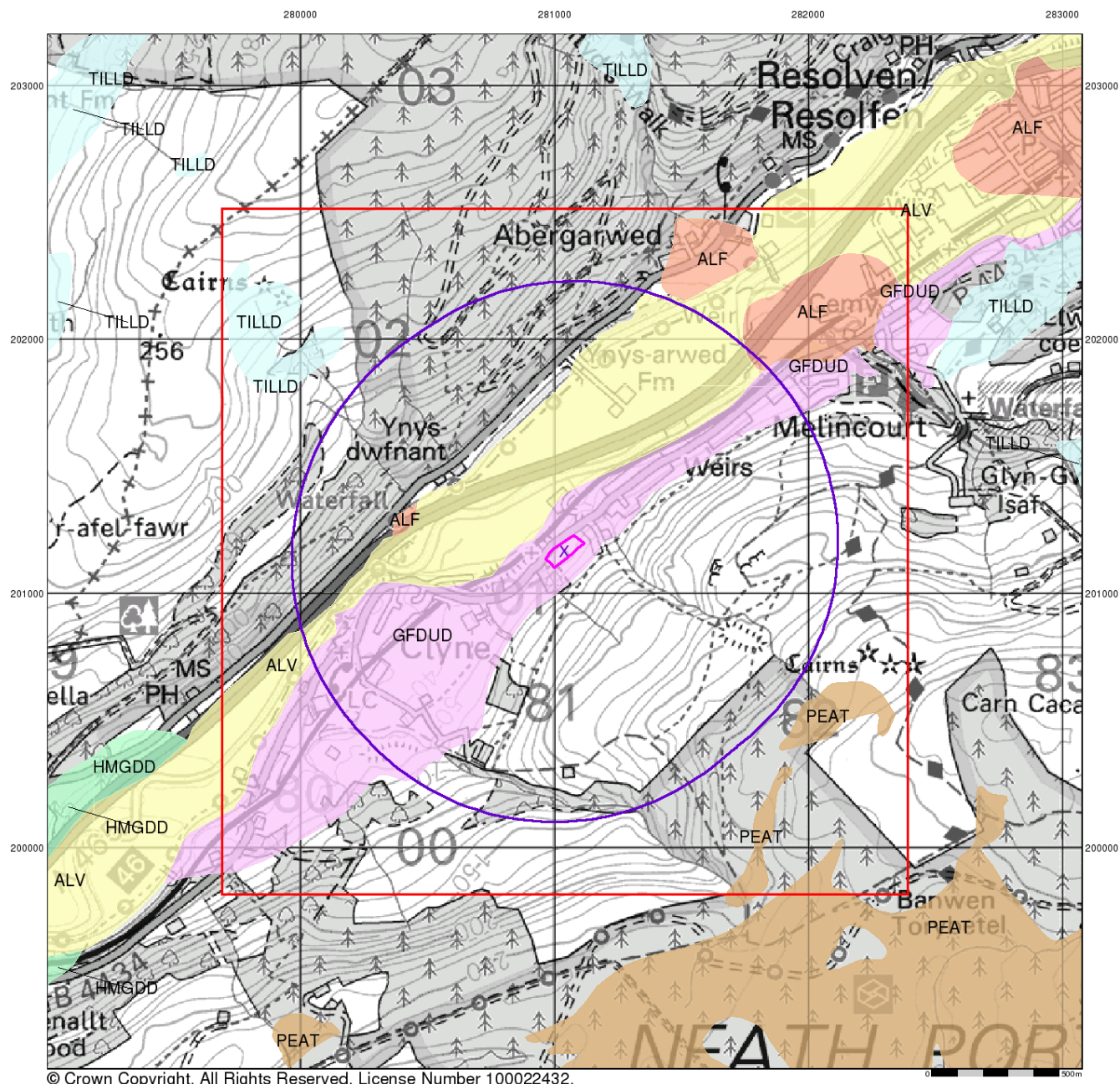


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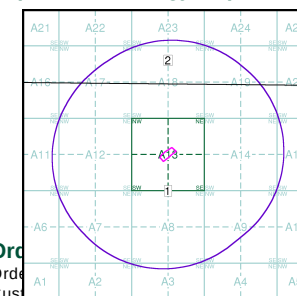
Superficial Geology

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

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

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

Superficial Geology Map - Slice A



Order
Order
Cus

National Grid Reference: 281040, 201170

Slice: A
Site Area (Ha): 0.84
Search Buffer (m): 1000

Site Details:

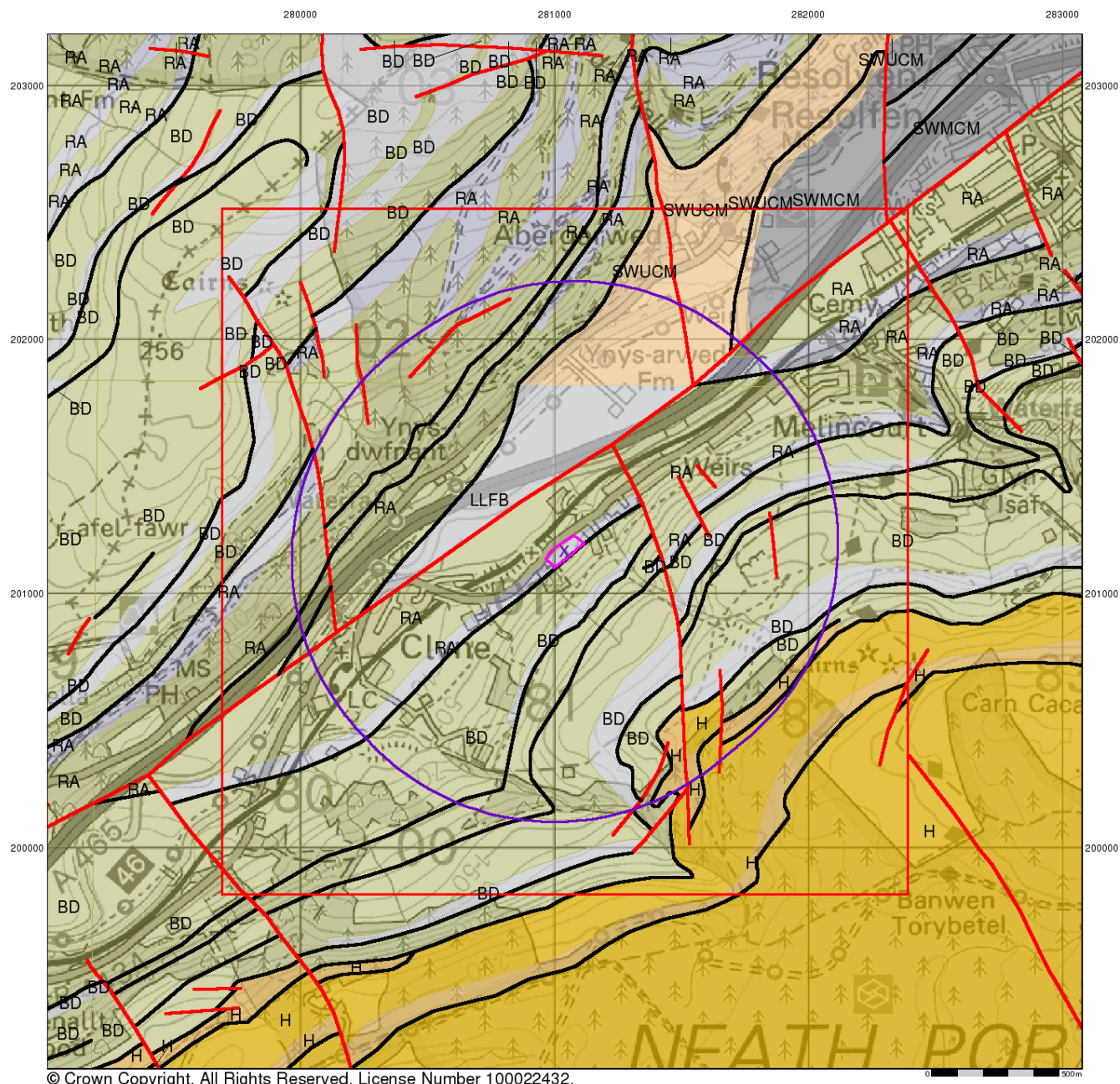
Site at, Clyne, Neath Port Talbot

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v15.0 03-Jul-2017

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Bedrock and Faults

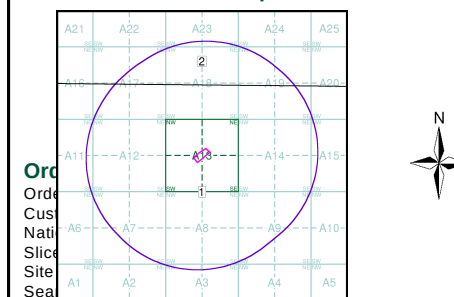
Bedrock geology is a term used for the main mass of rocks forming the Earth and are present everywhere, whether exposed at the surface in outcrops or concealed beneath superficial deposits or water.

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

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

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

Bedrock and Faults Map - Slice A



Site Details:

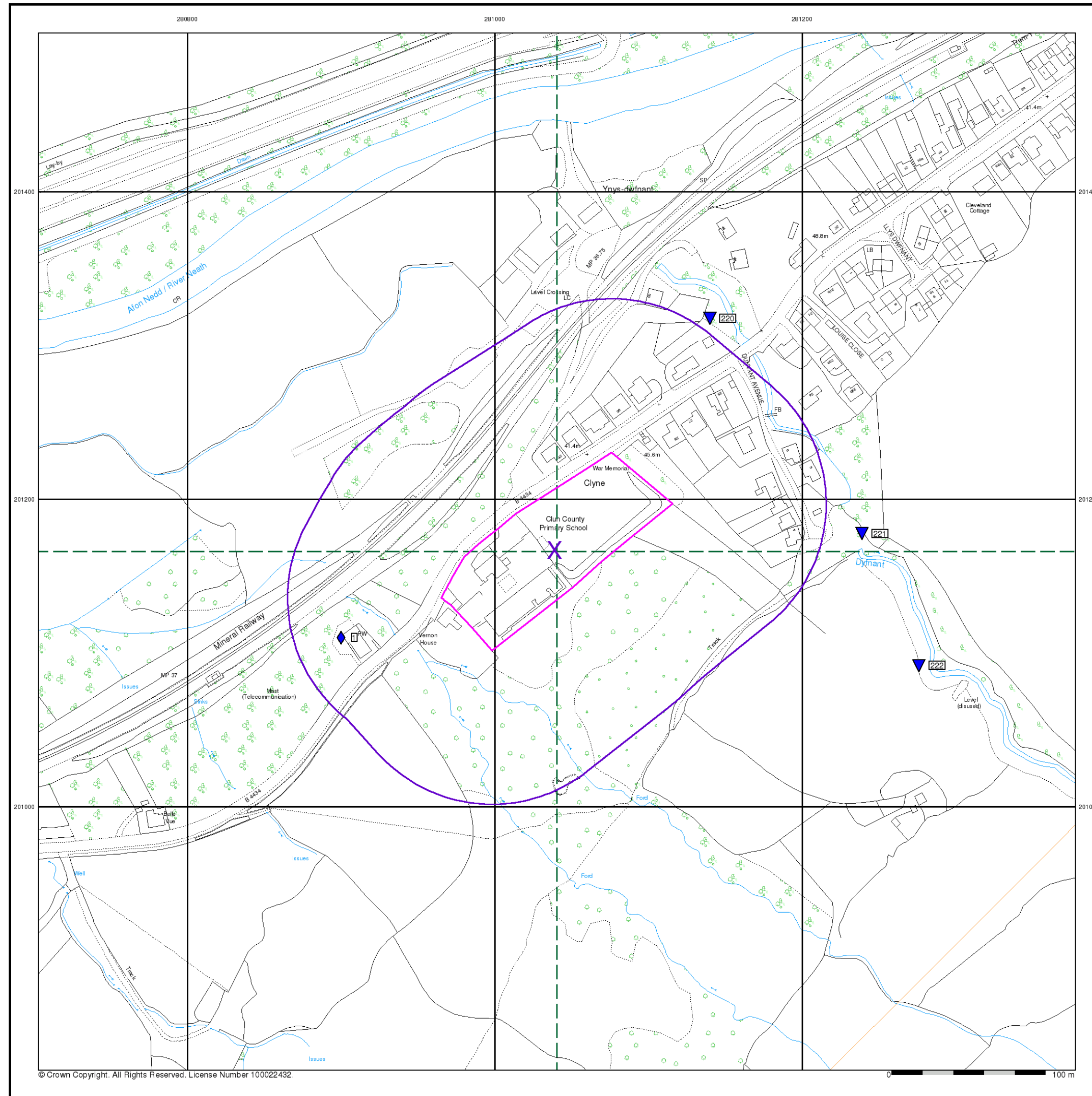
Site at, Clyne, Neath Port Talbot

Landmark
INFORMATION GROUP

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

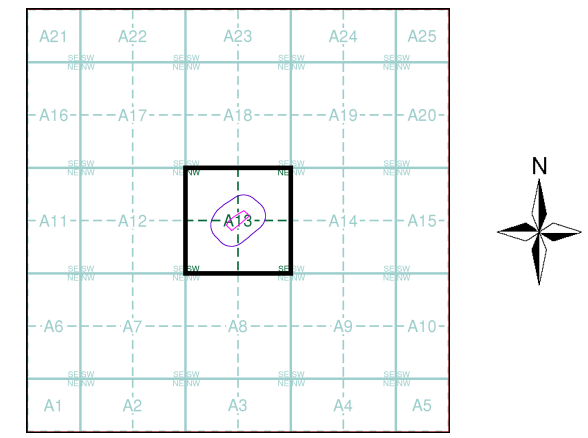
v15.0 03-Jul-2017

Page 4 of 5



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

Site Sensitivity Map - Segment A13

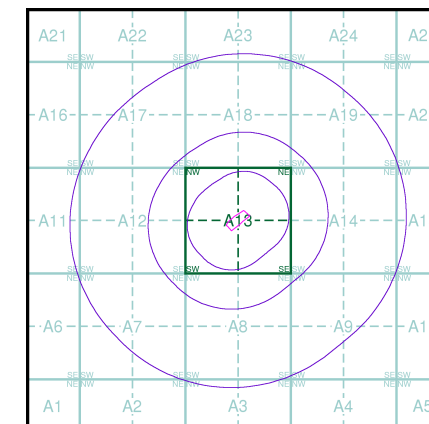


Order Details
Order Number: 130675084_1_1
Customer Ref: 14242 - Clyne
National Grid Reference: 281040, 201170
Slice: A
Site Area (Ha): 0.84
Plot Buffer (m): 100

Site Details
Site at, Clyne, Neath Port Talbot

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

Site Sensitivity Map - Slice A

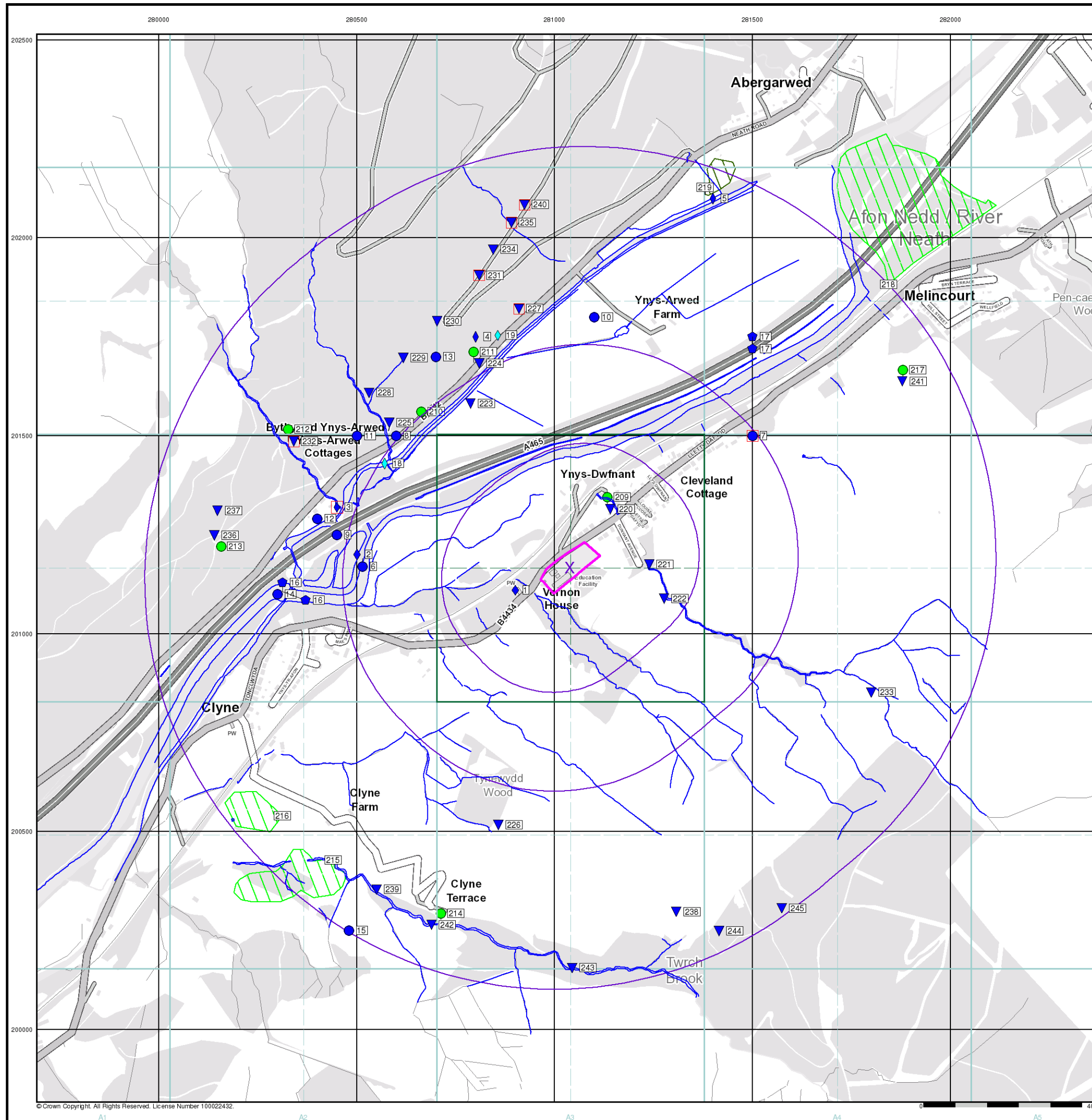


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 Customer Ref: 14242 - Clyne
 National Grid Reference: 281040, 201170
 Slice: A
 Site Area (Ha): 0.84
 Search Buffer (m): 1000

Site Details

Site at, Clyne, Neath Port Talbot



Industrial Land Use Map

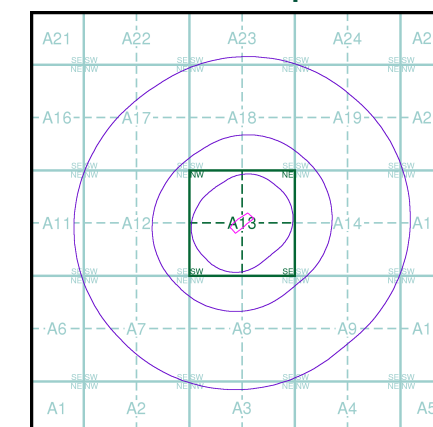
General

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

Industrial Land Use

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

Industrial Land Use Map - Slice A

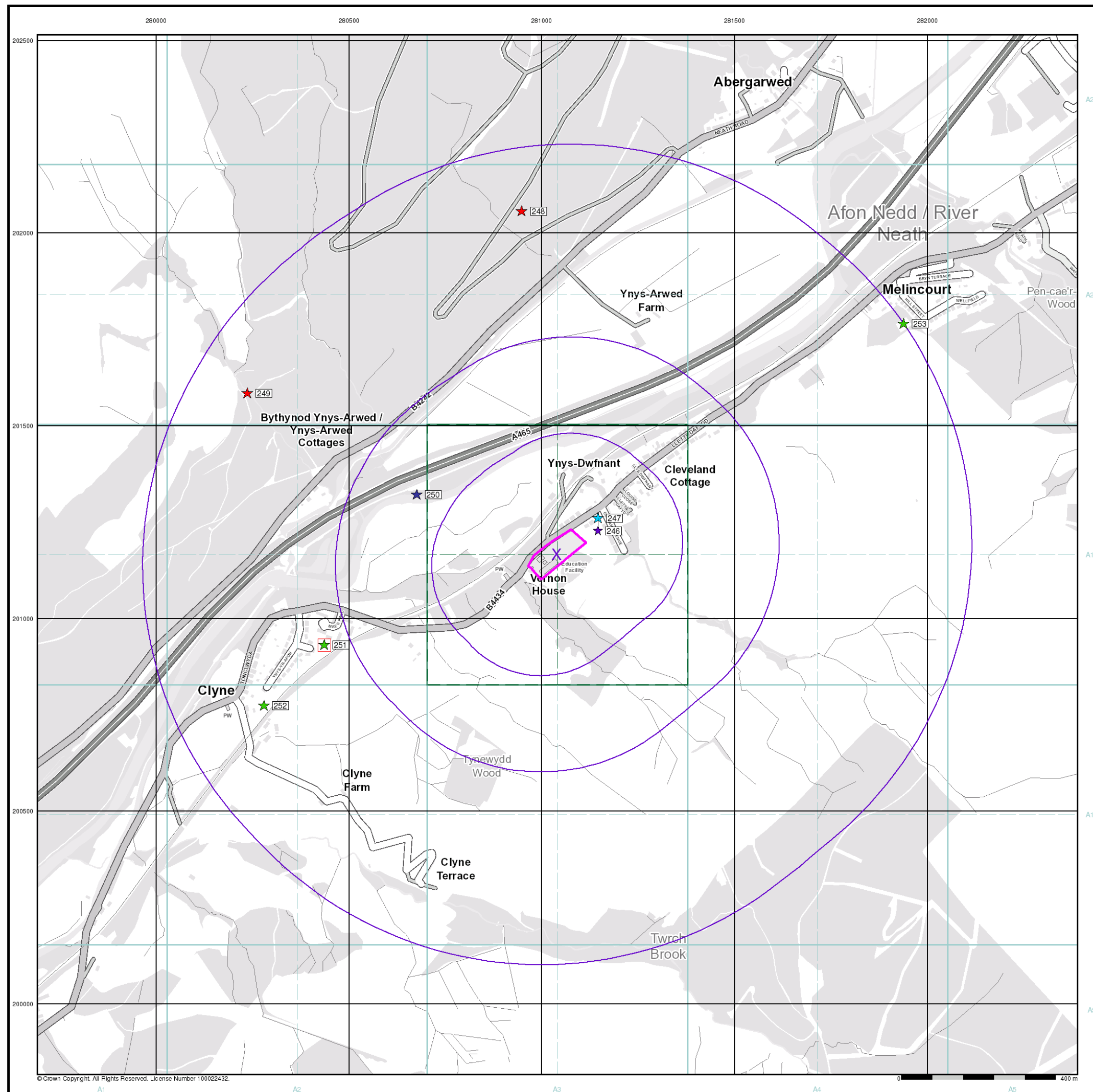


Order Details

Order Number: 130675084_1_1
 Customer Ref: 14242 - Clyne
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 Slice: A
 Site Area (Ha): 0.84
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Site Details

Site at, Clyne, Neath Port Talbot





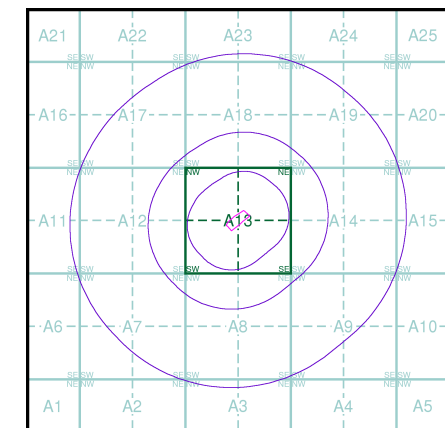
General

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

Agency and Hydrological (Flood)

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

Flood Map - Slice A



Order Details

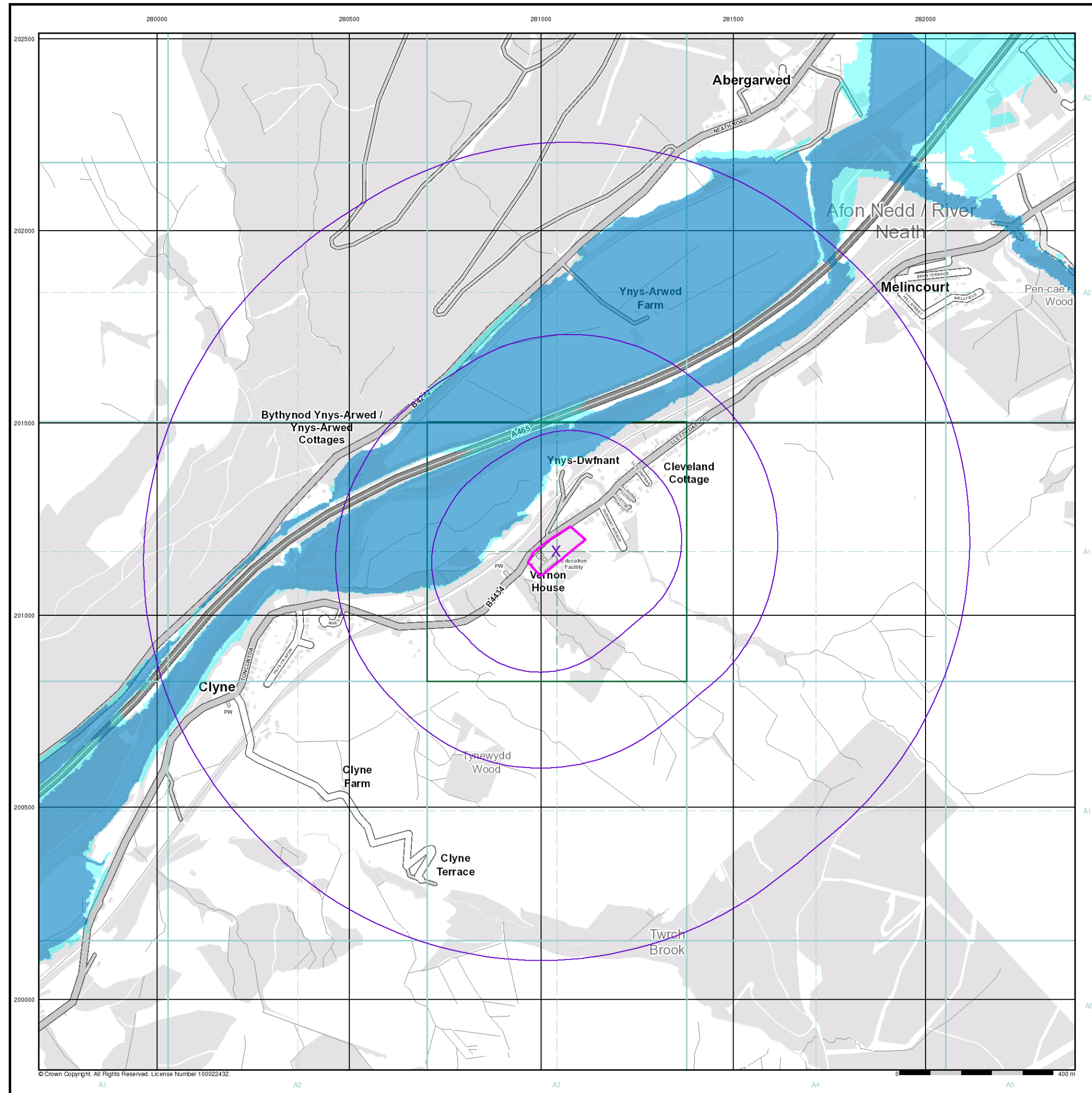
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Customer Ref: 14242 - Clyne
National Grid Reference: 281040, 201170
Slice: A
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General

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

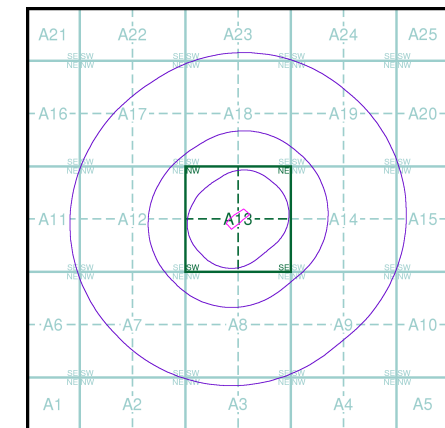
Agency and Hydrological (Boreholes)

-  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

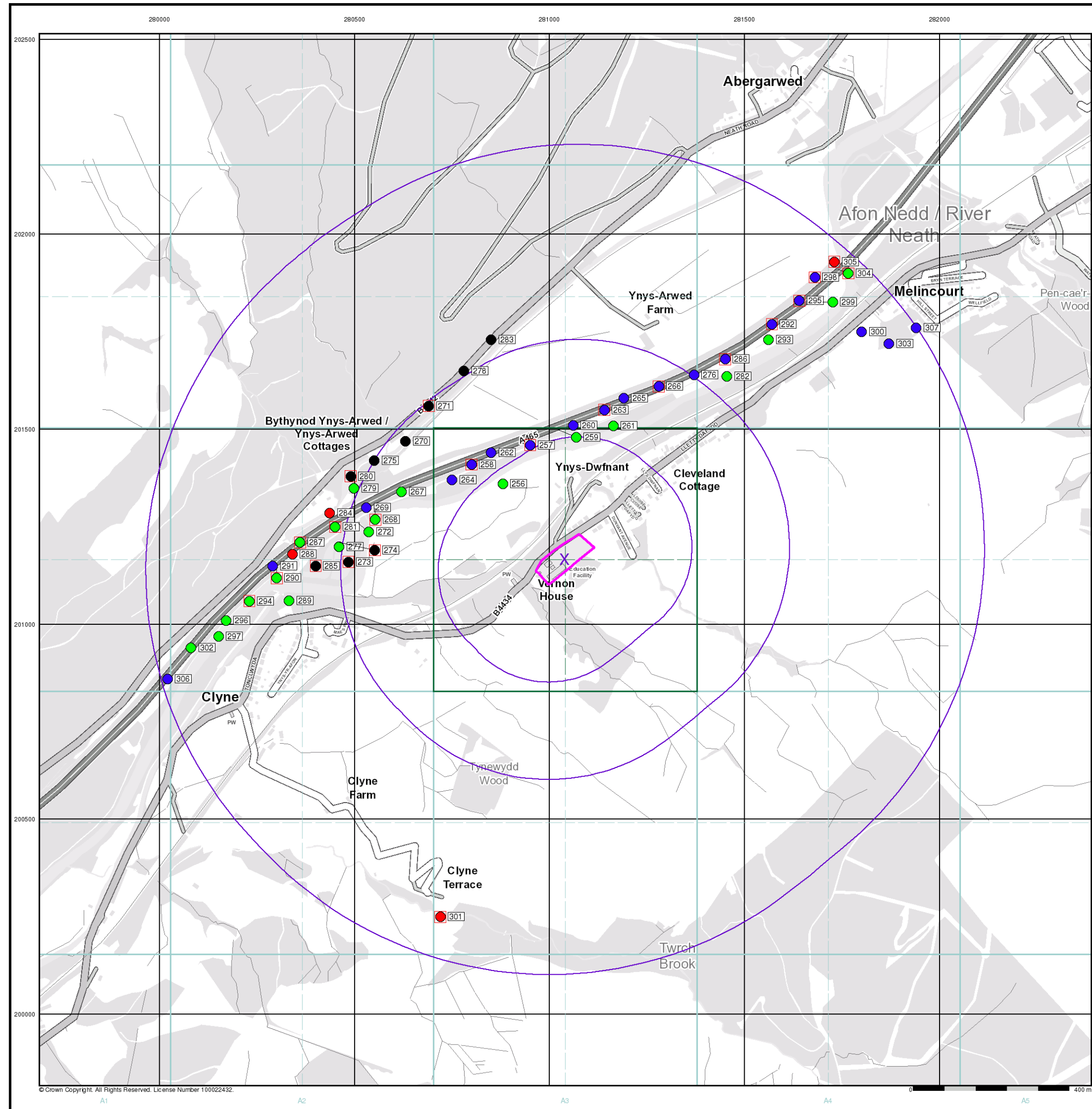


Order Details

Order Number: 130675084_1_1
 Customer Ref: 14242 - Clyne
 National Grid Reference: 281040, 201170
 Slice: A
 Site Area (Ha): 0.84
 Search Buffer (m): 1000

Site Details

Site at, Clyne, Neath Port Talbot



General

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

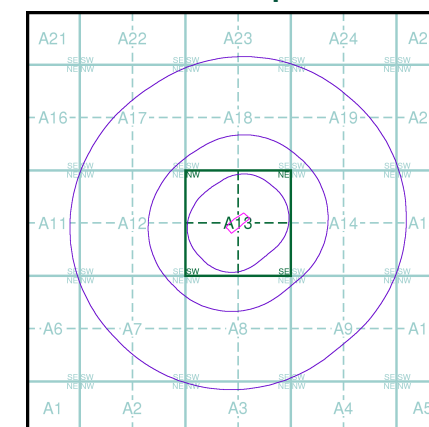
OS Water Network Data

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

Contours (height in meters)

- Standard Contour   Mean Low Water
- Master Contour   Mean High Water
- Spot Height  167.3

OS Water Network Map - Slice A

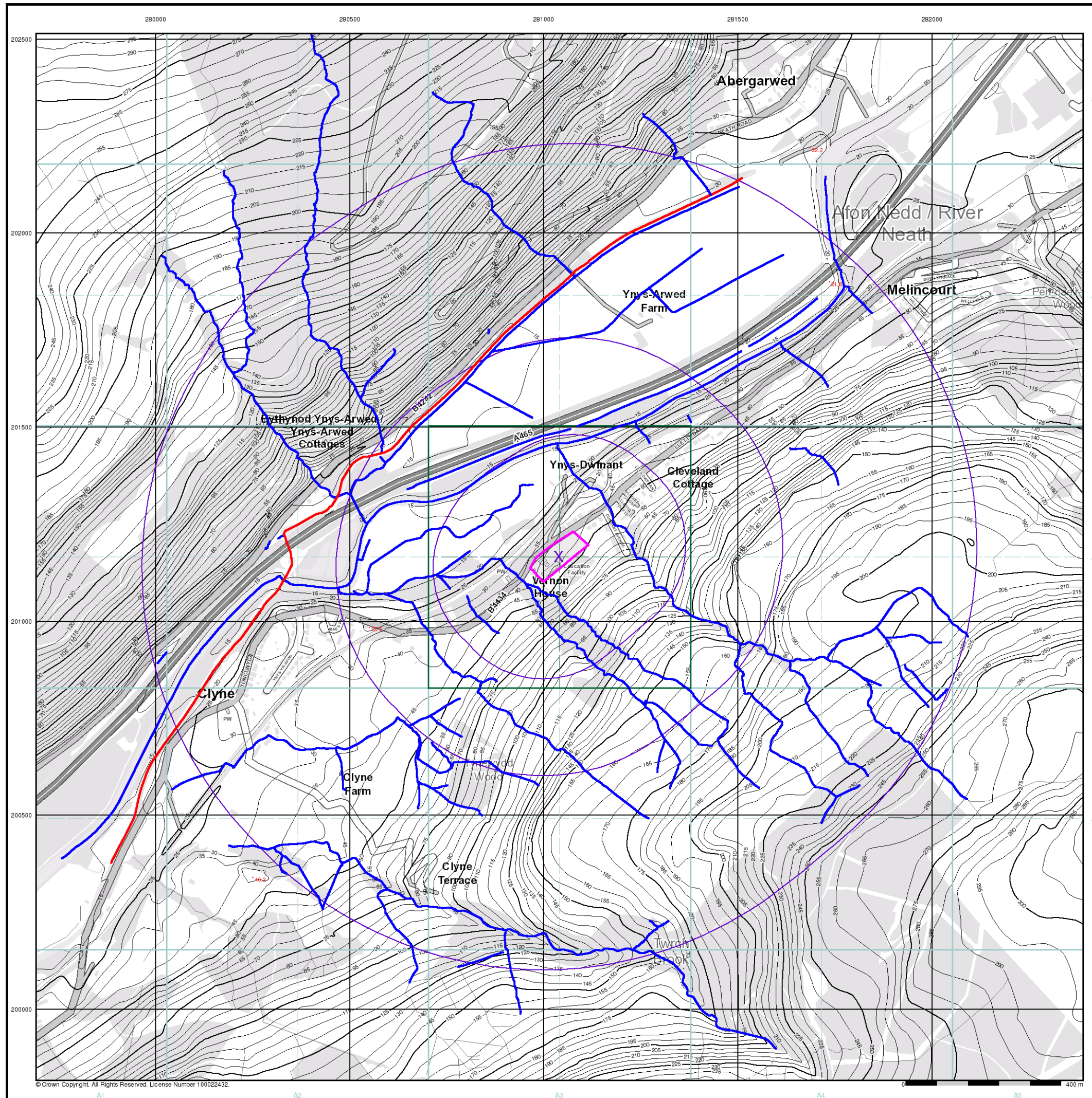


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Order Number: 130675084_1_1
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 Slice: A
 Site Area (Ha): 0.84
 Search Buffer (m): 1000

Site Details

Site at, Clyne, Neath Port Talbot





General

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

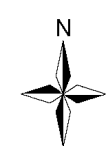
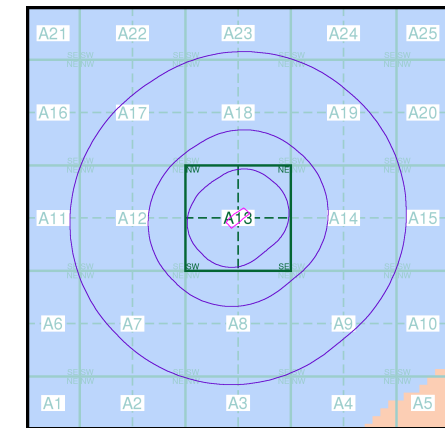
Risk of Flooding from Surface Water

- 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

EA/NRW Suitability Map - Slice A



Order Details

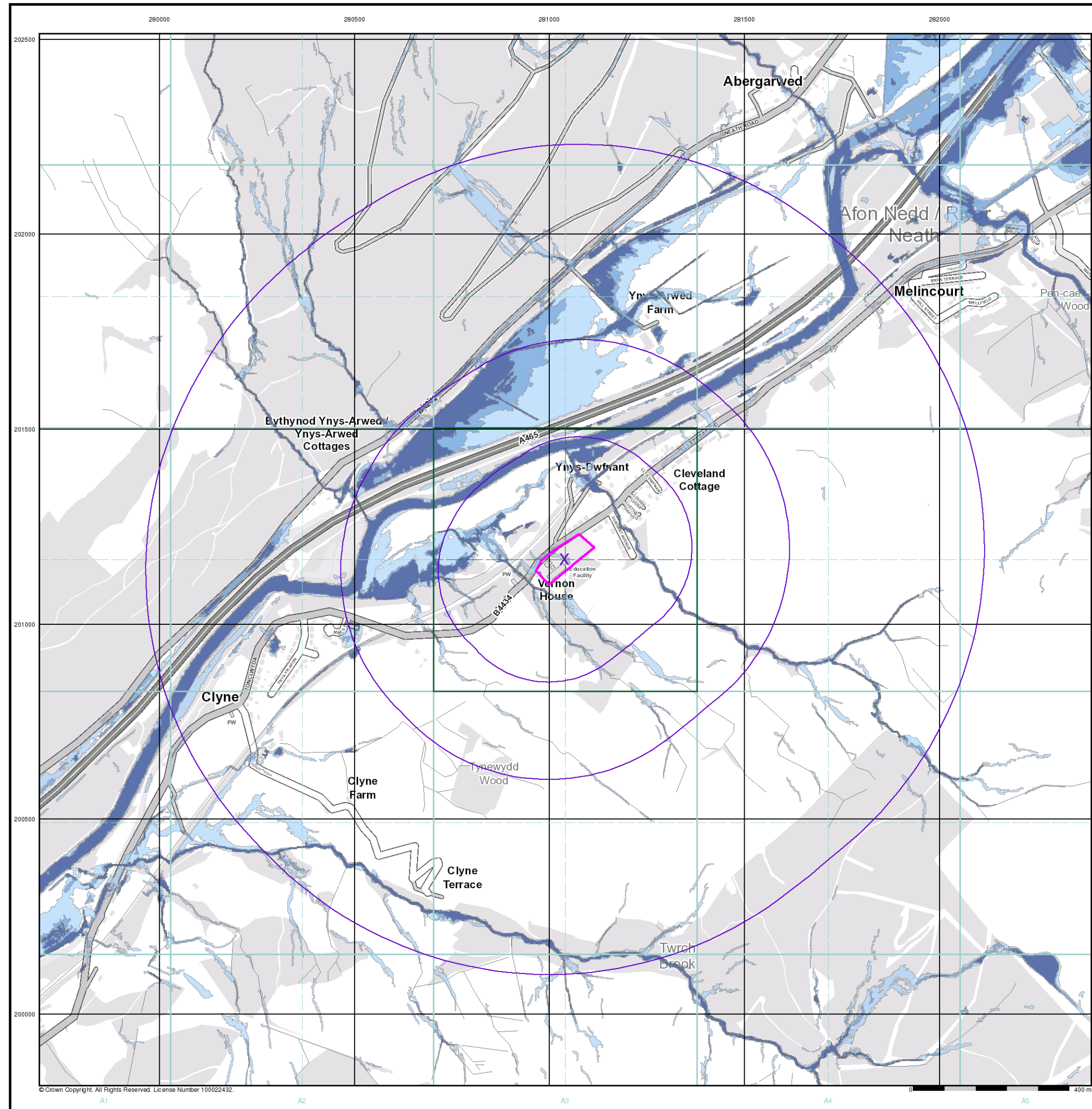
Order Number: 130675084_1_1
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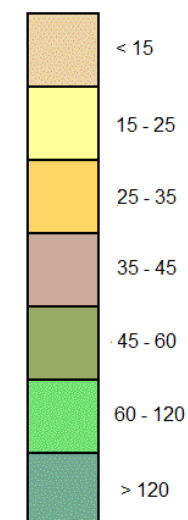


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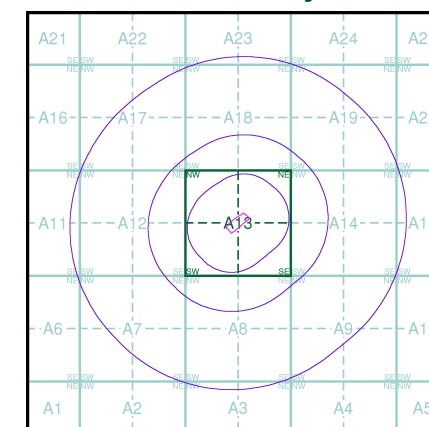
Specified Site Specified Buffer(s) Bearing Reference Point

Estimated Soil Chemistry Arsenic

Arsenic Concentrations mg/kg



Estimated Soil Chemistry Arsenic - Slice A



Order Details

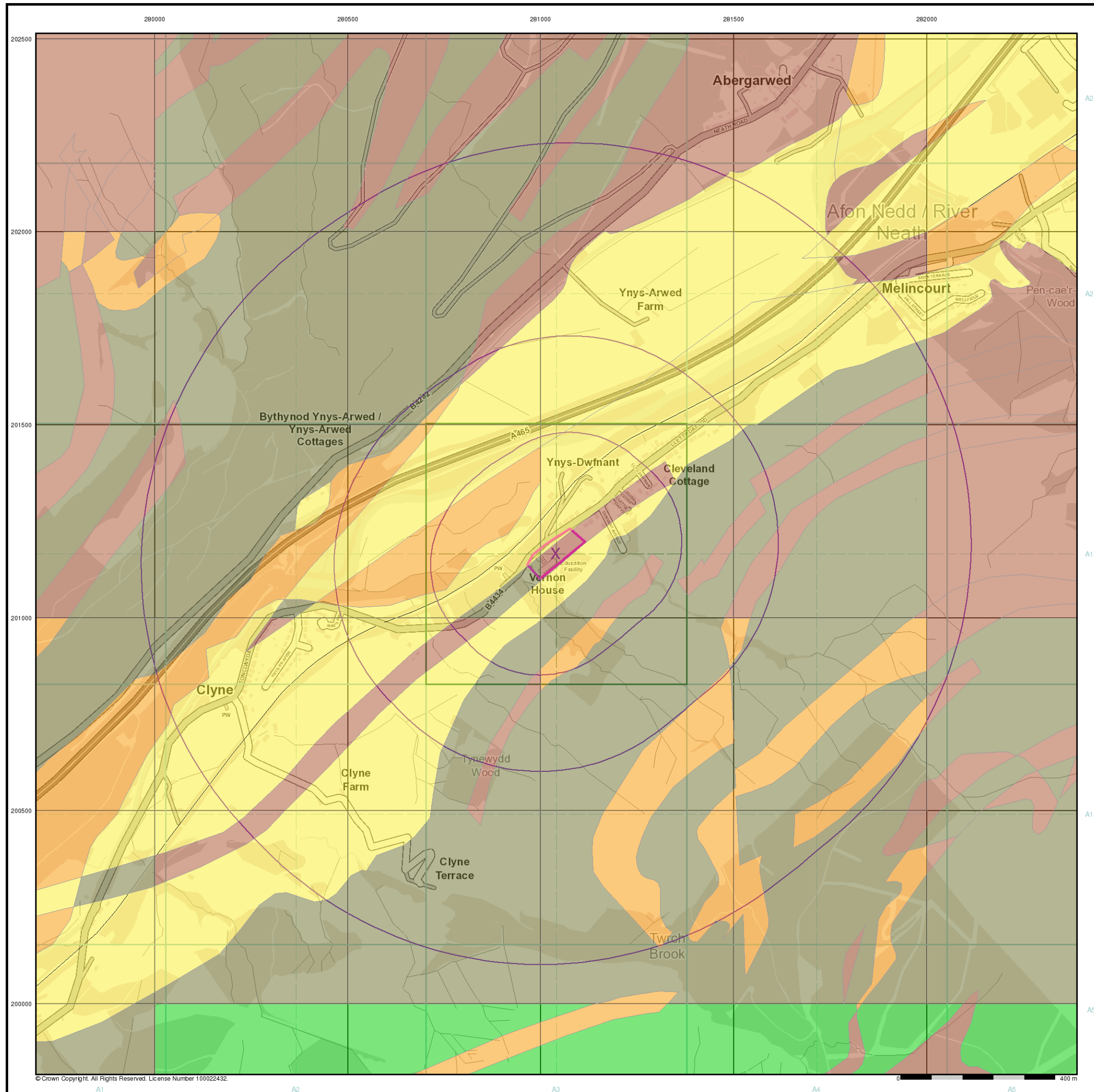
Order Details: 130675084_1_1
Customer Ref: 14242 - Clyne
National Grid Reference: 281040, 201170
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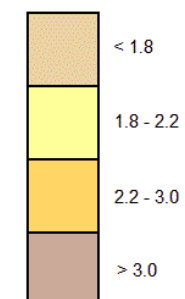


General

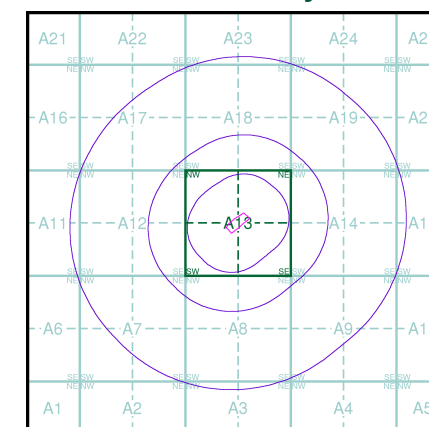
Specified Site Specified Buffer(s) Bearing Reference Point

Estimated Soil Chemistry Cadmium

Cadmium Concentrations mg/kg



Estimated Soil Chemistry Cadmium - Slice A



Order Details

Order Details: 130675084_1_1
Customer Ref: 14242 - Clyne
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Slice: A
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Search Buffer (m): 1000

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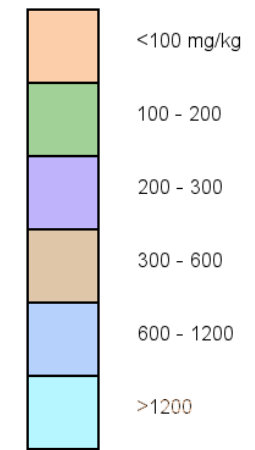


General

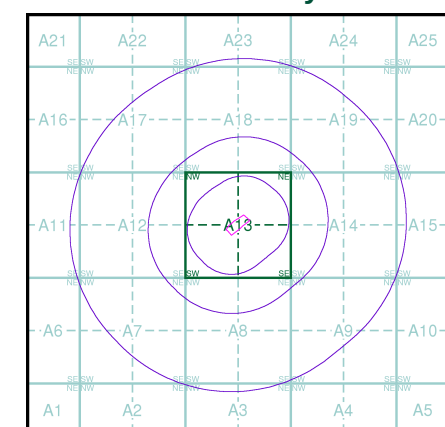
- Specified Site
- Specified Buffer(s)
- Bearing Reference Point

Estimated Soil Chemistry Lead

Lead Concentrations mg/kg



Estimated Soil Chemistry Lead - Slice A



Order Details

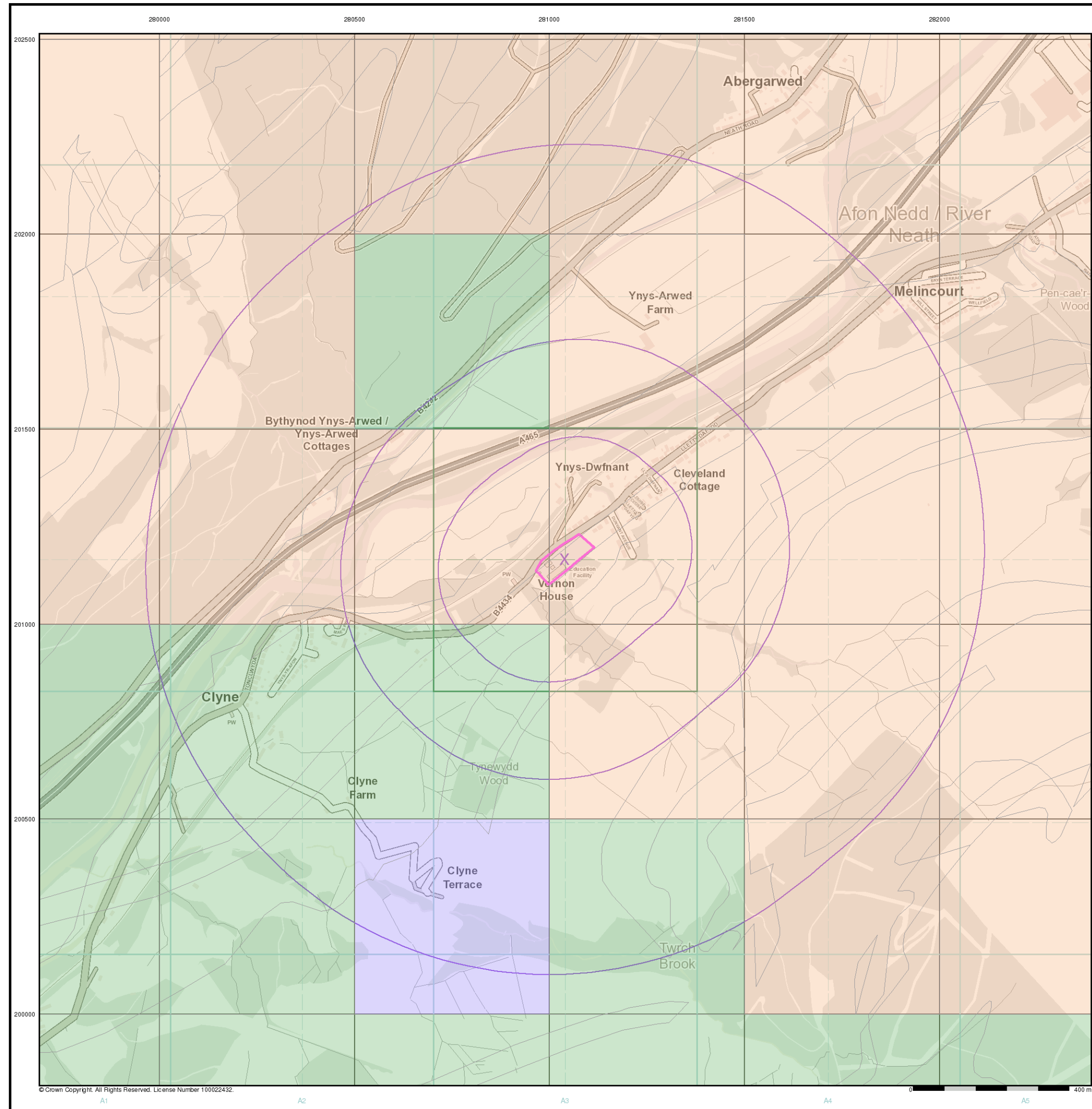
Order Details: 130675084_1_1
Customer Ref: 14242 - Clyne
National Grid Reference: 281040, 201170
Slice: A
Site Area (Ha): 0.84
Search Buffer (m): 1000

Site Details

Site at, Clyne, Neath Port Talbot



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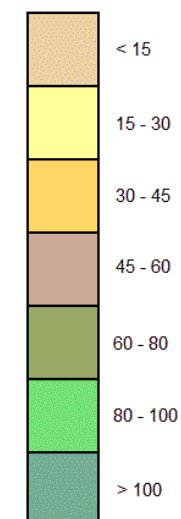


General

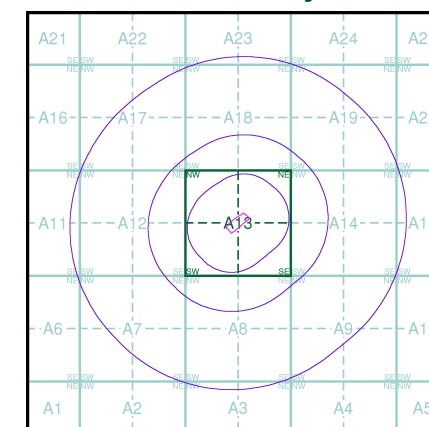
Specified Site Specified Buffer(s) Bearing Reference Point

Estimated Soil Chemistry Nickel

Nickel Concentrations mg/kg



Estimated Soil Chemistry Nickel - Slice A



Order Details

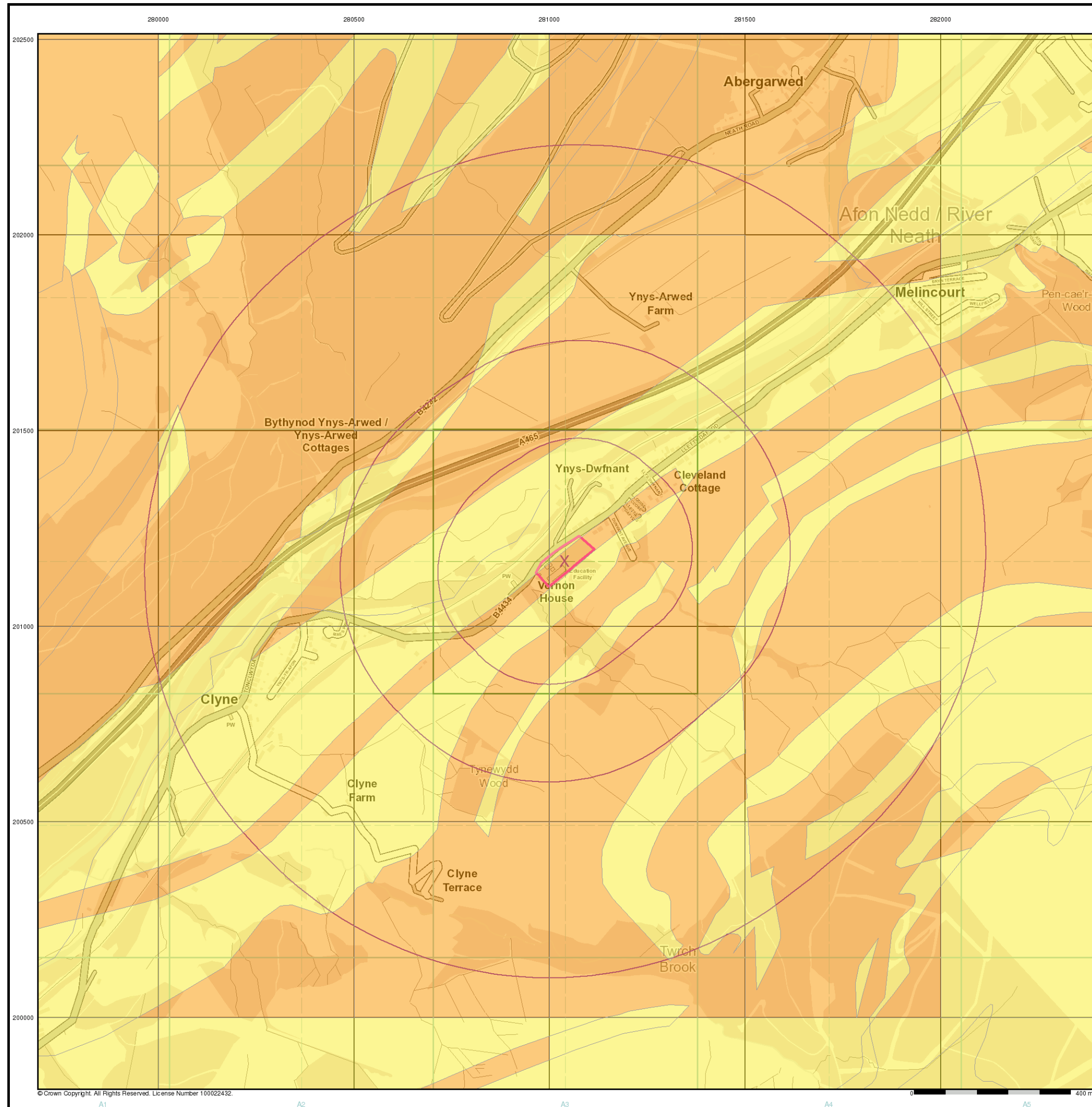
Order Details: 130675084_1_1
Customer Ref: 14242 - Clyne
National Grid Reference: 281040, 201170
Slice: A
Site Area (Ha): 0.84
Search Buffer (m): 1000

Site Details

Site at, Clyne, Neath Port Talbot

Landmark
INFORMATION GROUP

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ANNEX D
Risk Assessment Definitions

Risk Assessment Definitions

Environmental risk assessment evaluates the risk to receptors via an analysis of the 'source-pathway-receptor' linkage.

- (1) A **CONTAMINANT** (hazard) - a substance that is in, on or under the land and has the potential to cause harm or to cause pollution of controlled waters
- (2) A **RECEPTOR** (target) - something which could be adversely affected by a contaminant
- (3) A **PATHWAY** - a route or means which either allows the contaminant to cause significant harm to that receptor, or that there is a significant possibility of such harm being caused to the receptor, or that pollution of controlled waters is being or likely to be caused.

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'.

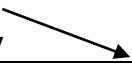
A 'Hazard' is defined as *'a property or situation that in particular circumstances could lead to harm'.*

The classification of consequences and probability and determining the risk category are defined in the following sections.

Table 1 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
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

Table 2 Classification of Probability	
Classification	Definition
High	• 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
Medium	• 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	• 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
Negligible	• There is a complete pollution linkage but circumstances are such that it is improbable that an event would occur even in the long term

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 3** below.

Table 3 Risk Assessment Matrix					
Increasing acceptability 		Consequence			
		Severe	Medium	Mild	Negligible
Probability	High	High	High	Medium / Low	Near zero
	Medium	High	Medium	Low	Near zero
	Low	High / medium	Medium / Low	Low	Near zero
	Negligible	High / medium / Low	Medium / Low	Low	Near zero

High Risk

There is a high probability that severe harm could risk a receptor, or there is evidence that a receptor is being 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 very mild.

ANNEX E
Borehole and Trial Pit Logs



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Borehole No.

WS01

Sheet 1 of 1

Project Name:	Clyne Primary School	Project No:	14242 - Clyne	Co-ords:		Hole Type	WLS
Location:	Clyne	Level:		Scale	1:50	Logged By	ADB
Client:	Mr Jim Slater	Dates:	04/07/2017 -				

Water Strikes	Sample and In Situ Testing			Depth (m)	Level (m)	Well	Legend	Stratum Description	
	Depth (m)	Type	Results						
	0.06			0.10				MADE GROUND: Tarmac	
	0.50			0.90				MADE GROUND: (Medium dense), grey, slightly clayey sandy GRAVEL. Gravel is fine to coarse, angular limestone.	
	1.00	ES						REWORKED NATURAL: (Soft to firm), grey and orange brown mottled, gravelly CLAY. Gravel is fine to coarse, subangular to rounded sandstone.	
	1.80	SPT	N=23 (2,3/4,5,6,8)					(Firm), orange and brown with black inclusions, gravelly CLAY. Gravel is fine to coarse, subangular to rounded sandstone.	1
		SPT	50 (8,10/50 for 235mm)	1.80				Stiff, grey brown, very gravelly CLAY with occasional cobble. Gravel is fine to coarse, subangular to rounded sandstone, mudstone and quartz.	
								End of Borehole at 1.800m	2
									3
									4
									5
									6
									7
									8
									9
									10

Remarks: 1] Consistency, strength and density indicators based upon field judgement are in brackets, is for guidance only, and is not in accordance with BS 5930:2015. 2] Borehole terminated at refusal. 3] Borehole backfilled with arisings. 4] No groundwater encountered.



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Borehole No.

WS02

Sheet 1 of 1

Project Name:	Clyne Primary School	Project No:	14242 - Clyne	Co-ords:		Hole Type	WLS
Location:	Clyne	Level:		Scale	1:50	Logged By	ADB
Client:	Mr Jim Slater	Dates:	04/07/2017 -				

Water Strikes	Sample and In Situ Testing			Depth (m)	Level (m)	Well	Legend	Stratum Description	
	Depth (m)	Type	Results						
	1.00	SPT	N=5 (1,1/1,1,2,1)	0.07 0.30 0.50 0.70 0.85				MADE GROUND: Tarmac MADE GROUND: (Medium dense), grey, slightly clayey ashy GRAVEL. Gravel is fine to coarse, angular limestone. Contains occasional brick fragments and slag. MADE GROUND: (Soft, grey and orange, gravelly CLAY. Gravel is fine to coarse, subangular to rounded sandstone and mudstone. MADE GROUND: (Loose), dark grey, ashy clayey sandy GRAVELS. Gravel is fine to coarse, angular to subrounded mudstone and sandstone. Contains slag and occasional brick fragments. REWORKED NATURAL: Soft, grey, slightly gravelly CLAY. Soft becoming firm and stiff, orange and brown, gravelly CLAY. Gravel is fine to coarse, subangular to rounded sandstone and mudstone. End of Borehole at 1.900m	1
	1.90	SPT	N=33 (7,8/7,7,8,11)	2.00					2
	2.40	SPT	50 (8,7/50 for 255mm)						3
									4
									5
									6
									7
									8
									9
									10

Remarks: 1] Consistency, strength and density indicators based upon field judgement are in brackets, is for guidance only, and is not in accordance with BS 5930:2015. 2] Borehole terminated at refusal. 3] Borehole backfilled with arisings. 4] No groundwater encountered.

Project Name:	Clyne Primary School	Project No:	14242 - Clyne	Co-ords:		Hole Type	WLS
Location:	Clyne	Level:		Scale	1:50	Logged By	ADB
Client:	Mr Jim Slater	Dates:	04/07/2017 -				

Water Strikes	Sample and In Situ Testing			Depth (m)	Level (m)	Well	Legend	Stratum Description	
	Depth (m)	Type	Results						
				0.03 0.15				MADE GROUND: Tarmac MADE GROUND: (Loose), dark grey, sandy GRAVEL. Gravel is fine to coarse, angular limestone. Contains occasional slag.	
	1.00	SPT	N=29 (5,5/6,8,8,7)	0.90				POSSIBLE REWORKED NATURAL: (Soft to firm), orange brown and grey mottled, gravelly CLAY. Gravel is fine to coarse, subangular to rounded mudstone and sandstone.	1
	2.00	SPT	N=29 (6,6/7,7,8,7)					Stif, brown and grey, gravelly CLAY with occasional cobble. Gravel is fine to coarse, subangular to rounded sandstone and mudstone.	2
	2.50	SPT	N=43 (9,6/10,10,11,12)	2.50				End of Borehole at 2.500m	3
									4
									5
									6
									7
									8
									9
									10

Remarks: 1] Consistency, strength and density indicators based upon field judgement are in brackets, is for guidance only, and is not in accordance with BS 5930:2015. 2] Borehole terminated at refusal. 3] Borehole backfilled with arisings. 4] No groundwater encountered.



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Borehole No.

WS04

Sheet 1 of 1

Project Name:	Clyne Primary School	Project No:	14242 - Clyne	Co-ords:		Hole Type	WLS
Location:	Clyne	Level:		Scale	1:50	Logged By	ADB
Client:	Mr Jim Slater	Dates:	04/07/2017 -				

Water Strikes	Sample and In Situ Testing			Depth (m)	Level (m)	Well	Legend	Stratum Description	
	Depth (m)	Type	Results						
				0.08 0.20				MADE GROUND: Tarmac. MADE GROUND: (Medium dense), dark grey, ashy sandy GRAVEL. Gravel is fine to coarse, angular to subrounded limestone. Contains occasional slag. Firm becoming stiff, orange and brown, very gravelly CLAY with common cobbles. Fine to coarse, subangular to rounded limestone.	1
	1.00	SPT	N=43 (6,10/14,10,9,10)						
				1.55 1.70				Dense, grey, slightly clayey GRAVEL. Gravel is fine to coarse, angular mudstone. End of Borehole at 1.700m	2
	1.70	SPT	N=37 (12,9/8,9,10,10)						
	2.20	SPT	50 (8,8/50 for 170mm)						
									3
									4
									5
									6
									7
									8
									9
									10

Remarks: 1] Consistency, strength and density indicators based upon field judgement are in brackets, is for guidance only, and is not in accordance with BS 5930:2015. 2] Borehole terminated at refusal. 3] Borehole backfilled with arisings. 4] No groundwater encountered.

Project Name:	Clyne Primary School	Project No:	14242 - Clyne	Co-ords:		Hole Type	WLS
Location:	Clyne	Level:				Scale	1:50
Client:	Mr Jim Slater	Dates:	04/07/2017 -			Logged By	ADB

Water Strikes	Sample and In Situ Testing			Depth (m)	Level (m)	Well	Legend	Stratum Description	
	Depth (m)	Type	Results						
				0.05				MADE GROUND: Tarmac.	
				0.20				MADE GROUND: (Medium dense), dark grey, ashy sandy GRAVEL. Gravel is fine to coarse, angular limestone. Contains occasional slag.	
				0.55				MADE GROUND: (Soft to firm), brown, gravelly CLAY. Gravel is fine to coarse, subangular to rounded sandstone.	
	1.00	SPT	N=34 (8,12/8,7,9,10)	0.65				MADE GROUND: (Loose), dark grey, ashy sandy GRAVEL. Gravel is fine to coarse, angular mudstone and limestone. Contains slag.	1
				0.90				POSSIBLE REWORKED NATURAL: (Firm), orange brown, gravelly CLAY. Gravel is fine to coarse, subangular to rounded sandstone.	
	1.50	SPT	50 (10,13/50 for 180mm)	1.50				tuff, grey brown, gravelly CLAY. Gravel is fine to coarse, subangular to rounded sandstone, mudstone and quartz.	2
								End of Borehole at 1.500m	
									3
									4
									5
									6
									7
									8
									9
									10

Remarks: 1] Consistency, strength and density indicators based upon field judgement are in brackets, is for guidance only, and is not in accordance with BS 5930:2015. 2] Borehole terminated at refusal. 3] Borehole backfilled with arisings. 4] No groundwater encountered.



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Borehole No.

WS06

Sheet 1 of 1

Project Name:	Clyne Primary School	Project No:	14242 - Clyne	Co-ords:		Hole Type	WLS
Location:	Clyne	Level:		Scale	1:50	Logged By	ADB
Client:	Mr Jim Slater	Dates:	04/07/2017 -				

Water Strikes	Sample and In Situ Testing			Depth (m)	Level (m)	Well	Legend	Stratum Description	
	Depth (m)	Type	Results						
	0.40	ES		0.07 0.20				MADE GROUND: Tarmac. MADE GROUND: (Medium dense), dark grey, ashy sandy GRAVEL. Gravel is fine to coarse, subangular to rounded limestone and occasional slag. Soft to firm, orange brown and grey, gravelly CLAY. Gravel is fine to coarse, subangular to rounded sandstone and mudstone.	1
	1.00	SPT	N=8 (1,0/2,2,2,2)						
	1.50	SPT	50 (10,14/50 for 160mm)	1.50				End of Borehole at 1.500m	2
									3
									4
									5
									6
									7
									8
									9
									10

Remarks: 1] Consistency, strength and density indicators based upon field judgement are in brackets, is for guidance only, and is not in accordance with BS 5930:2015. 2] Borehole terminated at refusal. 3] Borehole backfilled with arisings. 4] No groundwater encountered.



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Borehole No.

WS07

Sheet 1 of 1

Project Name:	Clyne Primary School	Project No:	14242 - Clyne	Co-ords:		Hole Type	WLS
Location:	Clyne	Level:		Scale	1:50	Logged By	ADB
Client:	Mr Jim Slater	Dates:	04/07/2017 -				

Water Strikes	Sample and In Situ Testing			Depth (m)	Level (m)	Well	Legend	Stratum Description	
	Depth (m)	Type	Results						
	0.30	ES		0.06 0.25 0.40				MADE GROUND: Tarmac. MADE GROUND: (Medium dense), dark grey, ashy sandy GRAVEL. Gravel is fine to coarse, angular to subrounded limestone and slag. Firm, orange brown, slightly gravelly CLAY. Gravel is fine to coarse, subangular to rounded sandstone and mudstone.	
	1.00	SPT	50 (8,10/50 for 245mm)	1.00				Firm, grey brown, gravelly CLAY with occasional cobble. Gravel is fine to coarse, subangular to rounded sandstone and mudstone. End of Borehole at 1.000m	1
									2
									3
									4
									5
									6
									7
									8
									9
									10

Remarks: 1] Consistency, strength and density indicators based upon field judgement are in brackets, is for guidance only, and is not in accordance with BS 5930:2015. 2] Borehole terminated at refusal. 3] Borehole backfilled with arisings. 4] No groundwater encountered.



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Borehole No.

WS08

Sheet 1 of 1

Project Name:	Clyne Primary School	Project No:	14242 - Clyne	Co-ords:		Hole Type	WLS
Location:	Clyne	Level:		Scale	1:50	Logged By	ADB
Client:	Mr Jim Slater	Dates:	04/07/2017 -				

Water Strikes	Sample and In Situ Testing			Depth (m)	Level (m)	Well	Legend	Stratum Description	
	Depth (m)	Type	Results						
				0.08 0.30				MADE GROUND: Tarmac. MADE GROUND: Soft to firm, dark grey brown, gravelly CLAY. Gravel is fine to coarse, subangular to rounded sandstone. NO RECOVERY (Large cobble blocked liner)	
	1.00	SPT	N=2 (1,0/1,0,1,0)	1.00				MADE GROUND: Very soft, dark grey brown, gravelly CLAY. Gravel is fine to coarse, subangular to rounded sandstone. Contains brick and small ashy patches.	1
	2.00	SPT	N=23 (3,2/2,3,6,12)	1.50				POSSIBLE REWORKED NATURAL: Firm to stiff, orange brown, gravelly CLAY. Gravel is fine to coarse, subangular to rounded sandstone and mudstone.	2
	2.80	SPT	50 (7,10/50 for 160mm)	2.70 2.80				Firm to stiff, grey brown with black inclusions, gravelly CLAY. Gravel is fine to coarse, subangular to rounded sandstone. End of Borehole at 2.800m	3
									4
									5
									6
									7
									8
									9
									10

Remarks: 1] Consistency, strength and density indicators based upon field judgement are in brackets, is for guidance only, and is not in accordance with BS 5930:2015. 2] Borehole terminated at refusal. 3] Borehole backfilled with arisings. 4] No groundwater encountered.

Project Name:	Clyne Primary School	Project No:	14242 - Clyne	Co-ords:		Hole Type	WLS
Location:	Clyne	Level:		Scale	1:50	Logged By	ADB
Client:	Mr Jim Slater	Dates:	04/07/2017 -				

Water Strikes	Sample and In Situ Testing			Depth (m)	Level (m)	Well	Legend	Stratum Description	
	Depth (m)	Type	Results						
	0.07 0.25							MADE GROUND: Tarmac.	
								MADE GROUND: (Medium dense), dark brown, ashy sandy GRAVEL. Gravel is fine to coarse, angular to subrounded limestone with occasional slag.	
	1.00	SPT	N=3 (2,2/1,1,1,0)	1.00				MADE GROUND: (Medium dense), light blue grey, GRAVEL with common cobbles. Gravel is fine to coarse, angular vesicular slag.	1
	2.00	SPT	N=24 (4,3/4,4,6,10)	2.00				MADE GROUND: Soft becoming firm to stiff, brown, gravelly CLAY with occasional cobble. Gravel is fine to coarse, angular to subrounded mudstone and sandstone.	2
	2.50	SPT	50 (9,11/50 for 170mm)					End of Borehole at 2.000m	2
									3
									4
									5
									6
									7
									8
									9
									10

Remarks: 1] Consistency, strength and density indicators based upon field judgement are in brackets, is for guidance only, and is not in accordance with BS 5930:2015. 2] Borehole terminated at refusal. 3] Borehole backfilled with arisings. 4] Small groundwater seepage at 1.30m. 5] Significant collapse of borehole walls.



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Borehole No.

WS10

Sheet 1 of 1

Project Name:	Clyne Primary School	Project No:	14242 - Clyne	Co-ords:		Hole Type	WLS
Location:	Clyne	Level:		Scale	1:50	Logged By	ADB
Client:	Mr Jim Slater	Dates:	04/07/2017 -				

Water Strikes	Sample and In Situ Testing			Depth (m)	Level (m)	Well	Legend	Stratum Description	
	Depth (m)	Type	Results						
				0.04 0.20				MADE GROUND: Tarmac. MADE GROUND: (Medium dense), dark grey, ashy sandy GRAVEL. Fine to coarse, angular to subrounded limestone and occasional slag. (Soft to firm, brown and orange mottled, gravelly CLAY. Gravel is fine to coarse, subangular to rounded sandstone.	
	1.00 1.00	D SPT	50 (9,8/50 for 255mm)	1.00				End of Borehole at 1.000m	1
									2
									3
									4
									5
									6
									7
									8
									9
									10

Remarks: 1] Consistency, strength and density indicators based upon field judgement are in brackets, is for guidance only, and is not in accordance with BS 5930:2015. 2] Borehole terminated at refusal. 3] Borehole backfilled with arisings. 4] No groundwater encountered.



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Borehole No.

WS11

Sheet 1 of 1

Project Name:	Clyne Primary School	Project No:	14242 - Clyne	Co-ords:		Hole Type	WLS
Location:	Clyne	Level:				Scale	1:50
Client:	Mr Jim Slater	Dates:	04/07/2017 -			Logged By	ADB

Water Strikes	Sample and In Situ Testing			Depth (m)	Level (m)	Well	Legend	Stratum Description	
	Depth (m)	Type	Results						
	0.30	ES		0.05 0.20				MADE GROUND: Tarmac. MADE GROUND: (Medium dense), dark grey, sandy GRAVEL. Gravel is fine to coarse, angular to subrounded limestone. POSSIBLE REWORKED NATURAL: Soft, grey and orange brown, gravelly CLAY. Gravel is fine to coarse, subangular to rounded sandstone. (Poor Recovery)	1
	1.00	SPT	N=7 (1,1/2,1,2,2)						
	1.50	SPT	50 (10,12/50 for 180mm)	1.50				End of Borehole at 1.500m	2
									3
									4
									5
									6
									7
									8
									9
									10

Remarks: 1] Consistency, strength and density indicators based upon field judgement are in brackets, is for guidance only, and is not in accordance with BS 5930:2015. 2] Borehole terminated at refusal. 3] Borehole backfilled with arisings. 4] No groundwater encountered.

Project Name:	Clyne Primary School	Project No:	14242 - Clyne	Co-ords:		Hole Type	WLS
Location:	Clyne	Level:		Scale	1:50	Logged By	ADB
Client:	Mr Jim Slater	Dates:	04/07/2017 -				

Water Strikes	Sample and In Situ Testing			Depth (m)	Level (m)	Well	Legend	Stratum Description	
	Depth (m)	Type	Results						
	0.30 0.35							MADE GROUND: (Soft), brown, slightly gravelly CLAY. Gravel is fine to coarse, subangular to rounded sandstone and mudstone. Fine roots.	
	1.00	SPT	N=5 (1,0/1,1,1,2)					MADE GROUND: (Loose), dark grey black, ashy SAND. Sand is fine to coarse, subangular to rounded coal. Soft, brown, gravelly CLAY. Gravel is fine to coarse, subangular to rounded sandstone.	1
	1.50							(Firm), orange and grey, silty CLAY. Occasional fine to coarse, subangular to rounded sandstone.	
	1.80							Firm to sti, orange grey and brown mottled with black inclusions, gravelly CLAY. Gravel is fine to coarse, subangular to rounded sandstone.	2
	2.00	SPT	N=48 (8,8/9,8,14,17)	2.00				End of Borehole at 2.000m	
									3
									4
									5
									6
									7
									8
									9
									10

Remarks: 1] Consistency, strength and density indicators based upon field judgement are in brackets, is for guidance only, and is not in accordance with BS 5930:2015. 2] Borehole terminated at refusal. 3] Borehole backfilled with arisings. 4] No groundwater encountered.



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Borehole No.

WS13

Sheet 1 of 1

Project Name:	Clyne Primary School	Project No:	14242 - Clyne	Co-ords:		Hole Type	WLS
Location:	Clyne	Level:		Scale	1:50	Logged By	ADB
Client:	Mr Jim Slater	Dates:	04/07/2017 -				

Water Strikes	Sample and In Situ Testing			Depth (m)	Level (m)	Well	Legend	Stratum Description	
	Depth (m)	Type	Results						
				0.50				MADE GROUND: (Soft), brown, slightly gravelly CLAY. Gravel is fine to coarse, subangular to rounded sandstone. Occasional coal.	
	1.00	SPT	N=12 (2, 1/2, 2, 2, 6)					Soft to firm, grey brown and orange mottled, gravelly CLAY. Gravel is fine to coarse, subangular to subrounded sandstone, mudstone and occasional coal.	1
	1.70	SPT	50 (9, 8/50 for 265mm)	1.70				End of Borehole at 1.700m	2
									3
									4
									5
									6
									7
									8
									9
									10

Remarks: 1] Consistency, strength and density indicators based upon field judgement are in brackets, is for guidance only, and is not in accordance with BS 5930:2015. 2] Borehole terminated at refusal. 3] Borehole backfilled with arisings. 4] No groundwater encountered.



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5 Deryn Court, Wharfedale Road
Pentwyn, Cardiff
CF23 7HA

Trial Pit No:

SA01

Sheet 1 of 1

Project Name: Clyne Primary School

Project No:
14242 - Clyne

Co-ords: -
Level:

Date:
06/07/2017

Location: Clyne

Dimensions:
3.70
Depth 2.70 0.65

Scale:
1:25

Client: Mr Jim Slater

Logged:
MW

Water Strike	Samples & In Situ Testing			Depth (m)	Level (m)	Legend	Stratum Description	
	Depth	Type	Results					
▼				0.20			Long grass over dark brown organic-rich silty SAND. Dry to moist.	
				0.40			[Medium dense] black very gravelly ashy SAND. Gravel is angular clinker.	
				1.40			Firm grey mottled orangish brown sandy slightly gravelly CLAY with medium cobble content. Gravel and cobbles are angular sandstone. Moist.	1
				2.00			Firm brown mottled grey and orangish brown slightly sandy slightly gravelly CLAY. Gravel is angular sandstone. Moist.	2
				2.70			[Medium dense] grey clayey gravelly SAND. Gravel is fine to medium mudstone. Moist to wet.	2
							End of Pit at 2.700m	3
								4
								5

Stability: Stable

Remarks: 1] Consistency, strength and density indicators are based upon field judgement. 2] Density indicator is in brackets and is for guidance only, and is not in accordance with BS 5930:2015. 3] Trial pit terminated to perform infiltration test. 4] Trial pit backfilled with arisings on completion of test. 5] Very slow inflow from 2.0m depth.



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Trial Pit No:

SA02

Sheet 1 of 1

Project Name: Clyne Primary School

Project No:
14242 - Clyne

Co-ords: -
Level:

Date:
06/07/2017

Location: Clyne

Dimensions:
2.50
Depth 1.95 0.65

Scale:
1:25

Logged:
MW

Client: Mr Jim Slater

Water Strike	Samples & In Situ Testing			Depth (m)	Level (m)	Legend	Stratum Description	
	Depth	Type	Results					
				0.20			Long grass over dark brown organic-rich silty SAND. Dry to moist.	
				0.30			[Medium dense] black very gravelly ashy SAND. Gravel is angular clinker.	
							[Dense] brown mottled grey clayey sandy GRAVEL with medium cobble content and low boulder content. Gravel, cobbles and boulders are angular to subangular sandstone. Boulders up to 600mm dimensions. Moist.	
								1
				1.95			End of Pit at 1.950m	2
								3
								4
								5

Stability: Stable.

Remarks: 1] Consistency, strength and density indicators are based upon field judgement. 2] Density indicator is in brackets and is for guidance only, and is not in accordance with BS 5930:2015. 3] Trial pit terminated to perform infiltration test. 4] Trial pit backfilled with arisings on completion of test.



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Pentwyn, Cardiff
CF23 7HA

Trial Pit No:

TP01

Sheet 1 of 1

Project Name: Clyne Primary School

Project No:
14242 - Clyne

Co-ords: -
Level:

Date:
06/07/2017

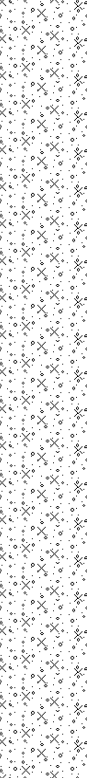
Location: Clyne

Dimensions: 2.60
Depth 2.80 0.65

Scale:
1:25

Logged:
MW

Client: Mr Jim Slater

Water Strike	Samples & In Situ Testing			Depth (m)	Level (m)	Legend	Stratum Description
	Depth	Type	Results				
	0.10	ES		0.20			Long grass over brownish grey organic-rich slightly sandy CLAY. Dry to moist.
							[Dense] greyish brown mottled orangish brown silty very sandy GRAVEL with high cobble content and low boulder content. Gravel, cobbles and boulders are angular to subrounded sandstone. Boulders up to 400mm dimensions. Moist.
				2.80			Becoming very dense from 2.5m depth.
							End of Pit at 2.800m

Stability: Slightly unstable with small collapses of sides.

Remarks: 1] Consistency, strength and density indicators are based upon field judgement. 2] Density indicator is in brackets and is for guidance only, and is not in accordance with BS 5930:2015. 3] Trial pit terminated due to hard strata and very slow progress. 4] Trial pit backfilled with arisings. 5] Very slow inflow from 2.0m depth.



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Trial Pit No:
TP02
Sheet 1 of 1

Project Name: Clyne Primary School	Project No: 14242 - Clyne	Co-ords: - Level:	Date: 06/07/2017
------------------------------------	---------------------------	----------------------	------------------

Location: Clyne	Dimensions: 2.60	Scale: 1:25
Client: Mr Jim Slater	Depth 2.10	Logged: MW

Water Strike	Samples & In Situ Testing			Depth (m)	Level (m)	Legend	Stratum Description
	Depth	Type	Results				
				0.20			Long grass over brownish grey organic-rich slightly sandy CLAY. Dry to moist.
				0.30			[Medium dense] black very gravelly ashy SAND. Gravel is angular clinker and brick.
							[Dense] light brownish grey mottled orangish brown clayey sandy GRAVEL with medium cobble content. Gravel and cobbles are angular to subrounded sandstone. Moist to slightly wet.
				2.10			Becoming very dense from 2.0m depth.
							End of Pit at 2.100m

Stability: Spalling of sides.

Remarks: 1] Consistency, strength and density indicators are based upon field judgement. 2] Density indicator is in brackets and is for guidance only, and is not in accordance with BS 5930:2015. 3] Trial pit terminated due to hard strata and very slow progress. 4] Trial pit backfilled with arisings.



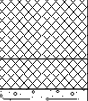
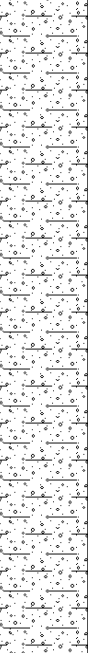
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CF23 7HA

Trial Pit No:
TP03
Sheet 1 of 1

Project Name: Clyne Primary School	Project No: 14242 - Clyne	Co-ords: - Level:	Date: 06/07/2017
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Location: Clyne	Dimensions: 2.50 Depth 2.50	Scale: 1:25 Logged: MW
-----------------	--------------------------------	---------------------------

Water Strike	Samples & In Situ Testing			Depth (m)	Level (m)	Legend	Stratum Description
	Depth	Type	Results				
	0.25	ES		0.20 0.30		 	Long grass over brownish grey organic-rich slightly sandy CLAY. Dry to moist. [Medium dense] black very gravelly ashy SAND. Gravel is angular clinker and brick. [Dense] grey mottled brownish orange clayey sandy GRAVEL with medium cobble and boulder content. Gravel, cobbles and boulders are angular to subangular and tabular sandstone. Moist.
				2.50			End of Pit at 2.500m

Stability: Stable.

Remarks: 1] Consistency, strength and density indicators are based upon field judgement. 2] Density indicator is in brackets and is for guidance only, and is not in accordance with BS 5930:2015. 3] Trial pit terminated due to hard strata and very slow progress. 4] Trial pit backfilled with arisings.

Project Name: Clyne Primary School	Project No: 14242 - Clyne	Co-ords: - Level:	Date: 06/07/2017
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Location: Clyne	Dimensions: 2.50 Depth 2.40	Scale: 1:25 Logged: MW
Client: Mr Jim Slater		

Water Strike	Samples & In Situ Testing			Depth (m)	Level (m)	Legend	Stratum Description
	Depth	Type	Results				
	0.10	ES		0.20			Long grass over brownish grey organic-rich slightly sandy CLAY. Dry to moist.
				0.70			[Medium dense] black very gravelly ashy SAND. Gravel is angular clinker and brick.
				1.90			Firm grey slightly sandy slightly gravelly CLAY with low cobble content. Gravel and cobbles are angular to subangular sandstone. Moist.
				2.40			[Dense to very dense] grey mottled brown clayey very sandy GRAVEL with medium cobble content. Gravel and cobbles are subrounded to angular sandstone. Moist.
							End of Pit at 2.400m

Stability: Spalling of sides.

Remarks: 1] Consistency, strength and density indicators are based upon field judgement. 2] Density indicator is in brackets and is for guidance only, and is not in accordance with BS 5930:2015. 3] Trial pit terminated due to hard strata and very slow progress. 4] Trial pit backfilled with arisings.

ANNEX F
Laboratory Soil and Leachate Chemical Test Results

Concept Life Sciences

Certificate of Analysis

3 Crittall Drive
Springwood Industrial
Estate
Braintree
Essex
CM7 2RT
Tel : 01376 560120
Fax : 01376 552923

Report Number: 666518-1

Date of Report: 12-Jul-2017

Customer: Terra Firma (Wales) Ltd.
5 Deryn Court
Wharfedale Road
Pentwyn
Cardiff
CF23 7HA

Customer Contact: Mr Alan Beattie

Customer Job Reference: 14242

Customer Purchase Order: 14242AB

Customer Site Reference: Clyne Primary School

Date Job Received at Concept: 07-Jul-2017

Date Analysis Started: 07-Jul-2017

Date Analysis Completed: 12-Jul-2017

The results reported relate to samples received in the laboratory and may not be representative of a whole batch.

Opinions and interpretations expressed herein are outside the scope of UKAS accreditation

This report should not be reproduced except in full without the written approval of the laboratory

Tests covered by this certificate were conducted in accordance with Concept SOPs

All results have been reviewed in accordance with Section 25 of the Concept, Analytical Quality Quality Manual



Report checked
and authorised by :
Claire Brown Crociquia
Customer Service Manager

Issued by :
Claire Brown Crociquia
Customer Service Manager



Concept Reference: 666518
Project Site: Clyne Primary School
Customer Reference: 14242

Soil
Analysed as Soil
Terra Firma (Wales) Suite 1b inc Cr VI and Cr III

Concept Reference					666518 001	666518 002	666518 003	666518 004
Customer Sample Reference					WS01 @ 0.60m	WS06 @ 0.40m	WS07 @ 0.30m	WS11 @ 0.30m
Sample Description (Laboratory)					Mid brown sandy clay with black patches	Mid brown sandy clay	Sand coloured sandy soil	Sandy clay with black patches
Date Sampled					04-JUL-2017	04-JUL-2017	04-JUL-2017	04-JUL-2017
Matrix Class					Clay	Clay	Sandy Soil	Clay
Determinand	Method	Test Sample	LOD	Units				
Moisture @105C	T162	AR	0.1	%	18	13	22	19
Retained on 2mm	T2	A40	0.1	%	35.8	33.0	32.5	32.6
Asbestos ID	T27	A40			Asbestos not detected	Asbestos not detected	Asbestos not detected	Asbestos not detected
Arsenic	T257	A40	2	mg/kg	18	29	13	44
Cadmium	T257	A40	0.1	mg/kg	<0.1	0.3	<0.1	0.5
Chromium	T257	A40	0.5	mg/kg	21	18	24	14
Chromium (trivalent)	T85	A40	2	mg/kg	21	18	24	14
Chromium VI	T6	A40	1	mg/kg	<1	<1	<1	<1
Copper	T257	A40	2	mg/kg	30	35	27	43
Lead	T257	A40	2	mg/kg	23	32	25	47
Mercury	T257	A40	0.5	mg/kg	<0.5	<0.5	<0.5	<0.5
Nickel	T257	A40	0.5	mg/kg	23	25	17	20
Selenium	T257	A40	3	mg/kg	<3	<3	<3	<3
Zinc	T6	A40	1	mg/kg	60	84	62	120
pH	T7	A40			5.3	7.5	7.1	7.1
Cyanide(Total)	T921	AR	1	mg/kg	<1	<1	<1	<1
Soil Organic Matter	T287	A40	0.1	%	2.6	3.3	2.9	11
SO4(Total)	T102	A40	0.02	%	0.02	0.02	0.06	0.03
TPH (C5-C6 aliphatic)	T54	AR	0.10	mg/kg	<0.10	<0.10	<0.10	<0.10
TPH (C6-C8 aliphatic)	T54	AR	0.10	mg/kg	<0.10	<0.10	<0.10	<0.10
TPH (C8-C10 aliphatic)	T54	AR	0.10	mg/kg	<0.10	<0.10	<0.10	<0.10
TPH (C10-C12 aliphatic)	T219	AR	2	mg/kg	<2	<2	<2	<2
TPH (C12-C16 aliphatic)	T219	AR	2	mg/kg	<2	<2	<2	<2
TPH (C16-C21 aliphatic)	T219	AR	2	mg/kg	<2	<2	<2	<2
TPH (C21-C35 aliphatic)	T219	AR	2	mg/kg	<2	<2	<2	3
TPH (C35-C40 aliphatic)	T219	AR	2	mg/kg	<2	<2	<2	5
TPH (C6-C7 aromatic)	T54	AR	0.10	mg/kg	<0.10	<0.10	<0.10	<0.10
TPH (C7-C8 aromatic)	T54	AR	0.10	mg/kg	<0.10	<0.10	<0.10	<0.10
TPH (C8-C10 aromatic)	T54	AR	0.10	mg/kg	<0.10	<0.10	<0.10	<0.10
TPH (C10-C12 aromatic)	T219	AR	2	mg/kg	<2	<2	<2	<2
TPH (C12-C16 aromatic)	T219	AR	2	mg/kg	<2	<2	<2	4
TPH (C16-C21 aromatic)	T219	AR	2	mg/kg	<2	<2	<2	32
TPH (C21-C35 aromatic)	T219	AR	2	mg/kg	<2	<2	<2	76
TPH (C35-C40 aromatic)	T219	AR	2	mg/kg	<2	<2	<2	3

Concept Reference:	666518
Project Site:	Clyne Primary School
Customer Reference:	14242
Soil	Analysed as Soil
PAHs and Phenols	

Concept Reference					666518 001	666518 002	666518 003	666518 004
Customer Sample Reference					WS01 @ 0.60m	WS06 @ 0.40m	WS07 @ 0.30m	WS11 @ 0.30m
Sample Description (Laboratory)					Mid brown sandy clay with black patches	Mid brown sandy clay	Sand coloured sandy soil	Sandy clay with black patches
Date Sampled					04-JUL-2017	04-JUL-2017	04-JUL-2017	04-JUL-2017
Matrix Class					Clay	Clay	Sandy Soil	Clay
Determinand	Method	Test Sample	LOD	Units				
Naphthalene	T16	AR	0.1	mg/kg	<0.1	<0.1	<0.1	0.5
Acenaphthylene	T16	AR	0.1	mg/kg	<0.1	<0.1	<0.1	0.6
Acenaphthene	T16	AR	0.1	mg/kg	<0.1	<0.1	<0.1	<0.1
Fluorene	T16	AR	0.1	mg/kg	<0.1	<0.1	<0.1	0.2
Phenanthrene	T16	AR	0.1	mg/kg	<0.1	<0.1	0.2	4.3
Anthracene	T16	AR	0.1	mg/kg	<0.1	<0.1	<0.1	1.2
Fluoranthene	T16	AR	0.1	mg/kg	<0.1	<0.1	0.2	8.4
Pyrene	T16	AR	0.1	mg/kg	<0.1	<0.1	<0.1	5.7
Benzo(a)Anthracene	T16	AR	0.1	mg/kg	<0.1	<0.1	<0.1	4.1
Chrysene	T16	AR	0.1	mg/kg	<0.1	<0.1	<0.1	3.9
Benzo(b)fluoranthene	T16	AR	0.1	mg/kg	<0.1	<0.1	<0.1	2.5
Benzo(k)fluoranthene	T16	AR	0.1	mg/kg	<0.1	<0.1	<0.1	2.5
Benzo(a)Pyrene	T16	AR	0.1	mg/kg	<0.1	<0.1	<0.1	2.0
Indeno(123-cd)Pyrene	T16	AR	0.1	mg/kg	<0.1	<0.1	<0.1	1.4
Dibenzo(ah)Anthracene	T16	AR	0.1	mg/kg	<0.1	<0.1	<0.1	0.4
Benzo(ghi)Perylene	T16	AR	0.1	mg/kg	<0.1	<0.1	<0.1	1.3
PAH(total)	T16	AR	0.1	mg/kg	<0.1	<0.1	0.4	39
Phenols(Mono)	T921	AR	1	mg/kg	<1	<1	<1	<1

Index to symbols used in 666518-1

Value	Description
A40	Assisted dried < 40C
AR	As Received
S	Analysis was subcontracted
M	Analysis is MCERTS accredited
U	Analysis is UKAS accredited
N	Analysis is not UKAS accredited

Notes

Asbestos subcontracted to REC Limited
Reported results on as received samples are corrected to a 105 degree centigrade dry weight basis except TPH c5-c40 aro/ali split
Retained on 2mm is removed before analysis

Method Index

Value	Description
T85	Calc
T102	ICP/OES (HCl extract)
T162	Grav (1 Dec) (105 C)
T921	Colorimetry (CF) (MCERT)
T16	GC/MS
T287	Calc TOC/0.58
T219	GC/FID (SE)
T6	ICP/OES
T54	GC/MS (Headspace)
T257	ICP/OES (SIM) (Aqua Regia Extraction)
T27	PLM
T7	Probe
T2	Grav

Accreditation Summary

Determinand	Method	Test Sample	LOD	Units	Symbol	Concept References
Moisture @105C	T162	AR	0.1	%	N	001-004
Retained on 2mm	T2	A40	0.1	%	N	001-004
Asbestos ID	T27	A40			SU	001-004
Arsenic	T257	A40	2	mg/kg	M	001-004
Cadmium	T257	A40	0.1	mg/kg	M	001-004
Chromium	T257	A40	0.5	mg/kg	M	001-004
Chromium (trivalent)	T85	A40	2	mg/kg	N	001-004
Chromium VI	T6	A40	1	mg/kg	N	001-004
Copper	T257	A40	2	mg/kg	M	001-004
Lead	T257	A40	2	mg/kg	M	001-004
Mercury	T257	A40	0.5	mg/kg	U	001-004
Nickel	T257	A40	0.5	mg/kg	M	001-004
Selenium	T257	A40	3	mg/kg	U	001-004
Zinc	T6	A40	1	mg/kg	M	001-004
pH	T7	A40			M	001-004
Cyanide(Total)	T921	AR	1	mg/kg	M	001-004
Soil Organic Matter	T287	A40	0.1	%	N	001-004
SO4(Total)	T102	A40	0.02	%	M	001-004
TPH (C5-C6 aliphatic)	T54	AR	0.10	mg/kg	N	001-004
TPH (C6-C8 aliphatic)	T54	AR	0.10	mg/kg	N	001-004
TPH (C8-C10 aliphatic)	T54	AR	0.10	mg/kg	N	001-004
TPH (C10-C12 aliphatic)	T219	AR	2	mg/kg	N	001-004
TPH (C12-C16 aliphatic)	T219	AR	2	mg/kg	N	001-004
TPH (C16-C21 aliphatic)	T219	AR	2	mg/kg	N	001-004
TPH (C21-C35 aliphatic)	T219	AR	2	mg/kg	N	001-004
TPH (C35-C40 aliphatic)	T219	AR	2	mg/kg	N	001-004
TPH (C6-C7 aromatic)	T54	AR	0.10	mg/kg	N	001-004
TPH (C7-C8 aromatic)	T54	AR	0.10	mg/kg	N	001-004
TPH (C8-C10 aromatic)	T54	AR	0.10	mg/kg	N	001-004
TPH (C10-C12 aromatic)	T219	AR	2	mg/kg	N	001-004
TPH (C12-C16 aromatic)	T219	AR	2	mg/kg	N	001-004
TPH (C16-C21 aromatic)	T219	AR	2	mg/kg	N	001-004
TPH (C21-C35 aromatic)	T219	AR	2	mg/kg	N	001-004
TPH (C35-C40 aromatic)	T219	AR	2	mg/kg	N	001-004
Naphthalene	T16	AR	0.1	mg/kg	U	001-004
Acenaphthylene	T16	AR	0.1	mg/kg	U	001-004
Acenaphthene	T16	AR	0.1	mg/kg	M	001-004
Fluorene	T16	AR	0.1	mg/kg	M	001-004
Phenanthrene	T16	AR	0.1	mg/kg	U	001-004
Anthracene	T16	AR	0.1	mg/kg	M	001-004
Fluoranthene	T16	AR	0.1	mg/kg	N	001-004
Pyrene	T16	AR	0.1	mg/kg	N	001-004
Benzo(a)Anthracene	T16	AR	0.1	mg/kg	M	001-004
Chrysene	T16	AR	0.1	mg/kg	M	001-004
Benzo(b)fluoranthene	T16	AR	0.1	mg/kg	U	001-004
Benzo(k)fluoranthene	T16	AR	0.1	mg/kg	N	001-004
Benzo(a)Pyrene	T16	AR	0.1	mg/kg	M	001-004
Indeno(123-cd)Pyrene	T16	AR	0.1	mg/kg	M	001-004
Dibenzo(ah)Anthracene	T16	AR	0.1	mg/kg	M	001-004
Benzo(ghi)Perylene	T16	AR	0.1	mg/kg	M	001-004
PAH(total)	T16	AR	0.1	mg/kg	U	001-004
Phenols(Mono)	T921	AR	1	mg/kg	M	001-004

Concept Life Sciences

Certificate of Analysis

Report Number: 667056-1

Date of Report: 18-Jul-2017

Customer: Terra Firma (Wales) Ltd.
5 Deryn Court
Wharfedale Road
Pentwyn
Cardiff
CF23 7HA

Customer Contact: Mr Alan Beattie

Customer Job Reference: 14242

Customer Purchase Order: 14242AB

Customer Site Reference: Clyne Primary School

Date Job Received at Concept: 10-Jul-2017

Date Analysis Started: 11-Jul-2017

Date Analysis Completed: 18-Jul-2017

The results reported relate to samples received in the laboratory and may not be representative of a whole batch.

Opinions and interpretations expressed herein are outside the scope of UKAS accreditation

This report should not be reproduced except in full without the written approval of the laboratory

Tests covered by this certificate were conducted in accordance with Concept SOPs

All results have been reviewed in accordance with Section 25 of the Concept, Analytical Quality Quality Manual



Report checked
and authorised by :
Aislinn Arthey
Trainee Project Manager

Issued by :
Aislinn Arthey
Trainee Project Manager



Concept Reference: 667056
Project Site: Clyne Primary School
Customer Reference: 14242

Soil
Analysed as Soil
Terra Firma (Wales) Suite 1b inc Cr VI and Cr III

Concept Reference					667056 001	667056 002	667056 003	667056 004
Customer Sample Reference					TP1 @ 0.10m	TP3 @ 0.25m	TP4 @ 0.10m	TP5 @ 0.30m
Sample Description (Laboratory)					Brown topsoil	Black ash brick fill	Brown topsoil	Black ash brick fill
Date Sampled					06-JUL-2017	06-JUL-2017	06-JUL-2017	06-JUL-2017
Matrix Class					Topsoil	Fill	Topsoil	Fill
Determinand	Method	Test Sample	LOD	Units				
Moisture @105C	T162	AR	0.1	%	33	25	30	20
Retained on 2mm	T2	A40	0.1	%	<0.1	5.5	<0.1	37.0
Asbestos ID	T27	A40			Asbestos not detected	Asbestos not detected	Asbestos not detected	Asbestos not detected
Arsenic	T257	A40	2	mg/kg	23	83	19	57
Cadmium	T257	A40	0.1	mg/kg	0.4	0.5	0.3	0.3
Chromium	T257	A40	0.5	mg/kg	14	13	14	15
Chromium (trivalent)	T85	A40	2	mg/kg	14	13	14	15
Chromium VI	T6	A40	1	mg/kg	<1	<1	<1	<1
Copper	T257	A40	2	mg/kg	37	110	29	100
Lead	T257	A40	2	mg/kg	69	23	57	20
Mercury	T257	A40	0.5	mg/kg	<0.5	<0.5	<0.5	<0.5
Nickel	T257	A40	0.5	mg/kg	19	49	14	46
Selenium	T257	A40	3	mg/kg	<3	<3	<3	<3
Zinc	T6	A40	1	mg/kg	89	56	74	54
pH	T7	A40			5.6	6.8	5.5	5.4
Cyanide(Total)	T921	AR	1	mg/kg	<1	<1	<1	<1
Soil Organic Matter	T287	A40	0.1	%	8.8	86	9.1	73
SO4(Total)	T102	A40	0.02	%	0.08	0.18	0.10	0.23
TPH (C5-C6 aliphatic)	T54	AR	0.10	mg/kg	<0.10	<0.10	<0.10	<0.10
TPH (C6-C8 aliphatic)	T54	AR	0.10	mg/kg	<0.10	<0.10	<0.10	<0.10
TPH (C8-C10 aliphatic)	T54	AR	0.10	mg/kg	<0.10	<0.10	<0.10	<0.10
TPH (C10-C12 aliphatic)	T219	AR	2	mg/kg	<2	<2	<2	<2
TPH (C12-C16 aliphatic)	T219	AR	2	mg/kg	<2	<2	<2	<2
TPH (C16-C21 aliphatic)	T219	AR	2	mg/kg	<2	<2	<2	<2
TPH (C21-C35 aliphatic)	T219	AR	2	mg/kg	<2	<2	<2	<2
TPH (C35-C40 aliphatic)	T219	AR	2	mg/kg	<2	<2	<2	<2
TPH (C6-C7 aromatic)	T54	AR	0.10	mg/kg	<0.10	<0.10	<0.10	<0.10
TPH (C7-C8 aromatic)	T54	AR	0.10	mg/kg	<0.10	<0.10	<0.10	<0.10
TPH (C8-C10 aromatic)	T54	AR	0.10	mg/kg	<0.10	<0.10	<0.10	<0.10
TPH (C10-C12 aromatic)	T219	AR	2	mg/kg	<2	<2	<2	<2
TPH (C12-C16 aromatic)	T219	AR	2	mg/kg	<2	<2	<2	<2
TPH (C16-C21 aromatic)	T219	AR	2	mg/kg	3	<2	3	3
TPH (C21-C35 aromatic)	T219	AR	2	mg/kg	7	5	12	9
TPH (C35-C40 aromatic)	T219	AR	2	mg/kg	<2	<2	<2	<2

Concept Reference:	667056
Project Site:	Clyne Primary School
Customer Reference:	14242
Soil	Analysed as Soil
PAHs and Phenols	

Concept Reference					667056 001	667056 002	667056 003	667056 004
Customer Sample Reference					TP1 @ 0.10m	TP3 @ 0.25m	TP4 @ 0.10m	TP5 @ 0.30m
Sample Description (Laboratory)					Brown topsoil	Black ash brick fill	Brown topsoil	Black ash brick fill
Date Sampled					06-JUL-2017	06-JUL-2017	06-JUL-2017	06-JUL-2017
Matrix Class					Topsoil	Fill	Topsoil	Fill
Determinand	Method	Test Sample	LOD	Units				
Naphthalene	T16	AR	0.1	mg/kg	<0.1	<0.1	<0.1	<0.1
Acenaphthylene	T16	AR	0.1	mg/kg	<0.1	<0.1	<0.1	<0.1
Acenaphthene	T16	AR	0.1	mg/kg	<0.1	<0.1	<0.1	<0.1
Fluorene	T16	AR	0.1	mg/kg	<0.1	<0.1	<0.1	<0.1
Phenanthrene	T16	AR	0.1	mg/kg	<0.1	<0.1	<0.1	0.2
Anthracene	T16	AR	0.1	mg/kg	<0.1	<0.1	<0.1	<0.1
Fluoranthene	T16	AR	0.1	mg/kg	<0.1	<0.1	0.2	<0.1
Pyrene	T16	AR	0.1	mg/kg	<0.1	<0.1	<0.1	<0.1
Benzo(a)Anthracene	T16	AR	0.1	mg/kg	<0.1	<0.1	<0.1	<0.1
Chrysene	T16	AR	0.1	mg/kg	<0.1	<0.1	<0.1	<0.1
Benzo(b)fluoranthene	T16	AR	0.1	mg/kg	<0.1	<0.1	<0.1	<0.1
Benzo(k)fluoranthene	T16	AR	0.1	mg/kg	<0.1	<0.1	<0.1	<0.1
Benzo(a)Pyrene	T16	AR	0.1	mg/kg	<0.1	<0.1	<0.1	<0.1
Indeno(123-cd)Pyrene	T16	AR	0.1	mg/kg	<0.1	<0.1	<0.1	<0.1
Dibenzo(ah)Anthracene	T16	AR	0.1	mg/kg	<0.1	<0.1	<0.1	<0.1
Benzo(ghi)Perylene	T16	AR	0.1	mg/kg	<0.1	<0.1	<0.1	<0.1
PAH(total)	T16	AR	0.1	mg/kg	<0.1	<0.1	0.2	0.2
Phenols(Mono)	T921	AR	1	mg/kg	<1	<1	<1	<1

Value	Description
A40	Assisted dried < 40C
AR	As Received
S	Analysis was subcontracted
M	Analysis is MCERTS accredited
U	Analysis is UKAS accredited
N	Analysis is not UKAS accredited

Value	Description
A40	Assisted dried < 40C
AR	As Received
S	Analysis was subcontracted
M	Analysis is MCERTS accredited
U	Analysis is UKAS accredited
N	Analysis is not UKAS accredited

Notes

Asbestos subcontracted to REC Limited
Retained on 2mm is removed before analysis
Reported results on as received samples are corrected to a 105 degree centigrade dry weight basis except TPH c5-c40 aro/ali split

Method Index

Value	Description
T16	GC/MS
T219	GC/FID (SE)
T287	Calc TOC/0.58
T2	Grav
T102	ICP/OES (HCl extract)
T921	Colorimetry (CF) (MCERT)
T54	GC/MS (Headspace)
T6	ICP/OES
T85	Calc
T162	Grav (1 Dec) (105 C)
T257	ICP/OES (SIM) (Aqua Regia Extraction)
T7	Probe
T27	PLM

Accreditation Summary

Determinand	Method	Test Sample	LOD	Units	Symbol	Concept References
Moisture @105C	T162	AR	0.1	%	N	001-004
Retained on 2mm	T2	A40	0.1	%	N	001-004
Asbestos ID	T27	A40			SU	001-004
Arsenic	T257	A40	2	mg/kg	M	001,003
Arsenic	T257	A40	2.0	mg/kg	U	002,004
Cadmium	T257	A40	0.1	mg/kg	M	001,003
Cadmium	T257	A40	0.1	mg/kg	U	002,004
Chromium	T257	A40	0.5	mg/kg	M	001,003
Chromium	T257	A40	0.5	mg/kg	U	002,004
Chromium (trivalent)	T85	A40	2	mg/kg	N	001-004
Chromium VI	T6	A40	1	mg/kg	N	001-004
Copper	T257	A40	2	mg/kg	M	001,003
Copper	T257	A40	2	mg/kg	U	002,004
Lead	T257	A40	2	mg/kg	M	001,003
Lead	T257	A40	2	mg/kg	U	002,004
Mercury	T257	A40	0.5	mg/kg	U	001-004
Nickel	T257	A40	0.5	mg/kg	M	001,003
Nickel	T257	A40	0.5	mg/kg	U	002,004
Selenium	T257	A40	3	mg/kg	U	001-004
Zinc	T6	A40	1	mg/kg	M	001,003
Zinc	T6	A40	1	mg/kg	U	002,004
pH	T7	A40			M	001,003
pH	T7	A40			U	002,004
Cyanide(Total)	T921	AR	1	mg/kg	M	001,003
Cyanide(Total)	T921	AR	1	mg/kg	U	002,004
Soil Organic Matter	T287	A40	0.1	%	N	001-004
SO4(Total)	T102	A40	0.02	%	M	001,003
SO4(Total)	T102	A40	0.02	%	U	002,004
TPH (C5-C6 aliphatic)	T54	AR	0.10	mg/kg	N	001-004
TPH (C6-C8 aliphatic)	T54	AR	0.10	mg/kg	N	001-004
TPH (C8-C10 aliphatic)	T54	AR	0.10	mg/kg	N	001-004
TPH (C10-C12 aliphatic)	T219	AR	2	mg/kg	N	001-004
TPH (C12-C16 aliphatic)	T219	AR	2	mg/kg	N	001-004
TPH (C16-C21 aliphatic)	T219	AR	2	mg/kg	N	001-004
TPH (C21-C35 aliphatic)	T219	AR	2	mg/kg	N	001-004
TPH (C35-C40 aliphatic)	T219	AR	2	mg/kg	N	001-004
TPH (C6-C7 aromatic)	T54	AR	0.10	mg/kg	N	001-004
TPH (C7-C8 aromatic)	T54	AR	0.10	mg/kg	N	001-004
TPH (C8-C10 aromatic)	T54	AR	0.10	mg/kg	N	001-004
TPH (C10-C12 aromatic)	T219	AR	2	mg/kg	N	001-004
TPH (C12-C16 aromatic)	T219	AR	2	mg/kg	N	001-004
TPH (C16-C21 aromatic)	T219	AR	2	mg/kg	N	001-004
TPH (C21-C35 aromatic)	T219	AR	2	mg/kg	N	001-004
TPH (C35-C40 aromatic)	T219	AR	2	mg/kg	N	001-004
Naphthalene	T16	AR	0.1	mg/kg	U	001-004
Acenaphthylene	T16	AR	0.1	mg/kg	U	001-004
Acenaphthene	T16	AR	0.1	mg/kg	M	001,003
Acenaphthene	T16	AR	0.1	mg/kg	U	002,004
Fluorene	T16	AR	0.1	mg/kg	M	001,003
Fluorene	T16	AR	0.1	mg/kg	U	002,004
Phenanthrene	T16	AR	0.1	mg/kg	U	001-004
Anthracene	T16	AR	0.1	mg/kg	M	001,003
Anthracene	T16	AR	0.1	mg/kg	U	002,004
Fluoranthene	T16	AR	0.1	mg/kg	N	001-004
Pyrene	T16	AR	0.1	mg/kg	N	001-004
Benzo(a)Anthracene	T16	AR	0.1	mg/kg	M	001,003
Benzo(a)Anthracene	T16	AR	0.1	mg/kg	U	002,004
Chrysene	T16	AR	0.1	mg/kg	M	001,003
Chrysene	T16	AR	0.1	mg/kg	U	002,004
Benzo(b)fluoranthene	T16	AR	0.1	mg/kg	U	001-004
Benzo(k)fluoranthene	T16	AR	0.1	mg/kg	N	001-004
Benzo(a)Pyrene	T16	AR	0.1	mg/kg	M	001,003
Benzo(a)Pyrene	T16	AR	0.1	mg/kg	U	002,004
Indeno(123-cd)Pyrene	T16	AR	0.1	mg/kg	M	001,003
Indeno(123-cd)Pyrene	T16	AR	0.1	mg/kg	U	002,004
Dibenzo(ah)Anthracene	T16	AR	0.1	mg/kg	M	001,003
Dibenzo(ah)Anthracene	T16	AR	0.1	mg/kg	U	002,004

Determinand	Method	Test Sample	LOD	Units	Symbol	Concept References
Benzo(ghi)Perylene	T16	AR	0.1	mg/kg	M	001,003
Benzo(ghi)Perylene	T16	AR	0.1	mg/kg	U	002,004
PAH(total)	T16	AR	0.1	mg/kg	U	001-004
Phenols(Mono)	T921	AR	1	mg/kg	M	001,003
Phenols(Mono)	T921	AR	1	mg/kg	U	002,004



Concept Life Sciences

Certificate of Analysis

3 Crittall Drive
Springwood Industrial
Estate
Braintree
Essex
CM7 2RT
Tel : 01376 560120
Fax : 01376 552923

Report Number: 674682-1

Date of Report: 17-Aug-2017

Customer: Terra Firma (Wales) Ltd.
5 Deryn Court
Wharfedale Road
Pentwyn
Cardiff
CF23 7HA

Customer Contact: Mr Alan Beattie

Customer Job Reference: 14242 - Alan Beattie

Customer Purchase Order: 14242AB

Customer Site Reference: Clyne Primary School

Date Job Received at Concept: 07-Jul-2017

Date Analysis Started: 10-Aug-2017

Date Analysis Completed: 17-Aug-2017

The results reported relate to samples received in the laboratory and may not be representative of a whole batch.

Opinions and interpretations expressed herein are outside the scope of UKAS accreditation

This report should not be reproduced except in full without the written approval of the laboratory

Tests covered by this certificate were conducted in accordance with Concept Life Sciences SOPs

All results have been reviewed in accordance with Section 25 of the Concept Life Sciences, Analytical Services Quality Manual



1549

Report checked
and authorised by :
Claire Brown Crociquia
Customer Service Manager

Issued by :
Claire Brown Crociquia
Customer Service Manager



Concept Reference: 674682							
Project Site: Clyne Primary School							
Customer Reference: 14242 - Alan Beattie							
Leachate to BS EN 12457-1 (2:1) Analysed as Water							
Other Testing							
Concept Reference					674682 001	674682 002	674682 003
Customer Sample Reference					WS11 @ 0.30m	TP3 @ 0.25m	TP5 @ 0.30m
Date Sampled					04-JUL-2017	06-JUL-2017	06-JUL-2017
Determinand	Method	Test Sample	LOD	Units			
As (Dissolved)	T281	2:1-1	0.0002	mg/l	0.0011	0.0006	0.0003
Dibenzo(ah)Anthracene	T149	2:1-1	0.01	ua/l	<0.01	-	-

Index to symbols used in 674682-1

Value	Description
2:1-1	Leachate to BS EN 12457-1 (2:1)
U	Analysis is UKAS accredited
N	Analysis is not UKAS accredited

Method Index

Value	Description
T149	GC/MS (SIR)
T281	ICP/MS (Filtered)

Accreditation Summary

Determinand	Method	Test Sample	LOD	Units	Symbol	Concept References
As (Dissolved)	T281	2:1-1	0.0002	mg/l	U	001-003
Dibenzo(ah)Anthracene	T149	2:1-1	0.01	µg/l	N	001

ANNEX G
Laboratory Plasticity Test Results



Laboratory Report



Contract Number: 35895

Client's Reference: **14242**Report Date: **20-07-2017**

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

Contract Title: **Clyne**
For the attention of: **Alan Beattie**

Date Received: **10-07-2017**
Date Commenced: **10-07-2017**
Date Completed: **20-07-2017**

Test Description	Qty
Moisture Content 1377 : 1990 Part 2 : 3.2 - * UKAS	3
4 Point Liquid & Plastic Limit (LL/PL) 1377 : 1990 Part 2 : 4.3 & 5.3 - * UKAS	3
Disposal of Samples on Project	1

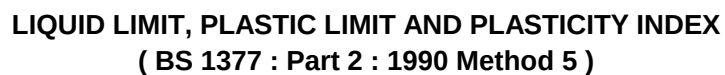
Notes: Observations and Interpretations are outside the UKAS Accreditation
* - denotes test included in laboratory scope of accreditation
- denotes test carried out by approved contractor
@ - denotes non accredited tests

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:

Alex Wynn (Associate Director) - Ben Sharp (Contracts Manager) - Emma Sharp (Office Manager)
Paul Evans (Quality/Technical Manager) - Richard John (Advanced Testing Manager) - Sean Penn (Administrative/Quality Assistant)
Vaughan Edwards (Managing Director) - Wayne Honey (Administrative/Quality Assistant)





Contract Number

35895

Site Name

Clyne

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

The figure is a semi-logarithmic plot of Plasticity Index (PI) in percent on the y-axis versus Liquid Limit (LL) in percent on the x-axis. The y-axis is logarithmic, ranging from 0 to 90. The x-axis is linear, ranging from 0 to 120. The plot is divided into regions labeled CL, CI, CH, CV, and CE at the top, and ML, MI, MH, MV, and ME at the bottom. A horizontal line is drawn at PI = 6, and a diagonal line (A-line) is shown. Three data points are plotted: (0, 0), (43, 27), and (53, 31).



Annex H
DCP Test Results

Dynamic Cone Penetrometer Results

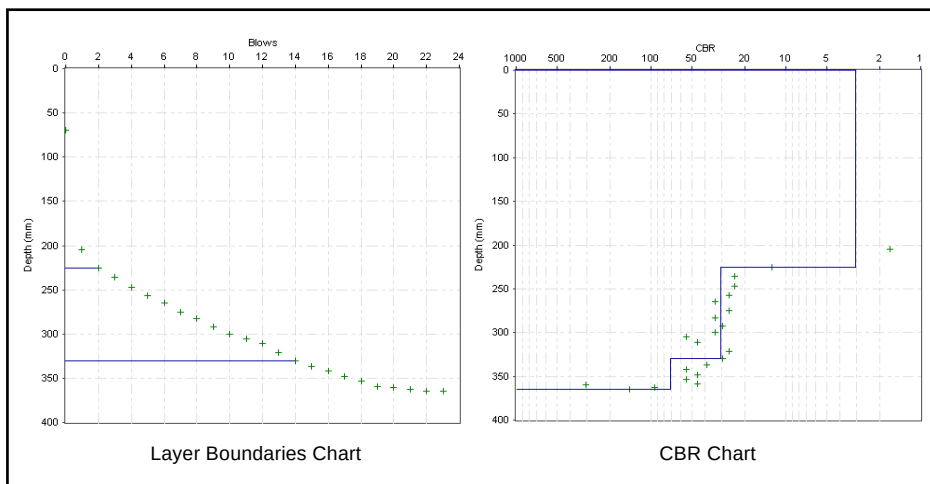
Job Number | 14242
Job Title | Clyne Primary School

Test Number | DCP1
Date | 11/07/2017

Penetration Data

No.	Blows	Cumulative Blows	Penetration Depth (mm)	Penetration Rate (mm/blow)
1	0	0	70	0.00
2	1	1	205	135.00
3	1	2	225	20.00
4	1	3	236	11.00
5	1	4	247	11.00
6	1	5	257	10.00
7	1	6	265	8.00
8	1	7	275	10.00
9	1	8	283	8.00
10	1	9	292	9.00
11	1	10	300	8.00
12	1	11	305	5.00
13	1	12	311	6.00
14	1	13	321	10.00
15	1	14	330	9.00
16	1	15	337	7.00
17	1	16	342	5.00
18	1	17	348	6.00
19	1	18	353	5.00
20	1	19	359	6.00
21	1	20	360	1.00
22	1	21	363	3.00
23	1	22	365	2.00
24	1	23	365	0.00

DCP Layer Strength Analysis



Layer Properties

No.	Penetration Rate (mm/blow)	CBR (%)
1	77.50	3
2	8.75	30
3	3.89	72

Dynamic Cone Penetrometer Results

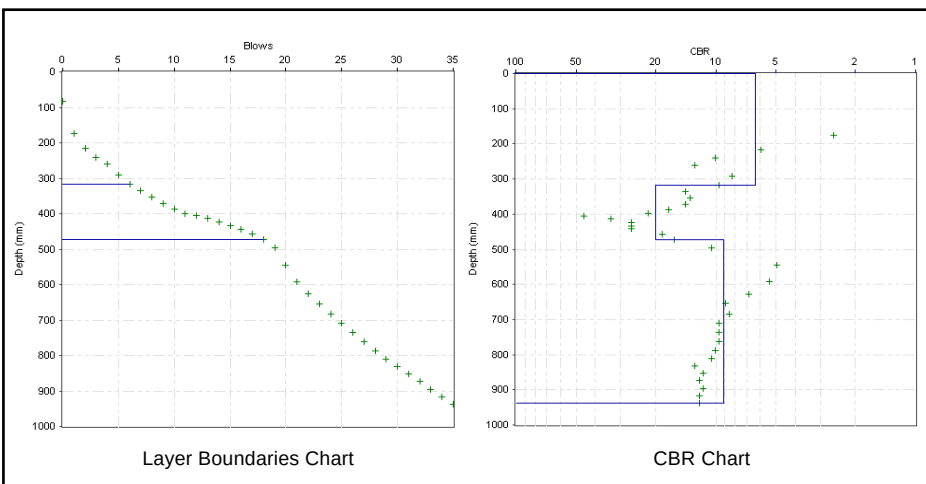
Job Number | 14242
Job Title | Clyne Primary School

Test Number | DCP2
Date | 11/07/2017

Penetration Data

No.	Blows	Cumulative Blows	Penetration Depth (mm)	Penetration Rate (mm/blow)	No.	Blows	Cumulative Blows	Penetration Depth (mm)	Penetration Rate (mm/blow)
1	0	0	84	0.00	26	1	25	710	26.00
2	1	1	175	91.00	27	1	26	736	26.00
3	1	2	216	41.00	28	1	27	762	26.00
4	1	3	241	25.00	29	1	28	787	25.00
5	1	4	261	20.00	30	1	29	811	24.00
6	1	5	291	30.00	31	1	30	831	20.00
7	1	6	317	26.00	32	1	31	853	22.00
8	1	7	335	18.00	33	1	32	874	21.00
9	1	8	354	19.00	34	1	33	896	22.00
10	1	9	372	18.00	35	1	34	917	21.00
11	1	10	387	15.00	36	1	35	938	21.00
12	1	11	399	12.00					
13	1	12	405	6.00					
14	1	13	413	8.00					
15	1	14	423	10.00					
16	1	15	433	10.00					
17	1	16	443	10.00					
18	1	17	457	14.00					
19	1	18	473	16.00					
20	1	19	497	24.00					
21	1	20	546	49.00					
22	1	21	591	45.00					
23	1	22	627	36.00					
24	1	23	655	28.00					
25	1	24	684	29.00					

DCP Layer Strength Analysis



Layer Properties

No.	Penetration Rate (mm/blow)	CBR (%)
1	38.83	6
2	13.00	20
3	27.35	9

Dynamic Cone Penetrometer Results

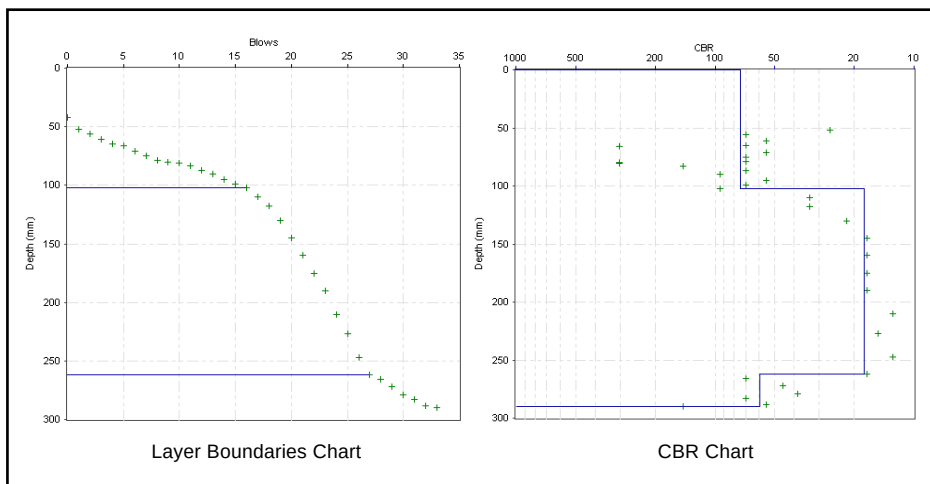
Job Number | 14242
Job Title | Clyne Primary School

Test Number | DCP3
Date | 11/07/2017

Penetration Data

No.	Blows	Cumulative Blows	Penetration Depth (mm)	Penetration Rate (mm/blow)	No.	Blows	Cumulative Blows	Penetration Depth (mm)	Penetration Rate (mm/blow)
1	0	0	42	0.00	26	1	25	227	17.00
2	1	1	52	10.00	27	1	26	247	20.00
3	1	2	56	4.00	28	1	27	262	15.00
4	1	3	61	5.00	29	1	28	266	4.00
5	1	4	65	4.00	30	1	29	272	6.00
6	1	5	66	1.00	31	1	30	279	7.00
7	1	6	71	5.00	32	1	31	283	4.00
8	1	7	75	4.00	33	1	32	288	5.00
9	1	8	79	4.00	34	1	33	290	2.00
10	1	9	80	1.00					
11	1	10	81	1.00					
12	1	11	83	2.00					
13	1	12	87	4.00					
14	1	13	90	3.00					
15	1	14	95	5.00					
16	1	15	99	4.00					
17	1	16	102	3.00					
18	1	17	110	8.00					
19	1	18	118	8.00					
20	1	19	130	12.00					
21	1	20	145	15.00					
22	1	21	160	15.00					
23	1	22	175	15.00					
24	1	23	190	15.00					
25	1	24	210	20.00					

DCP Layer Strength Analysis



Layer Properties

No.	Penetration Rate (mm/blow)	CBR (%)
1	3.75	75
2	14.55	18
3	4.67	59

Dynamic Cone Penetrometer Results

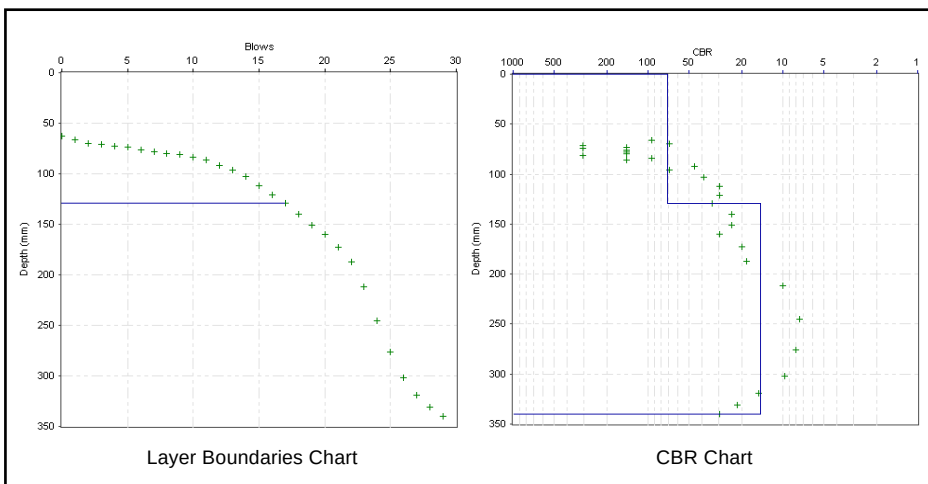
Job Number | 14242
Job Title | Clyne Primary School

Test Number | DCP4
Date | 11/07/2017

Penetration Data

No.	Blows	Cumulative Blows	Penetration Depth (mm)	Penetration Rate (mm/blow)	No.	Blows	Cumulative Blows	Penetration Depth (mm)	Penetration Rate (mm/blow)
1	0	0	63	0.00	26	1	25	276	31.00
2	1	1	66	3.00	27	1	26	302	26.00
3	1	2	70	4.00	28	1	27	319	17.00
4	1	3	71	1.00	29	1	28	331	12.00
5	1	4	73	2.00	30	1	29	340	9.00
6	1	5	74	1.00					
7	1	6	76	2.00					
8	1	7	78	2.00					
9	1	8	80	2.00					
10	1	9	81	1.00					
11	1	10	84	3.00					
12	1	11	86	2.00					
13	1	12	92	6.00					
14	1	13	96	4.00					
15	1	14	103	7.00					
16	1	15	112	9.00					
17	1	16	121	9.00					
18	1	17	129	8.00					
19	1	18	140	11.00					
20	1	19	151	11.00					
21	1	20	160	9.00					
22	1	21	173	13.00					
23	1	22	187	14.00					
24	1	23	212	25.00					
25	1	24	245	33.00					

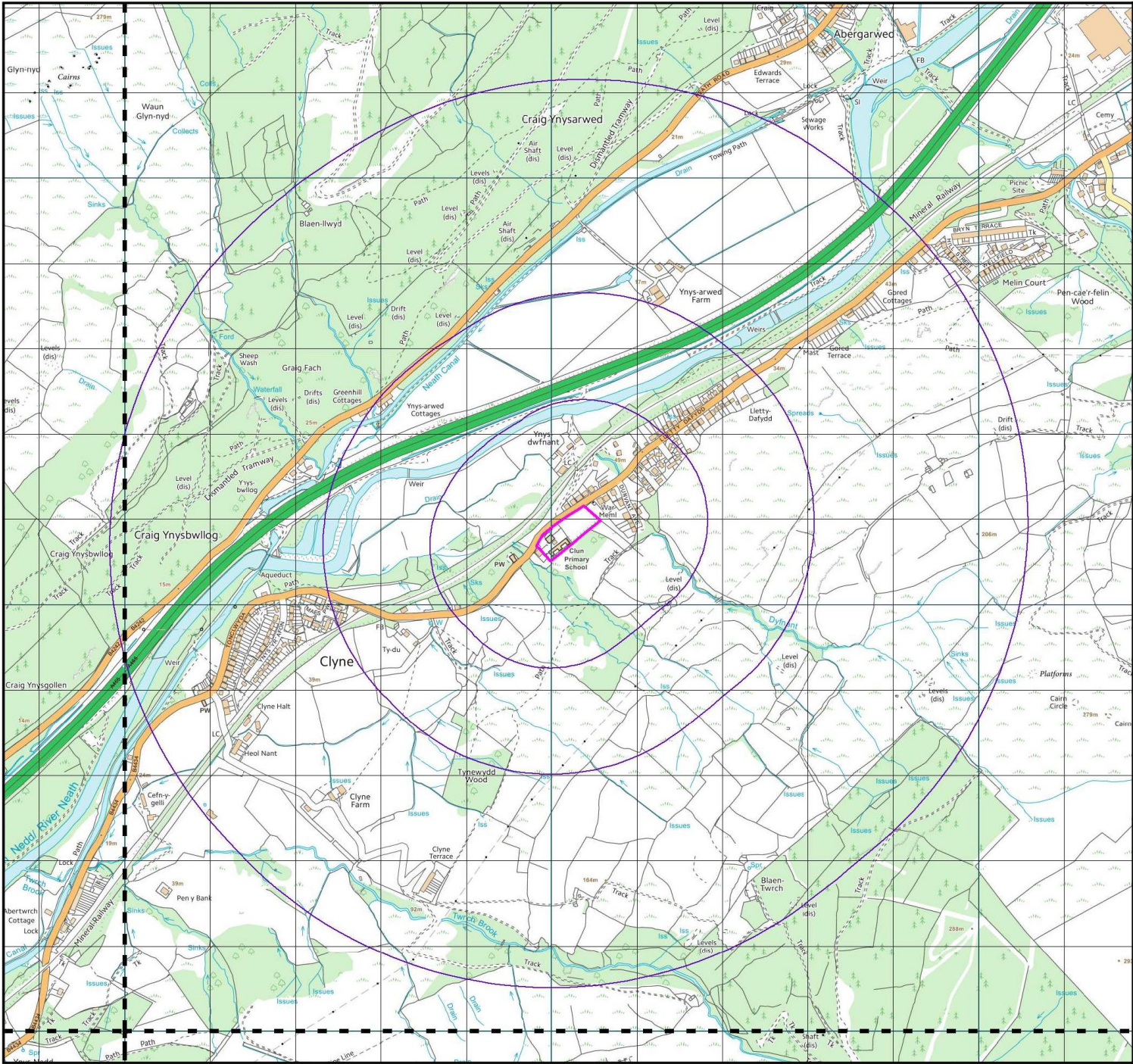
DCP Layer Strength Analysis



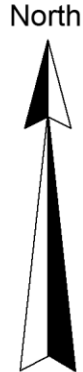
Layer Properties

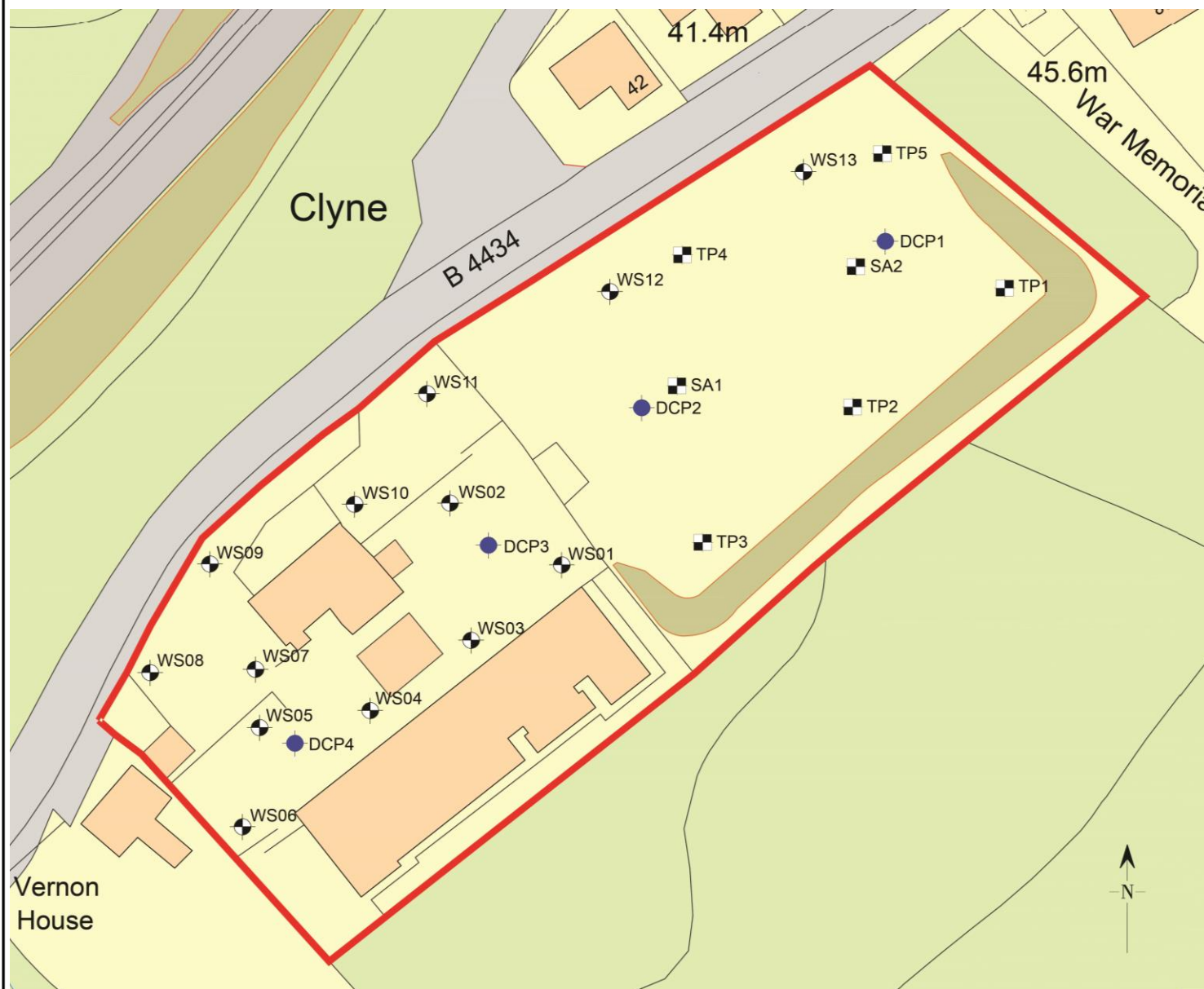
No.	Penetration Rate (mm/blow)	CBR (%)
1	3.88	72
2	17.58	15

DRAWINGS



Job Number:	14242
Job Title:	Clyne Primary School
Drawing Title:	Site Location
Drawing Number:	01
Scale:	Not To Scale





Job Number:

14242

Job Title:

Clyne Primary School

Drawing Title:

Current Site Layout

Drawing Number:

02

Scale:

Not To Scale

Legend:



Approximate position of windowless sampling borehole



Approximate position of machine excavated trial pit



Approximate position of dynamic cone penetrometer test



Job Number:

14242

Job Title:

Clyne Primary School

Drawing Title:

Proposed Site Layout

Drawing Number:

03

Scale:

Not To Scale

Legend:



Approximate position of windowless sampling borehole



Approximate position of machine excavated trial pit



Approximate position of dynamic cone penetrometer test



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