



GRANDISON BROOK FLOOD ALLEVIATION SCHEME

Notice

This document and its contents have been prepared and are intended solely as information for Neath Port Talbot County Borough Council and use in relation to the Grandison Brook Flood Alleviation Scheme

AtkinsRéalis assumes no responsibility to any other party in respect of or arising out of or in connection with this document and/or its contents.

Document history

Document title: 2023/2024 Ground Investigation Report

Revision	Purpose description	Originated	Checked	Reviewed	Authorised	Date
1.0	For Approval	CM/HS	EL/MD	MB/LMc	TL	May 2022
2.0	Minor revision for additional GI	TC/RE/DP	TL/AW	MB/LMc	TL/CH	November 2024

Client signoff

Client	Neath Port Talbot County Borough Council
Project	Grandison Brook Flood Alleviation Scheme
Job number	5192793
Client signature/date	



Table of Contents3

1.	Introduction.....	7
1.1	Description of project.....	8
1.1.1	Site description	8
1.2	Limitations.....	9
2.	Existing Information	10
2.1	Topography.....	10
2.2	Site history.....	10
2.3	Geology	12
2.3.1	Made ground.....	12
2.3.2	Superficial deposits	13
2.3.3	Bedrock geology	13
2.3.4	Structural geology	13
2.4	Existing ground investigation data	13
2.4.1	Cwrt Sart Comprehensive School.....	13
2.4.2	Ysgol Carreg Hir School.....	13
2.5	Records of mines and mineral deposits	14
2.6	Unexploded ordnance	15
2.7	Hydrogeology.....	15
2.7.1	Aquifer designation	15
2.7.2	Licenced groundwater abstractions	15
2.7.3	Discharge consents to groundwater.....	15
2.8	Hydrology	16
2.8.1	Flood risk.....	16
2.8.2	Licenced surface water abstractions.....	16
2.8.3	Discharge consents to surface water	16
2.8.4	Pollution incidents to controlled waters	16
2.9	Environmentally sensitive land uses	16
2.10	Landfills	16
2.11	Potentially infilled land.....	16
2.12	Active trades	16
3.	Field and laboratory studies.....	17
3.1	Geomorphological/geological and topographical mapping.....	17
3.2	Ground investigations.....	17
3.2.1	Description of fieldwork	17
3.3	In-situ testing	18
3.4	Laboratory testing	18
3.4.1	Geotechnical tests.....	18
3.4.2	Geo-environmental tests	18
3.5	Drainage studies	20



3.6	Geophysical surveys	20
3.7	Post ground investigation monitoring	20
4.	Ground conditions	21
4.1	Made Ground	21
4.2	Tidal Flat Deposits	21
4.3	Glacial Till	21
4.4	River Terrace Deposits	21
4.5	Brithdir Sandstone Member	22
4.6	Ground model	22
4.7	Groundwater	24
4.8	Evidence of contamination	25
5.	Geotechnical parameters	28
5.1	Methodology	28
5.2	Made Ground - Granular	29
5.2.1	Classification	29
5.2.2	Effective stress parameters	30
5.2.3	Bulk unit weight	30
5.2.4	Elastic modulus	30
5.3	Tidal Flat Deposits - Cohesive	30
5.3.1	Classification	30
5.3.2	Effective stress parameters	32
5.3.3	Bulk unit weight	32
5.3.4	Undrained shear strength	32
5.3.5	Elastic modulus	32
5.4	Glacial Till Deposits	32
5.4.1	Classification	32
5.4.2	Effective stress parameters	34
5.4.3	Bulk unit weight	34
5.4.4	Elastic modulus	34
5.5	River Terrace Deposits - Cohesive	34
5.5.1	Classification	34
5.5.2	Effective stress parameters	36
5.5.3	Bulk unit weight	36
5.5.4	Undrained shear strength	36
5.5.5	Elastic modulus	36
5.6	Geotechnical parameter summary	36
6.	Land contamination assessment	38
6.1	Introduction	38
6.2	Preliminary conceptual site model	38
6.2.1	Potential sources of contamination	38
6.2.2	Potential receptors	39
6.2.3	Potential migration / exposure pathways	40

6.3	Generic quantitative risk assessment	40
6.3.1	Selection of human health Generic Assessment Criteria.....	40
6.3.2	Comparison of soil concentration data with human health Generic Assessment Criteria.....	41
6.3.3	Asbestos	42
6.4	Ground gas assessment	42
6.4.1	Carbon dioxide and methane results	43
6.4.2	Carbon monoxide and hydrogen sulphide.....	44
6.4.3	Summary of human health GQRA	45
6.5	Controlled waters Generic Quantitative Risk Assessment	45
6.5.1	Comparison of soil leachate concentrations with WQS	46
6.6	Comparison of groundwater data with controlled waters Generic Assessment Criteria	49
6.7	Comparison of surface water data with controlled waters Generic Assessment Criteria	50
6.7.1	Controlled waters discussion.....	50
6.8	Revised CSM.....	51
6.9	Material disposal and reuse.....	56
6.10	Conclusions and recommendations	57
6.10.1	Conclusions	57
6.10.2	Ysgol Carreg Hir specific conclusions.....	57
7.	Engineering assessment	58
7.1	Structures	58
7.2	Excavations	58
7.3	Coal mining.....	58
8.	Geotechnical Risk Register	59
8.1	Geotechnical risk and risk matrix.....	59
8.2	Risk Register	61
9.	References	66
	Appendices	69
	Figures	
	Figure 1-1 - Site location plan	8
	Figure 5-1 - Particle size distribution in Made Ground.....	29
	Figure 5-2 Particle size distribution in Tidal Flat Deposit.....	31
	Figure 5-3 Particle size distribution in the Till.....	33
	Figure 5-4 Particle size distribution test in River Terrace Deposits.....	35
	Tables	
	Table 2-1 - Summary of historical development.....	10
	Table 2-2 - Summary of reported positive asbestos identifications across all phases of historical investigation (2016 – 2021)	14



Table 2-3 – Coal Authority report summary	14
Table 4-1 – North-west ground model	22
Table 4-2 – South-east ground model	23
Table 4-3 - Groundwater condition summary during the Ground Investigation.....	24
Table 4-4 - Groundwater monitoring.....	24
Table 4-5 - Visual and olfactory observations and PID readings	25
Table 5-1: Laboratory and in-situ test results in Made Ground	30
Table 5-2: Laboratory and in-situ test results.....	31
Table 5-3: Laboratory and in-situ test results in TILL	33
Table 5-4: Laboratory and in-situ test results River Terrace Deposts	35
Table 5-5: Recommended geotechnical parameters.....	37
Table 6-1 - Summary of exceedances against GAC	42
Table 6-2 – Site characteristic GSV and associated characteristic situation	43
Table 6-3 – Ground gas assessment.....	43
Table 6-4 – Soil leachate EQS exceedances.....	46
Table 6-5 – Soil leachate DWS exceedances	48
Table 6-6 – Groundwater EQS exceedances	49
Table 6-7 – Groundwater DWS exceedances.....	49
Table 6-8 – Surface water EQS Exceedances.....	50
Table 6-9 - Revised conceptual site model	52
Table 8-1 - Likelihood and Severity rating	59
Table 8-2 - Risk matrix.....	59
Table 8-3 - Perceived degree of risk.....	59
Table 8-4 - Geotechnical Risk Register	61



1. Introduction

AtkinsRéalis has been commissioned by Neath Port Talbot County Borough Council (NPTCBC) to undertake detailed design of a proposed flood alleviation scheme associated with Grandison Brook in the Pantyrheol area of Briton Ferry.

The Pantyrheol area of Briton Ferry has been subject to periodic flooding resulting from under-capacity of the Grandison Brook culvert, whereby residential and commercial properties are known to have flooded internally. The cause of the flooding has been identified as the under-capacity of the Grandison Brook culvert, forcing flows to the surface, through surcharged culvert inlets and drainage connections, which flow downhill and collect on the A474 before entering properties.

The purpose of this contract is to improve the hydraulic capacity of the existing watercourse, in turn managing the risk of flooding. The main works shall comprise of:

- Interception of surface water flows from an inclined footpath known as Rhodfa Clarke, Ynysymaerdy Road into a new culvert system through undertaking minor earthworks to top of low spots to an existing bank along the north side of the Rhodfa Clarke footpath.
- Placing a precast concrete inlet head wall at the western end of Rhodfa Clarke and a new ditch to pick up overland flows and construction of a new 600mm diameter culvert from the new headwall along Ynysymaerdy Road.
- Improvements to existing inlet structure of Ynysymaerdy Brook on Ynysymaerdy Road, including a galvanised steel trash screen and associated metal works items and accessories discussed below.
- Construction of a new 900mm diameter surface water culvert from the Ynysymaerdy Brook Inlet Structure along Ynysymaerdy Road and then through playing fields.
- Construction of a new 900mm diameter surface water culvert crossing across Old Road near the junction of Tyla Road and through the grounds of Ysgol Carreg Hir School.
- Construction of the new surface water culvert 1250 x 750mm across the A474 Pant yr Heol road and the lane through to Brook Court.
- Construction of new surface water culvert 1750 x 1000mm to the south of Brook Court to an existing culvert under the main rail line.
- Construction of new surface water culvert 1750x1000mm on Network Rail land between existing culverts under the main rail lines.
- Construction of new attenuation tanks within Jersey Park to allow for storm water storage

Proposed scheme drawings are presented in Appendix A.

Multiple phases of Ground Investigation (GI), designed and supervised by AtkinsRéalis, have been undertaken between 2021 and 2024 as follows:

- Phases 1/2 - Q00560/FR.01, undertaken 5th – 13th July, 29th July – 19th August, 18th October and 15th November 2021
- Phase 3 - Q1114/FR.01, undertaken 15th - 17th May 2023
- Phase 4 - Q1432GI/LR01, undertaken 23rd and 24th October 2023
- Jersey Park Boreholes - Q1484/FR.01, undertaken 6th - 8th March 2024

This report has been prepared to summarise the findings of the desk study and GI undertaken to inform the development of this scheme. The objectives of this report are to:

- Summarise existing geotechnical and geo-environmental desk study information;
- Describe the GI works carried out;
- Provide a summary of ground conditions recorded during the GI;



- Summarise the geotechnical and geo-environmental laboratory test results recorded;
- Summarise and interpret findings of subsequent instrumentation monitoring;
- Determine the geotechnical soil parameters to be adopted for design purposes;
- Provide a land contamination assessment to identify potential risks to human health and controlled waters, together with recommendations for mitigation and inform the potential for material reuse / waste disposal; and
- Identify geotechnical and geo-environmental risks to the project and recommendations for mitigation.

1.1 Description of project

1.1.1 Site description

The proposed site is located in the Pantyrheol area of Briton Ferry, Neath, Wales, as shown in **Figure 1-1**. The site is centred at National Grid Reference (NGR) 274680 E, 195180 N. The site is bounded by Briton Ferry Llansawel AFC football pitch and some vacant fields in the north. Part of Briton Ferry Llansawel AFC football pitch, Parc Jersey Park and Ynysymaerdy Road lie to the south, and part of the site is interspersed with residential dwellings and some vacant fields to the east. Old Road bounds the site to the northwest and a housing development off Manor Way bounds it to the southeast.

The majorly affected west part of the site marks Pantyrheol road (A474) and dense residential and commercial properties.

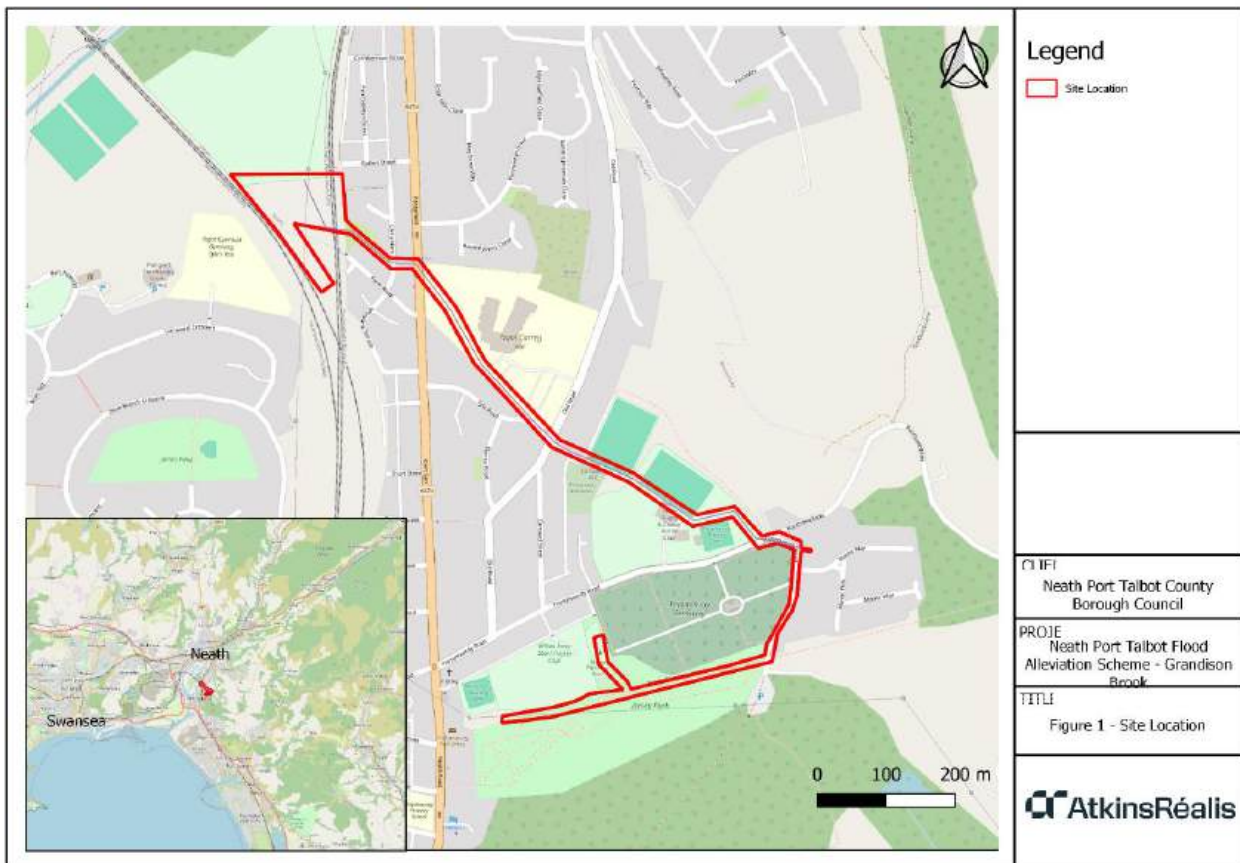


Figure 1-1 - Site location plan

1.2 Limitations

This ground investigation has been designed and performed to meet the client objectives. Additional investigations may be required depending on the findings of this investigation and are recommended in this report, if relevant.

This ground investigation has been designed and performed to meet the client objectives. Additional investigations may be required depending on the findings of this investigation and are recommended in this report, if relevant.

The findings, opinions and recommendations presented in this report are based on information obtained from a variety of third-party sources as detailed within this report. AtkinsRéalis has not independently verified third-party information and for the purposes of this assessment has assumed that such information is accurate and complete.

The report findings are based on the assessment of ground investigation data from exploratory holes. Although the locations of exploratory holes are targeted based on the conceptual site model, some parts of the site may have been inaccessible at the time of the investigation due to the presence of buildings, sensitive infrastructure, general storage, site / tenant operations, and buried utilities amongst others.

The investigation has been designed based on the conceptual site model and is proportionate to the levels of confidence regarding the ground conditions and current site knowledge. Inferences about subsurface conditions may involve assumptions and extrapolation between sampling points and the heterogeneity of the subsurface means that variable ground conditions may be encountered between the exploratory holes.

Site conditions are based on observations made at the time of the investigations and may be subject to temporal variability such as atmospheric, seasonal or other effects and further recommendations are provided where relevant.

No liability can be accepted for the retrospective effects of any future changes or amendments to current legislation and guidance.



2. Existing Information

The purpose of this section of the report is to summarise the currently available information that is considered directly relevant to the geotechnical and geo-environmental elements of the proposed scheme. The information will be used in the later sections of this report as background information to determine site conditions and aid the identification and determination of geotechnical/geo-environmental constraints and hazards that could impact on the proposed scheme.

2.1 Topography

The general topography of the site is such that it slopes down to the northwest, with an average elevation of 7 m Above Ordnance Datum (AOD) at the northwestern end and significantly higher elevation of 42 m AOD at the south-western boundary, at Grandison Brook culvert.

2.2 Site history

Using historical Ordnance Survey plans provided in the Envirocheck report [1], a summary of the historical development of the site and surrounding area within a radius of 500 m is provided in Table 2-1. The full Envirocheck report can be found in Appendix B.

Table 2-1 - Summary of historical development

Date and scale	On-site features	Off-site features
1878 1:2500	The site was occupied by open fields. Two unnamed roads cross the site, one on the far western edge of the site running north to south and another on the far eastern side of the site running north east to south west. An unnamed watercourse enters the site on the eastern boundary and flows west alongside the southern boundary of the site.	Bryn Hyfryd House is located 60 m north of the site. Dwellings associated with Ynysmaerdy are located 100 m south-west of the site. Railway line is running ENE WSW 100 m south east of the site.
1884 1:10,000	No notable change.	Esgyn colliery, surrounded by a large area of woodland, is located 200 to 500 m north-east of the site and extended to 500 m south-east of the site. A Railway line (Great Western Railway) was present 500 m west of the site.
1899 1:2500 1900 1:10560	No notable change.	Ynysmaerdy cemetery and chapel is located adjacent to the south of the site. Old quarries are present 50 m and 150 m north east as well as 200 m east and 350 m south east of the site.

Date and scale	On-site features	Off-site features
		A spring is located 100 m north of the site. A row of houses is present 80 m south west of the site. Court Sart Station is 200 m west of the site. Old air shafts are located 200 m east of the site. Esgyrn Colliery is identified as disused.
1918 1:2500	No notable change.	Cricket and football fields are located adjacent to the south of the site. A school has been constructed adjacent to the west of the site. Further residential development has occurred 200 m west and south west of the site. The New Graded Infirmary is located 500 m north of the site.
1921 1:10560	No notable change.	No notable change.
1936 1:2500 1:10560	The unnamed watercourse alongside the southern boundary of the site is not shown. A row of residential buildings had been constructed in the in the west of the site. Three houses had been constructed in the east of the site. A sports ground occupied the centre of the site. A bowling green was located near the centre of the site, crossing the southern boundary of the site.	Allotment gardens are located 30 m west of the site. The railway line to the south has been “dismantled”.
1945-1949 Arial Photography	No notable change.	No notable change.
1951 1:2500 1:10560	Allotment gardens occupies a section of the south west section of the site.	A soft drinks factory was located 200 m south-west of the site. Allotments gardens were located adjacent to the south west of the site and 30 m north west of the site. Expansion of Pencaerau 300 m north of the site.

Date and scale	On-site features	Off-site features
1964-1965 1:10000	No notable change.	Neath hospital 400 m north of the site. Expansion of Briton Ferry 500 m south west of the site.
1970 1:2500 1970-1974 1:10000	No notable change	No notable change.
1980-1983 1:10000 1987 & 1989 1:1250	No notable change.	A cluster of residential properties had been constructed adjacent to the east of the site.
1993 1:1250 1992-1996 1:10000	No notable change.	No notable change.
1999 1:10000	No notable change.	No notable change.
2000 Aerial Photography	No notable change.	No notable change.
2006 1:10000	No notable change.	No notable change.
2019 1:10000	No notable change.	No notable change.

2.3 Geology

The geology of the site was determined using the British Geological Society (BGS) 1:50,000 scale map sheet 247 Swansea [2] , and the BGS GeoIndex [3] .

2.3.1 Made ground

Made Ground is shown to underlie the site at the location of Ysgol Carreg Hir and Briton Ferry Rugby and Cricket Social Club. The BGS mapping records this as landscaped and artificially modified ground. It is anticipated that Made Ground will be present elsewhere across the site associated with the development of buildings and carriageways.



2.3.2 Superficial deposits

The available mapping indicates the superficial deposits at the site area to comprise Tidal Flat Deposits and Glacial Till. Tidal Flat deposits are described to typically comprise of unconsolidated sediment, mainly mud and/or sand. The Glacial Till is a diamicton described to typically comprise sandy clay with pebble to boulder-sized clasts.

2.3.3 Bedrock geology

The available mapping indicates the bedrock at the site area to comprise the Hughes Member Group to the north and Brithdir Member to the south. The Hughes Member Group contain two differentiated units; a sandstone unit and a mudstone, siltstone, sandstone unit. The lithological description of the Hughes Member is a green-grey lithic arenite with thin mudstone/siltstone and coal interbeds. The lithological description of the Brithdir Member is a green-grey lithic arenite with conglomerate lenses at the bases of units and containing mudstone siltstone and coal interbeds.

The geological maps indicate the presence of two inferred coal seams intersecting the site. One intersects the site at Ysgol Carreg Hir, the other runs along the trace of the site from Old Road to Ynysymaerdy Road.

2.3.4 Structural geology

Three normal faults are inferred to run near the site. To the east and west the faults are typically trending north to south, bounding the site. The nearest fault line passes approximately 150 m east of Ynysymaerdy Road, and downthrows to the west. The western fault line passes approximately 400 m west of the site, and downthrows to the east. The third fault line is approximately 125 m south of the western extent of the site. The fault is orientated southwest to northeast, and downthrows to the northwest. Further details regarding the faults, such as recorded displacement, are unknown.

2.4 Existing ground investigation data

2.4.1 Cwrt Sart Comprehensive School

Ground investigation information for Cwrt Sart Comprehensive School, located approximately 200m northwest of the site has been made available by Neath Port Talbot County Borough Council. The ground investigation recorded: Made Ground 0.7m to 1.45m thick comprising sandy gravel with low to medium cobble content; soft clay and peat deposits 0.3m to 2.15m thick overlying firm to stiff sandy gravelly clay and medium dense sandy gravel with low to medium cobble content with thin lenses of sand. The boreholes extended between 1.5 m below ground level (bgl) and 18 m bgl. The majority of the boreholes refused at shallow depths in gravels. No rock was encountered in the boreholes. Groundwater was recorded in two boreholes at 1.5 m bgl (in soft clay) and 2.3 m bgl (in sand).

2.4.2 Ysgol Carreg Hir School

No ground investigation work was undertaken as part of the Quantum Geotechnic Ltd 2021 to 2024 phases of works along the route of the proposed culvert within the Ysgol Carreg Hir School area. Various phases of ground investigation and remediation have taken place at the school alongside the redevelopment of the school circa 2017. A total of 10 positive asbestos samples were identified in previous ground investigations. A plan of the ground investigation locations is provided on the Sanctus Drawing (D2333-005) enclosed within Appendix H. A summary of the positive asbestos identifications is shown in Table 2-2 below.

An engineered cover system was put in place across the site by Sanctus Ltd in 2018 which comprised the burying of asbestos impacted material 300 to 400 mm below ground level which was covered with a high visibility marker liner and clean cover soil. A plan of the remediated landscaped areas of the site and post validations sample locations is shown in Sanctus Drawing (D2333-021 Rev C) enclosed within Appendix H.



Table 2-2 - Summary of reported positive asbestos identifications across all phases of historical investigation (2016 – 2021)

Location	Depth (m bgl)	Asbestos Identification	Asbestos Type	Quantification (%) (wt/wt)
Quantum Geotechnic Ltd 2016				
WS1	0.70	Loose fibres	Chrysotile, Amosite	<0.001
WS2	0.40	Loose fibres	Amosite	<0.001
WS3	0.50	Loose fibres	Chrysotile, Amosite	<0.001
WS5	0.80	Loose fibres	Crocidolite	<0.001
	1.30	Loose fibres, insulation lagging	Chrysotile, Crocidolite, Anthophyllite	0.248
Ground Investigation Limited 2017				
WS03	0.30 – 1.00	Loose fibre bundle	Amosite	Not reported
WS06	0.25 – 0.65	Loose fibre bundle	Chrysotile	Not reported
WS10	0.20 – 0.60	Loose fibre bundle	Chrysotile	Not reported
WS14	0.20 – 0.95	Lagging	Chrysotile, Amosite	Not reported
WS20	0.20 – 1.00	Lagging	Chrysotile, Amosite	Not reported
WS22	0.00 – 0.10	Lagging	Chrysotile, Amosite	Not reported

2.5 Records of mines and mineral deposits

The historical coal mining activity within the site area, as reported in the Coal Authority Envirocheck Screening Report [4], is summarised in Table 2-3.

Table 2-3 – Coal Authority report summary

Coal Mining Activity/ Hazard	Description
Underground coal mining	The site is not within a surface area that could be affected by present underground mining. However, the site lies within an area which is believed to have coal at or close to the surface which may have been worked some time in the past. Therefore, there is the potential for the presence of coal workings at or close to the surface at the site.

	The site 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.
Mine entries	According to Coal Authority, there are no recorded coal mine entries known within or within 20 m of the boundary of the property.
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.
Opencast mining	The property is not within the boundary of an opencast site from which coal has been removed and does not lie within 200 m of a present opencast site. There are no licence requests outstanding to remove coal by opencast methods within 800m of the boundary.
Coal mining subsidence	The Coal Authority has not received a damage notice or claim for the subject property, or any property within 50 m of the enquiry boundary, since 31 October 1994. There is no current Stop Notice delaying the start of remedial works or repairs to the property. The Coal Authority is not aware of any request having been made to carry out preventive works before coal is worked under section 33 of the Coal Mining Subsidence Act 1991.
Mine gas	The coal authority has no record of mine gas emission requiring action.

2.6 Unexploded ordnance

The publicly available online Unexploded Bomb Risk mapping, produced by Zetica [5, 6], classifies the site as a low risk with less than 15 surveyed bomb strikes per 1000 acres. It should be noted that the risk map is not a risk assessment and does not consider other sources of UXO such as enemy or allied ground ordnance or other sources of ordnance. The UXO risk map and Pre-Desk Study Assessment for the site are provided in Appendix E.

2.7 Hydrogeology

2.7.1 Aquifer designation

With reference to the BGS onshore GeoIndex [3] and the Envirocheck report [1], the Glacial Till superficial deposits are classified as a secondary A undifferentiated aquifer. The Tidal Flat Deposits are classified as a secondary A aquifer. The Hughes Member bedrock is classified as a secondary A aquifer.

2.7.2 Licenced groundwater abstractions

There are no recorded groundwater abstraction licences within 1 km of the site [1].

2.7.3 Discharge consents to groundwater

There are no registered discharge consents within 500 m of the site [1].



2.8 Hydrology

With reference to the Natural Resources Wales online flood map [7], Lle map browser [8] and the Envirocheck report, the nearest surface water features are the Ynysmaerdy Brook and Grandison Brook which are located adjacent to the south and west of the site. General surface water flow is in a westerly direction towards the Neath River, located approximately 1.5 km to the west of the site.

2.8.1 Flood risk

The site is located in an area with a low risk of flooding from rivers with a less than 0.1% (1 in 1000) probability of flooding annually. The site is assessed as having potential for flooding to occur at surface as a result of high groundwater levels [1].

2.8.2 Licenced surface water abstractions

There are no recorded surface water abstraction licences within 1 km of the site [1].

2.8.3 Discharge consents to surface water

There are no registered discharge consents within 500 m of the site [1].

2.8.4 Pollution incidents to controlled waters

There are 10 recorded pollution incidents within 500 m of the site. Eight minor category 3 incidents have occurred, with particular notice to an on-site incident in 1994 relating to agricultural carcasses. One major category 1 incident occurred 219m northwest of the site in 1994 relating to cess pit contents, however no information is available relating to the receiving water. One category 2 significant pollution incident occurred 270 m northwest of the site in 1994 related to trade effluent sewage; however, no information is available regarding the receiving water [1].

2.9 Environmentally sensitive land uses

According to Envirocheck records, areas of Ancient Woodland are located approximately 115 m to the east and 185 m south of the site [1].

2.10 Landfills

Envirocheck records indicate that there are no historical or current landfill sites within 500 m of the site [1].

2.11 Potentially infilled land

Potentially infilled land within 500 m of the site, not recorded or licenced as a historical landfill, is located 99 m east, 265 m east, 277 m east, 343 m east and 383 m northeast of the site. No details are available relating to these areas, but they may be associated with infilling of historical pits or quarries [1].

2.12 Active trades

The Envirocheck report provides a summary of historical and active trades registered on the site and in the surrounding area [1]. A summary of trades within 250 m of the site which may potentially give rise to contamination which may affect the site is provided below:

- Off-site: 200 to 250 m west – Three garage services (two active trades and one inactive trade).
- Off-site: 457 m north – Neath Hospital (inactive trade).

3. Field and laboratory studies

3.1 Geomorphological/geological and topographical mapping

No geomorphological or geological mapping was undertaken as part of this investigation.

3.2 Ground investigations

3.2.1 Description of fieldwork

Five phases of field works have been undertaken in 2021, 2023 and 2024. The initial two phases of Ground Investigation (GI) were undertaken between 5th – 13th July, 29th July – 19th August, 18th October and 15th November 2021 by Quantum Geotechnic Ltd. (Ref: Q00560/FR.01). The GI site works comprised the following:

- Five rotary percussive (dynamic sampled) boreholes extending to depths between 7.0 m bgl; and 8.0 m bgl;
- One super heavy dynamic probe test (GBDP05) to 10.0 m bgl;
- Five hand excavated trial trenches extending to a maximum depth of 1.2 m bgl;
- Eight machine excavated trial pits extending to depths between 1.4 m bgl and 3.0 m bgl;
- Two standpipe piezometer installations to allow groundwater and gas monitoring;
- Associated sampling and geotechnical / geo-environmental on-site and laboratory testing;
- Three subsequent installation monitoring visits completed; and
- Ground penetrating radar (GPR) surveys at five locations.

The third (Ref: Q114/FR0.1) and fourth (Ref:1432GI/LR01) phases of GI were designed and supervised by AtkinsRéalis and undertaken between 15th-17th May and 23rd-24th October 2023 by Quantum Geotechnic Ltd. the GI comprised the following works:

- Two windowless sample / dynamic sampled boreholes. (GB-BH07 & GB-BH09)
- One hand excavated trial trench (GB-HP06);
- One machine excavated trial pit (GB-TP11);
- Surface water sampling at two locations;
- In-situ testing and sampling;
- Post fieldwork groundwater and ground gas monitoring;
- Two hand & machine excavated shallow trial pits to locate sewage pipe;
- One concrete core; and
- Two stream silt samples for laboratory testing.

The most recent phase of GI was designed and supervised by AtkinsRéalis and undertaken during March 2024 by Spencer Quantum Geotechnic Ltd. (Ref: Q1484/FR.01). The GI focused on the area around Jersey Park and comprised the following works:

- Three dynamic sample boreholes;
- In-situ testing and sampling; and
- Post fieldwork groundwater and ground gas monitoring.



The exploratory hole location plan is enclosed within Appendix C and the exploratory hole logs are included in the Quantum Geotechnic Ltd. and Spencer Quantum Geotechnic Ltd. factual reports (Ref: Q00560/FR.01, Q1114/FR.01, Q1432GI/LR01 and Q1484/FR.01) in Appendix G of this report.

3.3 In-situ testing

Standard Penetration Tests (SPTs) were carried out in the rotary boreholes, with hand shear vane tests undertaken in all exploratory holes and trial pits on suitable cohesive materials. The test results recorded are included in the Quantum Geotechnic Ltd. and Spencer Quantum Geotechnic Ltd. factual reports (Ref: Q00560/FR.01, Q1114/FR.01, Q1432GI/LR01 and Q1484/FR.01) in Appendix G of this report.

3.4 Laboratory testing

Geotechnical, chemical, and contamination laboratory testing on selected samples retrieved during the ground investigation site works were scheduled by AtkinsRéalis. Geotechnical testing was undertaken by Geotechnics and Derwentside Environmental Testing Services Limited.

3.4.1 Geotechnical tests

The following geotechnical tests were undertaken in accordance with BS 1377 - 2 [11], unless stated otherwise:

- 45 Moisture content
- 25 Liquid limit, plastic limit and plasticity index
- 26 Particle size distribution by wet sieving
- 21 PSD – Sedimentation by Pipette
- Eight Suite D (Brownfield site pyrite present)
- 13 Organic Matter

3.4.2 Geo-environmental tests

Geo-environmental laboratory soil testing was designed to inform the land contamination assessment presented in Section 6 of this report.

Soil samples were selected for contamination laboratory analysis, informed by strata descriptions and visual and olfactory indicators of contamination recorded on the geological logs.

All analysis was scheduled by AtkinsRéalis and undertaken by Eurofins Chemtest Ltd (a UKAS and MCERTS accredited laboratory), with original laboratory certificates presented in the Quantum Geotechnic Ltd. and Spencer Quantum Geotechnic Ltd. factual reports (Ref: Q00560/FR.01, Q1114/FR.01, Q1432GI/LR01 and Q1484/FR.01) in Appendix G of this report.

Soils

A total of 26 soil samples and two silt samples were collected from 22 locations across the site and analysed for the following suite of determinands:

- asbestos screen (with quantification if asbestos positively identified);
- pH;
- sulphate, sulphide, nitrite, nitrate and ammoniacal nitrogen;
- total, complex and free cyanide;
- total phenols;
- organic matter;



- metals and metalloids – aluminium, antimony, arsenic, boron, barium, beryllium, cadmium, calcium, total chromium, chromium (VI), copper, iron, lead, manganese, magnesium, mercury, molybdenum, nickel, potassium, phosphorus, selenium, vanadium, and zinc;
- benzene, toluene, ethylbenzene and xylenes (BTEX);
- methyl-tert-butyl-ether (MTBE);
- speciated Polycyclic Aromatic Hydrocarbons (PAH): US EPA 16 and coronene; and
- speciated Total Petroleum Hydrocarbons Criteria Working Group (TPH CWG) speciated aliphatic and aromatic split C₅ – C₄₄.

Soil-Leachate

A total of 17 soil samples from 16 locations across the site were subject to leachate analysis for the following suite of determinands:

- pH;
- chemical oxygen demand;
- sulphate, sulphide, nitrite, nitrate and ammoniacal nitrogen;
- total, complex and free cyanide;
- total phenols;
- metals and metalloids – aluminium, antimony, arsenic, boron, barium, beryllium, cadmium, calcium, total chromium, chromium (VI), copper, iron, lead, manganese, magnesium, mercury, molybdenum, nickel, potassium, phosphorus, selenium, vanadium and zinc
- BTEX;
- MTBE;
- PAH: US EPA 16 and coronene; and
- TPH CWG speciated aliphatic and aromatic split C₅ – C₄₄.

Groundwater

Two groundwater samples were collected in total, one sample GBBH05 was collected from the Quantum Geotechnic Ltd 2022 [9] and one sample from GBBH07 was collected from the Spencer Quantum Ltd 2024 investigations [12]. A total of four surface water samples (upstream and downstream) were collected and analysed during the Quantum Geotechnic Ltd 2022 [9] and 2023 ground investigations [10]. All samples were analysed for the following:

- pH;
- biochemical oxygen demand, alkalinity,
- total hardness, dissolved organic carbon, total organic carbon;
- ammonia (free), ammonium;
- sulphate, sulphide, chloride, nitrate and ammoniacal nitrogen;
- total, complex and free cyanide;
- total phenols;
- metals and metalloids – aluminium, antimony, arsenic, boron, barium, beryllium, cadmium, calcium, total chromium, chromium (VI), copper, iron, lead, manganese, magnesium, mercury, molybdenum, nickel, potassium, phosphorus, selenium, vanadium, and zinc
- BTEX;
- MTBE;
- PAH: US EPA 16 and coronene; and
- TPH CWG speciated aliphatic and aromatic split C₅ – C₄₄.

Waste Acceptance Testing



Three samples collected from GBH05 at 1.00 m bgl in the Quantum Geotechnic Ltd 2022 [9] ground investigation and from Silt 1 and Silt 2 in the Quantum Geotechnic Ltd 2024 [13] ground investigation were analysed for the following waste acceptance criteria (WAC) suite:

- metals and metalloids – Arsenic, barium, cadmium, chromium, copper, mercury, molybdenum, nickel, lead, antimony, selenium and zinc;
- chloride, fluoride sulphate, total dissolved solids, phenol and dissolved organic carbon.

3.5 Drainage studies

No drainage tests were undertaken as part of the works.

3.6 Geophysical surveys

Whilst undertaking the above summarised ground investigation works, GPR surveys were undertaken during the 2021 GI at the locations of the trial trenches to confirm the presence, location and extents of buried services within the areas of interest.

3.7 Post ground investigation monitoring

Four post field work site monitoring visits were undertaken in 2021 to record land gas and groundwater levels within the installed borehole standpipes in GBBH04 and GBBH05 [9]. Three post field work site monitoring visits were undertaken in 2024 to record land gas and groundwater levels within the installed borehole standpipes in GBBH07 and GBBH09 [12].

Monitoring comprised ground water and ground gas monitoring, gas monitoring was undertaken by a GA2000 gas analyser to measure the following;

- Atmospheric pressure;
- Flow rates (L/hr);
- Methane;
- Carbon Dioxide;
- Oxygen;
- Carbon Monoxide; and
- Hydrogen Sulphide

Results of which can be found within the factual reports in Appendix G.



4. Ground conditions

The following section provides a summary of the laboratory testing to determine the classification of the materials encountered during the ground investigation, including the concrete classification recommendation based on chemical testing. The data summarised below, including the exploratory hole plan and reported logs for all GI locations, are provided by Quantum Geotechnic Ltd and Spencer Quantum Ltd and are included in the factual reports within Appendix G.

4.1 Made Ground

Made Ground, associated with road construction and landscaped ground was encountered at ground level (or directly underlying the road or topsoil). The Made Ground varies in thickness from 0.1 to 2.60 m and generally consists of dark grey silty slightly sandy gravel with low cobble content consisting of sandstone. The gravel is angular to sub angular fine to coarse sandstone, siltstone, ash, brick and concrete. Minimal geotechnical testing was instructed for the Made Ground material as this is likely to be fully excavated for the flood alleviation scheme.

4.2 Tidal Flat Deposits

Tidal Flat Deposits (TFD) were encountered across the whole site area but was more prominent to the north being recorded in GBBH04, GBBH05, GBTP04, GBTP05, GBTP06, GB-BH07 and GBTP11 towards the River Neath (refer to geological sections in Appendix D). The TFD generally consisted of soft clay, high in fines content with varying levels of brown peat from 0.3 to 5.5 m thick. GB-BH07 saw the thickest levels of TFD with the full thickness not being proven, at termination (8.2m) the TFD were recorded as 5.5 m thick.

The 2024 GI has been interpreted as encountering TFD at all locations. Within GB-BH11 the description is in line with the description of clay, GB-BH10 and 12 identified slightly clayey slightly silty sand, which within GB-BH10 was slightly organic. During the GB-BH10 Particle Size Distribution testing at 3 m bgl (within the TFD layer), the description was suggested as a clay as opposed to a sand, which further supports the interpretation as TFD. The material was present beneath the Made Ground, with thickness increasing in holes with less Made Ground. The base depth of the 2024 TFD was between 3.9 and 4.4 m bgl.

4.3 Glacial Till

Glacial Till was recorded in the majority of boreholes and trial pits (excluding GB-BH07, GB-TP11 and GB-HP06), and was encountered at shallower depths in the southeast of the site, recorded directly beneath the topsoil in GBBH01. The Till material generally consists of medium to dense silty sandy gravel with angular to sub angular sandstone.

Within the 2024 investigation, the glacial till was identified within all exploratory holes as clayey sandy gravel, and is present until termination in two of the exploratory holes. In GB-BH12 the hole identified sandstone beneath the gravel, giving a thickness of 3.9 m.

4.4 River Terrace Deposits

River Terrace Deposits were recorded exclusively in GB-BH09 underneath the made ground, during the 2023 GI. The deposits comprised gravelly organic clay overlying silty gravelly sand overlying silty sandy gravel and are associated with a small watercourse flowing through Jersey Park. Given the localised nature of these deposits close to a small watercourse, this could explain why they are not shown in published geological mapping.



4.5 Brithdir Sandstone Member

One exploratory hole from the 2024 investigation (GBBH12) identified bedrock at a depth of 7.8 m bgl. The description is grey sandstone, with arisings of grey angular gravel of sandstone.

4.6 Ground model

This section summarises the ground profile encountered across the site across all phases of ground investigation by Quantum Geotechnic Ltd. In general, the site is underlain by Topsoil, Made Ground, Tidal Flat Deposits and Glacial Till. The bedrock recorded by BGS as the Hughes formation was not encountered during the ground investigations, the Brithdir member underlying the south extent of the site was encountered once in the 2024 investigation, however, the other holes went to the same depth and did not identify the formation.

This site area has been divided into the North West and South East regions which correspond to the ground profiles presented in Table 4-1 and Table 4-2 . In addition to the ground profiles, geological sections are presented in Appendix D.

Table 4-1 – North-west ground model

Stratum	Description	Depth to top of stratum (m bgl)	Depth to base of stratum (m bgl)	Maximum thickness encountered (m)
Tarmac	-	0.00	0.20	0.20
Topsoil	Turf over TOPSOIL: Dark to brown slightly gravelly clayey Sand with many rootlets.	0.20	0.40	0.20
Made Ground	Dark brown - grey slightly silty sandy Gravel with low to medium cobble content of sandstone, ash, brick and concrete. Or Black silty slightly sandy GRAVEL. Gravel is angular to sub angular fine to coarse siltstone, ash, brick, concrete, glass and tile. Sand is fine to coarse.	0.40	2.80	2.60
Tidal Flat Deposits	Soft grey slightly sandy slightly gravelly organic CLAY. Very soft brown very fibrous peat in areas.	2.70	7.00	5.5
Peat	Brown clayey pseudo-fibrous PEAT	7.00	8.20*	1.2
Glacial Till	Medium dense grey slightly silty sandy GRAVEL with low cobble content of sandstone.	2.30	8.00*	5.70

*Depth not proven due to refusal or termination at scheduled depth



Table 4-2 – South-east ground model

Stratum	Description	Depth to top of stratum (m bgl)	Depth to base of stratum (m bgl)	Maximum thickness encountered (m)
Tarmac	-	0.00	0.20	0.20
Topsoil	Turf over TOPSOIL: Dark to brown slightly gravelly clayey Sand with many rootlets.	0.00	0.40	0.20
Made Ground	Dark brown - grey slightly silty sandy Gravel with low to medium cobble content of sandstone and brick.	0.40	0.90	0.50
Tidal Flat Deposits	Soft grey slightly sandy slightly gravelly organic CLAY. Very soft brown very fibrous peat in areas.	0.90	1.40 – 3.80*	3.10
River Terrace Deposits (localised to small watercourse in Jersey Park)	Brown sandy slightly gravelly organic CLAY. Gravel is sub rounded fine to coarse sandstone. Sand is fine to coarse. Becoming Grey slightly silty sandy GRAVEL. Gravel is sub angular to sub rounded fine to coarse sandstone and siltstone. Sand is fine to coarse.	1.40	4.65**	3.25
Glacial Till	Medium dense grey slightly silty sandy GRAVEL with low cobble content of sandstone.	1.40 – 3.80**	8.00**	7.30
Brithdir Member	Grey sandstone	8.00**	Unknown**	0.20

***Range given due to variable nature across the site. Anticipated that the value will increase within the range from east to west.**

****Depth not proven due to refusal or scheduled hole termination**

Geological cross sections for the locations above are provided in Appendix D.

There is clearly a thicker unit of Made Ground and Tidal Flat deposits shown in the north-west geological section. The Tidal Flat deposits range from 0.0 – 0.50 m thick in the south-west site area to 0.20 – 5.5 m thick in the north-west site area. The Made Ground also has an increased thickness from approximately 0.5 m in the southwest to over 2.00 m in the northwest site area possibly associated with road works and with fill material from historic rail infrastructure in the area.

The 2024 GI in the south extent of the site identified thicker Made Ground than the original south-east ground model, however, this is due to the exploratory holes being within a footpath/play area. It also encountered sand overlying the glacial till, which has been interpreted as part of the tidal flat deposits with the clay, due to the lower strength of material and presence of organic matter.



4.7 Groundwater

A summary of the groundwater conditions encountered during the recent GI is provided in Table 4-3 below. It should be noted, however, that groundwater levels are subject to diurnal, seasonal and climatic variations and can also be affected by drainage conditions or other causes.

Table 4-3 - Groundwater condition summary during the Ground Investigation

Borehole ID		Water strike m bgl / m AOD	Comment
GBBH03		2.50 / 20.40	Medium groundwater ingress
GBBH04		1.20 / 3.79	Slow groundwater ingress at base of pit
GBBH04		5.70 / -0.71	Fast ground water ingress
GBBH05		4.00 / 1.79	Medium groundwater ingress
GB-BH07		5.20 / -0.3	Seepage
GB-BH09		1.20 / 13.62	Fast groundwater ingress
GB-BH10		1.50 / 13.25	Medium groundwater ingress
GB-BH12	1.20 / 13.10	Slow groundwater ingress	
GBHP05	0.60 / 5.00	Water encountered around 7no clay ducts	
GBTP02		1.70 / 16.45	Seepage
GBTP02		1.90 / 16.25	Slow groundwater ingress
GBTP05		1.20 / 4.27	Medium groundwater ingress
GBTP05A		1.10 / 4.00	Seepage
GBTP05A	1.30 / 3.80	Slow water ingress	
GBTP06	1.50 / 3.59	Seepage	
GBTP06A	1.15 / 4.14	Seepage, becoming very wet	
GBTP10		1.90 / 2.98	Fast groundwater ingress
GBTP10A		1.50 / 3.81	Fast groundwater ingress
GB-TP11	0.90 / 4.02	Seepage	
GB-TP11	1.60 – 3.50 / 3.32 – 1.42	Many seepages	

Standpipe piezometers were installed in BH04, BH05, BH07, BH09, BH10, BH11 and BH12. Table 4-4 provides a summary of the groundwater information.

Table 4-4 - Groundwater monitoring

Monitoring Round (Date)	Borehole ID	Groundwater monitoring m bgl / m AOD	Geological Strata	Response zone (m bgl)
1 (21/12/21)	BH04	2.53 / 2.46	Glacial Till	1.0 – 8.0
2 (24/01/22)		2.46 / 2.53		1.0 – 8.0
3 (24/02/22)		2.39 / 2.60		1.0 – 8.0



Monitoring Round (Date)	Borehole ID	Groundwater monitoring m bgl / m AOD	Geological Strata	Response zone (m bgl)
1 (25/08/21)	BH05	3.62 / 2.17	Tidal Flat Deposits	3.0 – 4.0
2 (21/12/21)		3.21 / 2.58		3.0 – 4.0
3 (24/01/22)		3.19 / 2.60		3.0 – 4.0
4 (24/02/22)		3.06 / 2.73		3.0 – 4.0
1 (31/5/23)	BH07	1.93 / 2.97	Tidal Flat Deposits	1.0 – 2.5
2 (19/06/23)		2.62 / 2.28		1.0 – 2.5
3 (06/07/23)		2.88 / 2.02		1.0 – 2.5
1 (31/5/23)	BH09	Dry	River Terrace Deposits	1.0 – 4.65
2 (19/06/23)		2.33 / 12.49		1.0 – 4.65
3 (06/07/23)		2.28 / 12.54		1.0 – 4.65
1 (26/03/24)	BH10	4.52 / 10.23	Glacial Till	2.0 – 8.0
2 (08/04/24)		4.24 / 10.51		2.0 – 8.0
3 (22/04/24)		4.70 / 10.05		2.0 – 8.0
1 (26/03/24)	BH11	6.10 / 8.32	Glacial Till	2.0 – 8.0
2 (08/04/24)		7.10 / 7.32		2.0 – 8.0
3 (22/04/24)		7.12 / 7.30		2.0 – 8.0
1 (26/03/24)	BH12	4.79 / 9.51	Glacial Till	1.0 – 8.0
2 (08/04/24)		4.93 / 9.37		1.0 – 8.0
3 (22/04/24)		5.00 / 9.30		1.0 – 8.0

Higher groundwater levels may be expected at different times of the year during higher rainfall periods.

4.8 Evidence of contamination

Visual observations of potential contamination were identified on the site during the 2022 and 2024 ground investigations [9], [13] and a summary is presented below in Table 4-5. The borehole logs are provided in the ground investigation factual reports in Appendix G.

Head-space screening for volatile organic compounds (VOCs) was undertaken during the 2022 ground investigation only using a photoionisation detector (PID) (MiniRAE 2000 VOC detector). A maximum recorded vapour concentration of 7.2 of parts per million (ppm) was identified at a depth of 0.07 to 0.12 m bgl in GBBH03, located in the southeast of the site. PID readings over 1 ppm are tabulated in Table 4-5.

Suspected asbestos containing materials (ACMs) were not visually identified within any locations excavated during the 2022, 2023 or 2024 ground investigations.

Table 4-5 - Visual and olfactory observations and PID readings

Location	Area of the site	Strata	Strata Depth (m bgl)	Visual Observation	Max VOCs (ppm) in strata
GBBH01	Central	Topsoil	0.10 to 0.30	-	2.1
GBBH02	Central	Superficial	0.40 to 0.80	-	1.2
GBBH03	South east	Made Ground	0.08 to 0.12	Fine to coarse slag gravel	7.2



Location	Area of the site	Strata	Strata Depth (m bgl)	Visual Observation	Max VOCs (ppm) in strata
			0.12 to 0.50	Rare fine to medium coal ash gravel	4.2
GBBH05	North west	Made Ground	0.35 to 0.70	-	2.7
			0.70 to 2.00	Fine to coarse ash, slag and medium coal gravel	5.6
		Superficial	2.00 to 2.50	-	1.8
GBHP01	Central	Made Ground	0.15 to 0.50	Rare cobbles of slag. Fine to coarse ash and slag gravel	Not reported
GBHP01A	Central	Made Ground	0.15 to 0.40	Fine to coarse ash and slag gravel	Not reported
GBHP02	South east	Made Ground	0.30 to 0.70	Low cobble content of slag. Fine to coarse ash and slag gravel	Not reported
GBHP03	North west	Made Ground	0.05 to 0.90	Fine to coarse ash and slag gravel	Not reported
GBHP04	North west	Made Ground	0.15 to 0.80	Low cobble content of slag. Fine to coarse ash and slag gravel	Not reported
GBHP05	North west	Made Ground	0.15 to 0.80	Low cobble content of slag. Fine to coarse ash and slag gravel	Not reported
GBHP05A	North west	Made Ground	0.15 to 0.80	Low cobble content of slag. Fine to coarse ash and slag gravel	Not reported
GBTP02	South east	Made Ground	0.35 to 0.70	-	1.6
GBTP03	South east	Superficial	0.45 to 0.80	-	2.3



Location	Area of the site	Strata	Strata Depth (m bgl)	Visual Observation	Max VOCs (ppm) in strata
GBTP05	North west	Made Ground	0.40 to 2.50	Fine to coarse ash and slag gravel	4.9
		Superficial	2.50 to 3.00	-	2.8
GBTP05A	North West	Made Ground	0.45 to 1.30	Ash, slag and coal gravel	Not reported
GBTP06	North west	Made Ground	0.10 to 1.10	-	2.5
			1.10 to 1.50	-	2.5
		Superficial	1.50 to 2.10	-	5.3
GBTP06A	North West	Made Ground	0.10 to 1.20	Ash, slag and coal gravel	Not reported
GBTP10	North west	Made Ground	0.00 to 1.40	Fine to coarse slag gravel	Not reported
GBTP10A	North west	Made Ground	0.00 to 2.10	Fine to coarse slag gravel	Not reported

Note: '-' denotes that no visual observations of potential contamination were recorded.

5. Geotechnical parameters

5.1 Methodology

This section provides an assessment of the classification and geotechnical parameters of each stratum present at the Site for the purposes of informing future geotechnical design. Proposed geotechnical parameters have been determined primarily from interpretations of in situ and laboratory test data and recognised empirical relationships.

Consideration has also been given to values in published literature. Empirical relationships used for parameter derivation are summarised below:

- Weight densities have been based on material descriptions and recommendations in Figures 1 and 2 of BS8002:2015 [14].
- Undrained shear strength (c_u) has been determined for the cohesive material by in-situ hand vane tests and using correlations of the SPT N from Stroud and Butler (1975) and reported in CIRIA guidance 143 [15]. Stroud and Butler suggest the relationship:

$$c_u = f_1 \times N \text{ (kN/m}^2\text{)}$$

where c_u is the undrained shear strength (kN/m²), N is the SPT blow count and f_1 is a factor depending upon Tidal Flat Deposits (TFD) plasticity. For the TFD tested, the average f_1 value was 4.5

$$c_u = 4.5 \times N \text{ (kN/m}^2\text{)}$$

- Internal angle of friction, ϕ' – derived from standard relationships:
 - Granular soils – based on the relationships developed by Peck et al. (1974) and reported in Figure 36 of CIRIA 143 (1995) and the procedure outlined in BS8004 (2015) which considers grain angularity, uniformity coefficient of the soil grading and characteristic SPT 'N' values to determine the effective angle of shearing resistance.
 - Cohesive soils - where constant volume internal angle of friction, ϕ'_{cv} , is derived from the equation provided by BS 8004 (2015), $42^\circ - 12.5 \log_{10} (PI)$, where PI is the Plasticity Index.
 - Glacial till – angle of shearing resistance, ϕ'_p , has been derived from relationships with plasticity index reported in Figure 5.1 of CIRIA 504 (1999).
- Stiffness, Young's Modulus, E' – has been derived from SPT 'N' values, based on the relationships with undrained shear strength and plasticity index developed by Stroud (1974) and reported in CIRIA 143 (1995).
 - Granular soils, $E' / N_{60} = 1 - 2$ MPa. Conservatively taken as 1MPa for the purposes of this GIR.
 - Cohesive soils (predominantly London Clay), $E' / N = 0.6 - 0.7$ MPa, or based on correlation $E' = 150c_u$ (Stroud and Butler, 1975).
 - Undrained Young's Modulus has been derived based on correlations on the undrained shear strength (c_u) and the SPT N- value by Bowles [16]
- A concrete classification has been provided based on the design sulfate class (DS) and Aggressive Chemical Environment for Concrete (ACEC) classification for brownfield sites seen in table C2 within the BRE Special Digest [17]. The total potential sulfate (SO_4 %) and pH values acquired during the ground investigation have been used to determine the concrete classifications.

Third parties undertaking design based on the recommendations contained within this report, including the parameters, must satisfy themselves as to their accuracy, validity and applicability of the recommendations and parameters. Parameter plots are provided in Appendix F.

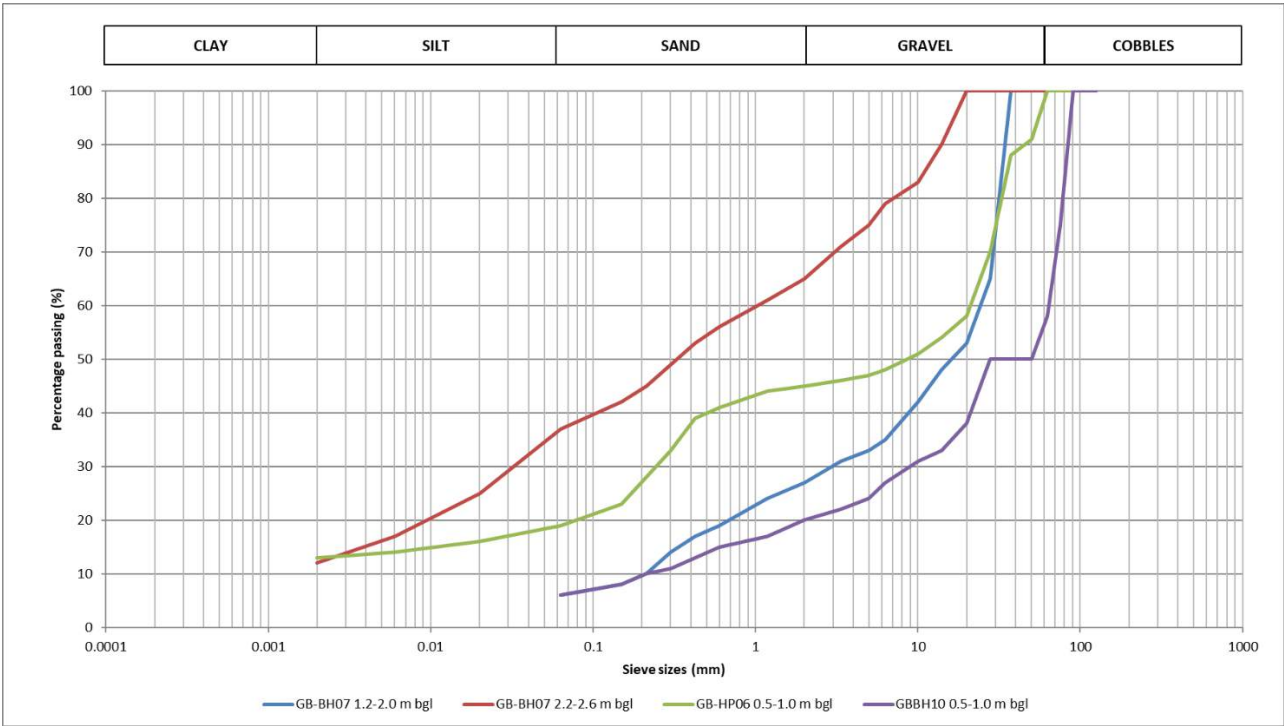


5.2 Made Ground - Granular

5.2.1 Classification

Four particle size distribution tests have been completed on the Made Ground in GB-BH07 and GB-HP06, during the 2023 GI, and GBBH10 in the 2024 GI. They are presented in Figure 5-1.

Figure 5-1 - Particle size distribution in Made Ground



The particle size distribution tests identified an overall majority gravels content. However, the sample from 2.2-2.6 m bgl in GB-BH07 identified a fines content of over 35%, therefore according to BS 6031:2009, it should classify as a fine soil. This was only encountered in one of the four samples so is not considered to be representative of the material. A cobbles content of 42% was identified in GBBH10, which can be associated with the Jersey Park play area. The majority of PSD tests and borehole log descriptions classify the made ground as granular, however, some cohesive material can be expected due to the variable nature of made ground.

The laboratory and in-situ test results undertaken on the Made Ground are summarised in Table 5-1 alongside chosen characteristic values.

Table 5-1: Laboratory and in-situ test results in Made Ground

Laboratory / in-situ test results			Results range (no. of results/tests)	Characteristic value	Reference
Classification	Particle Size Distribution	%	Co = 42 (4) Gr = 34 - 72 (4) Sa = 14 - 29 (4) Fi = 6 - 37 (4)	Co = 0-42 Gr = 34 – 72* Sa = 14- 29* Fi = 6-37*	
	<i>Cobbles (Co), Gravel (Gr), Sand (Sa), Fines (Fi), Silt (Si), Clay (Cl)</i>				
Classification	Moisture content	%	14 - 43 (10)	24	
Classification	Liquid Limit	%	34 - 86 (3)	65	
	Plastic Limit	%	18 - 40 (3)	30	
	Plasticity Index	%	16 - 46 (3)	35	
SPT N value	Value		2 – 50** (5)	8	

*Material is highly heterogeneous and variable across site.

**SPT N of 50 is considered to be an outlier. The other four values can be found in the range of 2-14.

5.2.2 Effective stress parameters

The internal angle of friction, ϕ' , has been interpreted from the relationships developed by Peck et al. (1974) and reported in Figure 36 of CIRIA 143 (1995). A characteristic constant volume angle of shearing resistance, ϕ' of 30° has been interpreted from a characteristic SPT N value of 8.

5.2.3 Bulk unit weight

No measurements of bulk unit weight were made on samples of Granular Made Ground. However, Tomlinson [18] suggests the bulk density of a gravel can range from 1.60 Mg/m³ to 2.00 Mg/m³. This equates to a range of bulk unit weight from 15.7 kN/m³ to 19.6 kN/m³. Figure 1 from BS 8004:2015 [19] suggests a range of unit weight for coarse engineered fill above the ground water table of 16 to 20 kN/m³.

A characteristic value of 18 kN/m³ is recommended for design.

5.2.4 Elastic modulus

No laboratory tests to determine elastic modulus were scheduled on samples of Made Ground.

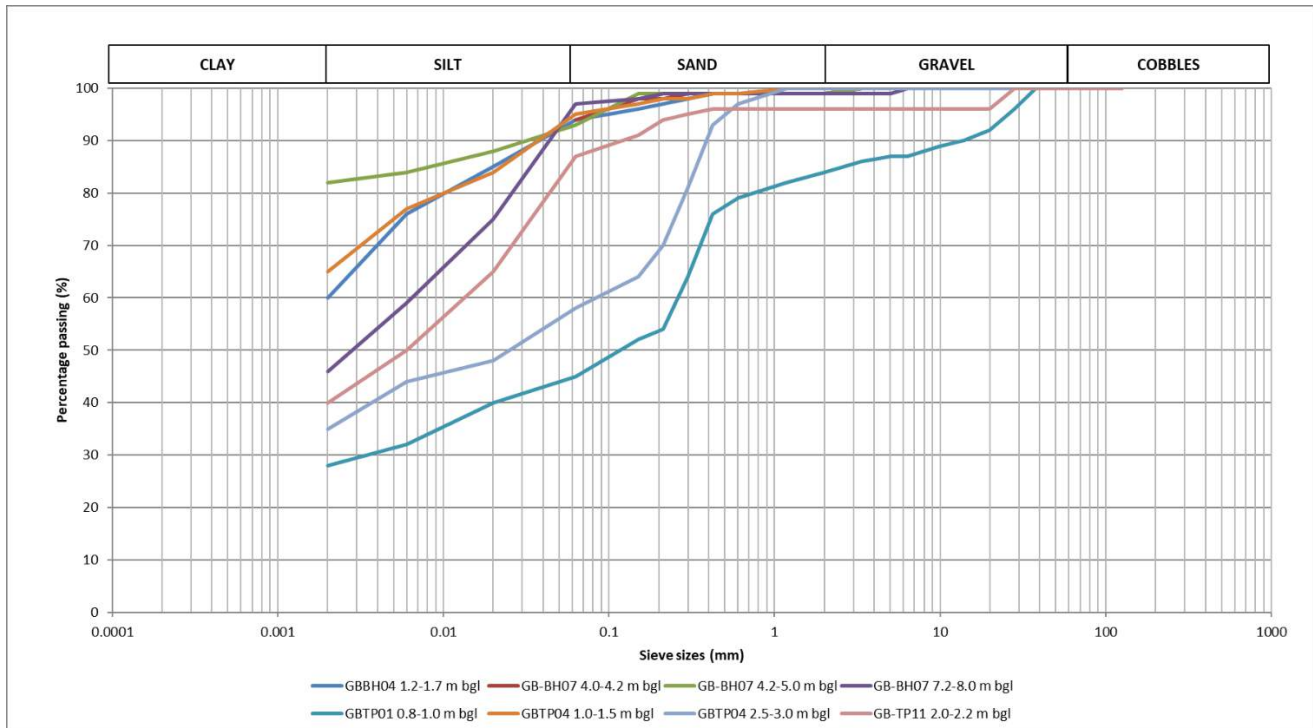
Drained elastic modulus has been estimated based on Ciria 143 [15] as $E' = \text{SPT } N_{60} \text{ value} \times 1$. A characteristic SPT N_{60} value of 8 has been used resulting in an E' value of 8 MPa.

5.3 Tidal Flat Deposits - Cohesive

5.3.1 Classification

Eight particle size distribution tests have been completed on the TFD in GBBH04, GB-BH07, GBTP01, GBTP04 and GB-TP11 from the 2021 and 2023 GIs. Five out of eight samples featured no gravel, and six out of eight samples had a fines content greater than 88%, indicating a highly cohesive material. The results of the particle size distribution tests are shown in Figure 5-2.

Figure 5-2 Particle size distribution in Tidal Flat Deposit



The in-situ SPT recorded three SPT N values of zero, indicating a very soft material. Two higher SPT N values of 21 and 26 were recorded. The SPT N of 21 in GBBH03 can be attributed to its proximity to the underlying dense gravel layer and the value of 26 in GBBH05 was recorded in peat, so it has been excluded from derivations. The laboratory and in-situ test results undertaken on the Tidal Flat Deposits are summarised in Table 5-2 alongside chosen characteristic values.

Table 5-2: Laboratory and in-situ test results

Laboratory / in-situ test results			Results range (no. of results/tests)	Characteristic value	Reference
Classification	Particle Size Distribution	%	Gr = 0 - 16 (8) Sa = 2 - 42 (8) Fi = 45 - 98 (8)	Gr = 0 Sa = 7 Fi = 93	
	<i>Cobbles (Co), Gravel (Gr), Sand (Sa), Fines (Fi), Silt (Si), Clay (Cl)</i>				
Classification	Moisture content	%	18-529 (20)	88	
Classification	Liquid Limit	%	38-110 (11)	71	
	Plastic Limit	%	19-48 (11)	34	
	Plasticity Index	%	19-62 (11)	37	
SPT N value		Value	0-26 (8)	4	
Hand shear vane		kPa	Peak: 10-18 (6) Residual: 6-10 (6)	Peak: 14 Residual: 8	
BRE Classification		Design Sulphate Class: DC-1 ACEC: AC-1			[17]

5.3.2 Effective stress parameters

The constant volume angle of shearing resistance has been calculated using the equation provided by BS 8002:2015, $42^\circ - 12.5 \log_{10} (PI)$, where PI is the Plasticity Index. Based on the characteristic plasticity index of 37%, a characteristic constant volume angle of shearing resistance, ϕ'_{cv} of 22° has been calculated.

5.3.3 Bulk unit weight

No measurements of bulk unit weight were made on samples of Tidal Flat Deposits. BS8002:2015 [20] suggests the bulk density of a medium to dense clay above the water table can range from 16.00 kN/m^3 to 20.00 kN/m^3 .

A characteristic value of 18 kN/m^3 is recommended for design.

5.3.4 Undrained shear strength

Undrained shear strength was determined using the from Stroud and Butler (1975) method mentioned in 5.1. In total 8 SPT tests were carried out and 6 hand shear vane tests were carried out. A characteristic SPT N60 value of 4 correlates to an undrained shear strength of 18 kPa. A characteristic undrained shear strength, C_u , of 14 kPa can be determined from the hand shear vane tests.

Based on a combination of SPT correlations and hand shear vane tests, the characteristic undrained shear strength has been determined as 16 kPa for the purpose of this report.

5.3.5 Elastic modulus

No laboratory tests to determine elastic modulus were scheduled on samples of cohesive Tidal Flat Deposits.

The drained elastic modulus, E' , has been estimated based on the characteristic value of plasticity index of 37% and an over consolidation ratio of 1 resulting in an E_u / C_u of 150 [15]. Therefore, an E' of 2.4 MPa has been derived.

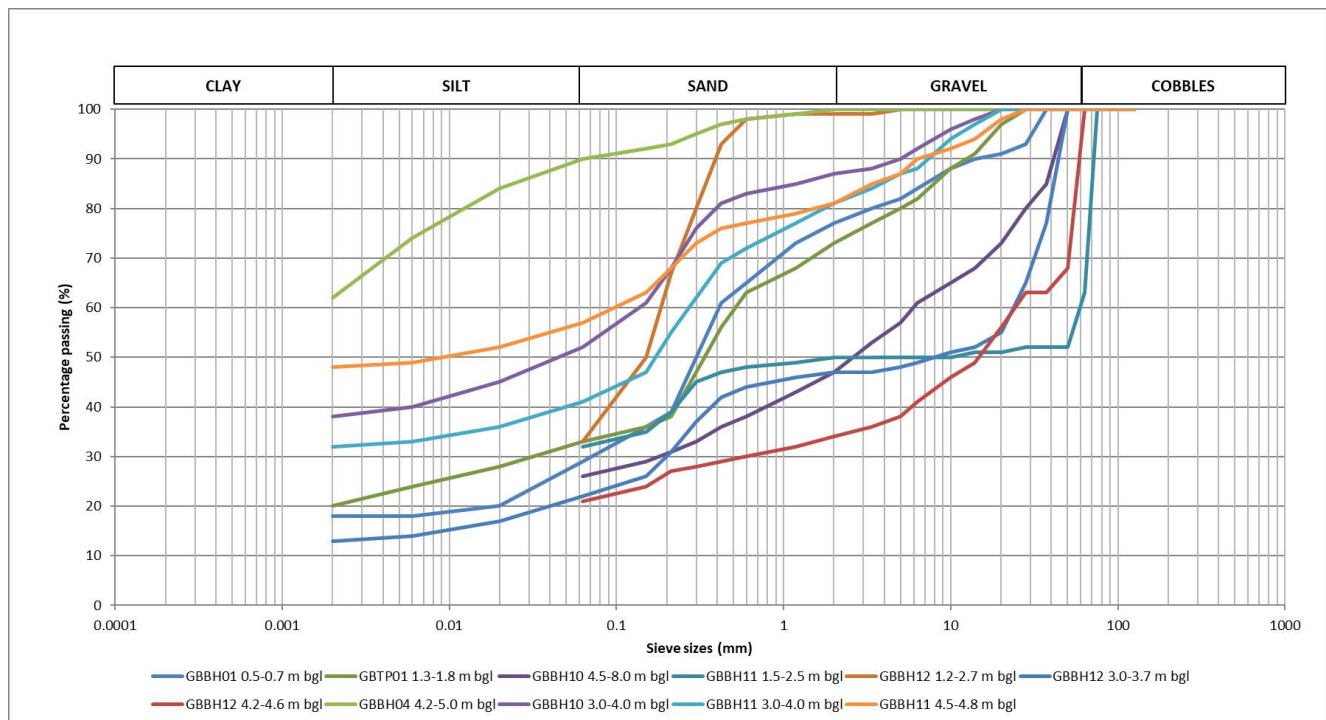
The undrained elastic modulus, E_u , has been derived from an E_u/C_u of 200 from Bowles, 1997 who describes normally consolidated sensitive clay to range from 200 to $500 \times C_u$. Therefore, the characteristic C_u value of 16 kPa for the TFD can be correlated to an E_u of 3.2 MPa.

5.4 Glacial Till Deposits

5.4.1 Classification

Due to the variable nature of Glacial Till, seven of the eleven particle size distribution tests completed in the Glacial Till deposits can be classified as granular and four as cohesive. The results of the particle size distribution tests are shown in Figure 5-3.

Figure 5-3 Particle size distribution in the Till



SPT N values varied within the heterogeneous material but were generally representative of a very stiff soil. SPT N results of 50 before going the full distance were found in 19 out of 31 of the tests.

The laboratory and in-situ test results undertaken on the Glacial Till Deposits are summarised in Table 5-3 alongside chosen characteristic values.

Table 5-3: Laboratory and in-situ test results in TILL

Laboratory / in-situ test results			Results range (no. of results/tests)	Characteristic value	Reference
Classification	Particle Size Distribution	%	Gr = 0 – 66 (11) Sa = 10 – 66 (11) Fi = 21 – 90 (11)	No characteristic value – material is highly heterogeneous across the site	
	<i>Cobbles (Co), Gravel (Gr), Sand (Sa), Fines (Fi), Silt (Si), Clay (Cl)</i>				
Classification	Moisture Content	%	1.5-22 (6)	12	
Classification	Liquid Limit	%	33 (1)	33	
Classification	Plastic Limit	%	21 (1)	21	
Classification	Plasticity Index	%	12 (1)	12	
SPT N value	Value		0*-50 (31)	40	
BRE Classification	Design Sulphate Class: DC-1 ACEC: AC-1				[17]

*SPT N of 0 encountered in GB-BH12 not considered representative.

5.4.2 Effective stress parameters

The internal angle of friction, ϕ'_p , has been interpreted from CIRIA 504. A characteristic plasticity index of 12 correlates to a peak internal angle of friction of 34° .

5.4.3 Bulk unit weight

No measurements of bulk unit weight were made on samples of Glacial Till deposits. BS8002:2015 [20] suggests the bulk density of a medium to dense gravel can range from 19.00 kN/m^3 to 23.00 kN/m^3 .

A characteristic value of 20 kN/m^3 is recommended for design.

5.4.4 Elastic modulus

No laboratory tests to determine elastic modulus were scheduled on samples of Glacial Till deposits.

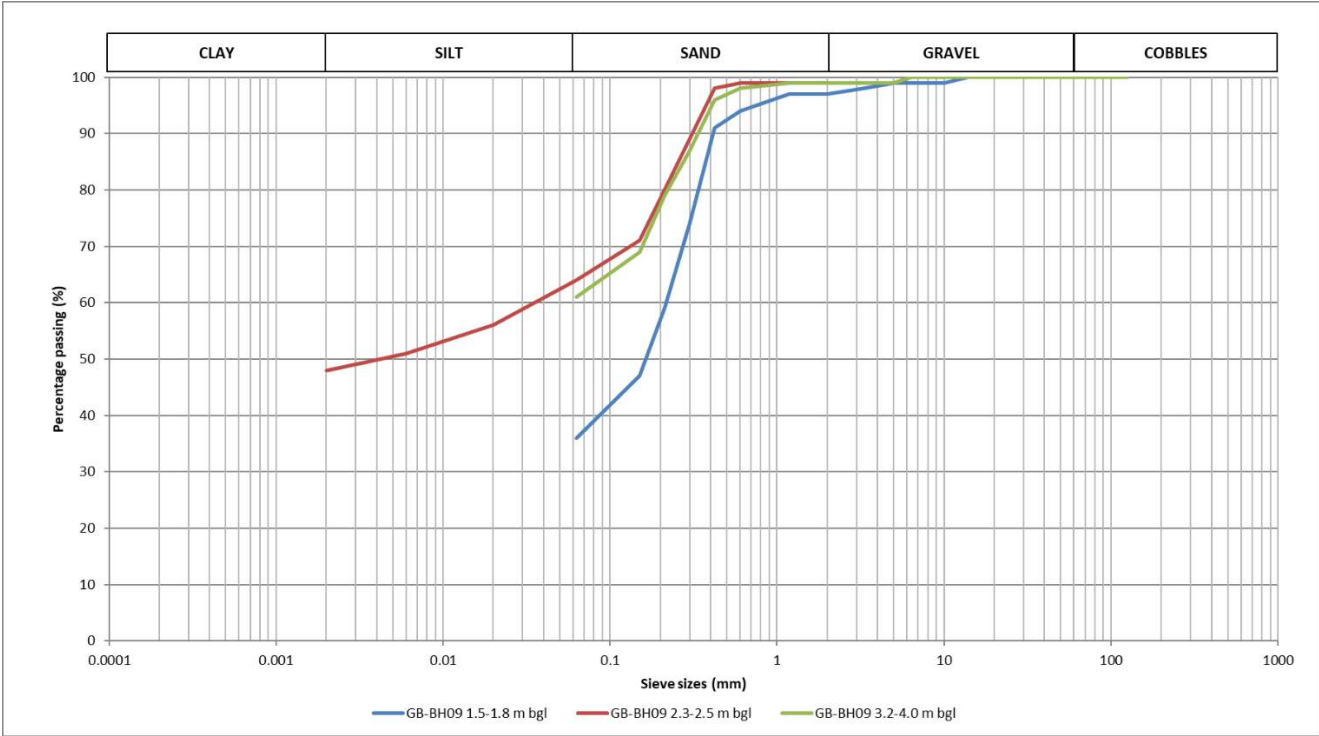
Drained elastic modulus has been estimated based on Ciria 143 [15] as $E' = \text{SPT N60 value} \times 1$. A characteristic SPT N60 of 42 has been calculated from the lowest energy ratio recorded for the SPT test equipment used in glacial till, 64.13%, and the characteristic SPT N value of 40. Therefore, a drained elastic modulus of 42 MPa has been derived.

5.5 River Terrace Deposits - Cohesive

5.5.1 Classification

Three particle size distribution tests have been completed on the RTD in GB-BH09 during the 2023 GI. They are presented in Figure 5-4.

Figure 5-4 Particle size distribution test in River Terrace Deposts



The particle size distribution test identified an overall majority fines. SPT N values increased with depth as the superficial material transitioned from clay to gravel. SPT N values of 0 - 2 were recorded for the sand and clay, and values of 18 – 50 were recorded for the gravel. The soft layers of sand and clay were described as becoming gravel at 11.72 m AOD or 3.10 m bgl. This in contradiction to the results of the particle size distribution tests, however, corresponds to the change in SPT values observed.

The laboratory and in-situ test results undertaken on the River Terrace Deposits are summarised in Table 5-4 alongside chosen characteristic values.

Table 5-4: Laboratory and in-situ test results River Terrace Deposts

Laboratory / in-situ test results			Results range (no. of results/tests)	Characteristic value	Reference
Classification	Particle Size Distribution	%	Gr = 0 – 2 (3) Sa = 36 – 61 (3) Fi = 37 – 62 (3)	Gr = 1 Sa = 44 Fi = 55	
	<i>Cobbles (Co), Gravel (Gr), Sand (Sa), Fines (Fi), Silt (Si), Clay (Cl)</i>				
Classification	Moisture Content	%	16-33 (2)	25	
Classification	Liquid Limit	%	68 (1)	68	
Classification	Plastic Limit	%	31 (1)	31	
Classification	Plasticity Index	%	37 (1)	37	
SPT N value		Value	0 – 50 (5)	15	

5.5.2 Effective stress parameters

The constant volume angle of shearing resistance has been calculated using the equation provided by BS 8002:2015, $42^\circ - 12.5 \log_{10} (PI)$, where PI is the Plasticity Index. Based on the characteristic plasticity index of 37%, a characteristic constant volume angle of shearing resistance, ϕ'_{cv} of 22° has been calculated.

5.5.3 Bulk unit weight

No measurements of bulk unit weight were made on samples of River Terrace Deposits. BS8002:2015 [20] suggests the bulk density of a medium to dense clay above the water table can range from 16.00 kN/m^3 to 20.00 kN/m^3 .

A characteristic value of 18 kN/m^3 is recommended for design.

5.5.4 Undrained shear strength

The undrained shear strength, C_u , was determined using the from Stroud and Butler (1975) method mentioned in 5.1. In total five SPT tests were carried out. A characteristic SPT N60 of 18 has been calculated from the energy ratio recorded for the SPT test equipment used in TFD of 74.36%, and the characteristic SPT N value of 15. An SPT N60 value of 18 correlates to an undrained shear strength of 81 kPa.

5.5.5 Elastic modulus

No laboratory tests to determine elastic modulus were scheduled on samples of cohesive River Terrace Deposits.

The drained elastic modulus, E' , has been estimated based on the characteristic value of plasticity index of 37% and an over consolidation ratio of 1 resulting in an E_u / C_u of 150 [15]. Therefore, an E' of 12.1 MPa has been derived.

The undrained elastic modulus, E_u , has been derived from an E_u/C_u of 200 from Bowles, 1997 who describes normally consolidated sensitive clay to range from 200 to $500 \times C_u$. Therefore, the characteristic C_u value of 81 kPa for the TFD can be correlated to an E_u value of 16.2 MPa.

5.6 Geotechnical parameter summary

Table 5-5 summarises the characteristic geotechnical parameters recommended for the strata identified in Section 4.

Table 5-5: Recommended geotechnical parameters

Strata	Shear strength			Stiffness		
	Bulk Density, γ (kN/m ³)	Effective angle of internal friction, ϕ' (°)	Effective cohesion, c' (kPa)	Undrained shear strength, c_u (kPa)	Drained Young's Modulus, E' (MPa)	Undrained Young's Modulus, E_u (MPa)
Made Ground	18	30	0	-	8	-
Tidal Flat Deposits	18	22	0	16	2.4	3.2
Glacial Till	20	34	0	-	42*	-
River Terrace Deposits	18	22	0	81	12.1	16.2

*Highly variable material. See section 4.3 for Glacial Till description.

6. Land contamination assessment

6.1 Introduction

Land contamination is assessed through the development of a conceptual site model (CSM) which describes the links between contamination which may be present from current and historical activities on site (including any off-site activities from which contaminants may migrate onto a site), receptors to that contamination and pathways between the two.

Sources of contamination and associated contaminants, receptors to that contamination and the pathways are identified and assessed to determine whether all three are present or are likely to be present. If all three are present, then they form a potential contaminant linkage (PCL). These PCLs can then be subjected to the risk assessment process.

The approach adopted in this assessment is in accordance with the guidance presented in the Environment Agency Land Contamination: Risk Management (LCRM) document [21]. LCRM has been adopted by planning authorities and Natural Resources Wales for use in Wales.

LCRM provides a technical framework for identifying and remediating contamination through the application of a risk management process. The decision of whether a risk is unacceptable in a particular case involves not only scientific and technical assessment, but also appropriate criteria by which to judge the risk and conclude exactly what level of risk would be unacceptable. Decisions regarding a site may be informed by:

- Tier 1 preliminary risk assessment – typically a desk study review to develop a preliminary CSM (PCSM) with an assessment of risk considering the likelihood and severity of the potential consequences associated with the PCLs;
- Tier 2 Generic Quantitative Risk Assessment (GQRA), typically a review of ground investigation and monitoring data, development / refinement of the CSM with an assessment of risk using precautionary Generic Assessment Criteria (GAC) relevant to the PCLs that represent minimal or tolerable risk; and
- Tier 3 Detailed Quantitative Risk Assessment (DQRA).

A Tier 1 PCSM assessment was prepared as part of the AtkinsRéalis 2020 Desk Study [22] which is still considered to be relevant based on limited design scope change. This section comprises a Tier 2 GQRA which updates the PCSM by considering the potential risks to identified plausible receptors from contaminant concentrations detected in the 2022, 2023 and 2024 ground investigations.

It should be noted that under current health and safety legislation, construction and maintenance workers are required to carry out appropriate risk assessments and instigate appropriate mitigating measures to protect themselves, other human receptors and the environment from contamination that may be present. Such risks must be adequately mitigated by the measures required under current legislation, specifically the Construction Design Management (CDM) Regulations [23], which requires that potential risks to human health and the environment from construction activities are appropriately identified and all necessary steps taken to eliminate / manage that risk. On this basis, it has been assumed that personal protective equipment (PPE) and health and safety best practices will be adopted during the construction works.

6.2 Preliminary conceptual site model

6.2.1 Potential sources of contamination

Based on the available information detailed in Section 2 and updated following the Quantum Geotechnic Ltd 2022, 2023, 2024 and Spencer Quantum Ltd 2024 ground investigations, the following sources of contamination have been identified:

6.2.1.1 On-site

Historical and current potentially contaminative activities which could give rise to contaminants in, on, or under the ground comprise:

- Made Ground including asbestos with the south-western boundary of the Ysgol Carreg Hir site;
- Made Ground of unknown provenance from the construction of the existing culvert, general infrastructure, sports facilities and residential properties;
- spills/leaks of oils on roads/landscaped areas;
- atmospheric fall out of exhaust contaminants from road traffic comprising inorganics and heavy metals;
- Shallow soils in playing fields/parks that may contain a range of organic and inorganic contaminants; and,
- potentially contaminated perched water/groundwater underlying the site.

6.2.1.2 Off-site

Contaminants from off-site sources would have to migrate to the site, generally in windblown, soil-derived dust, entrained in surface water run-off, in migrating groundwater and as migrating ground/landfill gas and vapours. Potential off-site sources of contamination which may have affected or affect the sites include:

- Made Ground of unknown provenance associated with the construction of nearby residential and commercial properties;
- Made Ground associated with decomposition in the cemetery adjacent to the south of the site which may contain a range of microbial, inorganic and metal contaminants and a source of ground gas;
- surface water run-off from nearby roads which may contain a range of organic contaminants;
- surface water run-off and shallow perched water / groundwater from the adjacent playing fields/parks; and,
- potentially contaminated groundwater associated with off-site industry (disused colliery north-east of the site).

6.2.2 Potential receptors

The potential receptors depend upon the current and proposed end use of the site. The site predominately comprises a residential suburban area with parks and is proposed to be used for surface water drainage with infrequent access for maintenance and use of sports fields and facilities. On this basis, the following receptors have been identified as having potential for impact.

6.2.2.1 Human

Potential human receptors are considered to comprise:

- on-site users (pedestrians/users of playing fields/parks);
- on-site users (future maintenance / construction workers);
- on-site users on Ysgol Carreg Hir site (future maintenance / construction workers and,
- off-site users (users of adjacent residential properties, roads and playing fields).

It has been assumed that personal protective equipment (PPE) and health & safety best practices will be adopted during the construction works and therefore acute risks to construction workers / site visitors have not been considered further.

6.2.2.2 Controlled waters

Potential controlled waters receptors are considered to comprise:

- surface watercourses (culverts, drains and nearby brooks);
- groundwater within the superficial (Glacial Till) Secondary Undifferentiated Aquifer;
- groundwater within the superficial (Tidal Flat Deposits) Secondary A Aquifer; and,
- groundwater within the bedrock (Pennant Sandstone Formation: Brithdir Member / Hughes Member) Secondary A Aquifer.



6.2.2.3 Property

Potential property receptors are considered to comprise:

- existing and future below ground infrastructure (drainage); and,
- off-site properties (residential and commercial).

6.2.3 Potential migration / exposure pathways

The potential pathways depend upon the current and proposed end use of the site. The site predominately comprises open fields and tarmac roads. On this basis, the following potential pathways have been identified.

6.2.3.1 Human health

The identified human receptors could be exposed to potential contamination through the following pathways:

- dermal contact / ingestion / inhalation of contaminants in soil and soil-derived dust;
- dermal contact / ingestion of contaminants in groundwater within excavations;
- Inhalation of ground gas / vapours; and
- off-site migration of contaminants in soil derived dust and run-off followed by dermal contact / inhalation / ingestion.

6.2.3.2 Controlled waters

The identified controlled waters receptors may be affected by potential contamination by the following pathways:

- leaching or dissolution of contaminants in soils and subsequent migration of contaminants in groundwater;
- vertical migration of dissolved phase contaminants to the underlying groundwater;
- lateral migration of dissolved phase contaminants in groundwater to surface water;
- lateral migration of dissolved phase contaminants via preferential pathways such as drains; and,
- migration of contaminants in surface water runoff.

6.2.3.3 Property

The identified property receptors may be affected by the following pathways:

- direct contact of contaminated soils/water with infrastructure, services and structures and subsequent chemical attack; and,
- direct contact of migrating contaminated groundwater within infrastructure, services and structures; and,
- migration of ground gases and accumulation in below ground chambers and infrastructure.

The Tier 1 PCSM presented in the AtkinsRéalis 2020 Desk Study [22] identified PCLs with low risks associated with human health and moderate risks associated with controlled waters receptors from Made Ground sources (on-site and off-site), based on a medium consequence and likely probability in accordance with risk assessment guidance in CIRIA 552 [24].

These risks are further assessed in the Tier 2 generic quantitative risk assessment presented in the sections below.

6.3 Generic quantitative risk assessment

6.3.1 Selection of human health Generic Assessment Criteria

In order to evaluate potential risks to human health from site soils via direct contact exposure (inhalation of dust, ingestion and dermal contact), soil data have been screened against Category 4 Screening Levels (C4SLs) and AtkinsRéalis' soil screening values (SSVs), collectively termed Generic Assessment Criteria



(GAC). Based on identified on-site and off-site human receptors under the current and proposed land use soil data have been screened against GAC deemed protective of a public open space (residential) land use.

AtkinsRéalis has produced SSVs for a variety of land uses based on soil organic matter (SOM) contents of 1 % and 6 %. The 1 % values provide more conservative SSVs and are based on a sandy soil type, whereas the 6 % values are based on a sandy loam soil type (the default within Science Report (SR) 3 [25]). A total of 28 soil samples from the current ground investigation were analysed for organic matter content. The mean organic matter content was 15.2%. The 6% SOM SSVs have therefore been applied to the assessment.

Category 4 Screening Levels (C4SLs) are modelled using Contaminated Land Exposure Assessment (CLEA) v1.07 for standard land uses and are concentrations of contamination in soil (with 6 % SOM) which are considered by DEFRA to represent a 'low risk' derived from updated exposure assessment parameters and toxicological data based on a 'Low Level of Toxicological Concern' [26]. As per the accompanying Policy Statement, DEFRA state that:

"A Low Level of Toxicological Concern represents an exposure equivalent to an intake of low concern but that definitely does not approach an intake level that could be defined as causing a Significant Possibility of Significant Harm to human health".

The C4SLs were derived based on remaining 'strongly precautionary' for the purposes of generic screening and with exception to benzene the change in SOM (to 6%) does not affect the criteria derivation. Therefore, where considered appropriate, AtkinsRéalis has adopted C4SLs for the nine contaminants for which data is available including: arsenic, benzene, cadmium, chromium VI, lead vinyl chloride, naphthalene, trichloroethylene (TCE) and tetrachloroethene (PCE).

PAHs have been assessed using benzo(a)pyrene (BaP) as a surrogate marker. The ratio of the concentrations of genotoxic PAH compounds has been compared against the upper and lower limits as set out on the C4SL guidance. The data indicate that the ratios to BaP are within the limits as defined in the toxicological study. Therefore, BaP is likely to be from the same source and so can be used as a marker compound for other genotoxic compounds in the assessment.

AtkinsRéalis has derived SSVs for a number of volatile and potentially volatile contaminants based on both soil saturation limits (where the contaminant will theoretically reach saturation and form free phase product), and health-based modelled values (given by the CLEA model [27]) which can be used where site conditions indicate saturation has not been reached and no free phase product exists. No free product was identified in the soils during the ground investigation, and therefore the health-based modelled values given by CLEA have been used.

Potential acute risks resulting from short term exposure of by construction workers to contamination involved with the proposed development cannot be assessed using these GACs because they relate to the long-term (chronic) risk. Risks to construction workers should be managed by the contractor through their Construction Environmental Management Plans (CEMPs) and as a minimum should include the use of appropriate Personal Protective Equipment (PPE) and appropriate working methods.

It should be noted that the GAC may change as new policy and technical guidance, including toxicological data, are published by Natural Resources Wales and other authoritative sources, but they are valid at the time of writing.

6.3.2 Comparison of soil concentration data with human health Generic Assessment Criteria

A total of 28 samples, collected between the depths of 0.3 and 1.50 m bgl, were screened against GAC considerate of a public open space (residential) land use. A total of 11 soil samples recorded concentrations to exceed the GAC for three constituents: arsenic, lead and aromatic TPH. A summary is provided in Table 6-1 below.

The soils screening assessment is provided in Appendix I.



Table 6-1 - Summary of exceedances against GAC

Constituent	Unit	GAC (mg/kg)	No. of samples	Min value (mg/kg)	Max Value (mg/kg)	No. of exceedances	Locations and depth (m bgl) of exceedances
Arsenic	mg/kg	79.1	26	2.5	1400	4	GBBH10, 0.5m; GBBH11, 0.5m; GBBH12, 0.25m; GBBH12, 0.8m
Lead	mg/kg	625	26	8.1	14000	6	GBBH05, 1.00m; GBBH07, 1.20m; GBBH10, 0.5m; GBBH11, 0.5m; GBBH12, 0.25m; GBBH12, 0.8m
Aromatic TPH >C21-C35	mg/kg	3770	26	<0.1	4900	1	GBH03, 0.5m

6.3.3 Asbestos

Asbestos screening was completed on all 28 soil samples analysed during the 2022, 2023 and 2024 ground investigations. No loose fibres or asbestos containing materials (ACMs) were identified within the soil matrix of the samples analysed.

6.4 Ground gas assessment

A preliminary ground gas risk assessment has been undertaken in accordance with BS 8485:2015+2019 [28] code of practice for design of protective measures for methane and carbon dioxide ground gases for buildings. This guidance provides a semi-quantitative assessment methodology for assessing the risk of permanent ground gas generation to buildings which is considered an appropriate approach for the proposed design.

BS8485:2015+2019 states that hazardous gas flow rates (Q_{hg}) should be calculated for methane and carbon dioxide for every borehole for each visit and suggests the Q_{hg}s be presented alongside the gas monitoring results in a database. Q_{hg} is calculated using the maximum gas concentration recorded (unless lower values can be justified) and the steady state flow rate using the formula:

$$Q_{hg} \text{ (l/hr)} = \text{flow rate (l/hr)} \times [\text{gas concentration (\%)} / 100]$$

The Gas Screening Value (GSV) is the flow rate of a specific hazardous gas considered to be representative of a site, following assessment of all borehole concentrations and gas flow rates, whilst taking account of other influencing factors. Such factors being, for example, whether a response zone was completely flooded (which can compromise gas data), the temporal/spatial nature of the data set and the acute one-off nature of the risk.

A decision must be made to determine whether the maximum Q_{hg} in the dataset is appropriate to represent the site (and thereby be selected as the GSV), or whether maximum gas concentrations and maximum steady state flow rates should be combined from any borehole/visit to derive a “worst case GSV”.

The GSV considered representative for the site is then used to select a Characteristic Situation (CS), which is the ground gas regime assumed for design of gas protection measures for new buildings in accordance with BS8485:2015+2019. The GSVs and CS are presented in Table 6-2.



Adopting a GSV based on peak flow measurements (i.e. those measured initially after the gas tap is opened) might result in a disproportionately high gas hazard prediction and assignment of an over-precautionary GSV and Characteristic Situation (CS), leading to overly conservative gas protection measures being incorporated into the development.

BS8485:2015+2019 does not include an approach for assessing carbon monoxide or hydrogen sulphide. The relevant Workplace Exposure Limits (WELs) as outlined within the HSE EH40/2005 (2012) document [29] has been adopted for use in a preliminary assessment of carbon monoxide and hydrogen sulphide. The WELs used for carbon monoxide and hydrogen sulphide have been provided below:

- carbon monoxide: 30 parts per million (ppm) for long-term (eight hours) exposure limit and 200 ppm for short-term (15 minutes) exposure limit.
- hydrogen sulphide: 5 ppm for the long-term exposure limit and 10 ppm for the short-term exposure limit.

Table 6-2 – Site characteristic GSV and associated characteristic situation

CS	Risk Classification	GSV (l/hr)	Additional Factors
1	Very Low Risk	<0.07	Typical methane <1 % and/or carbon dioxide <5 %. Otherwise consider increase to characteristic Situation 2.
2	Low Risk	<0.7	Borehole air flow rate not to exceed 70 l/hr. Otherwise consider increase to Characteristic Situation 3
3	Moderate Risk	<3.5	-
4	Moderate to High Risk	<15	Quantitative risk assessment required to evaluate scope of protective measure
5	High Risk	<70	-
6	Very High Risk	>70	-

Note: '-' denotes where a combination of protective measures are required

6.4.1 Carbon dioxide and methane results

Four rounds of ground gas monitoring were undertaken by Quantum Geotechnics Ltd in locations GBBH04 and GBBH05 during August 2021, December 2021, January 2022 and February 2022. Three rounds of ground gas monitoring were undertaken by Quantum Geotechnics Ltd in locations GBBH07 and GBBH09 in May 2023, July 2023 and July 2023. Ground gas monitoring records are provided within the ground investigation factual reports provided in Appendix G.

The Qhg of each monitoring well has been calculated and a summary of the maximum gas concentrations and steady state flow rates for each monitoring location is presented in Table 6-3.

Table 6-3 – Ground gas assessment

Location	Max. Peak Recorded conc. (% v/v)		Max. Steady State Flow Rate (l/hr)	Qhg (l/hr) calculated for each well*		Gas Screening Value (l/hr)	Response Zone Flooded?
	Carbon Dioxide	Methane		Carbon Dioxide	Methane		



GBBH04	0.2	0.1	0.1	0.0002	0.0001	<0.07 (CS1)	Partial
GBBH05	0.2	0.1	0.2	0.0004	0.002	<0.07 (CS1)	No
GBBH07	4.1	0.1	0.4	0.00164	0.0004	<0.07 (CS1)	No
GBBH09	3.7	0.1	0.5	0.0185	0.0005	<0.07 (CS1)	Partial

Note: '**' denotes that maximum gas concentrations combined with maximum steady state flow recorded on any site visit

Where methane rates were recorded as 0.0 % v/v, a value of 0.1 has been used to calculate the Q_{hg}.

The potential sources of ground gas comprise the Made Ground and Peat underlying the site.

Methane concentrations were recorded as <0.1 % in all of the monitoring wells. The maximum carbon dioxide concentration was recorded as 4.1% in GBBH07 during the second monitoring round in June 2023.

The maximum flow rate of 0.5 l/hr was recorded within exploratory hole GBBH07 during monitoring round one in May 2023 which was a period of relatively high atmospheric pressure (1029 mBar). Atmospheric pressures ranged between 943 and 1012 mBar during the 2021 to 2022 monitoring rounds in periods of rising pressure. Atmospheric pressures ranged between 1011 and 1029 mBar during the 2023 monitoring during the monitoring rounds in periods of high atmospheric pressure.

In assessing the ground gas monitoring results, it should be considered that flooding of the response zone can affect the measured concentrations of gases through release of gases in the dissolved phase from groundwater, rather than from soils. Rising of groundwater levels can also result in an increase in recorded ground gas concentrations through displacement of gases from the soil matrix.

In GBBH04, the response zone, installed within sandstone, ranges between 1.00 and 8.00 m bgl and groundwater was recorded between 2.39 and 2.53 m bgl across the three monitoring rounds, indicating that the response zone was partially flooded.

The response zone for GBBH05, installed within peat, was not flooded across the four monitoring rounds.

The response zones for GBBH07 and GBBH09 were installed within Made Ground between 1.00 and 4.65 m bgl and groundwater was recorded between 1.93 and 2.88 m bgl across the three monitoring rounds, indicating that the response zone was partially flooded.

Based on the results, the Characteristic Situation for the site has been assessed as CS1 (very low risk) and typically no special precautions against ground gas are required for new development for this category.

6.4.2 Carbon monoxide and hydrogen sulphide

The highest concentration of carbon monoxide recorded was 1 ppm during monitoring round one in GBBH05 and monitoring round two in GBBH04. Concentrations of hydrogen sulphide were recorded below the instrument's limit of detection in all other recorded monitoring locations in all monitoring rounds.



6.4.3 Summary of human health GQRA

There were 28 soil samples analysed for a range chemical analytes across the site. A total of 11 soil samples recorded concentrations to exceed the GAC for a public open space (parks) land use for arsenic, lead and TPH.

Lead was identified to exceed the GAC in GBBH05 at 1.00 m bgl located in the northwest of the site and in GBBH10 at 0.5 m bgl, GBBH11 at 0.5 m bgl, GBBH12 at 0.25 m and 0.8 m bgl, GBBH07 at 1.2 m bgl located in the south of the site. The highest reported lead concentration was 14,000 mg/kg in GBBH12 at 0.8 m which is two orders of magnitude above the GAC, 625 mg/kg.

It is considered that the Made Ground is the likely source of the lead exceedance across the site with slag identified within corresponding Made Ground locations. Topsoil was identified in GBBH05 to 0.30 m, tarmac was identified in GBBH10 and GBBH12 to 0.08 m and concrete in GBBH11 to 0.07 m bgl. The surface cover at each location would be expected to act as a potential pathway barrier to human health receptors through encapsulation of the underlying soils. It is understood that the surface cover post development will also comprise hardtanding / and or vegetated landscaping.

Arsenic was identified to exceed the GAC in GBBH10 at 0.5 m bgl, GBBH11 at 0.5 m bgl, GBBH12 at 0.25 m and 0.8 m bgl, all located in the south of the site. The highest reported arsenic concentration was 1,400 mg/kg, two orders of magnitude above the GAC, 79.1 mg/kg. It is considered that the Made Ground is the likely source of the arsenic exceedances across the site with slag identified within the Made Ground. Tarmac was identified at GBBH10 and GBBH12 to 0.08m and concrete at GBBH11 to 0.07 m bgl. The surface cover at each location acts as a potential pathway barrier to human health receptors through encapsulation of the underlying soils.

A single exceedance of aromatic TPH >C21-C35 was reported in a single isolated sample from GBBH03 at 0.5 m bgl, located in the south west of the site. The reported concentration was 4,900 mg/kg which is within the same order of magnitude of the GAC screening value of 3770 mg/kg. Rare gravel of ash and coal is reported within the exploratory log at GBBH03 within the depth range of the sample and is considered the likely source of the exceedance. Surface cover of tarmac was also identified at this location of 0.08 m in thickness, acting as a potential pathway barrier to human health receptors.

Considering the discussion above, the recorded concentrations of arsenic, lead and TPH in shallow soils is unlikely to pose an unacceptable risk to human health receptors. Hardstanding is located across the site and is understood to remain in place under normal site conditions following development. The hardstanding will encapsulate the underlying soils and consequently, direct contact, ingestion and dust inhalation pathways to receptors would be absent.

The ground gas regime at the site has been classified as CS1 (very low risk), which typically does not require special gas protection measures to be incorporated within buildings / structures. The highest PID was recorded in GBBH03, located in the south east of the site at a depth of 0.08 m to 0.12 m bgl which recorded at 7.2 ppm. It is considered that the risk from vapours is low on the basis that no evidence of significant volatile contamination was reported in the logs, no readings over 10ppm were reported and volatiles will likely vent naturally to the atmosphere.

6.5 Controlled waters Generic Quantitative Risk Assessment

The controlled waters GQRA has been designed to assess the potential risks posed to the identified controlled waters receptors from the migration of contaminants from identified on-site sources. To assess potential risks to the identified receptors, a comparison of soil leachate and groundwater analysis against pertinent water quality standards (WQS) has been undertaken.

The screening criteria for controlled waters assessment are dependent on the nature of the key receptor(s).



Superficial deposits underlying the site comprise Glacial Till and Tidal Flat Deposits which are classified as Secondary A aquifers. Bedrock underlying the site comprises the Pennant Sandstone Formation is classified as a Secondary A aquifer.

The nearest surface watercourses are the Ynysmaerdy Brook and Grandison Brook which are located adjacent to the south and west of the site respectively.

Considering the hydrological and hydrogeological regime as summarised above, both surface water and groundwater are primary receptors for potential contamination. Soil leachate and groundwater monitoring data has been screened against Water Quality Standards (WQS) comprising Environmental Quality Standards for inland freshwater (EQS) [30], protective of aquatic life in surface water and Drinking Water Standards (DWS) [31] protective of groundwater.

The bioavailability of certain metals (copper, lead, nickel, zinc) varies depending on the hydrochemical characteristics of the receiving surface water body. Published EQS values are unadjusted values which assume 100% bioavailability and are therefore highly conservative. Therefore, site specific Predicted No Effect Concentrations (PNEC) values have been derived using the WFD-UK rivers and lakes metal bioavailability assessment tool (mBAT) [32] to define site-specific EQS that accounts for the bioavailability for each relevant metal. The receiving water parameters were defined by surface water samples collected from the nearby brooks, upstream and downstream of the site. The location of the surface water samples taken are presented in within the Quantum Geotechnic Ltd 2022 report [9], included in Appendix G. The mBAT analysis is presented in Appendix I.

6.5.1 Comparison of soil leachate concentrations with WQS

There were 17 soil samples from the 2022, 2023 and 2024 ground investigations recovered from a range of depths between 0.3 and 1.20 m bgl in Made Ground and natural strata and subject to soil leachate analysis.

6.5.1.1 Comparison of soil leachate data with EQS values

The screening of the analytical results from the 17 soil-leachate samples shows that concentrations of ammoniacal nitrogen, nitrite, copper, mercury, manganese, nickel, lead, vanadium, zinc, iron, hexavalent chromium, fluoranthene, aliphatic TPH >C₂₁-C₃₅, aromatic TPH >C₁₂-C₁₆ and aromatic TPH >C₂₁-C₃₅ exceed the EQS values.

All of the soil leachate EQS exceedances are within one order of magnitude of the EQS screening value.

A summary of the EQS soil leachate exceedances are summarised in Table 6-4 below.

Table 6-4 – Soil leachate EQS exceedances

Constituent	Units	EQS (mg/l)	Number of samples	Minimum concentration (mg/l)	Maximum concentration (mg/l)	Number of exceedances	Location & Depth (m bgl)
Ammoniacal Nitrogen	mg/l	0.2	17	<0.05	1.3	2	GBBH02, 0.50m; GBBH12, 0.8m
Nitrite	mg/l	0.01	17	<0.02	0.038	3	GBH01, 0.5m; GBBH02, 0.50m; GBH03, 0.5m
Copper	mg/l	0.007	17	0.0016	0.11	5	GBBH04, 0.5m, GBBH05, 1.00m; HP05, 0.3m; GBTP04,

							0.5m;GBBH12, 0.8m
Mercury	mg/l	0.00007	17	<0.00005	0.00042	2	GBH03, 0.5m; GBTP04, 0.5m
Manganese	mg/l	0.18	17	0.00096	0.31	1	GBBH02, 0.50m
Nickel	mg/l	0.006	17	<0.0005	0.013	2	GBTP04, 0.5m; GBBH04, 0.5m;
Lead	mg/l	0.00342	17	<0.0005	0.093	7	GBBH04, 0.5m; GBBH05, 1.00m; GBTP04, 0.5m; GBBH09, 0.7m; GBBH07, 0.3m; GBBH10, 0.5m; GBBH12, 0.8m
Vanadium	mg/l	0.02	17	<0.0005	0.024	1	GBTP04, 0.5m
Zinc	mg/l	0.019	17	<0.0025	0.03	5	GBBH04, 0.5m; GBTP04, 0.5m; GB-BH09, 0.7m; GB-BH07, 0.3m; GBBH10, 0.5m
Iron (Dissolved)	mg/l	1	17	<0.005	12	5	GBBH02, 0.50m; GBH01, 0.5m; GBTP04, 0.5m; GBBH04, 0.5m GBBH12, 0.8m
Chromium (Hexavalent)	mg/l	0.0034	17	<0.02	0.022	1	GBTP04, 0.5m
Fluoranthene	mg/l	0.0000063	17	<0.0001	0.0064	1	GBBH10, 0.5m
Aliphatic TPH >C ₂₁ -C ₃₅	mg/l	0.01	17	<0.0001	0.12	3	HP02, 0.50m; HP02, 1.00m; GBH01, 0.40m
Aromatic TPH >C ₁₂ -C ₁₆	mg/l	0.01	17	<0.0001	0.42	3	HP02, 0.50m; HP02, 1.00m; GBH01, 0.40m
Aromatic TPH >C ₂₁ -C ₃₅	mg/l	0.01	17	<0.0001	1.5	3	HP02, 0.50m; HP02, 1.00m; GBH01, 0.40m

6.5.1.2 Comparison of soil leachate data with DWS values

The screening of the analytical results from the 17 soil-leachate samples identified concentrations of ammoniacal nitrogen, cyanide (total), cyanide (complex), aluminium, arsenic, manganese, lead, antimony, iron, aromatic TPH >C₁₂-C₁₆ and aromatic TPH >C₂₁-C₃₅ to exceed the DWS values.

All of the soil leachate DWS exceedances are within one order of magnitude of the DWS screening value.

A summary of the DWS soil leachate exceedances are summarised in Table 6-5 below.



Table 6-5 – Soil leachate DWS exceedances

Constituent	Units	DWS (mg/l)	Number of samples	Minimum concentration (mg/l)	Maximum concentration (mg/l)	Number of exceedances	Location & Depth (m bgl)
Ammoniacal Nitrogen	mg/l	0.39	17	<0.05	1.3	2	GBBH02, 0.50m; GBBH12, 0.8m
Cyanide (Total)	mg/l	0.05	17	<0.05	0.25	1	GBTP04, 0.5m
Cyanide (Complex)	mg/l	0.05	17	<0.05	0.25	1	GBTP04, 0.5m
Aluminium	mg/l	0.2	17	0.0087	7.9	5	GBBH02, 0.50m; GBH01, 0.5m; GBTP04, 0.5m; GBBH04, 0.5m; GBBH12, 0.8m
Arsenic	mg/l	0.01	17	0.001	0.036	5	GBH03, 0.5m; HP02, 0.50m; GBTP04, 0.5m; GBBH10, 0.5m; GBBH12, 0.8m
Manganese	mg/l	0.05	17	0.00096	0.31	3	GBBH02, 0.50m; GBTP04, 0.5m; GBBH12, 0.8m
Lead	mg/l	0.01	17	<0.0005	0.093	5	GBBH04, 0.5m; GBTP04, 0.5m; GB-BH09, 0.7m; GB-BH07, 0.3m; GBBH10, 0.5m
Antimony	mg/l	0.005	17	<0.0005	0.013	4	GBTP05, 1.20m; GBTP06, 1.20m; GBBH05, 1.00m; GBTP04, 0.5m
Iron (Dissolved)	mg/l	0.2	17	<0.005	12	5	GBBH02, 0.50m; GBH01, 0.5m; GBTP04, 0.5m; GBBH04, 0.5m; GBBH12, 0.8m
Aromatic TPH >C ₁₂ -C ₁₆	mg/l	0.09	17	<0.0001	0.42	3	HP02, 0.50m; HP02, 1.00m; GBH01, 0.40m
Aromatic TPH >C ₂₁ -C ₃₅	mg/l	0.09	17	<0.0001	1.5	3	HP02, 0.50m; HP02, 1.00m; GBH01, 0.40m



6.6 Comparison of groundwater data with controlled waters Generic Assessment Criteria

One groundwater sample was collected on 25 August 2021 from GBBH05 and a further samples was collected on 31 May 2023 from GBBH07; the analytical results from both samples was screened against EQS and DWS values.

The response zone of GBBH05 monitoring standpipe was installed at 3.00 to 4.00 m bgl within natural peat deposits. The response zone of GBBH07 monitoring standpipe was installed at 1.00 to 2.80 m bgl within Made Ground deposits.

6.6.1.1 Comparison of groundwater data with EQS values

The screening of the analytical results from the 17 soil-leachate samples identified concentrations of ammonium, ammoniacal nitrogen and zinc to exceed the groundwater EQS values.

A summary of the EQS groundwater exceedances are summarised in Table 6-6 below.

Table 6-6 – Groundwater EQS exceedances

Constituent	Units	EQS (mg/l)	Number of samples	Minimum concentration (mg/l)	Maximum concentration (mg/l)	Number of exceedances	Location & Depth (m bgl)
Ammonium	mg/l	0.26	2	0.3	2.0	2	GBBH05; GBBH07
Ammoniacal Nitrogen	mg/l	0.2	2	0.26	1.6	2	GBBH05; GBBH07
Zinc	mg/l	0.019	2	0.0039	0.023	1	GBBH07

6.6.1.2 Comparison of groundwater data with DWS values

The screening of the analytical results from the 17 soil-leachate samples identified concentrations of ammonium and ammoniacal nitrogen and zinc to exceed the groundwater DWS values.

A summary of the DWS groundwater exceedances are summarised in Table 6-6 below.

Table 6-7 – Groundwater DWS exceedances

Constituent	Units	DWS (mg/l)	Number of samples	Minimum concentration (mg/l)	Maximum concentration (mg/l)	Number of exceedances	Location & Depth (m bgl)
Ammonium	mg/l	0.5	2	0.3	2.0	1	GBBH07
Ammoniacal Nitrogen	mg/l	0.39	2	0.26	1.8	1	GBBH07



6.7 Comparison of surface water data with controlled waters Generic Assessment Criteria

A total of four surface water samples were collected, one upstream and one downstream of the site from an unnamed watercourse in 2021 and again in 2023. The sample locations are shown on the exploratory plan within the Quantum Geotechnic 2023 exploratory plan. The analytical concentrations from the four samples were screened against EQS values and concentrations of ammonium and ammoniacal nitrogen were identified to exceed the criteria.

A summary of the EQS surface water exceedances are summarised in Table 6-8 below.

Table 6-8 – Surface water EQS Exceedances

Constituent	Units	EQS (mg/l)	Number of samples	Minimum concentration (mg/l)	Maximum concentration (mg/l)	Number of exceedances	Location & Depth (m bgl)
Ammonium	mg/l	0.26	4	0.33	1.4	2	Upstream; Downstream
Ammoniacal Nitrogen	mg/l	0.2	4	0.3	1.2	2	Upstream; Downstream

6.7.1 Controlled waters discussion

The soil leachate screening assessment indicates that there are concentrations of ammoniacal nitrogen, nitrite, and metals (copper, mercury, manganese, nickel, lead, iron, hexavalent chromium, vanadium and zinc) and organics (TPH aliphatic TPH >C₂₁-C₃₅, aromatic TPH >C₁₂-C₁₆ and aromatic TPH >C₂₁-C₃₅) which exceed the EQS within Made Ground and natural strata across the site.

Concentrations exceeding the DWS screening criteria were identified for ammoniacal nitrogen, cyanide (total), cyanide (free), metals (aluminium, arsenic, manganese, lead, antimony, iron) and organics (TPH aromatic >C₁₂-C₁₆ and Aromatic >C₂₁-C₃₅).

Soil leachate concentrations for aluminium copper, aliphatic TPH >C₂₁-C₃₅, aromatic TPH >C₁₂-C₁₆ and aromatic TPH >C₂₁-C₃₅ were recorded above an order of magnitude of the EQS and aluminium, iron and aromatic TPH >C₂₁-C₃₅ were recorded above an order of magnitude of the DWS.

Groundwater samples are typically more representative of the risk posed to the identified controlled water receptors as it is reasonably assumed that the soils and groundwater are in equilibrium.

The results of the screening for groundwater sample indicated concentrations exceeding of the EQS and DWS for ammonium and ammoniacal nitrogen which were within the same order of magnitude of the screening values. The results of the screening for surface water samples indicated exceedances of the freshwater EQS for the same constituents in both upstream and downstream samples which suggests these constituents may be indicative of background regional concentrations.

The concentrations of constituents in soil leachate are considered unlikely to present an unacceptable risk to controlled waters receptors for the following reasons:



- Direct comparison of soil leachate results with EQS and DWS, does not take into account the dilution and attenuation of contaminants that may occur along the pathway between the source and the nearest surface water receptors.
- Soil-leachate analysis is relatively aggressive, typically resulting in an over-estimation of the concentration of a contaminant which may leach from unsaturated soils under site conditions. This results in an inherently conservative assessment, which may not be representative of actual site conditions.
- Groundwater and surface water analysis identified exceedances of ammonium and ammoniacal nitrogen only. This indicates that the theoretical leaching of the metals, inorganic and organic constituents identified from analysis of soil leachate is not occurring to a degree that can be demonstrated to be affecting the chemistry of controlled waters receptors;
- The recorded ammonium and ammoniacal nitrogen concentrations in groundwater and surface water, both up and down hydraulic gradient of the site, are likely to be indicative of background regional concentrations.

6.8 Revised CSM

Based on the findings of the human health and controlled waters GQRAs presented above, the preliminary CSM presented in Section 6.2 has been revised based on the assessments completed.

The revised CSM resulting from the information discussed above is shown below in Table 6-9.



Table 6-9 - Revised conceptual site model

Source	Receptor	Pathway	Potential Consequence	Probability	Risk Classification	Comments
<u>On-site</u> Made Ground of unknown provenance from the construction of the existing culvert, general infrastructure, sports facilities and residential properties; Spills / leaks of oils on the carriageway / driveways / gardens; atmospheric fall out of exhaust contaminants from road traffic comprising inorganics and heavy metals; shallow soils in playing fields / park that may contain a range of organic and inorganic contaminants from the use of herbicides and pesticides;	On-site users (pedestrians / users of playing fields/parks)	dermal contact / ingestion / inhalation of contaminants in soil and soil-derived dust	Medium	Unlikely	Low	A total of 11 exceedances of the GAC were identified from 28 soil samples analysed as part of the investigations in 2022, 2023 and 2024. The concentrations recorded were typically isolated and likely to be associated with ash and coal fragments recorded within Made Ground strata on the site. No samples positively identified asbestos.
	On-site future maintenance and construction workers	dermal contact / ingestion / inhalation of contaminants in soil and soil-derived dust	Medium	Unlikely	Low	
	On-site future maintenance and construction workers on School site	dermal contact / ingestion of contaminants in perched / groundwater within excavations	Severe	Likely	High	The site is understood to be covered in hardstanding or vegetated areas which will encapsulate and bind the soils and reduce the potential for generation of soil derived dusts. Under normal use, site users will be unlikely to come into contact with, or ingest, underlying soils.
		Inhalation of ground gas / vapours				
potentially contaminated perched water/groundwater underlying the site. <u>Off-site</u> Made Ground of unknown provenance associated with the construction or nearby	Off-site users of residential properties / playing fields	off-site migration of contaminants in soil derived dust and run-off followed by dermal contact / inhalation / ingestion	Medium	Unlikely	Low	Chemical analysis of soil samples from previous phases of ground investigation at the Ysgol Carreg Hir area of the site identified 10 positive asbestos samples. Remediation of the site in 2018 comprised the burying of asbestos impacted material 300 to 400 mm below ground level which was covered



residential and commercial properties;

Made Ground associated with decomposition in the cemetery adjacent to the south of the site which may contain a range of inorganic and metal contaminants;

surface water run-off from nearby roads which may contain a range of organic contaminants;

surface water run-off and shallow perched water / groundwater from adjacent playing fields/park/allotments that may contain herbicides and pesticides;

potentially contaminated groundwater associate with off-site industry (disused colliery north-east of the site).

with a high visibility marker liner and clean cover soil. It is considered likely that excavation works along the southern boundary of the site in landscaped area below the visibility marker layer will encounter asbestos impacted soils.

Short term risks associated with construction/maintenance on the Ysgol Carreg Hir site should be managed by following Health and Safety at Work Act legislation, Construction Design and Management Regulations, use of a Construction Environmental Management Plan (CEMP), personal protective equipment and appropriate working practices such as dust mitigation measures.

Bare soils may be exposed during construction, increasing the short-term potential of soil derived dust and dermal contact with soils. Post construction, the groundcover at the site will predominantly comprise vegetation with some areas of open surface water. The vegetation would cover and bind the soil subsequently reducing the potential for direct contact /



					ingestion of soils during normal use Risks from ground gases are unlikely to be unacceptable as there are no anticipated enclosed structures as part of the proposed works.
Surface water in the on-site culvert	lateral migration of dissolved phase contaminants in groundwater to surface water lateral migration of dissolved phase contaminants via preferential pathways such as drains migration of contaminants in surface water runoff	Medium	Unlikely	Low	Soil leachate concentrations exceeded the EQS and DWS but were generally within the same order of magnitude as the screening criteria. The concentrations exceeding the EQS and DWS in groundwater and surface water were limited to ammonium and ammoniacal nitrogen. The widespread on and off site occurrence of these constituents is likely to be indicative of background regional concentrations.
Groundwater in the underlying superficial and bedrock aquifers	leaching or dissolution of contaminants in soils and subsequent migration of contaminants in groundwater vertical migration of dissolved phase	Medium	Unlikely	Low	There is a theoretical potential for leaching of metals, inorganic and organic constituents from on-site soils. However, the absence of exceedances in surface water and groundwater indicates that this is not occurring to a degree that can be demonstrated to be affecting

	contaminants to the underlying groundwater					the chemical quality of controlled waters receptors. The proposed works could result in the mobilisation of contamination in unsaturated soils where soil is re-used on-site, through leaching/dissolution of, and subsequent migration into the identified receptors. Implementation of mitigation measures is required to prevent silt entering the watercourses
Existing and future below ground infrastructure	direct contact of contaminated soils/water with infrastructure, services and structures and subsequent chemical attack	Mild	Unlikely	Very Low		It is assumed that appropriate concrete classifications will be adopted for proposed underground structures and infrastructure as part of the design of the works. Based on the results, the Characteristic Situation for the site has been assessed as CS1 (very low risk) and typically no special precautions against ground gas are required within any proposed work



6.9 Material disposal and reuse

The primary aim of the intrusive investigation was to gather data for the geotechnical design and geo-environmental risk assessment. The investigation was not designed to provide sufficient data to suitably characterise waste / materials in accordance with Regulator's Guidance on the classification and assessment of waste (1st Edition v1.2GB) Technical Guidance WM3 [33] (known herein as WM3) for transfer off-site to a waste facility.

Material that the holder discards or intends or is required to discard, or material that has no legal mechanism for re-use either on- or off-site, is classified as a 'waste' and should be managed in accordance with the current relevant regulations and guidance. It is the waste producer's legal responsibility to accurately classify any waste arising from their works.

To classify waste materials, a number of steps should be undertaken in accordance WM3. The initial steps are to determine:

- if the materials are waste and whether classification is required;
- the relevant List of Waste (LoW) codes;
- the assessment needed to select the waste codes;
- the chemical composition of the material; and,
- if the substances in the waste are 'hazardous substances' or 'Persistent Organic Pollutants' and if they are present, what hazardous properties, if any, are associated with the waste.

Waste classification in the case of soils and excavated materials is undertaken on laboratory soils analysis, with Waste Acceptance Criteria (WAC) testing often undertaken in tandem to inform the type of landfill which would be considered suitable for the waste should this be the proposed management route. WAC analysis is not suitable to use as a standalone analysis for the assessment of waste.

There are a number of potential systems available to legally manage the re-use of site-won materials as part of any construction works if appropriate, such as CL:AIRE's Definition of Waste Code of Practice [34] through the production of a Materials Management Plan (MMP), specific registered waste exemptions, and/or operating under environmental permits. These approaches all require further consultation and specialist advice, which is outside the scope of this assessment and should be sought by the Client if required.

Should any material from the site be considered for removal off-site, liaison with any receiving facilities should be undertaken prior to transfer of the waste. Copies of the laboratory analysis undertaken to date should be presented to the facility operator(s) alongside any further testing completed by the waste producer so they can confirm their acceptance requirements; certain types of facilities may require waste acceptance criteria (WAC) testing to be undertaken prior to acceptance.

Any material, not solely excavated materials, that needs to be discarded during the project works is potentially designated a waste and should be managed in accordance with the current authoritative regulations, guidance and best practice.

The sampling and laboratory testing undertaken in the 2022, 2023 and 2024 ground investigations across the site comprised analysis on 28 soil samples. A Waste Acceptance Criteria (WAC) test was completed on three samples collected from GBH05 at 1.00 m bgl in Quantum Geotechnic Ltd 2022 [9] ground investigation and from Silt 1 and Silt 2 in the Quantum Geotechnic Ltd 2024 [13] ground investigation. The results indicate that, for this single soil sample, the criteria are within limits for acceptance at an inert landfill. However, a WAC test is not a waste classification and should be considered together with other lines of evidence and a full waste classification in accordance with the requirements of WM3. An inert WAC test cannot be used in isolation and is subject to further assessment and demonstration of absence of organic and other unacceptable materials.

6.10 Conclusions and recommendations

6.10.1 Conclusions

Based on the findings of the ground investigation and subsequent assessment detailed in Section 6.3 and summarised in the revised CSM in Table 6-9, the potential risks are considered to be:

- low to human health;
- low to controlled waters; and
- very low for property.

Potential risks to future on-site maintenance users within the Ysgol Carreg Hir section of the site are considered to be high. See Section 6.10.2 below for further information regarding this section of the site.

In relation to the proposed project, the following should be considered:

- adoption of appropriate health and safety measures, practices and procedures during construction to mitigate potential risks to construction workers and visitors;
- adoption of appropriate best practice environmental management during construction, e.g. minimisation of dust generation and migration, to mitigate potential risks to controlled waters, visitors and surrounding off-site users;
- Made Ground soils, asphalt/sub-base and natural soils should be handled and stockpiled separately to avoid cross contamination and to facilitate potential reuse or disposal.
- A watching brief should be implemented by an appropriately qualified land contamination specialist, to ensure unexpected contamination, if encountered, is recognised and appropriately assessed and mitigated.
- Vigilance is to be maintained throughout the works for potential asbestos containing material at surface or other unexpected contamination during site clearance and earthworks in areas not previously investigated.
- A waste classification assessment is outside the scope of this report. Suitability and classification for reuse and/or disposal will vary between material type. Soils should be handled and reused in accordance with a site-specific MMP and in accordance with the CL:AIRE Definition of Waste Code of Practice [34] or other relevant process or regime. Soils required to be removed off-site should be appropriately classified in accordance with the Environment Agency classification and assessment of waste (1st Edition v1.2GB) Technical Guidance WM3 [33].

6.10.2 Ysgol Carreg Hir specific conclusions

As summarised in Section 2.4.2, within the Ysgol Carreg Hir section of the site, an engineered cover system was put in place across the site by Sanctus in 2018 which comprised the burying of asbestos impacted material 300 to 400 mm below ground level and covered with a high visibility marker liner and clean cover soil.

Where the culvert is to be installed at a depth greater than 0.4 m bgl, excavation is understood to be required below the cover system layer in this area.

Specialist advice should be obtained from a competent asbestos specialist. The work should be undertaken in line with the Control of Asbestos Regulations 2012 (CAR2012), the CL:AIRE Joint Industry Working Group Decision Tool should be used to determine if the works are notifiable and what mitigation should be implemented for the protection of site workers. Risk assessments and method statements should consider the most appropriate mitigation measures to be implemented. Staff undertaking the works should hold suitable asbestos training.

Further details and recommendations for future development are provided in Sanctus' Engineered Cover System 2018 report [36].



7. Engineering assessment

7.1 Structures

At the time of writing this report a draft design has been proposed as described in Section 1 with the layout map presented in Appendix A.

When designing the proposed depths of the culvert structures, the presence of Tidal Flat Deposits should be considered as this is likely to cause bearing and settlement risk to structures and should not be used as load bearing strata. Where possible it is recommended that the material is excavated and replaced with a suitable material.

7.2 Excavations

Risks associated with the variability of Made Ground and the Glacial Till are expected, especially to the southeast of the site where Glacial Till is expected at a shallower depth. These relate to the heterogeneity of the materials comprising irregular boulders and cobbles, which may be encountered and effect the shape and size of the excavation and the excavatability of the material.

Soft soils and peat within the Tidal Flat deposits are likely to cause stability issues predominantly in the northwest of the site. The influence of groundwater will also be influential in the stability of the excavations within this strata.

An effective temporary support method such as trench sheeting is recommended to prevent open excavations from collapsing at the walls and damaging the culvert.

7.3 Coal mining

The Coal Authority report states that the site lies within an area which is believed to have coal at or close to the surface which may have been worked sometime in the past. Therefore, there is the potential for the presence of coal workings at or close to the surface at the site. However, there are no reported mine entries within 20 m of the site boundary and The Coal Authority has not received a damage notice or claim for the subject property, or any property within 50m of the enquiry boundary relating to subsidence, since 31 October 1994 [6]. During the ground investigation no evidence of coal mining was encountered but workings in the vicinity of the site area cannot be discounted.

8. Geotechnical Risk Register

8.1 Geotechnical risk and risk matrix

For the purpose of report, geotechnical risk is defined as the possibility of an adverse consequence arising from a ground hazard or circumstance.

The Geotechnical Risk Register takes into account the identified geotechnical constraints, along with additional project details to ensure that all significant geotechnical risks are identified, recorded, analysed and controlled. The geotechnical risks are discussed in terms of probability, severity and risk, as defined below:

- Likelihood (L): The perceived likelihood of the identified geotechnical hazard actually occurring.
- Severity (S): The perceived severity, in terms of safety, financial, temporal, legal, or operational consequence, of the occurrence of the identified geotechnical hazard on the identified receptor(s)
- Risk (R): The perceived level of concern which should be assigned to the identified hazard, based on the likelihood of occurrence, and taking into due account the perceived severity of the impact.

The risk uses the following equation:

Degree of Risk (R) = Likelihood (L) x Severity (S)

The likelihood and severity values are detailed in Table 8-1.

Table 8-1 - Likelihood and Severity rating

Likelihood		Severity			
		Health and Safety		Operational	
5	Certain	5	Fatality	5	Fatality
4	Probable	4	Major injury	4	Irreversible Damage
3	Likely	3	Reportable injury	3	Major Damage
2	Unlikely	2	Lost time injury	2	Minor Damage
1	Negligible	1	Minor injury	1	No Effect

Table 8-2 - Risk matrix

Likelihood	5	5	10	15	20	25
	4	4	8	12	16	20
	3	3	6	9	12	15
	2	2	4	6	8	10
	1	1	2	3	4	5
		1	2	3	4	5
Severity						

Table 8-3 - Perceived degree of risk



Risk Number	Risk Ranking	Comments
20 - 25	Unacceptable	Which cannot be justified except in extraordinary circumstances, where resources and finance are provided to control the risk irrespective of cost.
15 - 19	Substantial	Tolerable only if risk reduction is impracticable or if its cost is disproportionate to improvement.
7 - 12	Moderate Risk	Tolerable if cost of reduction would exceed the improvement gained in reducing the risk further.
0 – 6	Low	Tolerable

8.2 Risk Register

The Geotechnical Risk Register comprises an initial assessment of the risks identified, prior to the application of risk mitigation measures, and shows how the risks can be reduced by the application of certain measures.

Table 8-4 - Geotechnical Risk Register

	<i>Hazard/Risk</i>	<i>Consequence</i>	<i>Initial Risk</i>			<i>Mitigation Measures</i>	<i>Residual Risk</i>		
1	Presence of buried services.	Damage to unknown services causing delays, additional remedial costs, injury or death.	3	4	12	Designer to consider the presence of recorded buried services in their design. Contractor to review the presence and location of recorded services, preparing a method statement for the avoidance, protection or diversion of buried services. Contractor to conduct CAT scans of the surrounding area and take hand dug pits in case of unrecorded services prior to excavation works.	2	4	8



	<i>Hazard/Risk</i>	<i>Consequence</i>	<i>Initial Risk</i>			<i>Mitigation Measures</i>	<i>Residual Risk</i>		
2	Variable groundwater level.	Groundwater levels higher than anticipated could cause difficult excavating conditions. This could lead to delay and extra cost for provision of specific dewatering plant. High groundwater levels could cause delay and extra cost associated with redesign.	3	5	15	Designer to assess the effect of high groundwater conditions on design options. Contractor to consider undertaking construction in the summer when the floodplain may have lower groundwater levels.	1	5	5



	<i>Hazard/Risk</i>	<i>Consequence</i>	<i>Initial Risk</i>			<i>Mitigation Measures</i>	<i>Residual Risk</i>		
3	Presence of soft / compressible strata	Presence of soft and compressible Tidal Flat Deposits may cause excessive settlement affecting the serviceability of the design solution and potentially causing extra cost and delay associated with redesign.	3	4	12	Designer to consider appropriate bearing strata for each design solution to avoid founding on compressible strata. Contractor to consider excavating soft or loose patches at formation level with a suitable engineered fill.	1	4	4



	<i>Hazard/Risk</i>	<i>Consequence</i>	<i>Initial Risk</i>			<i>Mitigation Measures</i>	<i>Residual Risk</i>		
4	Contaminated made ground	Potential risk to human health and the environment. Presence of contamination may also limit materials reuse / waste disposal costs Delays to the project from requirement to classify and remove contaminated materials	4	3	12	Made Ground identified as only potential source of contamination from desk study assessment and ground investigation. The Contractor is to remain vigilant to any unexpected potential contamination and inform client if any visual or olfactory evidence of contamination is encountered. The Contractor should ensure stockpiles of excavated soils are suitably managed to prevent run off / leaching to river. Waste soils to be removed from site will require additional sampling for waste classification and landfill acceptance. Good environmental management procedures should be utilised for future excavations, such as dampening down, to prevent migration of potentially contaminated dust.	2	3	6
5	Obstructing cobbles and boulders associated with Glacial Till	Excavations encountering obstructions required for culverts resulting in project delays.	4	2	8	Ensure contractor has prepared to excavate based on the reported ground conditions in the area.	3	2	6



	<i>Hazard/Risk</i>	<i>Consequence</i>	<i>Initial Risk</i>			<i>Mitigation Measures</i>	<i>Residual Risk</i>		
6	Coal workings at or close to the surface at the site	Unrecorded mine workings encountered on site resulting in delays.	3	4	12	The Coal Authority report has shown no mine workings within 20m of the site area and no workings were encountered during the GI. If coal workings are encountered on site during excavations, stop work immediately for further investigation to take place.	2	4	8



9. References

- [1] Landmark Information Group, “Envirocheck Report, Site at 274590, 195200, Ref: 222284714_1_1,” 2019.
- [2] British Geological Survey, “Geological Survey of England and Wales, Swansea. Sheet 247. Solid and Drift Edition, 1:5000 Series,” 1978.
- [3] British Geological Survey, “GeoIndex,” British Geological Survey, [Online]. Available: <http://mapapps2.bgs.ac.uk/geoindex/home.html>. [Accessed September 2019].
- [4] The Coal Authority, “CON29M coal mining report,” The Coal Authority, 2019.
- [5] Zetica, “Regional Unexploded Bomb Risk Map,” [Online]. Available: <https://zeticauxo.com/downloads-and-resources/risk-maps/>. [Accessed September 2019].
- [6] Zetica, “Pre-Desk Study Assessment - Grandison,” 2019.
- [7] Natural Resources Wales, “Long Term Flood Risk Map,” Natural Resources Wales, 10 2019. [Online]. Available: <https://naturalresources.wales/evidence-and-data/maps/long-term-flood-risk/?lang=en>. [Accessed 10 2019].
- [8] Natural Resources Wales, “LLe Map Browser,” Natural Resources Wales, 10 2019. [Online]. Available: <http://lle.gov.wales/map#m=-3.84035,51.65955,15&b=europa&l=772;>. [Accessed 10 2019].
- [9] Quantum Geotechnic Limited, “Grandison Brook Flood Alleviation Scheme Factual Report Q00560/FR.01,” 2022.
- [10] Quantum Geotechnic Limited, “Grandison Brook Flood Alleviation Scheme - Phase III Ground Investigation Report No. Q1114/FR.01,” 2023.
- [11] British Standards Institution, “BSI BS 1377-2 - Methods of test for soils for civil engineering purposes Part 2: Classification tests and determination of geotechnical properties”.
- [12] Spencer Quantum Limited, “Grandison Brook Flood Alleviation Scheme - Jersey Park Boreholes Ground Investigation Factual Report. Report No. Q1484/FR.01,” 2024.
- [13] Quantum Geotechnic Limited, “Grandison Brook Phase 4 Ground Investigation Factual Letter Report. Report No. Q1432GI/LR01,” 2024.
- [14] British Standards Institute, “BS 8002:2015 Code of practice for earth retaining structures,” 2015.
- [15] CIRIA 143, “The Standard Penetration Test (SPT): Methods and Use,” 1995.
- [16] Bowles, “Foundation Analysis and Design,” 1997.



- [17] BRE Special Digest 1 - Concrete in aggressive ground, BRE, 2005.
- [18] M. Tomlinson and J. Woodward, Pile Design and Construction Practice 5th Edition, 7th ed., 2008.
- [19] BSI, "BS 8004:2015 - Code of practice for foundations," *British Standards Institute*, 2015.
- [20] BSI, BS 8002:2015 - Code of Practice for Earth Retaining Structures., British Standards Institute, 2015.
- [21] Environment Agency, "Land Contamination: Risk Management," Environment Agency, 08 2023. [Online]. Available: <https://www.gov.uk/guidance/land-contamination-how-to-manage-the-risks>. [Accessed 2024].
- [22] Atkins, "Grandison Brook Flood Alleviation Scheme Desk Study Report," 2020.
- [23] United Kingdom Parliament, "Construction (Design & Management) Regulations (SI 2015/51)," 2015.
- [24] CIRIA, "C552: Contaminated land risk assessment. A guide to good practice.," 2001.
- [25] Environment Agency, "Science Report SC050021/SR3; Updated Technical Background to the CLEA Model," 2009.
- [26] DEFRA, "Development of Category 4 Screening Levels for Assessment of Land Affected by Contamination. Ref: SP1010, Version 2," 2014.
- [27] DEFRA, "Model Procedures for the Management of Land Contamination, Contaminated Land Report CLR11," 2004.
- [28] British Standards, "BS 8485:2015 +A1: 2019 - Code of practice for the design of protective measures for methane and carbon dioxide ground gases for new buildings," 2019.
- [29] HSE, "EH40/2005 Workplace exposure limits," 2020.
- [30] Water Resources, England and Wales, "The Water Environment (Water Framework Directive) (England and Wales) Regulations 2017," 2017.
- [31] DEFRA, "The Water Supply (Water Quality) (Amendment) Regulations 2018," 2018.
- [32] WFD UK TAG, "The importance of dissolved organic carbon in the assessment of environmental quality standard compliance for copper and zinc," 2012.
- [33] Environment Agency, "Waste Classification: Guidance on the Classification and Assessment of Waste. Technical Guidance WM3," 2021.
- [34] CL:AIRE, "CLAIRE: Definition of Waste: Code of Practice," [Online]. Available: <https://www.claire.co.uk/projects-and-initiatives/dow-cop>.
- [35] Atkins, "CatWasteSoil," 08 2021. [Online]. Available: www.catwastesoil.co.uk. [Accessed 08 2021].



- [36] Sanctus, "Engineered Cover System," 2018.
- [37] British Geological Survey, "The BGS lexicon of named rocks," British Geological Survey, [Online]. Available: <http://www.bgs.ac.uk/lexicon/>. [Accessed September 2019].
- [38] HMSO, "The Water Framework Directive (Standards and Classification) Direction (England and Wales)," 2015.
- [39] Atkins , "Grandison Brooke Flood Alleviation Scheme Ysgol Carreg Hir Asbestos Summary," 2022.
- [40] Atkins, "Grandison Brook Flood Alleviation Scheme Desk Study Report," 2019.
- [41] CIRIA C504, "Engineering in Glacial Till," CIRIA, 1999.
- [42] British Geological Survey (Forster, A. et al), "Engineering geology of British rocks and soils: Gault Clay," *British Geological Survey Technical Report WN/94/31*, 1994.
- [43] M. Jamiolkowski, R. Lancellotta, S. Marchetti, R. Nova and E. Pasqualini, "Design parameters for soft clays," in *European Conference on Soil Mechanics and Foundation Engineering*, Brighton, 1979.



APPENDICES

Appendix A. Drawings

A.1 Proposed scheme



Appendix B. Envirocheck Report



Envirocheck[®] Report:

Datasheet

Order Details:

Order Number:

222284714_1_1

Customer Reference:

5192793

National Grid Reference:

274680, 195180

Slice:

A

Site Area (Ha):

2.5

Search Buffer (m):

1000

Site Details:

Site at 274590, 195200

Client Details:

Mr J Dyke
Atkins Ltd
Longcross Court
47 Newport Road
Cardiff
CF24 0AD

Report Section	Page Number
Summary	-
Agency & Hydrological	1
Waste	30
Hazardous Substances	-
Geological	36
Industrial Land Use	52
Sensitive Land Use	59
Data Currency	63
Data Suppliers	68
Useful Contacts	69

Introduction

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

Copyright Notice

© Landmark Information Group Limited 2019. The Copyright on the information and data and its format as contained in this Envirocheck® Report ("Report") is the property of Landmark Information Group Limited ("Landmark") and several other Data Providers, including (but not limited to) Ordnance Survey, British Geological Survey, the Environment Agency/Natural Resources Wales and Natural England, and must not be reproduced in whole or in part by photocopying or any other method. The Report is supplied under Landmark's Terms and Conditions accepted by the Customer. A copy of Landmark's Terms and Conditions can be found with the Index Map for this report. Additional copies of the Report may be obtained from Landmark, subject to Landmark's charges in force from time to time. The Copyright, design rights and any other intellectual rights shall remain the exclusive property of Landmark and /or other Data providers, whose Copyright material has been included in this Report. © Environment Agency & United Kingdom Research and Innovation 2019. © Natural Resources Wales & United Kingdom Research and Innovation 2019.

Natural England Copyright Notice

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

Scottish Natural Heritage Copyright

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

Ove Arup Copyright Notice

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

Peter Brett Associates Copyright Notice

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

Radon Potential dataset Copyright Notice

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

Natural Resources Wales Copyright Notice

Contains Natural Resources Wales information © Natural Resources Wales and Database Right. All rights Reserved. Contains Ordnance Survey Data. Ordnance Survey Licence number 100019741. Crown Copyright and Database Right. Contains Natural Resources Wales information © Natural Resources Wales and Database Right. All rights Reserved. Some features of this information are based on digital spatial data licensed from the Centre for Ecology & Hydrology © NERC (CEH). Defra, Met Office and DARD Rivers Agency © Crown copyright. © Cranfield University. © James Hutton Institute. Contains OS data © Crown copyright and database right 2019. Land & Property Services © Crown copyright and database right.

Report Version v53.0

Data Type	Page Number	On Site	0 to 250m	251 to 500m	501 to 1000m (*up to 2000m)
Agency & Hydrological					
BGS Groundwater Flooding Susceptibility	pg 1	Yes	Yes	Yes	n/a
Contaminated Land Register Entries and Notices					
Discharge Consents	pg 2				10
Prosecutions Relating to Controlled Waters			n/a	n/a	n/a
Enforcement and Prohibition Notices					
Integrated Pollution Controls					
Integrated Pollution Prevention And Control	pg 5		1		2
Local Authority Integrated Pollution Prevention And Control					
Local Authority Pollution Prevention and Controls	pg 5				1
Local Authority Pollution Prevention and Control Enforcements					
Nearest Surface Water Feature		Yes			
Pollution Incidents to Controlled Waters	pg 6		2	8	5
Prosecutions Relating to Authorised Processes	pg 8				1
Registered Radioactive Substances	pg 8			7	
River Quality					
River Quality Biology Sampling Points					
River Quality Chemistry Sampling Points					
Substantiated Pollution Incident Register	pg 9				1
Water Abstractions	pg 10				(*6)
Water Industry Act Referrals					
Groundwater Vulnerability Map	pg 11	Yes	n/a	n/a	n/a
Bedrock Aquifer Designations	pg 12	Yes	n/a	n/a	n/a
Superficial Aquifer Designations	pg 12	Yes	n/a	n/a	n/a
Source Protection Zones					
Extreme Flooding from Rivers or Sea without Defences	pg 12		Yes	n/a	n/a
Flooding from Rivers or Sea without Defences	pg 12		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 12	6	17	54	69

Data Type	Page Number	On Site	0 to 250m	251 to 500m	501 to 1000m (*up to 2000m)
Waste					
BGS Recorded Landfill Sites	pg 30				1
Historical Landfill Sites	pg 30				1
Integrated Pollution Control Registered Waste Sites					
Licensed Waste Management Facilities (Landfill Boundaries)	pg 30				2
Licensed Waste Management Facilities (Locations)	pg 30			1	5
Local Authority Landfill Coverage	pg 32	1	n/a	n/a	n/a
Local Authority Recorded Landfill Sites	pg 32				1
Potentially Infilled Land (Non-Water)	pg 32		1	4	11
Potentially Infilled Land (Water)	pg 33	1	3	1	12
Registered Landfill Sites					
Registered Waste Transfer Sites	pg 34			2	1
Registered Waste Treatment or Disposal Sites	pg 35			1	
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 36	Yes	n/a	n/a	n/a
BGS Estimated Soil Chemistry	pg 36	Yes	Yes	Yes	Yes
BGS Recorded Mineral Sites	pg 41		4	5	14
BGS Urban Soil Chemistry	pg 45		Yes	Yes	Yes
BGS Urban Soil Chemistry Averages	pg 48	Yes			
CBSCB Compensation District			n/a	n/a	n/a
Coal Mining Affected Areas	pg 48	Yes	n/a	n/a	n/a
Mining Instability	pg 48	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 48	Yes	Yes	n/a	n/a
Potential for Compressible Ground Stability Hazards	pg 48	Yes	Yes	n/a	n/a
Potential for Ground Dissolution Stability Hazards				n/a	n/a
Potential for Landslide Ground Stability Hazards	pg 49	Yes	Yes	n/a	n/a
Potential for Running Sand Ground Stability Hazards	pg 50	Yes	Yes	n/a	n/a
Potential for Shrinking or Swelling Clay Ground Stability Hazards	pg 50	Yes	Yes	n/a	n/a
Radon Potential - Radon Affected Areas	pg 51	Yes	n/a	n/a	n/a
Radon Potential - Radon Protection Measures	pg 51	Yes	n/a	n/a	n/a
Industrial Land Use					
Contemporary Trade Directory Entries	pg 52		7	4	19
Fuel Station Entries	pg 54				1
Points of Interest - Commercial Services	pg 54		6	1	8
Points of Interest - Education and Health	pg 56			1	
Points of Interest - Manufacturing and Production	pg 56		2	4	6
Points of Interest - Public Infrastructure	pg 57		6	2	8
Points of Interest - Recreational and Environmental	pg 58			3	2
Gas Pipelines					
Underground Electrical Cables					

Data Type	Page Number	On Site	0 to 250m	251 to 500m	501 to 1000m (*up to 2000m)
Sensitive Land Use					
Ancient Woodland	pg 59		3	5	35
Areas of Adopted Green Belt					
Areas of Unadopted Green Belt					
Areas of Outstanding Natural Beauty					
Environmentally Sensitive Areas					
Forest Parks					
Local Nature Reserves	pg 62				1
Marine Nature Reserves					
National Nature Reserves					
National Parks					
Nitrate Sensitive Areas					
Nitrate Vulnerable Zones					
Ramsar Sites					
Sites of Special Scientific Interest					
Special Areas of Conservation					
Special Protection Areas					
World Heritage Sites					

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
	BGS Groundwater Flooding Susceptibility Flooding Type: Potential for Groundwater Flooding to Occur at Surface	A13SE (SE)	0	1	274677 195184
	BGS Groundwater Flooding Susceptibility Flooding Type: Limited Potential for Groundwater Flooding to Occur	A13SW (W)	0	1	274650 195184
	BGS Groundwater Flooding Susceptibility Flooding Type: Potential for Groundwater Flooding to Occur at Surface	A13SE (E)	0	1	274800 195150
	BGS Groundwater Flooding Susceptibility Flooding Type: Limited Potential for Groundwater Flooding to Occur	A13SE (SE)	1	1	274750 195100
	BGS Groundwater Flooding Susceptibility Flooding Type: Limited Potential for Groundwater Flooding to Occur	A13NW (N)	6	1	274650 195300
	BGS Groundwater Flooding Susceptibility Flooding Type: Limited Potential for Groundwater Flooding to Occur	A13SW (W)	7	1	274500 195184
	BGS Groundwater Flooding Susceptibility Flooding Type: Limited Potential for Groundwater Flooding to Occur	A13NE (N)	12	1	274677 195250
	BGS Groundwater Flooding Susceptibility Flooding Type: Limited Potential for Groundwater Flooding to Occur	A13SE (SE)	20	1	274850 195050
	BGS Groundwater Flooding Susceptibility Flooding Type: Limited Potential for Groundwater Flooding to Occur	A13SE (E)	33	1	274900 195184
	BGS Groundwater Flooding Susceptibility Flooding Type: Limited Potential for Groundwater Flooding to Occur	A13NW (W)	57	1	274400 195250
	BGS Groundwater Flooding Susceptibility Flooding Type: Limited Potential for Groundwater Flooding to Occur	A13SE (S)	70	1	274700 195000
	BGS Groundwater Flooding Susceptibility Flooding Type: Potential for Groundwater Flooding of Property Situated Below Ground Level	A13NW (NW)	101	1	274550 195400
	BGS Groundwater Flooding Susceptibility Flooding Type: Limited Potential for Groundwater Flooding to Occur	A13SE (E)	106	1	275000 195100
	BGS Groundwater Flooding Susceptibility Flooding Type: Limited Potential for Groundwater Flooding to Occur	A13SE (E)	110	1	275000 195184
	BGS Groundwater Flooding Susceptibility Flooding Type: Limited Potential for Groundwater Flooding to Occur	A13SE (SE)	122	1	274800 194950
	BGS Groundwater Flooding Susceptibility Flooding Type: Limited Potential for Groundwater Flooding to Occur	A13SE (SE)	123	1	275000 195050
	BGS Groundwater Flooding Susceptibility Flooding Type: Limited Potential for Groundwater Flooding to Occur	A13SE (S)	132	1	274677 195000
	BGS Groundwater Flooding Susceptibility Flooding Type: Limited Potential for Groundwater Flooding to Occur	A13SE (SE)	148	1	275000 195000
	BGS Groundwater Flooding Susceptibility Flooding Type: Limited Potential for Groundwater Flooding to Occur	A14SW (SE)	191	1	275050 195000
	BGS Groundwater Flooding Susceptibility Flooding Type: Limited Potential for Groundwater Flooding to Occur	A13SE (SE)	234	1	274950 194850
	BGS Groundwater Flooding Susceptibility Flooding Type: Potential for Groundwater Flooding of Property Situated Below Ground Level	A13SW (SW)	238	1	274550 194950
	BGS Groundwater Flooding Susceptibility Flooding Type: Potential for Groundwater Flooding of Property Situated Below Ground Level	A12NE (W)	257	1	274200 195250

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	A14SW (SE)	286	1	275100 194900
	BGS Groundwater Flooding Susceptibility Flooding Type: Limited Potential for Groundwater Flooding to Occur	A14NW (E)	287	1	275100 195350
	BGS Groundwater Flooding Susceptibility Flooding Type: Limited Potential for Groundwater Flooding to Occur	A12SE (SW)	296	1	274300 195000
	BGS Groundwater Flooding Susceptibility Flooding Type: Limited Potential for Groundwater Flooding to Occur	A12NE (W)	307	1	274150 195250
	BGS Groundwater Flooding Susceptibility Flooding Type: Limited Potential for Groundwater Flooding to Occur	A13SW (S)	310	1	274600 194850
	BGS Groundwater Flooding Susceptibility Flooding Type: Limited Potential for Groundwater Flooding to Occur	A14SW (E)	326	1	275200 195000
	BGS Groundwater Flooding Susceptibility Flooding Type: Limited Potential for Groundwater Flooding to Occur	A8NE (SE)	345	1	275000 194750
	BGS Groundwater Flooding Susceptibility Flooding Type: Limited Potential for Groundwater Flooding to Occur	A12SE (W)	396	1	274150 195000
	BGS Groundwater Flooding Susceptibility Flooding Type: Limited Potential for Groundwater Flooding to Occur	A8NW (SW)	396	1	274500 194800
	BGS Groundwater Flooding Susceptibility Flooding Type: Limited Potential for Groundwater Flooding to Occur	A14NW (E)	416	1	275200 195400
	BGS Groundwater Flooding Susceptibility Flooding Type: Potential for Groundwater Flooding of Property Situated Below Ground Level	A8NW (SW)	416	1	274450 194800
	BGS Groundwater Flooding Susceptibility Flooding Type: Limited Potential for Groundwater Flooding to Occur	A9NW (SE)	425	1	275150 194750
	BGS Groundwater Flooding Susceptibility Flooding Type: Limited Potential for Groundwater Flooding to Occur	A8NW (SW)	462	1	274450 194750
1	Discharge Consents Operator: Dwr Cymru Cyfyngedig Property Type: Sewerage Network - Pumping Station - Water Company Location: Saltings Ps Authority: Natural Resources Wales Catchment Area: Not Given Reference: BO5114701 Permit Version: 1 Effective Date: 19th October 1989 Issued Date: 19th October 1989 Revocation Date: 31st March 2004 Discharge Type: Unspecified Discharge Environment: Not Supplied Receiving Water: River Neath Status: Revoked (Water Resources Act 1991, Section 88 & Schedule 10 as amended by Environment Act 1995) Positional Accuracy: Located by supplier to within 100m	A12NW (W)	703	2	273800 195500

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
2	Discharge Consents Operator: Mr P Williams Property Type: Undefined Or Other Location: Eaglesbush Neath Authority: Natural Resources Wales Catchment Area: River Neath Reference: Bb4003001 Permit Version: 1 Effective Date: 2nd April 1973 Issued Date: 2nd April 1973 Revocation Date: 13th November 1995 Discharge Type: Unspecified Discharge: Not Supplied Environment: Receiving Water: Trib Of Crythan Brook Status: Consent expired Positional Accuracy: Located by supplier to within 10m	A18NE (N)	774	2	274950 195940
3	Discharge Consents Operator: Dwr Cymru Cyfyngedig Property Type: Sewerage Network - Pumping Staions Location: Penrhiwtyn Ps Eo Neath Npt, Penrhiwtyn, Neath, Neath Port Talbot Authority: Natural Resources Wales Catchment Area: Not Supplied Reference: Bo5110401 Permit Version: 2 Effective Date: 1st April 2006 Issued Date: 31st March 2005 Revocation Date: Not Supplied Discharge Type: Sewage Discharges - Pumping Station - Water Company Discharge: Canal Environment: Receiving Water: Neath Canal Status: Surrendered Positional Accuracy: Located by supplier to within 100m	A17NE (NW)	850	2	274200 196100
3	Discharge Consents Operator: Dwr Cymru Cyfyngedig Property Type: Sewerage Network - Pumping Staions Location: Penrhiwtyn Ps Eo Neath Npt, Penrhiwtyn, Neath, Neath Port Talbot Authority: Natural Resources Wales Catchment Area: Not Supplied Reference: Bo5110401 Permit Version: 2 Effective Date: 1st April 2006 Issued Date: 31st March 2005 Revocation Date: Not Supplied Discharge Type: Sewage Discharges - Pumping Station - Water Company Discharge: Canal Environment: Receiving Water: Neath Canal Status: Surrendered Positional Accuracy: Located by supplier to within 100m	A17NE (NW)	850	2	274200 196100
3	Discharge Consents Operator: Dwr Cymru Cyfyngedig Property Type: Sewerage Network - Pumping Staions Location: Penrhiwtyn Ps Eo Neath Npt, Penrhiwtyn, Neath, Neath Port Talbot Authority: Natural Resources Wales Catchment Area: Not Supplied Reference: Bo5110401 Permit Version: 2 Effective Date: 1st April 2006 Issued Date: 31st March 2005 Revocation Date: Not Supplied Discharge Type: Sewage Discharges - Pumping Station - Water Company Discharge: Canal Environment: Receiving Water: Neath Canal Status: Surrendered Positional Accuracy: Located by supplier to within 100m	A17NE (NW)	850	2	274200 196100

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
3	Discharge Consents Operator: Dwr Cymru Cyfyngedig Property Type: Sewerage Network - Pumping Staions Location: Penrhiwtyn Ps Eo Neath Npt, Penrhiwtyn, Neath, Neath Port Talbot Authority: Natural Resources Wales Catchment Area: Not Supplied Reference: Bo5110401 Permit Version: 2 Effective Date: 1st April 2006 Issued Date: 31st March 2005 Revocation Date: Not Supplied Discharge Type: Sewage Discharges - Pumping Station - Water Company Discharge: Canal Environment: Receiving Water: Neath Canal Status: Surrendered Positional Accuracy: Located by supplier to within 100m	A17NE (NW)	850	2	274200 196100
3	Discharge Consents Operator: Dwr Cymru Cyfyngedig Property Type: Sewerage Network - Pumping Station - Water Company Location: Penrhiwtyn Ps Eo Neath Npt, Penrhiwtyn, Neath, Neath Port Talbot Authority: Natural Resources Wales Catchment Area: Not Given Reference: BO5110401 Permit Version: 1 Effective Date: 19th October 1989 Issued Date: 19th October 1989 Revocation Date: 23rd March 2005 Discharge Type: Unspecified Discharge: Not Supplied Environment: Receiving Water: Neath Canal Status: Revoked (Water Resources Act 1991, Section 88 & Schedule 10 as amended by Environment Act 1995) Positional Accuracy: Located by supplier to within 100m	A17NE (NW)	850	2	274200 196100
4	Discharge Consents Operator: Mr P E Woodhouse Property Type: Domestic Property (Single) Location: 3 Eaglesbush Cottage Gardners Lane, Gardners Lane Neath* Authority: Natural Resources Wales Catchment Area: River Neath Reference: BM0049001 Permit Version: 1 Effective Date: 15th August 1985 Issued Date: 15th August 1985 Revocation Date: Not Supplied Discharge Type: Unspecified Discharge: Into Land Environment: Receiving Water: To Land Status: New Consent, by Application (Water Resources Act 1991, Section 88) Positional Accuracy: Located by supplier to within 100m	A18NE (N)	854	2	274900 196050
5	Discharge Consents Operator: Neath Port Talbot Waste Management Co Ltd Property Type: Household, Commercial and Industrial Waste Landfills Location: D3 Ne Corner Giants Grave Landfill, De Ne Corner Giants Grave Lfill, Giants Grave Road, Briton Ferry Neath, Sa11 Authority: Natural Resources Wales Catchment Area: Not Supplied Reference: Bp027870101 Permit Version: 1 Effective Date: 9th November 1999 Issued Date: 9th November 1999 Revocation Date: Not Supplied Discharge Type: Trade Discharges - Site Drainage Discharge: Saline Estuary Environment: Receiving Water: Neath Estuary Status: New Consent (Water Resources Act 1991, Section 88 & Schedule 10 as amended by Environment Act 1995) Positional Accuracy: Located by supplier to within 10m	A17SW (NW)	880	2	273800 195850

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
5	Discharge Consents Operator: Neath Port Talbot Waste Management Co Ltd Property Type: Not Supplied Location: D3 Ne Corner Giants Grave Landfill, De Ne Corner Giants Grave Lfill, Giants Grave Road, Briton Ferry Neath, Sa11 Authority: Natural Resources Wales Catchment Area: Not Supplied Reference: Bp0278701 Permit Version: 1 Effective Date: 9th November 1999 Issued Date: 9th November 1999 Revocation Date: Not Supplied Discharge Type: Trade Discharges - Site Drainage Discharge: Saline Estuary Environment: Receiving Water: Neath Estuary Status: Effective Positional Accuracy: Located by supplier to within 10m	A17SW (NW)	880	2	273800 195850
6	Integrated Pollution Prevention And Control Name: Baglan Operations Ltd Location: Old Road, Briton Ferry, PORT TALBOT, West Glamorgan, SA11 2S Authority: Environment Agency, Welsh Region Permit Reference: Bj7891 Original Permit Ref: Bj7891 Effective Date: 31st December 2001 Status: Superseded By Variation Application Type: PPC APPLICATION App. Sub Type: Not Supplied Positional Accuracy: Manually positioned to the road within the address or location Activity Code: 1.1 A(1) (A) Activity Description: Combustion; Any Fuel Greater Or Equal To 50Mw Primary Activity: Not Supplied	A13SW (W)	142	3	274403 195119
7	Integrated Pollution Prevention And Control Name: Neath Port Talbot Waste Management Company Limited Location: Giants Grave Landfill Site, Giants Grave Landfill, Giants Grave Road, SA11 2LN Authority: Natural Resources Wales Permit Reference: EP3831LW Original Permit Ref: Hp3535ps Effective Date: 4th January 2007 Status: Superseded By Variation Application Type: Variation App. Sub Type: Simple Standard Variation Positional Accuracy: Manually positioned to the address or location Activity Code: 5.2 A(1) (A) Activity Description: Waste Landfilling; Greater Than 10 T/D With Capacity Greater Than 25,000T Excluding Inert Waste Primary Activity: Y Activity Code: 1.1 A(1) (A) Activity Description: Combustion; Any Fuel Greater Or Equal To 50Mw Primary Activity: N	A11SE (W)	933	2	273555 195011
8	Integrated Pollution Prevention And Control Name: Neath Port Talbot Waste Management Co Ltd Location: Giants Grave Landfill Site, Giants Grave Road, NEATH, West Glamorgan, SA11 2LN Authority: Natural Resources Wales Permit Reference: Hp3535ps Original Permit Ref: Hp3535ps Effective Date: 16th May 2005 Status: Superseded By Variation Application Type: Application App. Sub Type: New Positional Accuracy: Automatically positioned to the address Activity Code: 1.1 A(1) (A) Activity Description: Combustion; Any Fuel Greater Or Equal To 50Mw Primary Activity: N Activity Code: 5.2 A(1) (A) Activity Description: Waste Landfilling; Greater Than 10 T/D With Capacity Greater Than 25,000T Excluding Inert Waste Primary Activity: Y	A11SE (W)	960	2	273573 194877
9	Local Authority Pollution Prevention and Controls Name: Totalfinaelf Uk Ltd Location: Neath Road, Briton Ferry, NEATH, West Glamorgan, SA11 2AX Authority: Neath Port Talbot County Borough Council, Environmental Health Department Permit Reference: E3/1/77 Dated: 25th June 1999 Process Type: Local Authority Air Pollution Control Description: PG1/14 Petrol filling station Status: Authorisation has varied Positional Accuracy: Manually positioned to the road within the address or location	A7NE (SW)	690	4	274314 194560

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
	Nearest Surface Water Feature	A13SE (SE)	0	-	274878 195094
10	Pollution Incidents to Controlled Waters Property Type: Not Given Location: Pant Howel Ddu, Ynysmaerdy Road, Briton Authority: Environment Agency, Welsh Region Pollutant: Agricultural: Carcasses Note: Not Supplied Incident Date: 27th February 1995 Incident Reference: 23516 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	A13SE (SE)	1	3	274800 195100
11	Pollution Incidents to Controlled Waters Property Type: Not Given Location: Bt Manhole In Authority: Environment Agency, Welsh Region Pollutant: Cesspit Contents Note: Not Supplied Incident Date: 12th August 1994 Incident Reference: 20823 Catchment Area: Not Given Receiving Water: Not Given Cause of Incident: Unknown Incident Severity: Category 1 - Major Incident Positional Accuracy: Located by supplier to within 100m	A13NW (NW)	219	3	274400 195500
12	Pollution Incidents to Controlled Waters Property Type: Not Given Location: Grandison Park, NEATH Authority: Environment Agency, Welsh Region Pollutant: Sewage - Treated Effluent Note: Not Supplied Incident Date: 7th September 1994 Incident Reference: 21052 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	A12NE (NW)	271	3	274300 195495
12	Pollution Incidents to Controlled Waters Property Type: Not Given Location: Opposite Neath Hospital, By Footbridge Authority: Environment Agency, Welsh Region Pollutant: Unknown Note: Not Supplied Incident Date: 1st December 1994 Incident Reference: 21948 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	A12NE (NW)	274	3	274300 195500
13	Pollution Incidents to Controlled Waters Property Type: Cess Pit Location: Location Description Not Available Authority: Environment Agency, Welsh Region Pollutant: Cesspit Contents Note: Neglect Incident Date: 12th January 1996 Incident Reference: 27135 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	A13NE (NE)	390	3	275001 195496

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
13	Pollution Incidents to Controlled Waters Property Type: Not Given Location: Location Description Not Available Authority: Environment Agency, Welsh Region Pollutant: Crude Sewage Note: Neglect Incident Date: 15th January 1996 Incident Reference: 27134 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	A13NE (NE)	392	3	275006 195496
13	Pollution Incidents to Controlled Waters Property Type: Cess Pit Location: Adjacent To, Slurry Lagoon Authority: Environment Agency, Welsh Region Pollutant: Crude Sewage Note: Neglect Incident Date: 15th January 1996 Incident Reference: 27134 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	A13NE (NE)	394	3	275001 195501
13	Pollution Incidents to Controlled Waters Property Type: Not Given Location: Location Description Not Available Authority: Environment Agency, Welsh Region Pollutant: Cesspit Contents Note: Neglect Incident Date: 12th January 1996 Incident Reference: 27135 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	A13NE (NE)	396	3	275006 195501
14	Pollution Incidents to Controlled Waters Property Type: Not Given Location: Grandison Point Authority: Environment Agency, Welsh Region Pollutant: Unknown Note: Not Supplied Incident Date: 21st October 1994 Incident Reference: 21647 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	A17SE (NW)	416	3	274200 195600
15	Pollution Incidents to Controlled Waters Property Type: Not Given Location: Farm Road And, Grandison Pub Authority: Environment Agency, Welsh Region Pollutant: Algae Note: Not Supplied Incident Date: 13th July 1995 Incident Reference: 25165 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	A17SE (NW)	442	3	274300 195700
16	Pollution Incidents to Controlled Waters Property Type: Not Given Location: Garage Tended, Fire Service, Has Been Closed Authority: Environment Agency, Welsh Region Pollutant: Crude Sewage Note: Blocked Sewer Incident Date: 30th October 1994 Incident Reference: 21651 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	A17SE (NW)	534	3	274300 195800

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
17	Pollution Incidents to Controlled Waters Property Type: Road (Lost Load) Location: Maternity, Unit At Neath, General Authority: Environment Agency, Welsh Region Pollutant: Farm Effluent/Slurry Note: Accidental Spillage/Leakage Incident Date: 8th November 1994 Incident Reference: 21770 Catchment Area: Not Given Receiving Water: Not Given Cause of Incident: Spillage Incident Severity: Category 3 - Minor Incident Positional Accuracy: Located by supplier to within 100m	A17SE (NW)	577	3	274200 195800
18	Pollution Incidents to Controlled Waters Property Type: Not Given Location: Lane Behind Giants Grave Road, BRITON FERRY Authority: Environment Agency, Welsh Region Pollutant: Sewage - Treated Effluent Note: Blockage Incident Date: 6th April 1997 Incident Reference: 31775 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	A17SW (NW)	744	3	273800 195600
19	Pollution Incidents to Controlled Waters Property Type: Not Given Location: 100 Yards Upstream Tip Road, Between Mellon And, Briton Ferry Authority: Environment Agency, Welsh Region Pollutant: Miscellaneous - Tip Leachate Note: Neath Canal Overflow; Run-Off Incident Date: 19th November 1997 Incident Reference: 34266 Catchment Area: Not Given Receiving Water: Not Given Cause of Incident: Inadequate Design/Capacity Incident Severity: Category 3 - Minor Incident Positional Accuracy: Located by supplier to within 100m	A17NW (NW)	840	3	273900 195900
20	Pollution Incidents to Controlled Waters Property Type: Not Given Location: At Entrance To Giants Grave Site Authority: Environment Agency, Welsh Region Pollutant: Road Run-Off Note: Inadequate Design; Neath Canal Overflow Incident Date: 30th July 1998 Incident Reference: 36892 Catchment Area: Not Given Receiving Water: Not Given Cause of Incident: Runoff Incident Severity: Category 3 - Minor Incident Positional Accuracy: Located by supplier to within 100m	A11SE (W)	973	3	273550 194900
21	Prosecutions Relating to Authorised Processes Location: Land At Rear Of Park View Terrace, Briton Ferry, Sa11 Prosecution Text: Storing controlled waste on land without a WML - 12 month community punishment order served Prosecution Act: Epa90 S33 & S34 Hearing Date: 1st October 2008 Verdict: Guilty Fine: 0 Costs: 0 Positional Accuracy: Manually positioned within the geographical locality	A7NE (SW)	840	3	274018 194535
22	Registered Radioactive Substances Name: Abertawe Bro Morgannwg University Nhs Trust Location: Penrhiwtyn, Neath, West Glamorgan, SA11 2LQ Authority: Natural Resources Wales Permit Reference: BI0987 Dated: 31st July 2001 Process Type: Authorisation under S13 RSA for the disposal of Radioactive waste (was RSA60 S7) Description: Minor variation to authorisation under RSA Status: Authorisation either revoked or cancelled Positional Accuracy: Automatically positioned to the address	A18SW (N)	456	2	274445 195754

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
22	Registered Radioactive Substances Name: Abertawe Bro Morgannwg University Nhs Trust Location: Neath General Hospital, NEATH, West Glamorgan, SA11 2LQ Authority: Natural Resources Wales Permit Reference: Bh9957 Dated: 16th March 2000 Process Type: Authorisation under S13 RSA for the disposal of Radioactive waste (was RSA60 S7) Description: Minor variation to authorisation under RSA Status: Authorisation superseded by a substantial or non substantial variation Positional Accuracy: Automatically positioned to the address	A18SW (N)	456	2	274445 195754
22	Registered Radioactive Substances Name: Abertawe Bro Morgannwg University Nhs Trust Location: Neath General Hospital, Penrhiwtyn, NEATH, West Glamorgan, SA11 2LQ Authority: Natural Resources Wales Permit Reference: AQ6813 Dated: 4th April 1995 Process Type: Authorisation under S13 RSA for the disposal of Radioactive waste (was RSA60 S7) Description: Minor variation to authorisation under RSA Status: Authorisation superseded by a substantial or non substantial variation Positional Accuracy: Unknown	A18SW (N)	456	2	274450 195754
22	Registered Radioactive Substances Name: Bro Morgannwg Nhs Trust Location: Penrhiwtyn, Neath, West Glamorgan, SA11 2LQ Authority: Environment Agency, Welsh Region Permit Reference: Bt1797 Dated: Not Supplied Process Type: Authorisation under S13 RSA for the disposal of Radioactive waste (was RSA60 S7) Description: Substantial variation to authorisation under RSA Status: Application has met the requirements for authorisation (but not yet authorised) Positional Accuracy: Automatically positioned to the address	A18SW (N)	456	3	274445 195754
22	Registered Radioactive Substances Name: Abertawe Bro Morgannwg University Nhs Trust Location: Neath General Hospital, NEATH, West Glamorgan, SA11 2LQ Authority: Natural Resources Wales Permit Reference: AY1072 Dated: 28th February 1997 Process Type: Authorisation under S13 RSA for the disposal of Radioactive waste (was RSA60 S7) Description: Minor variation to authorisation under RSA Status: Authorisation superseded by a substantial or non substantial variation Positional Accuracy: Unknown	A18SW (NW)	457	2	274440 195754
22	Registered Radioactive Substances Name: Abertawe Bro Morgannwg University Nhs Trust Location: Neath General Hospital, Penrhiwtyn, NEATH, West Glamorgan, SA11 2LQ Authority: Natural Resources Wales Permit Reference: AH7704 Dated: 14th July 1993 Process Type: Authorisation under S13 RSA for the disposal of Radioactive waste (was RSA60 S7) Description: Authorisation under RSA Status: Authorisation superseded by a substantial or non substantial variation Positional Accuracy: Unknown	A18SW (N)	457	2	274445 195754
22	Registered Radioactive Substances Name: Abertawe Bro Morgannwg University Nhs Trust Location: Neath General Hospital, Penrhiwtyn, NEATH, West Glamorgan, SA11 2LQ Authority: Natural Resources Wales Permit Reference: AT7545 Dated: 3rd January 1996 Process Type: Authorisation under S13 RSA for the disposal of Radioactive waste (was RSA60 S7) Description: Minor variation to authorisation under RSA Status: Authorisation superseded by a substantial or non substantial variation Positional Accuracy: Unknown	A18SW (N)	461	2	274450 195759
23	Substantiated Pollution Incident Register Authority: Natural Resources Wales Incident Date: 28th October 2001 Incident Reference: 39936 Water Impact: Category 2 - Significant Incident Air Impact: Category 3 - Minor Incident Land Impact: Category 2 - Significant Incident Positional Accuracy: Located by supplier to within 10m Pollutant: Oils - Diesel (Including Agricultural)	A17SE (NW)	544	2	274213 195770

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
	Water Abstractions Operator: Hope Cement Limited Licence Number: Wa/058/0072/0009 Permit Version: Not Supplied Location: Neath Canal - Hope Cement, Wharf Road, Briton Ferry, Neath, Neath Port Talbot, Sa11 2lp Authority: Natural Resources Wales Abstraction: Mineral Products: 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: Not Supplied Permit End Date: Not Supplied Positional Accuracy: Located by supplier to within 10m	A1NE (SW)	1554	2	273419 194094
	Water Abstractions Operator: Tarmac Trading Limited Licence Number: Wa/058/0072/0009 Permit Version: Not Supplied Location: Neath Canal - Neath, Wharf Road, Briton Ferry, Neath, Neath Port Talbot, Sa11 2lp Authority: Natural Resources Wales Abstraction: Mineral Products: General Use (Medium Loss) Abstraction Type: Water may be abstracted from any point within an area 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: Not Supplied Permit End Date: Not Supplied Positional Accuracy: Located by supplier to within 10m	A1NE (SW)	1554	2	273419 194094
	Water Abstractions Operator: Hope Construction Materials Limited Licence Number: 21/58/72/0036 Permit Version: 3 Location: Inland Water The Neath Canal Authority: Natural Resources Wales Abstraction: Mineral Products: 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: 9th December 2014 Permit End Date: Not Supplied Positional Accuracy: Located by supplier to within 10m	A1NE (SW)	1563	2	273410 194090
	Water Abstractions Operator: Lafarge Spv Limited Licence Number: 21/58/72/0036 Permit Version: 2 Location: Inland Water The Neath Canal Authority: Natural Resources Wales Abstraction: Mineral Products: 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: 27th November 2012 Permit End Date: Not Supplied Positional Accuracy: Located by supplier to within 10m	A1NE (SW)	1563	2	273410 194090

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
	Water Abstractions Operator: Lafarge Aggregates Limited Licence Number: 21/58/72/0036 Permit Version: 1 Location: Inland Water The Neath Canal Authority: Environment Agency, Welsh Region Abstraction: Mineral Products: 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: 3rd February 2012 Permit End Date: Not Supplied Positional Accuracy: Located by supplier to within 10m	A1NE (SW)	1563	3	273410 194090
	Water Abstractions Operator: Mr A Thomas Licence Number: 21/58/74/0016 Permit Version: 100 Location: Well At Cefn Crinallt Authority: Environment Agency, Welsh Region Abstraction: General Farming And Domestic Abstraction Type: Water may be abstracted from a single point Source: Groundwater Daily Rate (m3): Not Supplied Yearly Rate (m3): Not Supplied Details: Well At Cefn Crinallt Authorised Start: 01 January Authorised End: 31 December Permit Start Date: 25th March 1966 Permit End Date: Not Supplied Positional Accuracy: Located by supplier to within 100m	(E)	1929	3	276740 195680
	Groundwater Vulnerability Map Combined Classification: Secondary Bedrock Aquifer - Medium Vulnerability Combined Vulnerability: Medium Combined Aquifer: Productive Bedrock Aquifer, No Superficial Aquifer Pollutant Speed: Low Bedrock Flow: Well Connected Fractures Dilution: >550 mm/year Baseflow Index: <40% Superficial Patchiness: <90% Superficial Thickness: 3-10m Superficial Recharge: No Data	A13NE (NE)	0	2	274717 195208
	Groundwater Vulnerability Map Combined Classification: Secondary Bedrock Aquifer - Medium Vulnerability Combined Vulnerability: Medium Combined Aquifer: Productive Bedrock Aquifer, Productive Superficial Aquifer Pollutant Speed: Low Bedrock Flow: Well Connected Fractures Dilution: >550 mm/year Baseflow Index: <40% Superficial Patchiness: <90% Superficial Thickness: 3-10m Superficial Recharge: No Data	A13SW (S)	0	2	274663 195136

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
	Groundwater Vulnerability Map Combined Classification: Secondary Bedrock Aquifer - Medium Vulnerability Combined Vulnerability: Medium Combined Aquifer: Productive Bedrock Aquifer, Productive Superficial Aquifer Pollutant Speed: Low Bedrock Flow: Well Connected Fractures Dilution: >550 mm/year Baseflow Index: <40% Superficial Patchiness: <90% Superficial Thickness: 3-10m Superficial Recharge: No Data	A13SE (SE)	0	2	274677 195184
	Bedrock Aquifer Designations Aquifer Designation: Secondary Aquifer - A	A13SE (SE)	0	2	274677 195184
	Superficial Aquifer Designations Aquifer Designation: Secondary Aquifer - A	A13SE (SE)	0	2	274677 195184
	Superficial Aquifer Designations Aquifer Designation: Secondary Aquifer - Undifferentiated	A13SW (S)	0	2	274663 195136
	Extreme Flooding from Rivers or Sea without Defences Type: Extent of Extreme Flooding from Rivers or Sea without Defences Flood Plain Type: Tidal Models Boundary Accuracy: As Supplied	A12NE (NW)	185	2	274332 195399
	Extreme Flooding from Rivers or Sea without Defences Type: Extent of Extreme Flooding from Rivers or Sea without Defences Flood Plain Type: Tidal Models Boundary Accuracy: As Supplied	A12NE (NW)	185	2	274332 195399
	Extreme Flooding from Rivers or Sea without Defences Type: Extent of Extreme Flooding from Rivers or Sea without Defences Flood Plain Type: Tidal Models Boundary Accuracy: As Supplied	A12NE (NW)	209	2	274328 195435
	Extreme Flooding from Rivers or Sea without Defences Type: Extent of Extreme Flooding from Rivers or Sea without Defences Flood Plain Type: Fluvial/Tidal Models Boundary Accuracy: As Supplied	A12NE (NW)	215	2	274312 195423
	Extreme Flooding from Rivers or Sea without Defences Type: Extent of Extreme Flooding from Rivers or Sea without Defences Flood Plain Type: Tidal Models Boundary Accuracy: As Supplied	A12NE (NW)	231	2	274318 195457
	Flooding from Rivers or Sea without Defences Type: Extent of Flooding from Rivers or Sea without Defences Flood Plain Type: Tidal Models Boundary Accuracy: As Supplied	A12NE (NW)	212	2	274314 195421
	Flooding from Rivers or Sea without Defences Type: Extent of Flooding from Rivers or Sea without Defences Flood Plain Type: Fluvial/Tidal Models Boundary Accuracy: As Supplied	A12NE (NW)	244	2	274306 195463
	Areas Benefiting from Flood Defences None				
	Flood Water Storage Areas None				
	Flood Defences None				
24	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 3.8 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Neath Primacy: 1	A13SE (SE)	0	5	274831 195120

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
25	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 32.3 Watercourse Level: Underground Permanent: True Watercourse Name: Not Supplied Catchment Name: Neath Primacy: 1	A13SE (E)	0	5	274834 195122
26	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 37.4 Watercourse Level: Underground Permanent: True Watercourse Name: Not Supplied Catchment Name: Neath Primacy: 2	A13SE (E)	0	5	274834 195122
27	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 21.8 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Neath Primacy: 1	A13SE (SE)	0	5	274857 195099
28	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 125.8 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Neath Primacy: 1	A13SE (SE)	0	5	274878 195094
29	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 674.6 Watercourse Level: Underground Permanent: True Watercourse Name: Not Supplied Catchment Name: Neath Primacy: 1	A13NE (NE)	0	5	274699 195215
30	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 121.8 Watercourse Level: Underground Permanent: True Watercourse Name: Not Supplied Catchment Name: Neath Primacy: 2	A13SE (E)	10	5	274867 195140
31	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 21.0 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Neath Primacy: 1	A13SE (E)	93	5	274987 195133
32	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 55.1 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Neath Primacy: 1	A13SE (E)	113	5	275006 195141
33	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 39.3 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Neath Primacy: 2	A13NE (E)	127	5	274944 195234

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
34	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 93.2 Watercourse Level: Underground Permanent: True Watercourse Name: Not Supplied Catchment Name: Neath Primacy: 1	A13SE (S)	145	5	274723 194933
35	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 7.9 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Neath Primacy: 1	A13SE (SE)	145	5	274816 194935
36	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 60.7 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Neath Primacy: 2	A13NE (E)	150	5	274939 195261
37	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 42.1 Watercourse Level: Underground Permanent: True Watercourse Name: Not Supplied Catchment Name: Neath Primacy: 1	A13SE (SE)	151	5	274818 194928
38	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	A13SE (SE)	153	5	274859 194917
39	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 8.0 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Neath Primacy: 1	A13NE (E)	155	5	274963 195256
40	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 8.1 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Neath Primacy: 1	A13NE (E)	162	5	274964 195263
41	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 173.4 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Neath Primacy: 1	A14SW (E)	163	5	275058 195128
42	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 23.2 Watercourse Level: Underground Permanent: True Watercourse Name: Not Supplied Catchment Name: Neath Primacy: 1	A13SE (SE)	168	5	274896 194904

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
43	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 151.5 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Neath Primacy: 1	A13SE (S)	185	5	274723 194933
44	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 92.5 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Neath Primacy: 1	A13SE (SE)	186	5	274914 194890
45	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 124.6 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Neath Primacy: 1	A13SE (S)	198	5	274724 194918
46	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 61.6 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Neath Primacy: 2	A13NE (E)	204	5	274988 195298
47	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 161.1 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Neath Primacy: 2	A13NE (NE)	255	5	274997 195350
48	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 22.3 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Neath Primacy: 1	A13SW (S)	271	5	274579 194902
49	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 43.2 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Neath Primacy: 1	A13SW (S)	271	5	274579 194902
50	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 5.9 Watercourse Level: Underground Permanent: True Watercourse Name: Not Supplied Catchment Name: Neath Primacy: 1	A13SW (S)	273	5	274603 194888
51	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 35.5 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Neath Primacy: 1	A8NE (SE)	273	5	274955 194811

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
52	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 18.2 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Neath Primacy: 1	A8NE (SE)	273	5	274955 194811
53	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 10.1 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Neath Primacy: 1	A8NE (SE)	286	5	274971 194802
54	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 96.7 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Neath Primacy: 1	A8NE (SE)	286	5	274971 194802
55	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 11.5 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Neath Primacy: 1	A12NE (NW)	296	5	274283 195514
56	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 12.6 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Neath Primacy: 1	A13SW (SW)	298	5	274541 194889
57	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 11.2 Watercourse Level: Underground Permanent: True Watercourse Name: Not Supplied Catchment Name: Neath Primacy: 1	A12NE (NW)	305	5	274271 195516
58	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 215.3 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Neath Primacy: 1	A8NE (SE)	306	5	274954 194776
59	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 24.6 Watercourse Level: Underground Permanent: True Watercourse Name: Not Supplied Catchment Name: Neath Primacy: 1	A13SW (SW)	309	5	274532 194880
60	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 147.5 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Neath Primacy: 1	A12NE (NW)	316	5	274262 195521

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
61	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 35.3 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Neath Primacy: 1	A14SW (E)	316	5	275207 195061
62	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 142.0 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Neath Primacy: 1	A13NE (NE)	329	5	274970 195444
63	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 26.6 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Neath Primacy: 1	A13SW (SW)	332	5	274531 194856
64	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 69.8 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Neath Primacy: 1	A14SW (E)	339	5	275223 195031
65	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 14.4 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Neath Primacy: 1	A14SW (E)	339	5	275223 195031
66	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 167.2 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Neath Primacy: 1	A14SW (E)	352	5	275237 195032
67	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 27.5 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Neath Primacy: 1	A14SW (E)	352	5	275237 195032
68	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 23.1 Watercourse Level: Not Supplied Permanent: True Watercourse Name: Not Supplied Catchment Name: Neath Primacy: 1	A8NW (SW)	357	5	274512 194837
69	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 78.1 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Neath Primacy: 1	A9NW (SE)	362	5	275027 194743

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
70	OS Water Network Lines Watercourse Form: Lake Watercourse Length: 31.6 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Neath Primacy: 1	A9NW (SE)	362	5	275027 194743
71	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 77.1 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Neath Primacy: 1	A8NW (SW)	378	5	274495 194822
72	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 90.8 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Neath Primacy: 1	A14SW (E)	384	5	275248 194964
73	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 83.6 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Neath Primacy: 1	A9NW (SE)	387	5	275056 194730
74	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 86.8 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Neath Primacy: 1	A13NE (NE)	389	5	274973 195513
75	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 15.0 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Neath Primacy: 1	A14SW (E)	389	5	275258 194974
76	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 3.6 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Neath Primacy: 2	A13NE (NE)	390	5	274972 195509
77	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 1.4 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Neath Primacy: 1	A13NE (NE)	393	5	274972 195513
78	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 91.4 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Neath Primacy: 1	A13NE (NE)	393	5	274972 195513

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
79	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 26.9 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Neath Primacy: 1	A14SW (E)	400	5	275264 194961
80	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 7.7 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Neath Primacy: 1	A14SW (E)	400	5	275261 194954
81	OS Water Network Lines Watercourse Form: Lake Watercourse Length: 16.1 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Neath Primacy: 1	A14SW (SE)	439	5	275279 194903
82	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 7.0 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Neath Primacy: 1	A18SE (NE)	449	5	274949 195584
83	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 400.6 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Neath Primacy: 1	A17SE (NW)	449	5	274190 195637
84	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	A17SE (NW)	449	5	274190 195637
85	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 13.4 Watercourse Level: Underground Permanent: True Watercourse Name: Not Supplied Catchment Name: Neath Primacy: 1	A8NW (SW)	449	5	274442 194767
86	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 700.0 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Neath Primacy: 1	A14SW (SE)	450	5	275283 194888
87	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 11.2 Watercourse Level: Underground Permanent: True Watercourse Name: Not Supplied Catchment Name: Neath Primacy: 1	A17SE (NW)	452	5	274186 195637

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
88	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 4.0 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Neath Primacy: 1	A18SE (NE)	455	5	274948 195591
89	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 5.0 Watercourse Level: Underground Permanent: True Watercourse Name: Not Supplied Catchment Name: Neath Primacy: 1	A18SE (NE)	459	5	274948 195595
90	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 37.1 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Neath Primacy: 1	A17SE (NW)	460	5	274175 195638
91	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 8.7 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Neath Primacy: 1	A18SE (NE)	462	5	274953 195597
92	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 165.9 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Neath Primacy: 1	A9NW (SE)	463	5	275114 194676
93	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 20.1 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Neath Primacy: 1	A9NW (SE)	463	5	275114 194676
94	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 41.1 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Neath Primacy: 1	A8NW (SW)	463	5	274437 194755
95	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 50.9 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Neath Primacy: 1	A18SE (NE)	470	5	274958 195603
96	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 137.6 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Neath Primacy: 1	A9NW (SE)	474	5	275133 194676

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
97	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 147.3 Watercourse Level: Not Supplied Permanent: True Watercourse Name: Not Supplied Catchment Name: Neath Primacy: 1	A9NW (SE)	474	5	275133 194676
98	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 6.8 Watercourse Level: Underground Permanent: True Watercourse Name: Not Supplied Catchment Name: Neath Primacy: 1	A17SE (NW)	484	5	274138 195635
99	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 87.3 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Neath Primacy: 1	A17SE (NW)	489	5	274131 195635
100	OS Water Network Lines Watercourse Form: Lake Watercourse Length: 18.0 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Neath Primacy: 1	A14SE (E)	492	5	275381 195035
101	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 590.3 Watercourse Level: Underground Permanent: True Watercourse Name: Not Supplied Catchment Name: Neath Primacy: 1	A8NW (SW)	503	5	274412 194721
102	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 83.9 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Neath Primacy: 1	A14SE (E)	506	5	275397 195043
103	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 2.5 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Neath Primacy: 1	A18SE (NE)	513	5	274952 195653
104	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 4.6 Watercourse Level: Underground Permanent: True Watercourse Name: Not Supplied Catchment Name: Neath Primacy: 1	A18SE (NE)	513	5	274950 195655
105	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 221.7 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Neath Primacy: 1	A18SE (NE)	514	5	274946 195657

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
106	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 35.6 Watercourse Level: Underground Permanent: True Watercourse Name: Not Supplied Catchment Name: Neath Primacy: 1	A17SE (NW)	551	5	274044 195627
107	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 192.8 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Neath Primacy: 1	A14SE (E)	558	5	275453 195100
108	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 98.7 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Neath Primacy: 1	A14SE (E)	558	5	275453 195100
109	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 17.0 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Neath Primacy: 1	A9NW (SE)	559	5	275280 194690
110	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 175.0 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Neath Primacy: 1	A9NW (SE)	574	5	275296 194685
111	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	A9NW (SE)	574	5	275296 194685
112	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 3.6 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Neath Primacy: 1	A17SE (NW)	579	5	274008 195625
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	A17SE (NW)	582	5	274005 195625
114	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 627.2 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Neath Primacy: 1	A17SE (NW)	584	5	274002 195624

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
115	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 233.2 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Neath Primacy: 1	A9NW (SE)	605	5	275203 194565
116	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	A9NW (SE)	605	5	275203 194565
117	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 35.0 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Neath Primacy: 1	A9NW (SE)	606	5	275311 194655
118	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 26.3 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Neath Primacy: 1	A9NW (SE)	606	5	275311 194655
119	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 5.2 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Neath Primacy: 1	A9NW (SE)	625	5	275265 194586
120	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 6.4 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Neath Primacy: 1	A9NW (SE)	625	5	275265 194586
121	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 54.4 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Neath Primacy: 1	A14SE (E)	633	5	275528 195155
122	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 49.0 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Neath Primacy: 1	A14SE (E)	633	5	275528 195155
123	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 57.4 Watercourse Level: Not Supplied Permanent: True Watercourse Name: Not Supplied Catchment Name: Neath Primacy: 1	A14SE (E)	675	5	275567 195183

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
124	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)	686	5	275580 195166
125	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 28.9 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Neath Primacy: 1	A14SE (E)	686	5	275580 195166
126	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 201.3 Watercourse Level: Underground Permanent: True Watercourse Name: Not Supplied Catchment Name: Neath Primacy: 1	A18NE (N)	694	5	274917 195867
127	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 189.7 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Neath Primacy: 1	A17NE (NW)	701	5	274069 195863
128	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 21.6 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Neath Primacy: 1	A17NE (NW)	707	5	274187 195939
129	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 135.3 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Neath Primacy: 1	A17SE (NW)	708	5	274025 195835
130	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 284.8 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Neath Primacy: 1	A17SE (NW)	708	5	274025 195835
131	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 18.8 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Neath Primacy: 1	A14SE (E)	709	5	275602 195183
132	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 14.7 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Neath Primacy: 1	A14SE (E)	709	5	275602 195183

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
133	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 145.5 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Neath Primacy: 1	A14SE (E)	713	5	275606 195060
134	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 98.2 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Neath Primacy: 1	A14SE (E)	713	5	275606 195060
135	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 10.1 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Neath Primacy: 1	A14NE (E)	719	5	275607 195225
136	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 146.0 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Neath Primacy: 1	A17NE (NW)	724	5	274168 195950
137	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 35.6 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Neath Primacy: 1	A14NE (E)	725	5	275612 195233
138	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 34.6 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Neath Primacy: 1	A14NE (E)	725	5	275610 195238
139	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 4.7 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Neath Primacy: 2	A14NE (E)	749	5	275631 195259
140	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 18.2 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Neath Primacy: 1	A14NE (E)	749	5	275630 195266
141	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 8.5 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Neath Primacy: 1	A14NE (E)	753	5	275635 195259

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
142	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 12.0 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Neath Primacy: 1	A17NE (NW)	756	5	274271 196024
143	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	A14NE (E)	761	5	275642 195265
144	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 4.3 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Neath Primacy: 1	A14NE (E)	761	5	275642 195265
145	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 6.8 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Neath Primacy: 1	A14NE (E)	761	5	275642 195265
146	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 66.0 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Neath Primacy: 1	A17NE (NW)	787	5	274262 196054
147	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 40.7 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Neath Primacy: 1	A15SW (E)	817	5	275693 194942
148	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 32.0 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Neath Primacy: 1	A15SW (E)	818	5	275697 194952
149	OS Water Network Lines Watercourse Form: Canal Watercourse Length: 2006.3 Watercourse Level: On ground surface Permanent: True Watercourse Name: Neath Canal Catchment Name: Neath Primacy: 1	A17NE (NW)	820	5	274005 195965
150	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 209.8 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Neath Primacy: 1	A9SW (SE)	823	5	275310 194374

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
151	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 1.7 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Neath Primacy: 1	A9SW (SE)	824	5	275310 194373
152	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 347.1 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Neath Primacy: 1	A9SW (SE)	825	5	275312 194373
153	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 10.8 Watercourse Level: Underground Permanent: True Watercourse Name: Not Supplied Catchment Name: Neath Primacy: 1	A17NE (N)	831	5	274298 196109
154	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 123.8 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Neath Primacy: 1	A17NE (N)	831	5	274298 196109
155	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 16.1 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Neath Primacy: 1	A17NE (NW)	832	5	274287 196107
156	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 24.3 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Neath Primacy: 1	A17NE (NW)	841	5	274178 196082
157	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 171.5 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Neath Primacy: 1	A17NW (NW)	848	5	273871 195883
158	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 555.5 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Neath Primacy: 1	A17SW (NW)	876	5	273777 195811
159	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 162.4 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Neath Primacy: 1	A18NE (N)	896	5	274998 196052

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
160	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 121.6 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Neath Primacy: 1	A23SW (N)	909	5	274378 196202
161	OS Water Network Lines Watercourse Form: Canal Watercourse Length: 844.6 Watercourse Level: On ground surface Permanent: True Watercourse Name: Jersey Canal Catchment Name: Neath Primacy: 1	A6NE (W)	930	5	273627 194832
162	OS Water Network Lines Watercourse Form: Canal Watercourse Length: 6.8 Watercourse Level: On ground surface Permanent: True Watercourse Name: Neath Canal Catchment Name: Neath Primacy: 1	A11SE (W)	942	5	273606 194848
163	OS Water Network Lines Watercourse Form: Canal Watercourse Length: 721.3 Watercourse Level: On ground surface Permanent: True Watercourse Name: Neath Canal Catchment Name: Neath Primacy: 1	A11SE (W)	946	5	273600 194852
164	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 278.0 Watercourse Level: On ground surface Permanent: True Watercourse Name: Crythan Brook Catchment Name: Neath Primacy: 1	A19NW (NE)	951	5	275326 195965
165	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 496.2 Watercourse Level: On ground surface Permanent: True Watercourse Name: Crythan Brook Catchment Name: Neath Primacy: 1	A19NE (NE)	966	5	275462 195898
166	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 66.6 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Neath Primacy: 1	A9SE (SE)	975	5	275505 194329
167	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 219.0 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Neath Primacy: 1	A9SE (SE)	975	5	275505 194329
168	OS Water Network Lines Watercourse Form: Canal Watercourse Length: 230.9 Watercourse Level: On ground surface Permanent: True Watercourse Name: Neath Canal Catchment Name: Neath Primacy: 1	A11NE (W)	994	5	273468 195356

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
169	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 21.1 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Neath Primacy: 2	A11NE (W)	994	5	273468 195356

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
170	BGS Recorded Landfill Sites Site Name: Giants Grave Tip Location: Briton Ferry, NEATH, Glam Authority: British Geological Survey, National Geoscience Information Service Ground Water: Information not available Surface Water: Information not available Geology: N/A Positional Accuracy: Positioned by the supplier Boundary Accuracy: Moderate	A17SW (NW)	853	-	273816 195826
171	Historical Landfill Sites Licence Holder: Neath Borough Council Location: Briton Ferry, Neath, Glamorgan Name: Giants Grave Tip Operator Location: Not Supplied Boundary Accuracy: As Supplied Provider Reference: EAHLD31231 First Input Date: 30th June 1962 Last Input Date: 31st March 1993 Specified Waste Type: Deposited Waste included Inert, Industrial, Commercial, Household and Special Waste EA Waste Ref: 0 Regis Ref: Not Supplied WRC Ref: 6930/0006 BGS Ref: 2676 Other Ref: SWW-68-L	A17SW (NW)	853	2	273816 195826
172	Licensed Waste Management Facilities (Landfill Boundaries) Name: Giants Grave Landfill Licence Number: 34060 Location: The Saltings, Giants Grave Road, Briton Ferry, Neath, N P T, SA11 2LN Licence Holder: Neath Port Talbot Waste Management Co Ltd Authority: Natural Resources Wales Site Category: Other Landfill Sites Taking Special Waste Max Input Rate: Not Supplied Licence Status: Closure Issued: 1st April 1993 Positional Accuracy: Positioned by the supplier Boundary Accuracy: As Supplied	A17SW (NW)	859	2	273812 195831
173	Licensed Waste Management Facilities (Landfill Boundaries) Name: Giants Grave Landfill Site (Ppc) Licence Number: 34272 Location: Giants Grave, Giants Grave Road, Briton Ferry, Neath, N P T, SA11 2LN Licence Holder: Neath Port Talbot Waste Management Co Ltd Authority: Natural Resources Wales Site Category: Household, Commercial And Industrial Waste Landfills Max Input Rate: Not Supplied Licence Status: PPC Issued: 24th June 2005 Positional Accuracy: Positioned by the supplier Boundary Accuracy: As Supplied	A11SE (W)	918	2	273608 194900
174	Licensed Waste Management Facilities (Locations) Licence Number: 34102 Location: Pant Yr Heol, Neath, N P T, SA11 2LQ Operator Name: Glan Y Mor NHS Trust Operator Location: Not Supplied Authority: Natural Resources Wales Site Category: Clinical Waste Transfer Stations Licence Status: Surrendered Issued: 8th July 1994 Last Modified: Not Supplied Expires: Not Supplied Suspended: Not Supplied Revoked: Not Supplied Surrendered: 7th December 2001 IPPC Reference: Not Supplied Positional Accuracy: Located by supplier to within 100m	A18SW (N)	401	2	274500 195700

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
175	Licensed Waste Management Facilities (Locations) Licence Number: YP3498FR Location: Giants Grave Landfill Site (Ppc), Briton Ferry, Neath, N P T, Neath Port Talbot, SA11 2LN Operator Name: Neath Port Talbot Waste Management Co Ltd Operator Location: Not Supplied Authority: Natural Resources Wales Site Category: Not Supplied Licence Status: Expired Issued: 24th June 2005 Last Modified: Not Supplied Expires: 25th June 2005 Suspended: Not Supplied Revoked: Not Supplied Surrendered: Not Supplied IPPC Reference: Not Supplied Positional Accuracy: Located by supplier to within 10m	A11SE (W)	939	2	273598 194872
175	Licensed Waste Management Facilities (Locations) Licence Number: 34272 Location: Giants Grave, Giants Grave Road, Briton Ferry, Neath, N P T, SA11 2LN Operator Name: Neath Port Talbot Waste Management Co Ltd Operator Location: Not Supplied Authority: Natural Resources Wales Site Category: Household, Commercial And Industrial Waste Landfills Licence Status: To PPC Issued: 24th June 2005 Last Modified: Not Supplied Expires: Not Supplied Suspended: Not Supplied Revoked: Not Supplied Surrendered: Not Supplied IPPC Reference: HP3535PS Positional Accuracy: Located by supplier to within 10m	A11SE (W)	939	2	273598 194872
176	Licensed Waste Management Facilities (Locations) Licence Number: ZP3198FN Location: Briton Ferry Shipping Services Ltd, Briton Ferry Shipping Services Ltd, Giants Wharf, Briton Ferry, Neath, N P T, Neath Port Talbot, SA11 2LP Operator Name: Briton Ferry Shipping Services Ltd Operator Location: Not Supplied Authority: Natural Resources Wales Site Category: Not Supplied Licence Status: Effective Issued: 22nd September 2017 Last Modified: Not Supplied Expires: Not Supplied Suspended: Not Supplied Revoked: Not Supplied Surrendered: Not Supplied IPPC Reference: Not Supplied Positional Accuracy: Located by supplier to within 10m	A6NE (W)	950	2	273609 194823
176	Licensed Waste Management Facilities (Locations) Licence Number: ZP3198FN Location: Briton Ferry Shipping Services Ltd, Briton Ferry Shipping Services Ltd, Giants Wharf, Briton Ferry, Neath, N P T, Neath Port Talbot, SA11 2LP Operator Name: Briton Ferry Shipping Services Ltd Operator Location: Not Supplied Authority: Natural Resources Wales Site Category: Not Supplied Licence Status: Effective Issued: 22nd September 2017 Last Modified: Not Supplied Expires: Not Supplied Suspended: Not Supplied Revoked: Not Supplied Surrendered: Not Supplied IPPC Reference: Not Supplied Positional Accuracy: Located by supplier to within 10m	A6NE (W)	950	2	273609 194823

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
176	Licensed Waste Management Facilities (Locations) Licence Number: 34183 Location: Briton Ferry Shipping Services Ltd, Giants Wharf, Briton Ferry, Neath, SA11 2LP Operator Name: Briton Ferry Shipping Services Ltd Operator Location: Not Supplied Authority: Natural Resources Wales Site Category: Special Waste Transfer Stations Licence Status: Issued Issued: 30th January 2001 Last Modified: Not Supplied Expires: Not Supplied Suspended: Not Supplied Revoked: Not Supplied Surrendered: Not Supplied IPPC Reference: Not Supplied Positional Accuracy: Located by supplier to within 10m	A6NE (W)	950	2	273609 194823
	Local Authority Landfill Coverage Name: Neath Port Talbot County Borough Council - Has supplied landfill data		0	4	274677 195184
177	Local Authority Recorded Landfill Sites Location: Landfill - Neath Reference: Not Supplied Authority: Neath Port Talbot County Borough Council, Environmental Health Department Last Reported Status: Not Supplied Types of Waste: Not Supplied Date of Closure: Not Supplied Positional Accuracy: Positioned by the supplier Boundary Quality: Moderate	A17SW (NW)	854	4	273819 195832
178	Potentially Infilled Land (Non-Water) Bearing Ref: E Use: Unknown Filled Ground (Pit, quarry etc) Date of Mapping: 1992	A13SE (E)	99	-	274986 195077
179	Potentially Infilled Land (Non-Water) Bearing Ref: E Use: Unknown Filled Ground (Pit, quarry etc) Date of Mapping: 1992	A14NW (E)	265	-	275085 195302
180	Potentially Infilled Land (Non-Water) Bearing Ref: N Use: Unknown Filled Ground (Pit, quarry etc) Date of Mapping: 1992	A13NE (N)	277	-	274693 195511
181	Potentially Infilled Land (Non-Water) Bearing Ref: E Use: Unknown Filled Ground (Pit, quarry etc) Date of Mapping: 1992	A14SW (E)	343	-	275238 195136
182	Potentially Infilled Land (Non-Water) Bearing Ref: NE Use: Unknown Filled Ground (Pit, quarry etc) Date of Mapping: 1992	A13NE (NE)	383	-	275011 195484
183	Potentially Infilled Land (Non-Water) Bearing Ref: N Use: Unknown Filled Ground (Pit, quarry etc) Date of Mapping: 1992	A18NW (N)	593	-	274556 195888
184	Potentially Infilled Land (Non-Water) Bearing Ref: S Use: Unknown Filled Ground (Pit, quarry etc) Date of Mapping: 1980	A8SW (S)	688	-	274488 194486
185	Potentially Infilled Land (Non-Water) Bearing Ref: S Use: Unknown Filled Ground (Pit, quarry etc) Date of Mapping: 1980	A8SW (S)	723	-	274538 194426
186	Potentially Infilled Land (Non-Water) Bearing Ref: W Use: Unknown Filled Ground (Pit, quarry etc) Date of Mapping: 1992	A11NE (W)	855	-	273610 195370
187	Potentially Infilled Land (Non-Water) Bearing Ref: S Use: Unknown Filled Ground (Pit, quarry etc) Date of Mapping: 1980	A8SW (S)	858	-	274436 194324

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
188	Potentially Infilled Land (Non-Water) Bearing Ref: N Use: Unknown Filled Ground (Pit, quarry etc) Date of Mapping: 1992	A18NE (N)	867	-	274797 196108
189	Potentially Infilled Land (Non-Water) Bearing Ref: S Use: Unknown Filled Ground (Pit, quarry etc) Date of Mapping: 1980	A8SW (S)	920	-	274380 194280
190	Potentially Infilled Land (Non-Water) Bearing Ref: NE Use: Unknown Filled Ground (Pit, quarry etc) Date of Mapping: 1992	A19NW (NE)	951	-	275179 196032
191	Potentially Infilled Land (Non-Water) Bearing Ref: N Use: Unknown Filled Ground (Pit, quarry etc) Date of Mapping: 1992	A23SW (N)	954	-	274397 196249
192	Potentially Infilled Land (Non-Water) Bearing Ref: N Use: Unknown Filled Ground (Pit, quarry etc) Date of Mapping: 1992	A18NE (N)	956	-	274824 196193
193	Potentially Infilled Land (Non-Water) Bearing Ref: N Use: Unknown Filled Ground (Pit, quarry etc) Date of Mapping: 1992	A23SE (N)	1000	-	274722 196271
194	Potentially Infilled Land (Water) Use: Unknown Filled Ground (Pond, marsh, river, stream, dock etc) Date of Mapping: 1965	A13SW (SW)	0	-	274670 195169
195	Potentially Infilled Land (Water) Use: Unknown Filled Ground (Pond, marsh, river, stream, dock etc) Date of Mapping: 1964	A13SE (SE)	204	-	274897 194868
196	Potentially Infilled Land (Water) Use: Unknown Filled Ground (Pond, marsh, river, stream, dock etc) Date of Mapping: 1900	A13NW (NW)	226	-	274381 195499
197	Potentially Infilled Land (Water) Use: Unknown Filled Ground (Pond, marsh, river, stream, dock etc) Date of Mapping: 1940	A18SW (NW)	247	-	274385 195525
198	Potentially Infilled Land (Water) Use: Unknown Filled Ground (Pond, marsh, river, stream, dock etc) Date of Mapping: 1900	A17SE (NW)	467	-	274117 195584
199	Potentially Infilled Land (Water) Use: Unknown Filled Ground (Pond, marsh, river, stream, dock etc) Date of Mapping: 1940	A17SE (NW)	501	-	274091 195606
200	Potentially Infilled Land (Water) Use: Unknown Filled Ground (Pond, marsh, river, stream, dock etc) Date of Mapping: 1940	A17SE (NW)	575	-	274008 195617
201	Potentially Infilled Land (Water) Use: Unknown Filled Ground (Pond, marsh, river, stream, dock etc) Date of Mapping: 1884	A17SE (NW)	674	-	274026 195791
202	Potentially Infilled Land (Water) Use: Unknown Filled Ground (Pond, marsh, river, stream, dock etc) Date of Mapping: 1940	A17SE (NW)	691	-	274074 195857
203	Potentially Infilled Land (Water) Use: Unknown Filled Ground (Pond, marsh, river, stream, dock etc) Date of Mapping: 1940	A17SW (NW)	693	-	273845 195575
204	Potentially Infilled Land (Water) Use: Unknown Filled Ground (Pond, marsh, river, stream, dock etc) Date of Mapping: 1884	A17SW (NW)	716	-	273845 195621
205	Potentially Infilled Land (Water) Use: Unknown Filled Ground (Pond, marsh, river, stream, dock etc) Date of Mapping: 1938	A17SW (W)	766	-	273757 195562
206	Potentially Infilled Land (Water) Use: Unknown Filled Ground (Pond, marsh, river, stream, dock etc) Date of Mapping: 1938	A7NE (SW)	789	-	274063 194567

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
207	Potentially Infilled Land (Water) Use: Unknown Filled Ground (Pond, marsh, river, stream, dock etc) Date of Mapping: 1940	A17SW (NW)	840	-	273692 195596
208	Potentially Infilled Land (Water) Use: Unknown Filled Ground (Pond, marsh, river, stream, dock etc) Date of Mapping: 1940	A17SW (NW)	883	-	273747 195781
209	Potentially Infilled Land (Water) Use: Unknown Filled Ground (Pond, marsh, river, stream, dock etc) Date of Mapping: 1940	A23SW (N)	951	-	274384 196245
210	Potentially Infilled Land (Water) Use: Unknown Filled Ground (Pond, marsh, river, stream, dock etc) Date of Mapping: 1884	A16SE (W)	957	-	273555 195570
211	Registered Waste Transfer Sites Licence Holder: Glan-Y-Mor Nhs Trust Licence Reference: NBWD 3 Site Location: Neath General Hospital, Pant Yr Heol, NEATH, West Glamorgan, SA11 2LQ Operator Location: 21 Orchard Street, SWANSEA, West Glamorgan, SA1 5AQ Authority: Environment Agency Wales, South West Area Site Category: Transfer Max Input Rate: Very Small (Less than 10,000 tonnes per year) Waste Source: Waste produced/controlled by licence holder Restrictions: Licence Status: Operational as far as is knownOperational Dated: 24th September 1996 Preceded By: NBWD 3 Licence: Superseded By: Not Given Licence: Positional Accuracy: Manually positioned to the road within the address or location Boundary Quality: Not Supplied Authorised Waste: Clinical Waste Max.Stor Food Waste Max.Stor Household Waste Max.Stor Pharmaceuticals Max.Stor Prohibited Waste: Highly Flam./Lpg Regs'72 Subs Percussive/Explosive/Similar Waste Special Wastes (As In '96 Regs) N.O.S Sub'S Control. Radioactive Subs Act'60 Waste N.O.S.	A18SW (NW)	253	3	274450 195550
211	Registered Waste Transfer Sites Licence Holder: West Glamorgan Health Authority Licence Reference: NBWD 3 Site Location: Neath General Hospital, Pant Yr Heol, NEATH, West Glamorgan, SA11 2LQ Operator Location: 36 Orchard Street, SWANSEA, West Glamorgan, SA1 5AQ Authority: Environment Agency Wales, South West Area Site Category: Transfer Max Input Rate: Very Small (Less than 10,000 tonnes per year) Waste Source: No known restriction on source of waste Restrictions: Licence Status: Record supersededSuperseded Dated: 8th July 1994 Preceded By: 12/88 Licence: Superseded By: NBWD 3 Licence: Positional Accuracy: Manually positioned to the road within the address or location Boundary Quality: Not Supplied Authorised Waste: Clinical Wastes Food Waste Gen.Hosp'Waste/Bottle/Aerosol Max.Stor Pharmaceuticals Radioactive Cont.Glassware/Syringe/Etc Sharps Prohibited Waste: Highly Flam./Lpg Regs'72 Subs Percussive/Explosive/Similar Waste Special Wastes N.O.S. Sub'S Control. Radioactive Subs Act'60 Waste N.O.S.	A18SW (NW)	253	3	274450 195550

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
212	Registered Waste Transfer Sites Licence Holder: Neath Waste Management Company Ltd Licence Reference: NBWD 4 Site Location: Giant's Grave C.A.Site, Briton Ferry, NEATH, West Glamorgan, SA11 2LN Operator Location: Giant's Grave Road, Briton Ferry, NEATH, West Glamorgan, SA11 2LN Authority: Environment Agency Wales, South West Area Site Category: Civic Amenity Max Input Rate: Small (Equal to or greater than 10,000 and less than 25,000 tonnes per year) Waste Source: No known restriction on source of waste Restrictions: Licence Status: Operational as far as is knownOperational Dated: 1st April 1993 Preceded By: Not Given Licence: Superseded By: Not Given Licence: Positional Accuracy: Manually positioned to the road within the address or location Boundary Quality: Not Supplied Authorised Waste: Household Waste Prohibited Waste: Commercial Waste Hazardous Wastes Industrial Wastes Special Wastes	A11SE (W)	926	3	273600 194900
213	Registered Waste Treatment or Disposal Sites Licence Holder: West Glamorgan Area Health Authority Licence Reference: 12/88 Site Location: Adj Outpatient Dept, Main Hospital Site, Neath, West Glamorgan Operator Location: 36 Orchard Street, SWANSEA, West Glamorgan, SA1 5AQ Authority: Environment Agency Wales, South West Area Site Category: Incineration Max Input Rate: Undefined Waste Source: No known restriction on source of waste Restrictions: Licence Status: Record supersededSuperseded Dated: 1st June 1988 Preceded By: Not Given Licence: Superseded By: NBWD 3 Licence: Positional Accuracy: Manually positioned to the road within the address or location Boundary Quality: Not Supplied Authorised Waste: Hospital Wastes Pathology Wastes Suitable For Inc'N Sharps (Med./Surg./Vet) Soiled Surgical Dress./Swaps/Cont.Wast Solid Medicines & Injectables Prohibited Waste: Broken Thermometers Contain. Mercury Pharmaceutical Aerosols	A18SW (NW)	253	3	274450 195550

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	A13SE (SE)	0	1	274677 195184
	BGS Estimated Soil Chemistry Source: British Geological Survey, National Geoscience Information Service Soil Sample Type: Sediment Arsenic Concentration: 25 - 35 mg/kg Cadmium Concentration: <1.8 mg/kg Chromium Concentration: 60 - 90 mg/kg Lead Concentration: <100 mg/kg Nickel Concentration: 30 - 45 mg/kg	A13NE (NE)	0	1	274717 195208
	BGS Estimated Soil Chemistry Source: British Geological Survey, National Geoscience Information Service Soil Sample Type: Sediment Arsenic Concentration: 35 - 45 mg/kg Cadmium Concentration: <1.8 mg/kg Chromium Concentration: 60 - 90 mg/kg Lead Concentration: <100 mg/kg Nickel Concentration: 15 - 30 mg/kg	A13SW (S)	0	1	274663 195136
	BGS Estimated Soil Chemistry Source: British Geological Survey, National Geoscience Information Service Soil Sample Type: Sediment Arsenic Concentration: 35 - 45 mg/kg Cadmium Concentration: <1.8 mg/kg Chromium Concentration: 60 - 90 mg/kg Lead Concentration: <100 mg/kg Nickel Concentration: 30 - 45 mg/kg	A13SE (E)	0	1	274844 195159
	BGS Estimated Soil Chemistry Source: British Geological Survey, National Geoscience Information Service Soil Sample Type: Sediment Arsenic Concentration: 35 - 45 mg/kg Cadmium Concentration: <1.8 mg/kg Chromium Concentration: 60 - 90 mg/kg Lead Concentration: <100 mg/kg Nickel Concentration: 30 - 45 mg/kg	A13NW (W)	0	1	274532 195240
	BGS Estimated Soil Chemistry Source: British Geological Survey, National Geoscience Information Service Soil Sample Type: Sediment Arsenic Concentration: 25 - 35 mg/kg Cadmium Concentration: <1.8 mg/kg Chromium Concentration: 60 - 90 mg/kg Lead Concentration: <100 mg/kg Nickel Concentration: 15 - 30 mg/kg	A13SE (SE)	0	1	274677 195184
	BGS Estimated Soil Chemistry Source: British Geological Survey, National Geoscience Information Service Soil Sample Type: Sediment Arsenic Concentration: 35 - 45 mg/kg Cadmium Concentration: <1.8 mg/kg Chromium Concentration: 60 - 90 mg/kg Lead Concentration: <100 mg/kg Nickel Concentration: 15 - 30 mg/kg	A13NW (NW)	34	1	274548 195312

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
	BGS Estimated Soil Chemistry Source: British Geological Survey, National Geoscience Information Service Soil Sample Type: Sediment Arsenic 25 - 35 mg/kg Concentration: Cadmium <1.8 mg/kg Concentration: Chromium 60 - 90 mg/kg Concentration: Lead Concentration: <100 mg/kg Nickel 30 - 45 mg/kg Concentration:	A13SE (E)	108	1	274996 195160
	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:	A12NE (W)	141	1	274320 195283
	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:	A13SE (SE)	148	1	275000 195000
	BGS Estimated Soil Chemistry Source: British Geological Survey, National Geoscience Information Service Soil Sample Type: Sediment Arsenic 25 - 35 mg/kg Concentration: Cadmium <1.8 mg/kg Concentration: Chromium 60 - 90 mg/kg Concentration: Lead Concentration: <100 mg/kg Nickel 30 - 45 mg/kg Concentration:	A14NW (E)	228	1	275070 195302
	BGS Estimated Soil Chemistry Source: British Geological Survey, National Geoscience Information Service Soil Sample Type: Sediment Arsenic 25 - 35 mg/kg Concentration: Cadmium <1.8 mg/kg Concentration: Chromium 60 - 90 mg/kg Concentration: Lead Concentration: <100 mg/kg Nickel 30 - 45 mg/kg Concentration:	A14NW (E)	370	1	275196 195356
	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 - 2.2 mg/kg Concentration: Chromium 60 - 90 mg/kg Concentration: Lead Concentration: <100 mg/kg Nickel 30 - 45 mg/kg Concentration:	A14SW (E)	436	1	275315 195000

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
	BGS Estimated Soil Chemistry Source: British Geological Survey, National Geoscience Information Service Soil Sample Type: Sediment Arsenic 35 - 45 mg/kg Concentration: Cadmium <1.8 mg/kg Concentration: Chromium 60 - 90 mg/kg Concentration: Lead Concentration: <100 mg/kg Nickel 15 - 30 mg/kg Concentration:	A14NW (NE)	437	1	275209 195453
	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:	A7NE (SW)	442	1	274335 194812
	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)	525	1	275396 194959
	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 15 - 30 mg/kg Concentration:	A9NW (SE)	612	1	275139 194520
	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:	A14SE (E)	615	1	275500 195000
	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:	A18SE (N)	647	1	274830 195854

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: 30 - 45 mg/kg Concentration:	A9NE (SE)	677	1	275500 194811
	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)	687	1	275577 195202
	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:	A18NE (N)	701	1	274677 196000
	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:	A9NE (SE)	717	1	275500 194729
	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: 30 - 45 mg/kg Concentration:	A14SE (E)	736	1	275622 195000
	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 - 2.2 mg/kg Concentration: Chromium: 60 - 90 mg/kg Concentration: Lead Concentration: <100 mg/kg Nickel: 15 - 30 mg/kg Concentration:	A7SE (SW)	788	1	274208 194500

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
	BGS Estimated Soil Chemistry Source: British Geological Survey, National Geoscience Information Service Soil Sample Type: Sediment Arsenic 35 - 45 mg/kg Concentration: Cadmium <1.8 mg/kg Concentration: Chromium 60 - 90 mg/kg Concentration: Lead Concentration: <100 mg/kg Nickel 30 - 45 mg/kg Concentration:	A12SW (W)	802	1	273733 194906
	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:	A15SW (E)	818	1	275706 195000
	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:	A17NW (NW)	853	1	274000 196000
	BGS Estimated Soil Chemistry Source: British Geological Survey, National Geoscience Information Service Soil Sample Type: Sediment Arsenic 25 - 35 mg/kg Concentration: Cadmium <1.8 mg/kg Concentration: Chromium 60 - 90 mg/kg Concentration: Lead Concentration: <100 mg/kg Nickel 30 - 45 mg/kg Concentration:	A18NE (N)	898	1	274931 196084
	BGS Estimated Soil Chemistry Source: British Geological Survey, National Geoscience Information Service Soil Sample Type: Sediment Arsenic 25 - 35 mg/kg Concentration: Cadmium <1.8 mg/kg Concentration: Chromium 60 - 90 mg/kg Concentration: Lead Concentration: <100 mg/kg Nickel 30 - 45 mg/kg Concentration:	A6NE (W)	908	1	273654 194827
	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:	A7SW (SW)	938	1	273894 194500

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
	BGS Estimated Soil Chemistry Source: British Geological Survey, National Geoscience Information Service Soil Sample Type: Sediment Arsenic: 25 - 35 mg/kg Concentration: Cadmium: 1.8 - 2.2 mg/kg Concentration: Chromium: 60 - 90 mg/kg Concentration: Lead Concentration: <100 mg/kg Nickel: 30 - 45 mg/kg Concentration:	A8SW (S)	996	1	274342 194214
214	BGS Recorded Mineral Sites Site Name: Tyla Morris Location: Briton Ferry, Neath, West Glamorgan Source: British Geological Survey, National Geoscience Information Service Reference: 156550 Type: Opencast Status: Ceased Operator: Unknown Operator Operator Location: Not Supplied Periodic Type: Carboniferous Geology: Hughes Member Commodity: Sandstone Positional Accuracy: Located by supplier to within 10m	A13SE (E)	60	1	274890 195184
215	BGS Recorded Mineral Sites Site Name: Tyla Morris Location: Briton Ferry, Neath, West Glamorgan Source: British Geological Survey, National Geoscience Information Service Reference: 156551 Type: Opencast Status: Ceased Operator: Unknown Operator Operator Location: Not Supplied Periodic Type: Carboniferous Geology: Hughes Member Commodity: Sandstone Positional Accuracy: Located by supplier to within 10m	A14SW (E)	138	1	275030 195148
216	BGS Recorded Mineral Sites Site Name: Esgyrn Colliery Location: Briton Ferry, Neath, West Glamorgan Source: British Geological Survey, National Geoscience Information Service Reference: 156579 Type: Underground Status: Ceased Operator: Unknown Operator Operator Location: Not Supplied Periodic Type: Carboniferous Geology: Brithdir Member Commodity: Coal - Deep Positional Accuracy: Located by supplier to within 10m	A14SW (E)	141	1	275034 195087
217	BGS Recorded Mineral Sites Site Name: Tyla Morris Location: Briton Ferry, Neath, West Glamorgan Source: British Geological Survey, National Geoscience Information Service Reference: 156549 Type: Opencast Status: Ceased Operator: Unknown Operator Operator Location: Not Supplied Periodic Type: Carboniferous Geology: Hughes Member Commodity: Sandstone Positional Accuracy: Located by supplier to within 10m	A13NE (E)	189	1	274971 195290
218	BGS Recorded Mineral Sites Site Name: Esgyrn Colliery Location: Briton Ferry, Neath, West Glamorgan Source: British Geological Survey, National Geoscience Information Service Reference: 156578 Type: Underground Status: Ceased Operator: Unknown Operator Operator Location: Not Supplied Periodic Type: Carboniferous Geology: Hughes Member Commodity: Coal - Deep Positional Accuracy: Located by supplier to within 10m	A14NW (E)	253	1	275126 195222

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
219	BGS Recorded Mineral Sites Site Name: Ty-Nef Location: Briton Ferry, Neath, West Glamorgan Source: British Geological Survey, National Geoscience Information Service Reference: 156577 Type: Underground Status: Ceased Operator: Unknown Operator Operator Location: Not Supplied Periodic Type: Carboniferous Geology: Hughes Member Commodity: Coal - Deep Positional Accuracy: Located by supplier to within 10m	A14NW (E)	286	1	275131 195279
220	BGS Recorded Mineral Sites Site Name: Garth-Mor Location: Neath, West Glamorgan Source: British Geological Survey, National Geoscience Information Service Reference: 154446 Type: Underground Status: Ceased Operator: Unknown Operator Operator Location: Not Supplied Periodic Type: Carboniferous Geology: Hughes Member Commodity: Coal - Deep Positional Accuracy: Located by supplier to within 10m	A18SE (N)	295	1	274696 195299
221	BGS Recorded Mineral Sites Site Name: Esgyrn Colliery Location: Briton Ferry, Neath, West Glamorgan Source: British Geological Survey, National Geoscience Information Service Reference: 156552 Type: Opencast Status: Ceased Operator: Unknown Operator Operator Location: Not Supplied Periodic Type: Carboniferous Geology: Brithdir Member Commodity: Sandstone Positional Accuracy: Located by supplier to within 10m	A14SW (SE)	369	1	275180 194869
222	BGS Recorded Mineral Sites Site Name: Garth-Mor Location: Neath, West Glamorgan Source: British Geological Survey, National Geoscience Information Service Reference: 154430 Type: Underground Status: Ceased Operator: Unknown Operator Operator Location: Not Supplied Periodic Type: Carboniferous Geology: Hughes Member Commodity: Coal - Deep Positional Accuracy: Located by supplier to within 10m	A14NW (NE)	401	1	275028 195496
223	BGS Recorded Mineral Sites Site Name: Esgyrn Colliery Location: Briton Ferry, Neath, West Glamorgan Source: British Geological Survey, National Geoscience Information Service Reference: 156580 Type: Underground Status: Ceased Operator: Unknown Operator Operator Location: Not Supplied Periodic Type: Carboniferous Geology: Hughes Member Commodity: Coal - Deep Positional Accuracy: Located by supplier to within 10m	A14SE (E)	506	1	275371 194943
224	BGS Recorded Mineral Sites Site Name: Garth-Mor Location: Neath, West Glamorgan Source: British Geological Survey, National Geoscience Information Service Reference: 154431 Type: Opencast Status: Ceased Operator: Unknown Operator Operator Location: Not Supplied Periodic Type: Carboniferous Geology: Hughes Member Commodity: Sandstone Positional Accuracy: Located by supplier to within 10m	A19SW (NE)	531	1	275103 195605

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
225	BGS Recorded Mineral Sites Site Name: Esgyrn Colliery Location: Briton Ferry, Neath, West Glamorgan Source: British Geological Survey, National Geoscience Information Service Reference: 156614 Type: Underground Status: Ceased Operator: Unknown Operator Operator Location: Not Supplied Periodic Type: Carboniferous Geology: Hughes Member Commodity: Coal - Deep Positional Accuracy: Located by supplier to within 10m	A14SE (E)	536	1	275428 195058
225	BGS Recorded Mineral Sites Site Name: Esgyrn Colliery Location: Briton Ferry, Neath, West Glamorgan Source: British Geological Survey, National Geoscience Information Service Reference: 156553 Type: Underground Status: Ceased Operator: Unknown Operator Operator Location: Not Supplied Periodic Type: Carboniferous Geology: Hughes Member Commodity: Coal - Deep Positional Accuracy: Located by supplier to within 10m	A14SE (E)	555	1	275444 195032
226	BGS Recorded Mineral Sites Site Name: Esgyrn Colliery Location: Briton Ferry, Neath, West Glamorgan Source: British Geological Survey, National Geoscience Information Service Reference: 156597 Type: Underground Status: Ceased Operator: Unknown Operator Operator Location: Not Supplied Periodic Type: Carboniferous Geology: Hughes Member Commodity: Coal - Deep Positional Accuracy: Located by supplier to within 10m	A9NE (SE)	561	1	275384 194841
227	BGS Recorded Mineral Sites Site Name: Pen-Rhiw-Tyn Location: Neath, West Glamorgan Source: British Geological Survey, National Geoscience Information Service Reference: 154429 Type: Opencast Status: Ceased Operator: Unknown Operator Operator Location: Not Supplied Periodic Type: Carboniferous Geology: Hughes Member Commodity: Sandstone Positional Accuracy: Located by supplier to within 10m	A18NW (N)	606	1	274562 195901
228	BGS Recorded Mineral Sites Site Name: Eaglebush Cottage Location: Neath, West Glamorgan Source: British Geological Survey, National Geoscience Information Service Reference: 154444 Type: Opencast Status: Ceased Operator: Unknown Operator Operator Location: Not Supplied Periodic Type: Carboniferous Geology: Hughes Member Commodity: Sandstone Positional Accuracy: Located by supplier to within 10m	A19SW (NE)	655	1	275021 195778
229	BGS Recorded Mineral Sites Site Name: Ty'N-Y-Daraenen Location: Briton Ferry, Neath, West Glamorgan Source: British Geological Survey, National Geoscience Information Service Reference: 156586 Type: Opencast Status: Ceased Operator: Unknown Operator Operator Location: Not Supplied Periodic Type: Carboniferous Geology: Brithdir Member Commodity: Sandstone Positional Accuracy: Located by supplier to within 10m	A9NE (SE)	666	1	275445 194734

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
230	BGS Recorded Mineral Sites Site Name: Bay View Location: Briton Ferry, Neath, West Glamorgan Source: British Geological Survey, National Geoscience Information Service Reference: 156556 Type: Underground Status: Ceased Operator: Unknown Operator Operator Location: Not Supplied Periodic Type: Carboniferous Geology: Brithdir Member Commodity: Coal - Deep Positional Accuracy: Located by supplier to within 10m	A8SW (S)	725	1	274496 194442
231	BGS Recorded Mineral Sites Site Name: Park Terrace Location: Neath, West Glamorgan Source: British Geological Survey, National Geoscience Information Service Reference: 154428 Type: Opencast Status: Ceased Operator: Unknown Operator Operator Location: Not Supplied Periodic Type: Carboniferous Geology: Hughes Member Commodity: Sandstone Positional Accuracy: Located by supplier to within 10m	A18NW (N)	737	1	274471 196036
232	BGS Recorded Mineral Sites Site Name: Ty'N-Y-Ddraenen Location: Briton Ferry, Neath, West Glamorgan Source: British Geological Survey, National Geoscience Information Service Reference: 156606 Type: Underground Status: Ceased Operator: Unknown Operator Operator Location: Not Supplied Periodic Type: Carboniferous Geology: Hughes Member Commodity: Coal - Deep Positional Accuracy: Located by supplier to within 10m	A9NE (SE)	830	1	275614 194701
233	BGS Recorded Mineral Sites Site Name: Graig House Location: Briton Ferry, Neath, West Glamorgan Source: British Geological Survey, National Geoscience Information Service Reference: 156557 Type: Underground Status: Ceased Operator: Unknown Operator Operator Location: Not Supplied Periodic Type: Carboniferous Geology: Brithdir Member Commodity: Coal - Deep Positional Accuracy: Located by supplier to within 10m	A8SW (S)	859	1	274442 194320
234	BGS Recorded Mineral Sites Site Name: Eaglesbush House Location: Neath, West Glamorgan Source: British Geological Survey, National Geoscience Information Service Reference: 154427 Type: Underground Status: Ceased Operator: Unknown Operator Operator Location: Not Supplied Periodic Type: Carboniferous Geology: Hughes Member Commodity: Coal - Deep Positional Accuracy: Located by supplier to within 10m	A18NE (N)	893	1	274807 196133
235	BGS Recorded Mineral Sites Site Name: Eaglebush House Location: Neath, West Glamorgan Source: British Geological Survey, National Geoscience Information Service Reference: 154445 Type: Underground Status: Ceased Operator: Unknown Operator Operator Location: Not Supplied Periodic Type: Carboniferous Geology: Hughes Member Commodity: Coal - Deep Positional Accuracy: Located by supplier to within 10m	A23SE (N)	980	1	274847 196211

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
	BGS Measured Urban Soil Chemistry Source: British Geological Survey, National Geoscience Information Service Grid: 274750, 195250 Soil Sample Type: Topsoil Sample Area: Swansea Arsenic Measured 93.00 mg/kg Concentration: Cadmium Measured 5.70 mg/kg Concentration: Chromium Measured 84.90 mg/kg Concentration: Lead Measured 1072.30 mg/kg Concentration: Nickel Measured 96.50 mg/kg Concentration:	A13NE (NE)	63	1	274750 195250
	BGS Measured Urban Soil Chemistry Source: British Geological Survey, National Geoscience Information Service Grid: 274230, 195250 Soil Sample Type: Topsoil Sample Area: Swansea Arsenic Measured 23.50 mg/kg Concentration: Cadmium Measured 2.60 mg/kg Concentration: Chromium Measured 80.20 mg/kg Concentration: Lead Measured 596.20 mg/kg Concentration: Nickel Measured 45.30 mg/kg Concentration:	A12NE (W)	227	1	274230 195250
	BGS Measured Urban Soil Chemistry Source: British Geological Survey, National Geoscience Information Service Grid: 274750, 194780 Soil Sample Type: Topsoil Sample Area: Swansea Arsenic Measured 139.50 mg/kg Concentration: Cadmium Measured 0.50 mg/kg Concentration: Chromium Measured 57.70 mg/kg Concentration: Lead Measured 216.80 mg/kg Concentration: Nickel Measured 38.10 mg/kg Concentration:	A8NE (S)	314	1	274750 194780
	BGS Measured Urban Soil Chemistry Source: British Geological Survey, National Geoscience Information Service Grid: 274250, 195740 Soil Sample Type: Topsoil Sample Area: Swansea Arsenic Measured 84.60 mg/kg Concentration: Cadmium Measured 2.00 mg/kg Concentration: Chromium Measured 87.50 mg/kg Concentration: Lead Measured 784.20 mg/kg Concentration: Nickel Measured 115.50 mg/kg Concentration:	A17SE (NW)	500	1	274250 195740
	BGS Measured Urban Soil Chemistry Source: British Geological Survey, National Geoscience Information Service Grid: 274760, 195770 Soil Sample Type: Topsoil Sample Area: Swansea Arsenic Measured 34.50 mg/kg Concentration: Cadmium Measured 0.70 mg/kg Concentration: Chromium Measured 56.40 mg/kg Concentration: Lead Measured 99.70 mg/kg Concentration: Nickel Measured 28.00 mg/kg Concentration:	A18SE (N)	541	1	274760 195770

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
	BGS Measured Urban Soil Chemistry Source: British Geological Survey, National Geoscience Information Service Grid: 274190, 194780 Soil Sample Type: Topsoil Sample Area: Swansea Arsenic Measured 27.90 mg/kg Concentration: Cadmium Measured 1.10 mg/kg Concentration: Chromium Measured 95.60 mg/kg Concentration: Lead Measured 387.70 mg/kg Concentration: Nickel Measured 53.70 mg/kg Concentration:	A7NE (SW)	541	1	274190 194780
	BGS Measured Urban Soil Chemistry Source: British Geological Survey, National Geoscience Information Service Grid: 273750, 195230 Soil Sample Type: Topsoil Sample Area: Swansea Arsenic Measured 78.80 mg/kg Concentration: Cadmium Measured 3.10 mg/kg Concentration: Chromium Measured 68.40 mg/kg Concentration: Lead Measured 146.80 mg/kg Concentration: Nickel Measured 39.00 mg/kg Concentration:	A12NW (W)	707	1	273750 195230
	BGS Measured Urban Soil Chemistry Source: British Geological Survey, National Geoscience Information Service Grid: 275250, 195740 Soil Sample Type: Topsoil Sample Area: Swansea Arsenic Measured 75.90 mg/kg Concentration: Cadmium Measured 1.90 mg/kg Concentration: Chromium Measured 63.10 mg/kg Concentration: Lead Measured 90.50 mg/kg Concentration: Nickel Measured 28.70 mg/kg Concentration:	A19SW (NE)	717	1	275250 195740
	BGS Measured Urban Soil Chemistry Source: British Geological Survey, National Geoscience Information Service Grid: 273750, 194760 Soil Sample Type: Topsoil Sample Area: Swansea Arsenic Measured 50.80 mg/kg Concentration: Cadmium Measured 3.50 mg/kg Concentration: Chromium Measured 102.80 mg/kg Concentration: Lead Measured 338.00 mg/kg Concentration: Nickel Measured 43.40 mg/kg Concentration:	A7NW (SW)	861	1	273750 194760
	BGS Measured Urban Soil Chemistry Source: British Geological Survey, National Geoscience Information Service Grid: 273760, 195770 Soil Sample Type: Topsoil Sample Area: Swansea Arsenic Measured 43.80 mg/kg Concentration: Cadmium Measured 5.10 mg/kg Concentration: Chromium Measured 60.00 mg/kg Concentration: Lead Measured 93.60 mg/kg Concentration: Nickel Measured 71.60 mg/kg Concentration:	A17SW (NW)	866	1	273760 195770

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
	BGS Measured Urban Soil Chemistry Source: British Geological Survey, National Geoscience Information Service Grid: 274740, 194200 Soil Sample Type: Topsoil Sample Area: Swansea Arsenic Measured 126.30 mg/kg Concentration: Cadmium Measured 0.60 mg/kg Concentration: Chromium Measured 48.30 mg/kg Concentration: Lead Measured 193.30 mg/kg Concentration: Nickel Measured 25.20 mg/kg Concentration:	A8SE (S)	880	1	274740 194200
	BGS Measured Urban Soil Chemistry Source: British Geological Survey, National Geoscience Information Service Grid: 274150, 196140 Soil Sample Type: Topsoil Sample Area: Swansea Arsenic Measured 25.80 mg/kg Concentration: Cadmium Measured 0.90 mg/kg Concentration: Chromium Measured 77.50 mg/kg Concentration: Lead Measured 146.60 mg/kg Concentration: Nickel Measured 51.70 mg/kg Concentration:	A17NE (NW)	906	1	274150 196140
	BGS Measured Urban Soil Chemistry Source: British Geological Survey, National Geoscience Information Service Grid: 274290, 194270 Soil Sample Type: Topsoil Sample Area: Swansea Arsenic Measured 59.50 mg/kg Concentration: Cadmium Measured 2.80 mg/kg Concentration: Chromium Measured 81.60 mg/kg Concentration: Lead Measured 369.60 mg/kg Concentration: Nickel Measured 50.20 mg/kg Concentration:	A7SE (SW)	966	1	274290 194270
	BGS Measured Urban Soil Chemistry Source: British Geological Survey, National Geoscience Information Service Grid: 274750, 196240 Soil Sample Type: Topsoil Sample Area: Swansea Arsenic Measured 73.90 mg/kg Concentration: Cadmium Measured 1.20 mg/kg Concentration: Chromium Measured 57.40 mg/kg Concentration: Lead Measured 188.00 mg/kg Concentration: Nickel Measured 33.20 mg/kg Concentration:	A23SE (N)	977	1	274750 196240

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
	BGS Urban Soil Chemistry Averages Source: British Geological Survey, National Geoscience Information Service Sample Area: Swansea Count Id: 368 Arsenic Minimum Concentration: 8.00 mg/kg Arsenic Average Concentration: 79.00 mg/kg Arsenic Maximum Concentration: 2161.00 mg/kg Cadmium Minimum Concentration: 0.10 mg/kg Cadmium Average Concentration: 2.90 mg/kg Cadmium Maximum Concentration: 61.90 mg/kg Chromium Minimum Concentration: 13.00 mg/kg Chromium Average Concentration: 72.00 mg/kg Chromium Maximum Concentration: 562.00 mg/kg Lead Minimum Concentration: 23.00 mg/kg Lead Average Concentration: 413.00 mg/kg Lead Maximum Concentration: 10000.00 mg/kg Nickel Minimum Concentration: 8.00 mg/kg Nickel Average Concentration: 52.00 mg/kg Nickel Maximum Concentration: 384.00 mg/kg	A13SE (SE)	0	1	274677 195184
	Coal Mining Affected Areas Description: In an area which may be affected by coal mining activity. It is recommended that a coal mining report is obtained from the Coal Authority. Contact details are included in the Useful Contacts section of this report.	A13SE (SE)	0	6	274677 195184
	Mining Instability Mining Evidence: Inconclusive Coal Mining Source: Ove Arup & Partners Boundary Quality: As Supplied	A13SE (SE)	0	-	274677 195184
	Non Coal Mining Areas of Great Britain No Hazard				
	Potential for Collapsible Ground Stability Hazards Hazard Potential: No Hazard Source: British Geological Survey, National Geoscience Information Service	A13SE (SE)	0	1	274677 195184
	Potential for Collapsible Ground Stability Hazards Hazard Potential: Very Low Source: British Geological Survey, National Geoscience Information Service	A13SW (S)	0	1	274671 195149
	Potential for Collapsible Ground Stability Hazards Hazard Potential: Very Low Source: British Geological Survey, National Geoscience Information Service	A13SE (S)	70	1	274677 195000
	Potential for Collapsible Ground Stability Hazards Hazard Potential: Very Low Source: British Geological Survey, National Geoscience Information Service	A13SE (E)	104	1	275000 195184
	Potential for Collapsible Ground Stability Hazards Hazard Potential: Very Low Source: British Geological Survey, National Geoscience Information Service	A13SE (SE)	148	1	275000 195000
	Potential for Compressible Ground Stability Hazards Hazard Potential: Moderate Source: British Geological Survey, National Geoscience Information Service	A13NW (NW)	0	1	274556 195250
	Potential for Compressible Ground Stability Hazards Hazard Potential: Moderate Source: British Geological Survey, National Geoscience Information Service	A13SE (SE)	0	1	274768 195108
	Potential for Compressible Ground Stability Hazards Hazard Potential: No Hazard Source: British Geological Survey, National Geoscience Information Service	A13SE (SE)	0	1	274677 195184
	Potential for Compressible Ground Stability Hazards Hazard Potential: No Hazard Source: British Geological Survey, National Geoscience Information Service	A13SE (S)	70	1	274677 195000

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
	Potential for Compressible Ground Stability Hazards Hazard Potential: Moderate Source: British Geological Survey, National Geoscience Information Service	A13NW (W)	92	1	274367 195272
	Potential for Compressible Ground Stability Hazards Hazard Potential: No Hazard Source: British Geological Survey, National Geoscience Information Service	A13SE (E)	104	1	275000 195184
	Potential for Compressible Ground Stability Hazards Hazard Potential: No Hazard Source: British Geological Survey, National Geoscience Information Service	A13SE (SE)	148	1	275000 195000
	Potential for Ground Dissolution Stability Hazards Hazard Potential: No Hazard Source: British Geological Survey, National Geoscience Information Service	A13SE (SE)	0	1	274677 195184
	Potential for Ground Dissolution Stability Hazards Hazard Potential: No Hazard Source: British Geological Survey, National Geoscience Information Service	A13SE (S)	70	1	274677 195000
	Potential for Ground Dissolution Stability Hazards Hazard Potential: No Hazard Source: British Geological Survey, National Geoscience Information Service	A13SE (E)	104	1	275000 195184
	Potential for Ground Dissolution Stability Hazards Hazard Potential: No Hazard Source: British Geological Survey, National Geoscience Information Service	A13SE (SE)	148	1	275000 195000
	Potential for Landslide Ground Stability Hazards Hazard Potential: Moderate Source: British Geological Survey, National Geoscience Information Service	A13SE (E)	0	1	274762 195160
	Potential for Landslide Ground Stability Hazards Hazard Potential: Moderate Source: British Geological Survey, National Geoscience Information Service	A13NE (NE)	0	1	274695 195208
	Potential for Landslide Ground Stability Hazards Hazard Potential: Low Source: British Geological Survey, National Geoscience Information Service	A13NE (NE)	0	1	274683 195194
	Potential for Landslide Ground Stability Hazards Hazard Potential: Very Low Source: British Geological Survey, National Geoscience Information Service	A13SE (SE)	0	1	274677 195184
	Potential for Landslide Ground Stability Hazards Hazard Potential: Low Source: British Geological Survey, National Geoscience Information Service	A13SE (S)	70	1	274701 194966
	Potential for Landslide Ground Stability Hazards Hazard Potential: Very Low Source: British Geological Survey, National Geoscience Information Service	A13SE (S)	79	1	274677 195000
	Potential for Landslide Ground Stability Hazards Hazard Potential: Low Source: British Geological Survey, National Geoscience Information Service	A13SE (E)	104	1	275000 195158
	Potential for Landslide Ground Stability Hazards Hazard Potential: Low Source: British Geological Survey, National Geoscience Information Service	A13SE (E)	107	1	275000 195095
	Potential for Landslide Ground Stability Hazards Hazard Potential: Very Low Source: British Geological Survey, National Geoscience Information Service	A13SE (E)	107	1	275000 195184
	Potential for Landslide Ground Stability Hazards Hazard Potential: Low Source: British Geological Survey, National Geoscience Information Service	A13SE (SE)	148	1	275000 195000
	Potential for Landslide Ground Stability Hazards Hazard Potential: Very Low Source: British Geological Survey, National Geoscience Information Service	A14SW (SE)	206	1	275067 195000
	Potential for Landslide Ground Stability Hazards Hazard Potential: Moderate Source: British Geological Survey, National Geoscience Information Service	A13SE (S)	211	1	274744 194885
	Potential for Landslide Ground Stability Hazards Hazard Potential: Low Source: British Geological Survey, National Geoscience Information Service	A14NW (E)	225	1	275073 195294
	Potential for Landslide Ground Stability Hazards Hazard Potential: Low Source: British Geological Survey, National Geoscience Information Service	A12NE (W)	240	1	274216 195204

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
	Potential for Running Sand Ground Stability Hazards Hazard Potential: Very Low Source: British Geological Survey, National Geoscience Information Service	A13SE (S)	0	1	274694 195084
	Potential for Running Sand Ground Stability Hazards Hazard Potential: No Hazard Source: British Geological Survey, National Geoscience Information Service	A13SE (SE)	0	1	274677 195184
	Potential for Running Sand Ground Stability Hazards Hazard Potential: Moderate Source: British Geological Survey, National Geoscience Information Service	A13SE (SE)	0	1	274768 195108
	Potential for Running Sand Ground Stability Hazards Hazard Potential: Moderate Source: British Geological Survey, National Geoscience Information Service	A13NW (NW)	0	1	274556 195250
	Potential for Running Sand Ground Stability Hazards Hazard Potential: Very Low Source: British Geological Survey, National Geoscience Information Service	A13SE (S)	70	1	274677 195000
	Potential for Running Sand Ground Stability Hazards Hazard Potential: Moderate Source: British Geological Survey, National Geoscience Information Service	A13NW (W)	92	1	274367 195272
	Potential for Running Sand Ground Stability Hazards Hazard Potential: No Hazard Source: British Geological Survey, National Geoscience Information Service	A13SE (E)	104	1	275000 195184
	Potential for Running Sand Ground Stability Hazards Hazard Potential: Very Low Source: British Geological Survey, National Geoscience Information Service	A13SE (E)	107	1	275000 195095
	Potential for Running Sand Ground Stability Hazards Hazard Potential: Very Low Source: British Geological Survey, National Geoscience Information Service	A13SE (SE)	148	1	275000 195000
	Potential for Running Sand Ground Stability Hazards Hazard Potential: No Hazard Source: British Geological Survey, National Geoscience Information Service	A14SW (SE)	181	1	275038 195000
	Potential for Running Sand Ground Stability Hazards Hazard Potential: No Hazard Source: British Geological Survey, National Geoscience Information Service	A13SE (S)	241	1	274688 194851
	Potential for Shrinking or Swelling Clay Ground Stability Hazards Hazard Potential: Very Low Source: British Geological Survey, National Geoscience Information Service	A13SE (SE)	0	1	274677 195184
	Potential for Shrinking or Swelling Clay Ground Stability Hazards Hazard Potential: No Hazard Source: British Geological Survey, National Geoscience Information Service	A13NE (NE)	17	1	274721 195239
	Potential for Shrinking or Swelling Clay Ground Stability Hazards Hazard Potential: Very Low Source: British Geological Survey, National Geoscience Information Service	A13SE (S)	70	1	274677 195000
	Potential for Shrinking or Swelling Clay Ground Stability Hazards Hazard Potential: Very Low Source: British Geological Survey, National Geoscience Information Service	A13SE (E)	104	1	275000 195158
	Potential for Shrinking or Swelling Clay Ground Stability Hazards Hazard Potential: No Hazard Source: British Geological Survey, National Geoscience Information Service	A13SE (E)	107	1	275000 195184
	Potential for Shrinking or Swelling Clay Ground Stability Hazards Hazard Potential: Very Low Source: British Geological Survey, National Geoscience Information Service	A13SE (E)	107	1	275000 195095
	Potential for Shrinking or Swelling Clay Ground Stability Hazards Hazard Potential: Very Low Source: British Geological Survey, National Geoscience Information Service	A13SE (SE)	148	1	275000 195000
	Potential for Shrinking or Swelling Clay Ground Stability Hazards Hazard Potential: No Hazard Source: British Geological Survey, National Geoscience Information Service	A14SW (SE)	181	1	275038 195000
	Potential for Shrinking or Swelling Clay Ground Stability Hazards Hazard Potential: Very Low Source: British Geological Survey, National Geoscience Information Service	A14NW (E)	225	1	275073 195294
	Potential for Shrinking or Swelling Clay Ground Stability Hazards Hazard Potential: No Hazard Source: British Geological Survey, National Geoscience Information Service	A13SE (S)	241	1	274688 194851

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
	Radon Potential - Radon Affected Areas Affected Area: The property is an Intermediate probability radon area (3 to 5% of homes are estimated to be at or above the Action Level). Source: British Geological Survey, National Geoscience Information Service	A13SE (SE)	0	1	274677 195184
	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	A13SW (W)	0	1	274648 195184
	Radon Potential - Radon Protection Measures Protection Measure: Basic radon protective measures are necessary in the construction of new dwellings or extensions Source: British Geological Survey, National Geoscience Information Service	A13SE (SE)	0	1	274677 195184
	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	A13SW (W)	0	1	274648 195184

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
236	Contemporary Trade Directory Entries Name: Car Tec Location: 1, Ormond Street, Neath, West Glamorgan, SA11 2TG Classification: Car Body Repairs Status: Inactive Positional Accuracy: Automatically positioned to the address	A13SW (SW)	183	-	274461 195050
237	Contemporary Trade Directory Entries Name: Station Sprayers Location: Station Road, Briton Ferry, Neath, West Glamorgan, SA11 2SU Classification: Garage Services Status: Active Positional Accuracy: Automatically positioned to the address	A12NE (W)	218	-	274240 195229
237	Contemporary Trade Directory Entries Name: A & S Tyres Ltd Location: Unit 1-5 Station Road, Briton Ferry, Neath, West Glamorgan, SA11 2SU Classification: Tyre Dealers Status: Active Positional Accuracy: Manually positioned within the geographical locality	A12NE (W)	219	-	274239 195235
237	Contemporary Trade Directory Entries Name: Double P Motors Ltd Location: Station Road, Briton Ferry, Neath, SA11 2SU Classification: Garage Services Status: Active Positional Accuracy: Automatically positioned to the address	A12NE (W)	219	-	274239 195235
238	Contemporary Trade Directory Entries Name: A & S Tyres Ltd Location: Unit 1-5 Station Yard, Station Road, Briton Ferry, Neath, West Glamorgan, SA11 2SU Classification: Garage Services Status: Inactive Positional Accuracy: Manually positioned within the geographical locality	A12NE (W)	225	-	274234 195275
238	Contemporary Trade Directory Entries Name: West Coastal White Line Co Ltd Location: Station Road, Briton Ferry, Neath, West Glamorgan, SA11 2SU Classification: Road Marking & Surfacing Equipment & Material Manufacturers Status: Inactive Positional Accuracy: Automatically positioned to the address	A12NE (W)	237	-	274226 195305
238	Contemporary Trade Directory Entries Name: A & S Tyre Services Location: Station Road, Briton Ferry, Neath, West Glamorgan, SA11 2SU Classification: Tyre Dealers Status: Inactive Positional Accuracy: Automatically positioned to the address	A12NE (W)	237	-	274226 195305
239	Contemporary Trade Directory Entries Name: Tarmac Location: Briton Ferry, Neath, West Glamorgan, SA11 2HZ Classification: Sand, Gravel & Other Aggregates Status: Inactive Positional Accuracy: Manually positioned within the geographical locality	A17SE (NW)	393	-	274252 195614
240	Contemporary Trade Directory Entries Name: Lodge Garage Location: The Yard, Shelone Road, Neath, West Glamorgan, SA11 2NS Classification: Car Dealers Status: Inactive Positional Accuracy: Automatically positioned to the address	A12SE (SW)	426	-	274195 194915
241	Contemporary Trade Directory Entries Name: Neath General Hospital Location: Penrhiwtyn, Neath, West Glamorgan, SA11 2LQ Classification: Hospitals Status: Inactive Positional Accuracy: Automatically positioned to the address	A18SW (N)	457	-	274445 195754
242	Contemporary Trade Directory Entries Name: Alter Kennys Location: Neath Road, Briton Ferry, Neath, West Glamorgan, SA11 2AX Classification: Garage Services Status: Inactive Positional Accuracy: Manually positioned within the geographical locality	A8NW (SW)	466	-	274356 194786

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
243	Contemporary Trade Directory Entries Name: Lafarge Readymix Location: Old Iron Works, Briton Ferry, Neath, West Glamorgan, SA11 2LD Classification: Concrete & Mortar Ready Mixed Status: Inactive Positional Accuracy: Manually positioned within the geographical locality	A12SE (W)	514	-	274007 195003
244	Contemporary Trade Directory Entries Name: Autocare Neath Location: Neath Road, Briton Ferry, Neath, West Glamorgan, SA11 2AX Classification: Garage Services Status: Active Positional Accuracy: Automatically positioned to the address	A8NW (SW)	522	-	274391 194710
244	Contemporary Trade Directory Entries Name: Neath Car Sales Ltd Location: Neath Road, Briton Ferry, Neath, West Glamorgan, SA11 2AX Classification: Car Dealers Status: Inactive Positional Accuracy: Automatically positioned to the address	A8NW (SW)	522	-	274391 194710
245	Contemporary Trade Directory Entries Name: Neath Road Filling Station Location: Neath Rd, Briton Ferry, Neath, West Glamorgan, SA11 2AX Classification: Petrol Filling Stations Status: Inactive Positional Accuracy: Manually positioned to the road within the address or location	A7NE (SW)	542	-	274333 194714
246	Contemporary Trade Directory Entries Name: Kingfisher Mobile Tyre Services Location: 53, Olive Branch Crescent, Neath, West Glamorgan, SA11 2UH Classification: Tyre Dealers Status: Inactive Positional Accuracy: Automatically positioned to the address	A12NW (W)	590	-	273872 195324
246	Contemporary Trade Directory Entries Name: Kingfisher Mobile Tyre Services Location: 53, Olive Branch Crescent, Neath, SA11 2UH Classification: Tyre Dealers Status: Active Positional Accuracy: Automatically positioned to the address	A12NW (W)	590	-	273872 195324
247	Contemporary Trade Directory Entries Name: Camps Transport Location: 33, Bryn Teg, Neath, SA11 2YH Classification: Road Haulage Services Status: Active Positional Accuracy: Automatically positioned to the address	A12NW (W)	722	-	273746 195373
247	Contemporary Trade Directory Entries Name: J & J Skip Hire Location: 33, Bryn Teg, Neath, West Glamorgan, SA11 2YH Classification: Waste Disposal Services Status: Inactive Positional Accuracy: Automatically positioned to the address	A12NW (W)	723	-	273745 195374
248	Contemporary Trade Directory Entries Name: Breeding Group Location: Old Iron Works, Church Road, Neath, West Glamorgan, SA11 2LN Classification: Concrete & Mortar Ready Mixed Status: Active Positional Accuracy: Manually positioned within the geographical locality	A12SW (W)	787	-	273749 194908
249	Contemporary Trade Directory Entries Name: V I P Bin Cleaning Location: 32, Giants Grave Road, Neath, West Glamorgan, SA11 2LS Classification: Hygiene & Cleansing Services Status: Active Positional Accuracy: Automatically positioned to the address	A7NW (W)	787	-	273796 194822
249	Contemporary Trade Directory Entries Name: Clean & Dry Location: 32, Giants Grave Road, Neath, West Glamorgan, SA11 2LS Classification: Carpet, Curtain & Upholstery Cleaners Status: Inactive Positional Accuracy: Automatically positioned to the address	A7NW (W)	787	-	273796 194822
250	Contemporary Trade Directory Entries Name: Briton Ferry Salvage Ltd Location: 61, Giants Grave Road, Neath, West Glamorgan, SA11 2LN Classification: Scrap Metal Merchants Status: Inactive Positional Accuracy: Automatically positioned to the address	A12SW (W)	833	-	273688 194930

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
251	Contemporary Trade Directory Entries Name: M & M Motors Location: Gower Yard, Lane Rear of 59 To 97 Hunter Street, Briton Ferry, SA11 2RT Classification: Car & Commercial Repairs Status: Inactive Positional Accuracy: Automatically positioned to the address	A7SE (SW)	834	-	274238 194436
251	Contemporary Trade Directory Entries Name: Top Grade Tyres Location: 3, Caroline Street, NEATH, West Glamorgan, SA11 2RT Classification: Tyre Dealers Status: Inactive Positional Accuracy: Automatically positioned to the address	A7SE (SW)	852	-	274241 194416
251	Contemporary Trade Directory Entries Name: Briton Ferry Tyre Service Location: Gower Yard, Caroline St, Neath, West Glamorgan, SA11 2RT Classification: Tyre Dealers Status: Inactive Positional Accuracy: Manually positioned to the road within the address or location	A7SE (SW)	871	-	274234 194398
251	Contemporary Trade Directory Entries Name: Top Grade Tyres Location: Unit 3, Gower Yard, Caroline St, Neath, West Glamorgan, SA11 2RT Classification: Tyre Dealers Status: Inactive Positional Accuracy: Manually positioned to the road within the address or location	A7SE (SW)	878	-	274201 194405
252	Contemporary Trade Directory Entries Name: Stillman & Sons Location: 82, Giants Grave Road, Neath, West Glamorgan, SA11 2LN Classification: Scrap Metal Merchants Status: Inactive Positional Accuracy: Automatically positioned to the address	A11SE (W)	897	-	273649 194863
253	Contemporary Trade Directory Entries Name: J F Coals Location: 8, Herbert Road, Neath, West Glamorgan, SA11 2DN Classification: Coal & Smokeless Fuel Merchants & Distributors Status: Inactive Positional Accuracy: Automatically positioned to the address	A23SW (N)	954	-	274513 196253
254	Contemporary Trade Directory Entries Name: Neath Port Talbot Waste Management Co Ltd Location: Giants Grave Road, Neath, West Glamorgan, SA11 2LN Classification: Waste Disposal Services Status: Inactive Positional Accuracy: Automatically positioned to the address	A11SE (W)	960	-	273573 194877
255	Fuel Station Entries Name: Neath Road Filling Station Location: Neath Road, Briton Ferry, Neath, Neath Port Talbot, SA11 2AX Brand: Total Premises Type: Not Applicable Status: Obsolete Positional Accuracy: Automatically positioned to the address	A8NW (SW)	522	-	274391 194710
256	Points of Interest - Commercial Services Name: Car Tec Location: 1 Ormond Street, Neath, SA11 2TG Category: Repair and Servicing Class Code: Vehicle Repair, Testing and Servicing Positional Accuracy: Positioned to address or location	A13SW (SW)	183	7	274461 195050
256	Points of Interest - Commercial Services Name: Car Tec Location: 1 Ormond Street, Neath, SA11 2TG Category: Repair and Servicing Class Code: Vehicle Repair, Testing and Servicing Positional Accuracy: Positioned to address or location	A13SW (SW)	183	7	274461 195050
257	Points of Interest - Commercial Services Name: Station Sprayers Location: Station House, Station Road, Briton Ferry, Neath, SA11 2SU Category: Repair and Servicing Class Code: Vehicle Repair, Testing and Servicing Positional Accuracy: Positioned to address or location	A12NE (W)	204	7	274264 195319

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
257	Points of Interest - Commercial Services Name: A & S Tyres Location: Unit 6 West Coastal White Line Company, Station Road, Briton Ferry, SA11 2SU Category: Repair and Servicing Class Code: Vehicle Repair, Testing and Servicing Positional Accuracy: Positioned to address or location	A12NE (W)	230	7	274231 195290
258	Points of Interest - Commercial Services Name: Double P Motors Ltd Location: Station Road, Briton Ferry, Neath, SA11 2SU Category: Repair and Servicing Class Code: Vehicle Repair, Testing and Servicing Positional Accuracy: Positioned to address or location	A12NE (W)	218	7	274240 195228
258	Points of Interest - Commercial Services Name: Station Sprayers Location: Station Road, Briton Ferry, Neath, SA11 2SU Category: Repair and Servicing Class Code: Vehicle Repair, Testing and Servicing Positional Accuracy: Positioned to address or location	A12NE (W)	218	7	274240 195228
259	Points of Interest - Commercial Services Name: I M O Car Wash Location: 117 Pant yr Heol, Neath, SA11 2HB Category: Personal, Consumer and other Services Class Code: Vehicle Cleaning Services Positional Accuracy: Positioned to address or location	A17SE (NW)	410	7	274279 195653
260	Points of Interest - Commercial Services Name: Dai-agnostics Mobile Motor Repairs Location: 8 Clos Warren, Neath, SA11 2FF Category: Repair and Servicing Class Code: Vehicle Repair, Testing and Servicing Positional Accuracy: Positioned to address or location	A18SE (N)	550	7	274834 195746
261	Points of Interest - Commercial Services Name: Autocare Neath Location: Neath Road, Briton Ferry, Neath, SA11 2AX Category: Repair and Servicing Class Code: Vehicle Repair, Testing and Servicing Positional Accuracy: Positioned to address or location	A8NW (SW)	557	7	274383 194675
261	Points of Interest - Commercial Services Name: Neath Car Sales Ltd Location: Neath Road, Briton Ferry, Neath, SA11 2AX Category: Repair and Servicing Class Code: Vehicle Repair, Testing and Servicing Positional Accuracy: Positioned to address or location	A8NW (SW)	568	7	274362 194672
262	Points of Interest - Commercial Services Name: Camps Transport Location: 33 Bryn Teg, Neath, SA11 2YH Category: Transport, Storage and Delivery Class Code: Distribution and Haulage Positional Accuracy: Positioned to address or location	A12NW (W)	722	7	273746 195373
263	Points of Interest - Commercial Services Name: Briton Ferry Salvage Location: 61 Giants Grave Road, Neath, SA11 2LN Category: Recycling Services Class Code: Scrap Metal Merchants Positional Accuracy: Positioned to address or location	A12SW (W)	833	7	273688 194930
263	Points of Interest - Commercial Services Name: Briton Ferry Salvage Ltd Location: 61 Giants Grave Road, Neath, SA11 2LN Category: Recycling Services Class Code: Scrap Metal Merchants Positional Accuracy: Positioned to address or location	A12SW (W)	834	7	273688 194929
263	Points of Interest - Commercial Services Name: Stillman & Sons Location: 82 Giants Grave Road, Neath, SA11 2LN Category: Recycling Services Class Code: Scrap Metal Merchants Positional Accuracy: Positioned to address or location	A11SE (W)	897	7	273649 194863
263	Points of Interest - Commercial Services Name: Stillman & Sons Location: 82 Giants Grave Road, Neath, SA11 2LN Category: Recycling Services Class Code: Scrap Metal Merchants Positional Accuracy: Positioned to address or location	A11SE (W)	897	7	273649 194863

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
264	Points of Interest - Education and Health Name: Neath General Hospital Location: Penrhiwtyn, Neath, SA11 2LQ Category: Health Practitioners and Establishments Class Code: Hospitals Positional Accuracy: Positioned to address or location	A18SW (N)	457	7	274445 195754
265	Points of Interest - Manufacturing and Production Name: Tank Location: SA11 Category: Industrial Features Class Code: Tanks (Generic) Positional Accuracy: Positioned to an adjacent address or location	A13NE (NE)	88	7	274796 195257
266	Points of Interest - Manufacturing and Production Name: Works Location: Not Supplied Category: Industrial Features Class Code: Unspecified Works Or Factories Positional Accuracy: Positioned to an adjacent address or location	A12NE (W)	213	7	274248 195290
267	Points of Interest - Manufacturing and Production Name: Tanks Location: SA11 Category: Industrial Features Class Code: Tanks (Generic) Positional Accuracy: Positioned to an adjacent address or location	A18SW (NW)	393	7	274421 195687
268	Points of Interest - Manufacturing and Production Name: Works Location: Not Supplied Category: Industrial Features Class Code: Unspecified Works Or Factories Positional Accuracy: Positioned to an adjacent address or location	A12SE (SW)	425	7	274268 194870
268	Points of Interest - Manufacturing and Production Name: Works Location: SA11 Category: Industrial Features Class Code: Unspecified Works Or Factories Positional Accuracy: Positioned to an adjacent address or location	A12SE (SW)	428	7	274263 194869
269	Points of Interest - Manufacturing and Production Name: L Williams Location: Cimla, Neath, SA11 2HS Category: Farming Class Code: Livestock Farming Positional Accuracy: Positioned to address or location	A14NW (E)	450	7	275336 195212
270	Points of Interest - Manufacturing and Production Name: Esgyrn Colliery (Disused) Location: SA11 Category: Extractive Industries Class Code: Coal Mining Positional Accuracy: Positioned to an adjacent address or location	A14SE (E)	516	7	275371 194916
271	Points of Interest - Manufacturing and Production Name: Shaft (Disused) Location: SA11 Category: Extractive Industries Class Code: Unspecified Quarries Or Mines Positional Accuracy: Positioned to an adjacent address or location	A14SE (E)	533	7	275424 195048
272	Points of Interest - Manufacturing and Production Name: Quarry (Disused) Location: SA11 Category: Extractive Industries Class Code: Unspecified Quarries Or Mines Positional Accuracy: Positioned to address or location	A18NW (N)	712	7	274487 196011
273	Points of Interest - Manufacturing and Production Name: Tank Location: SA11 Category: Industrial Features Class Code: Tanks (Generic) Positional Accuracy: Positioned to an adjacent address or location	A14NE (E)	806	7	275686 195274
274	Points of Interest - Manufacturing and Production Name: Tank Location: SA10 Category: Industrial Features Class Code: Tanks (Generic) Positional Accuracy: Positioned to an adjacent address or location	A17NW (NW)	935	7	273850 195984

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
275	Points of Interest - Manufacturing and Production Name: Tank Location: SA11 Category: Industrial Features Class Code: Tanks (Generic) Positional Accuracy: Positioned to an adjacent address or location	A11NE (W)	974	7	273491 195372
276	Points of Interest - Public Infrastructure Name: Chapel of Rest Location: Not Supplied Category: Infrastructure and Facilities Class Code: Cemeteries and Crematoria Positional Accuracy: Positioned to an adjacent address or location	A13SE (SE)	82	7	274788 195016
276	Points of Interest - Public Infrastructure Name: Chapel of Rest Location: SA11 Category: Infrastructure and Facilities Class Code: Cemeteries and Crematoria Positional Accuracy: Positioned to address or location	A13SE (SE)	83	7	274788 195015
276	Points of Interest - Public Infrastructure Name: Ynysmaerdy Cemetery Location: Not Supplied Category: Infrastructure and Facilities Class Code: Cemeteries and Crematoria Positional Accuracy: Positioned to an adjacent address or location	A13SE (S)	87	7	274729 195037
276	Points of Interest - Public Infrastructure Name: Ynysmaerdy Cemetery Location: SA11 Category: Infrastructure and Facilities Class Code: Cemeteries and Crematoria Positional Accuracy: Positioned to an adjacent address or location	A13SE (S)	87	7	274729 195037
276	Points of Interest - Public Infrastructure Name: Cemetery Location: Not Supplied Category: Infrastructure and Facilities Class Code: Cemeteries and Crematoria Positional Accuracy: Positioned to an adjacent address or location	A13SE (S)	161	7	274679 194978
277	Points of Interest - Public Infrastructure Name: Chapel of Rest Location: Not Supplied Category: Infrastructure and Facilities Class Code: Cemeteries and Crematoria Positional Accuracy: Positioned to an adjacent address or location	A12NE (NW)	234	7	274285 195417
278	Points of Interest - Public Infrastructure Name: Sluice Location: SA11 Category: Water Class Code: Weirs, Sluices and Dams Positional Accuracy: Positioned to an adjacent address or location	A8NE (SE)	327	7	274992 194767
279	Points of Interest - Public Infrastructure Name: Sluice Location: SA11 Category: Water Class Code: Weirs, Sluices and Dams Positional Accuracy: Positioned to an adjacent address or location	A17SE (NW)	478	7	274141 195630
280	Points of Interest - Public Infrastructure Name: Mortuary Location: Not Supplied Category: Infrastructure and Facilities Class Code: Cemeteries and Crematoria Positional Accuracy: Positioned to an adjacent address or location	A18SW (N)	527	7	274456 195826
281	Points of Interest - Public Infrastructure Name: Briton Ferry Rail Station Location: Rockingham Terrace (Teras Rockingham), SA11 Category: Public Transport, Stations and Infrastructure Class Code: Railway Stations, Junctions and Halts Positional Accuracy: Positioned to address or location	A7NE (SW)	567	7	274139 194781
281	Points of Interest - Public Infrastructure Name: Briton Ferry Station Location: Rockingham Terrace (Teras Rockingham), SA11 Category: Public Transport, Stations and Infrastructure Class Code: Railway Stations, Junctions and Halts Positional Accuracy: Positioned to address or location	A7NE (SW)	567	7	274139 194781

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
282	Points of Interest - Public Infrastructure Name: J & J Skip Hire Location: 33 Bryn Teg, Neath, SA11 2YH Category: Infrastructure and Facilities Class Code: Waste Storage, Processing and Disposal Positional Accuracy: Positioned to address or location	A12NW (W)	723	7	273745 195374
282	Points of Interest - Public Infrastructure Name: J & J Skip Hire Location: 33 Bryn Teg, Neath, SA11 2YH Category: Infrastructure and Facilities Class Code: Waste Storage, Processing and Disposal Positional Accuracy: Positioned to address or location	A12NW (W)	723	7	273745 195374
283	Points of Interest - Public Infrastructure Name: Cemetery Location: Not Supplied Category: Infrastructure and Facilities Class Code: Cemeteries and Crematoria Positional Accuracy: Positioned to an adjacent address or location	A12SW (W)	741	7	273767 194982
283	Points of Interest - Public Infrastructure Name: Cemetery Location: SA11 Category: Infrastructure and Facilities Class Code: Cemeteries and Crematoria Positional Accuracy: Positioned to an adjacent address or location	A12SW (W)	741	7	273767 194982
284	Points of Interest - Public Infrastructure Name: Briton Ferry Police Station Location: Briton Ferry Police Station 155, Neath Road, Briton Ferry, Neath, SA11 2BX Category: Central and Local Government Class Code: Police Stations Positional Accuracy: Positioned to address or location	A7SE (SW)	831	7	274261 194430
285	Points of Interest - Recreational and Environmental Name: Playground Location: Nr Ynysmaerdy Road, SA11 Category: Recreational Class Code: Playgrounds Positional Accuracy: Positioned to address or location	A13SW (S)	252	7	274573 194925
286	Points of Interest - Recreational and Environmental Name: Playground Location: Nr Neath Road, SA11 Category: Recreational Class Code: Playgrounds Positional Accuracy: Positioned to address or location	A13SW (SW)	339	7	274496 194864
286	Points of Interest - Recreational and Environmental Name: Playground Location: Not Supplied Category: Recreational Class Code: Playgrounds Positional Accuracy: Positioned to an adjacent address or location	A13SW (SW)	364	7	274460 194852
287	Points of Interest - Recreational and Environmental Name: Playground Location: Not Supplied Category: Recreational Class Code: Playgrounds Positional Accuracy: Positioned to an adjacent address or location	A7SW (SW)	974	7	273966 194410
287	Points of Interest - Recreational and Environmental Name: Playground Location: Jersey Terrace, SA11 Category: Recreational Class Code: Playgrounds Positional Accuracy: Positioned to address or location	A7SW (SW)	974	7	273968 194409

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
288	Ancient Woodland Name: Not Supplied Reference: 18279 Area(m²): 5962.42 Type: Ancient and Semi-Natural Woodland	A13SE (E)	115	2	275008 195140
289	Ancient Woodland Name: Not Supplied Reference: 18275 Area(m²): 22753.28 Type: Ancient and Semi-Natural Woodland	A13SE (SE)	187	2	274838 194886
290	Ancient Woodland Name: Not Supplied Reference: 11351 Area(m²): 143855.64 Type: Restored Ancient Woodland Site	A13SE (S)	233	2	274788 194852
291	Ancient Woodland Name: Not Supplied Reference: 7495 Area(m²): 24539.37 Type: Ancient and Semi-Natural Woodland	A14NW (E)	290	2	275127 195292
292	Ancient Woodland Name: Not Supplied Reference: 18278 Area(m²): 2474.75 Type: Ancient and Semi-Natural Woodland	A14SW (E)	367	2	275263 195131
293	Ancient Woodland Name: Not Supplied Reference: 18274 Area(m²): 8554.76 Type: Ancient and Semi-Natural Woodland	A8NW (SW)	389	2	274516 194800
294	Ancient Woodland Name: Not Supplied Reference: 10085 Area(m²): 16885.9 Type: Ancient and Semi-Natural Woodland	A14SW (E)	394	2	275274 195005
295	Ancient Woodland Name: Not Supplied Reference: 8869 Area(m²): 8745.87 Type: Ancient and Semi-Natural Woodland	A14SW (SE)	395	2	275237 194917
296	Ancient Woodland Name: Not Supplied Reference: 13984 Area(m²): 6897.75 Type: Ancient and Semi-Natural Woodland	A9NW (SE)	504	2	275315 194834
297	Ancient Woodland Name: Not Supplied Reference: 42569 Area(m²): 6229.26 Type: Plantation on Ancient Woodland	A8NE (S)	512	2	274880 194558
298	Ancient Woodland Name: Not Supplied Reference: 18276 Area(m²): 13901.34 Type: Ancient and Semi-Natural Woodland	A9NW (SE)	515	2	275335 194846
299	Ancient Woodland Name: Not Supplied Reference: 7496 Area(m²): 1097.17 Type: Ancient and Semi-Natural Woodland	A19SW (NE)	521	2	275084 195603
300	Ancient Woodland Name: Not Supplied Reference: 11352 Area(m²): 20063.95 Type: Restored Ancient Woodland Site	A19SW (NE)	552	2	275045 195654
301	Ancient Woodland Name: Not Supplied Reference: 40179 Area(m²): 65776.62 Type: Plantation on Ancient Woodland	A8NE (S)	559	2	274902 194512

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
302	Ancient Woodland Name: Not Supplied Reference: 8866 Area(m²): 174943.76 Type: Ancient and Semi-Natural Woodland	A8NW (S)	566	2	274581 194579
303	Ancient Woodland Name: Not Supplied Reference: 23143 Area(m²): 2723.57 Type: Restored Ancient Woodland Site	A19SW (NE)	578	2	275097 195660
304	Ancient Woodland Name: Not Supplied Reference: 18281 Area(m²): 2902.32 Type: Ancient and Semi-Natural Woodland	A18SE (NE)	627	2	274973 195769
305	Ancient Woodland Name: Not Supplied Reference: 10335 Area(m²): 19680.91 Type: Restored Ancient Woodland Site	A9NE (SE)	646	2	275362 194652
306	Ancient Woodland Name: Not Supplied Reference: 13980 Area(m²): 3642.68 Type: Ancient and Semi-Natural Woodland	A9SW (SE)	662	2	275219 194507
307	Ancient Woodland Name: Not Supplied Reference: 13983 Area(m²): 1571.73 Type: Ancient and Semi-Natural Woodland	A9NW (SE)	668	2	275350 194604
308	Ancient Woodland Name: Not Supplied Reference: 47954 Area(m²): 404.07 Type: Ancient Woodland Site of Unknown Category	A8SE (S)	668	2	274968 194409
309	Ancient Woodland Name: Not Supplied Reference: 7875 Area(m²): 73126.59 Type: Ancient and Semi-Natural Woodland	A8SW (S)	696	2	274621 194420
310	Ancient Woodland Name: Not Supplied Reference: 18277 Area(m²): 2683.96 Type: Ancient and Semi-Natural Woodland	A14SE (E)	698	2	275591 195053
311	Ancient Woodland Name: Not Supplied Reference: 48719 Area(m²): 4672.72 Type: Ancient Woodland Site of Unknown Category	A8SE (S)	699	2	274993 194382
312	Ancient Woodland Name: Not Supplied Reference: 18280 Area(m²): 4537.47 Type: Ancient and Semi-Natural Woodland	A14NE (E)	725	2	275610 195239
313	Ancient Woodland Name: Not Supplied Reference: 47954 Area(m²): 74.54 Type: Ancient Woodland Site of Unknown Category	A8SE (S)	728	2	275009 194356
314	Ancient Woodland Name: Not Supplied Reference: 13982 Area(m²): 3114.06 Type: Ancient and Semi-Natural Woodland	A9NE (SE)	731	2	275470 194652
315	Ancient Woodland Name: Not Supplied Reference: 13976 Area(m²): 14463.66 Type: Ancient and Semi-Natural Woodland	A8SW (SW)	734	2	274374 194485

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
316	Ancient Woodland Name: Not Supplied Reference: 47721 Area(m²): 13816.26 Type: Ancient Woodland Site of Unknown Category	A8SW (S)	743	2	274659 194335
317	Ancient Woodland Name: Not Supplied Reference: 41930 Area(m²): 813.35 Type: Plantation on Ancient Woodland	A14SE (E)	763	2	275653 195025
318	Ancient Woodland Name: Not Supplied Reference: 8058 Area(m²): 87385.89 Type: Ancient and Semi-Natural Woodland	A19SW (NE)	764	2	275282 195776
319	Ancient Woodland Name: Not Supplied Reference: 47954 Area(m²): 284.26 Type: Ancient Woodland Site of Unknown Category	A8SE (S)	783	2	275013 194300
320	Ancient Woodland Name: Not Supplied Reference: 23142 Area(m²): 41356.7 Type: Restored Ancient Woodland Site	A7NW (SW)	848	2	273880 194630
321	Ancient Woodland Name: Not Supplied Reference: 18283 Area(m²): 10328.45 Type: Ancient and Semi-Natural Woodland	A14NE (E)	859	2	275659 195511
322	Ancient Woodland Name: Not Supplied Reference: 7497 Area(m²): 1939.69 Type: Ancient and Semi-Natural Woodland	A19NW (NE)	876	2	275281 195903
323	Ancient Woodland Name: Not Supplied Reference: 10335 Area(m²): 21420.78 Type: Restored Ancient Woodland Site	A9SW (SE)	910	2	275273 194255
324	Ancient Woodland Name: Not Supplied Reference: 13978 Area(m²): 3864.45 Type: Ancient and Semi-Natural Woodland	A9SE (SE)	915	2	275455 194366
325	Ancient Woodland Name: Not Supplied Reference: 12254 Area(m²): 9319.44 Type: Ancient and Semi-Natural Woodland	A19NW (NE)	932	2	275291 195960
326	Ancient Woodland Name: Not Supplied Reference: 18282 Area(m²): 2805.64 Type: Ancient and Semi-Natural Woodland	A15NW (E)	956	2	275767 195508
327	Ancient Woodland Name: Not Supplied Reference: 23144 Area(m²): 5257.17 Type: Restored Ancient Woodland Site	A18NE (N)	959	2	274973 196133
328	Ancient Woodland Name: Not Supplied Reference: 7498 Area(m²): 19059.96 Type: Ancient and Semi-Natural Woodland	A19NE (NE)	976	2	275364 195975
329	Ancient Woodland Name: Not Supplied Reference: 40179 Area(m²): 574.15 Type: Plantation on Ancient Woodland	A9SE (SE)	982	2	275394 194239

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
330	Ancient Woodland Name: Not Supplied Reference: 40575 Area(m ²): 6005.47 Type: Plantation on Ancient Woodland	A4NW (SE)	995	2	275277 194162
331	Local Nature Reserves Name: Eaglesbush Valley Multiple Area: N Area (m2): 79888.24 Source: Neath Port Talbot County Borough Council Designation Date: 31st December 2008	A19NW (NE)	841	8	275257 195876

Agency & Hydrological	Version	Update Cycle
Contaminated Land Register Entries and Notices City and County of Swansea - Environmental Health Department Neath Port Talbot County Borough Council - Environmental Health Department	January 2015 March 2015	Annual Rolling Update Annual Rolling Update
Discharge Consents Environment Agency - Welsh Region Natural Resources Wales	August 2014 July 2019	Quarterly Quarterly
Enforcement and Prohibition Notices Environment Agency - Welsh Region	March 2013	Annual Rolling Update
Integrated Pollution Controls Environment Agency - Welsh Region	October 2008	Variable
Integrated Pollution Prevention And Control Natural Resources Wales Environment Agency - Welsh Region	April 2019 July 2019	Quarterly Quarterly
Local Authority Integrated Pollution Prevention And Control Swansea Bay Port Health Authority Neath Port Talbot County Borough Council - Environmental Health Department City and County of Swansea - Environmental Health Department	April 2014 August 2012 June 2014	Variable Variable Variable
Local Authority Pollution Prevention and Controls Swansea Bay Port Health Authority City and County of Swansea - Environmental Health Department Neath Port Talbot County Borough Council - Environmental Health Department	April 2014 June 2014 March 2014	Annually Annual Rolling Update Annual Rolling Update
Local Authority Pollution Prevention and Control Enforcements Swansea Bay Port Health Authority City and County of Swansea - Environmental Health Department Neath Port Talbot County Borough Council - Environmental Health Department	April 2014 June 2014 March 2014	Variable Variable Variable
Nearest Surface Water Feature Ordnance Survey	September 2019	
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	Annual Rolling Update Annual Rolling Update
Prosecutions Relating to Controlled Waters Environment Agency - Welsh Region Natural Resources Wales	March 2013 March 2013	Annual Rolling Update Annual Rolling Update
Registered Radioactive Substances Natural Resources Wales Environment Agency - Welsh Region	January 2015 June 2016	Annually
Substantiated Pollution Incident Register Environment Agency Wales - South West Area Natural Resources Wales	July 2019 July 2019	Quarterly Quarterly
Water Abstractions Environment Agency - Welsh Region Natural Resources Wales	July 2019 July 2019	Quarterly Quarterly
Water Industry Act Referrals Natural Resources Wales Environment Agency - Welsh Region	July 2019 October 2017	Quarterly Quarterly
Groundwater Vulnerability Map Natural Resources Wales	June 2018	As notified
Bedrock Aquifer Designations Natural Resources Wales	January 2018	Annually

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

Waste	Version	Update Cycle
BGS Recorded Landfill Sites British Geological Survey - National Geoscience Information Service	June 1996	Not Applicable
Historical Landfill Sites Natural Resources Wales	July 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 West Area Natural Resources Wales	July 2018 July 2018	Quarterly Quarterly
Licensed Waste Management Facilities (Locations) Environment Agency Wales - South West Area Natural Resources Wales	July 2019 July 2019	Quarterly Quarterly
Local Authority Landfill Coverage City and County of Swansea - Environmental Health Department Neath Port Talbot County Borough Council - Environmental Health Department	May 2000 May 2000	Not Applicable Not Applicable
Local Authority Recorded Landfill Sites City and County of Swansea - Environmental Health Department 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 West Area	March 2003	Not Applicable
Registered Waste Transfer Sites Environment Agency Wales - South West Area	March 2003	Not Applicable
Registered Waste Treatment or Disposal Sites Environment Agency Wales - South West Area	March 2003	Not Applicable
Hazardous Substances	Version	Update Cycle
Control of Major Accident Hazards Sites (COMAH) Health and Safety Executive	April 2018	Bi-Annually
Explosive Sites Health and Safety Executive	March 2017	Annually
Notification of Installations Handling Hazardous Substances (NIHHS) Health and Safety Executive	November 2000	Not Applicable
Planning Hazardous Substance Enforcements City and County of Swansea - Planning Department Neath Port Talbot County Borough Council - Planning Department	January 2016 October 2015	Variable Variable
Planning Hazardous Substance Consents City and County of Swansea - Planning Department Neath Port Talbot County Borough Council - Planning Department	January 2016 October 2015	Variable Variable

Geological	Version	Update Cycle
BGS 1:625,000 Solid Geology British Geological Survey - National Geoscience Information Service	January 2009	Not Applicable
BGS Estimated Soil Chemistry British Geological Survey - National Geoscience Information Service	October 2015	Annually
BGS Recorded Mineral Sites British Geological Survey - National Geoscience Information Service	April 2019	Bi-Annually
BGS Urban Soil Chemistry British Geological Survey - National Geoscience Information Service	October 2015	Annually
BGS Urban Soil Chemistry Averages British Geological Survey - National Geoscience Information Service	October 2015	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	Annual Rolling Update
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	January 2019	Annually
Potential for Compressible Ground Stability Hazards British Geological Survey - National Geoscience Information Service	January 2019	Annually
Potential for Ground Dissolution Stability Hazards British Geological Survey - National Geoscience Information Service	January 2019	Annually
Potential for Landslide Ground Stability Hazards British Geological Survey - National Geoscience Information Service	January 2019	Annually
Potential for Running Sand Ground Stability Hazards British Geological Survey - National Geoscience Information Service	January 2019	Annually
Potential for Shrinking or Swelling Clay Ground Stability Hazards British Geological Survey - National Geoscience Information Service	January 2019	Annually
Radon Potential - Radon Affected Areas British Geological Survey - National Geoscience Information Service	July 2011	Annually
Radon Potential - Radon Protection Measures British Geological Survey - National Geoscience Information Service	July 2011	Annually

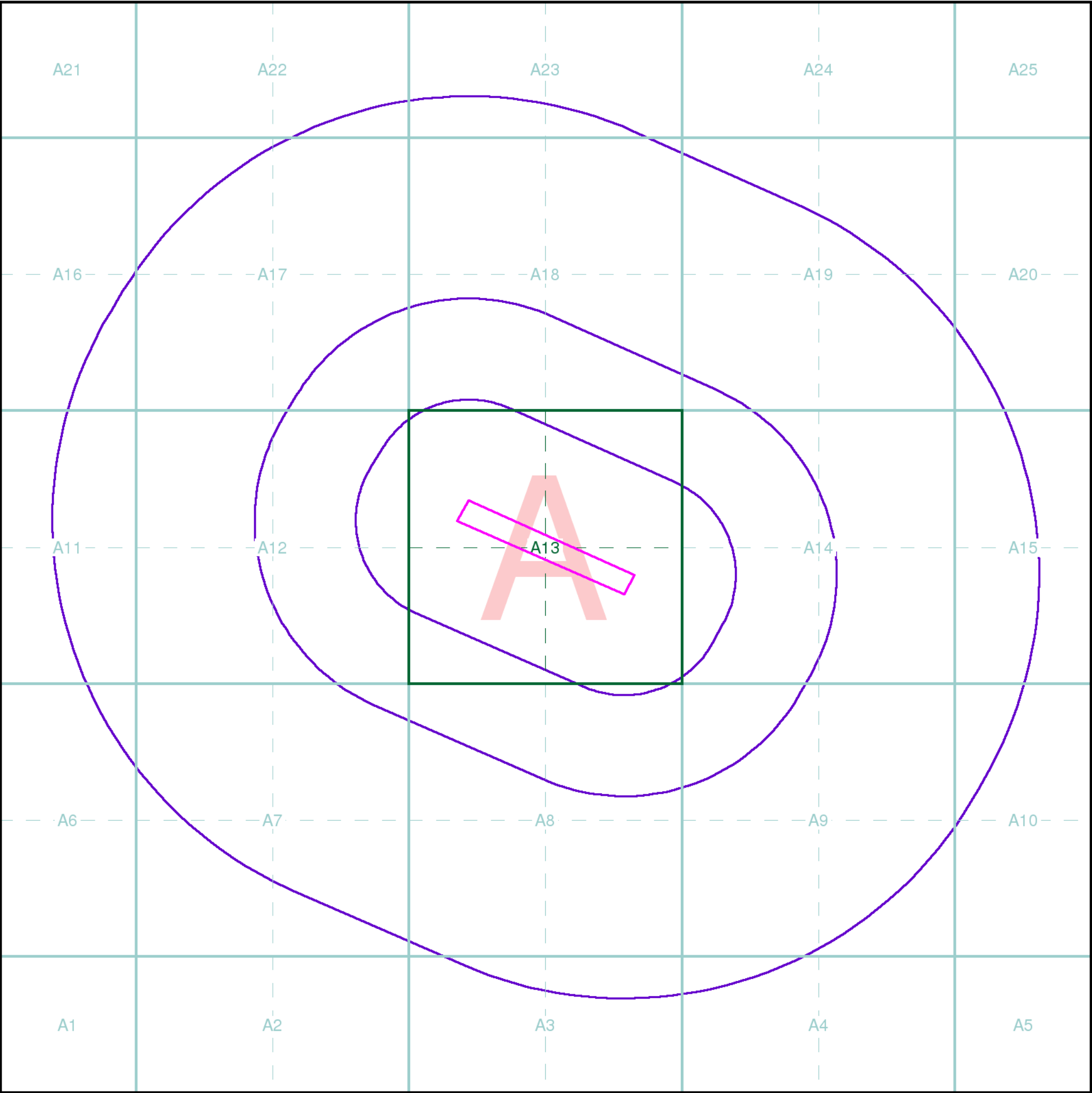
Industrial Land Use	Version	Update Cycle
Contemporary Trade Directory Entries Thomson Directories	July 2019	Quarterly
Fuel Station Entries Catalist Ltd - Experian	September 2019	Quarterly
Gas Pipelines National Grid	July 2014	
Points of Interest - Commercial Services PointX	September 2019	Quarterly
Points of Interest - Education and Health PointX	September 2019	Quarterly
Points of Interest - Manufacturing and Production PointX	September 2019	Quarterly
Points of Interest - Public Infrastructure PointX	September 2019	Quarterly
Points of Interest - Recreational and Environmental PointX	September 2019	Quarterly
Underground Electrical Cables National Grid	December 2015	
Sensitive Land Use	Version	Update Cycle
Ancient Woodland Natural Resources Wales	August 2018	Bi-Annually
Areas of Adopted Green Belt City and County of Swansea	March 2019	As notified
Areas of Outstanding Natural Beauty Natural Resources Wales	June 2019	Bi-Annually
Environmentally Sensitive Areas The National Assembly for Wales - GI Services (Department of Planning & Countryside)	January 2017	
Forest Parks Forestry Commission	April 1997	Not Applicable
Local Nature Reserves City and County of Swansea Neath Port Talbot County Borough Council	August 2018 August 2018	Bi-Annually Bi-Annually
Marine Nature Reserves Natural Resources Wales	August 2018	Bi-Annually
National Nature Reserves Natural Resources Wales	June 2019	Bi-Annually
National Parks Natural Resources Wales	August 2018	Annually
Nitrate Vulnerable Zones Natural Resources Wales The National Assembly for Wales - GI Services (Department of Planning & Countryside)	July 2019 October 2005	Bi-Annually
Ramsar Sites Natural Resources Wales	July 2019	Bi-Annually
Sites of Special Scientific Interest Natural Resources Wales	March 2019	Bi-Annually
Special Areas of Conservation Natural Resources Wales	August 2018	Bi-Annually
Special Protection Areas Natural Resources Wales	August 2018	Bi-Annually

A selection of organisations who provide data within this report

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

Contact	Name and Address	Contact Details
1	British Geological Survey - Enquiry Service British Geological Survey, Environmental Science Centre, Keyworth, Nottingham, Nottinghamshire, NG12 5GG	Telephone: 0115 936 3143 Fax: 0115 936 3276 Email: enquiries@bgs.ac.uk Website: www.bgs.ac.uk
2	Natural Resources Wales Ty Cambria, 29 Newport Road, Cardiff, CF24 0TP	Telephone: 0300 065 3000 Email: enquiries@naturalresourceswales.gov.uk
3	Environment Agency - National Customer Contact Centre (NCCC) PO Box 544, Templeborough, Rotherham, S60 1BY	Telephone: 03708 506 506 Email: enquiries@environment-agency.gov.uk
4	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
5	Ordnance Survey Adanac Drive, Southampton, Hampshire, SO16 0AS	Telephone: 03456 05 05 05 Email: customerservices@ordnancesurvey.co.uk Website: www.ordnancesurvey.gov.uk
6	The Coal Authority - Property Searches 200 Lichfield Lane, Mansfield, Nottinghamshire, NG18 4RG	Telephone: 0345 762 6848 Fax: 01623 637 338 Email: groundstability@coal.gov.uk Website: www2.groundstability.com
7	PointX 7 Abbey Court, Eagle Way, Sowton, Exeter, Devon, EX2 7HY	Website: www.pointx.co.uk
8	Neath Port Talbot County Borough Council Civic Centre, Port Talbot, West Glamorgan, SA13 1PJ	Telephone: 01639 763333 Fax: 01693 763444 Website: www.neath-porttalbot.gov.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.



Index Map

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

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

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

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

A selection of organisations who provide data within this report:



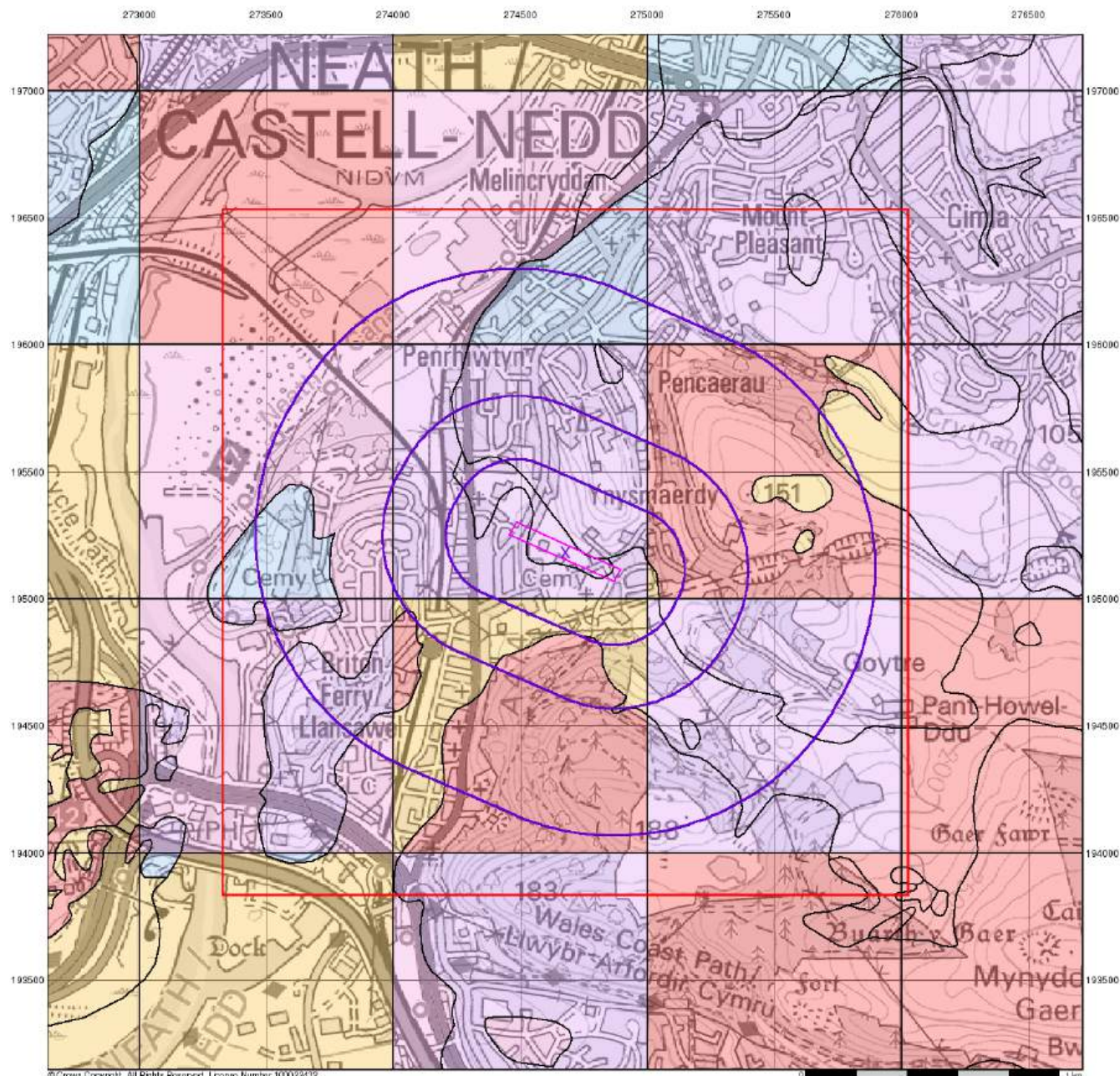
Envirocheck reports are compiled from 136 different sources of data.

Client Details
Mr J Dyke, Atkins Ltd, Longcross Court, 47 Newport Road, Cardiff, CF24 0AD

Order Details
Order Number: 222284714_1_1
Customer Ref: 5192793
National Grid Reference: 274680, 195190
Site Area (Ha): 2.5
Search Buffer (m): 1000

Site Details
Site at 274590, 195200

Full Terms and Conditions can be found on the following link:
<http://www.landmarkinfo.co.uk/Terms/Show/515>



© Crown Copyright. All Rights Reserved. License Number 100022432

Envirocheck®

LANDMARK INFORMATION GROUP®

Groundwater Vulnerability

General

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

Agency and Hydrological

Bedrock Aquifers

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

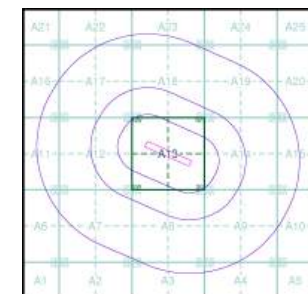
Superficial Aquifers

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

Unproductive Aquifer

Soluble Rock

Site Sensitivity Context Map - Slice A



Order Details

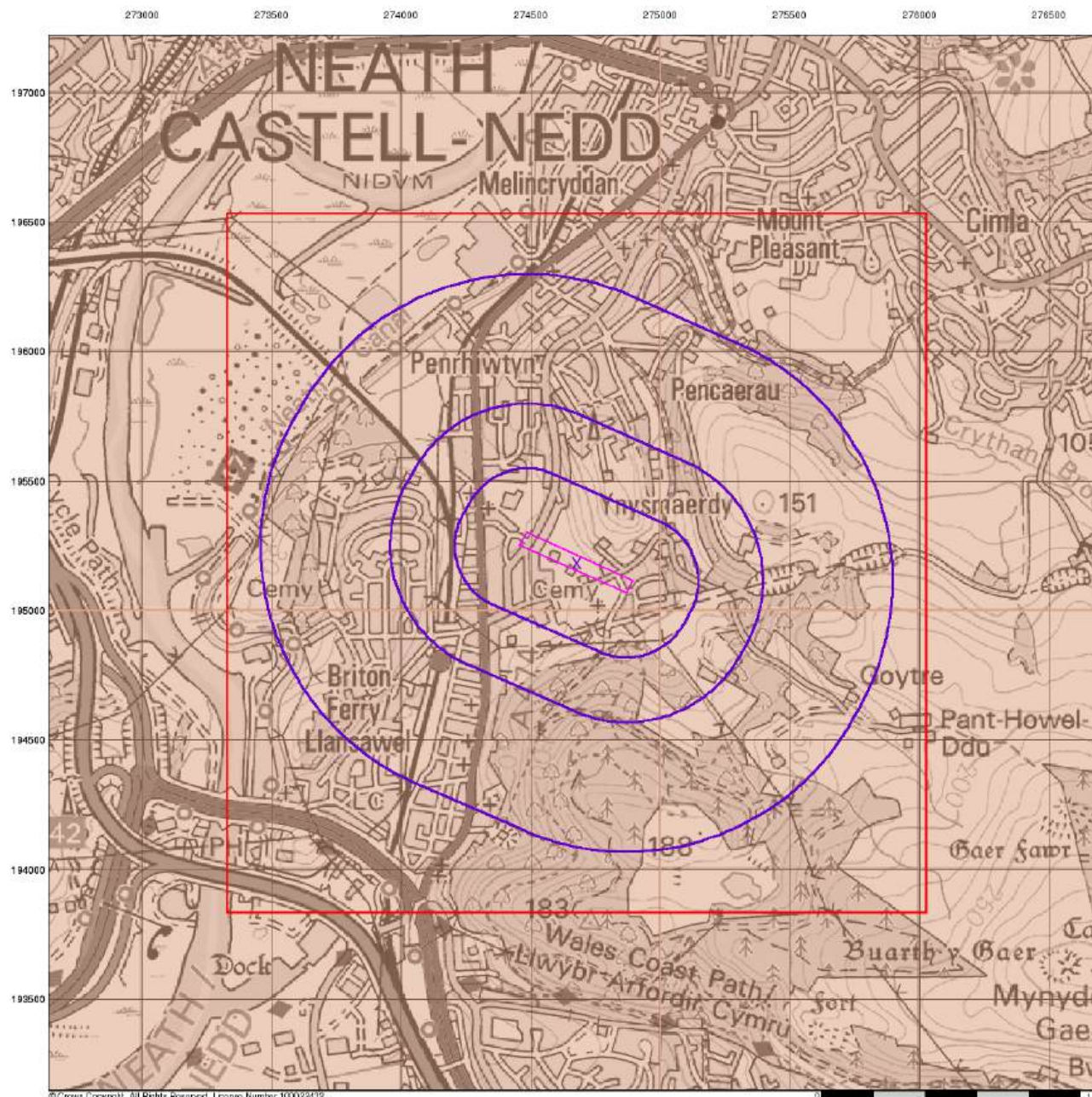
Order Number: 222284714_1_1
 Customer Ref: 5192793
 National Grid Reference: 274680, 195180
 Slice: A
 Site Area (Ha): 2.5
 Search Buffer (m): 1000

Site Details

Site at 274590, 195200

Landmark®
 INFORMATION GROUP

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



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

Envirocheck®

LANDMARK INFORMATION GROUP®

Bedrock Aquifer Designation

General

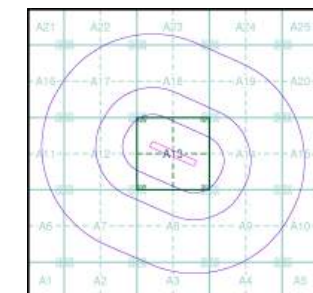
- Specified Site
- Specified Buffer(s)
- Bearing Reference Point
- Slice
- Map ID

Agency and Hydrological

Geological Classes

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

Site Sensitivity Context Map - Slice A



Order Details

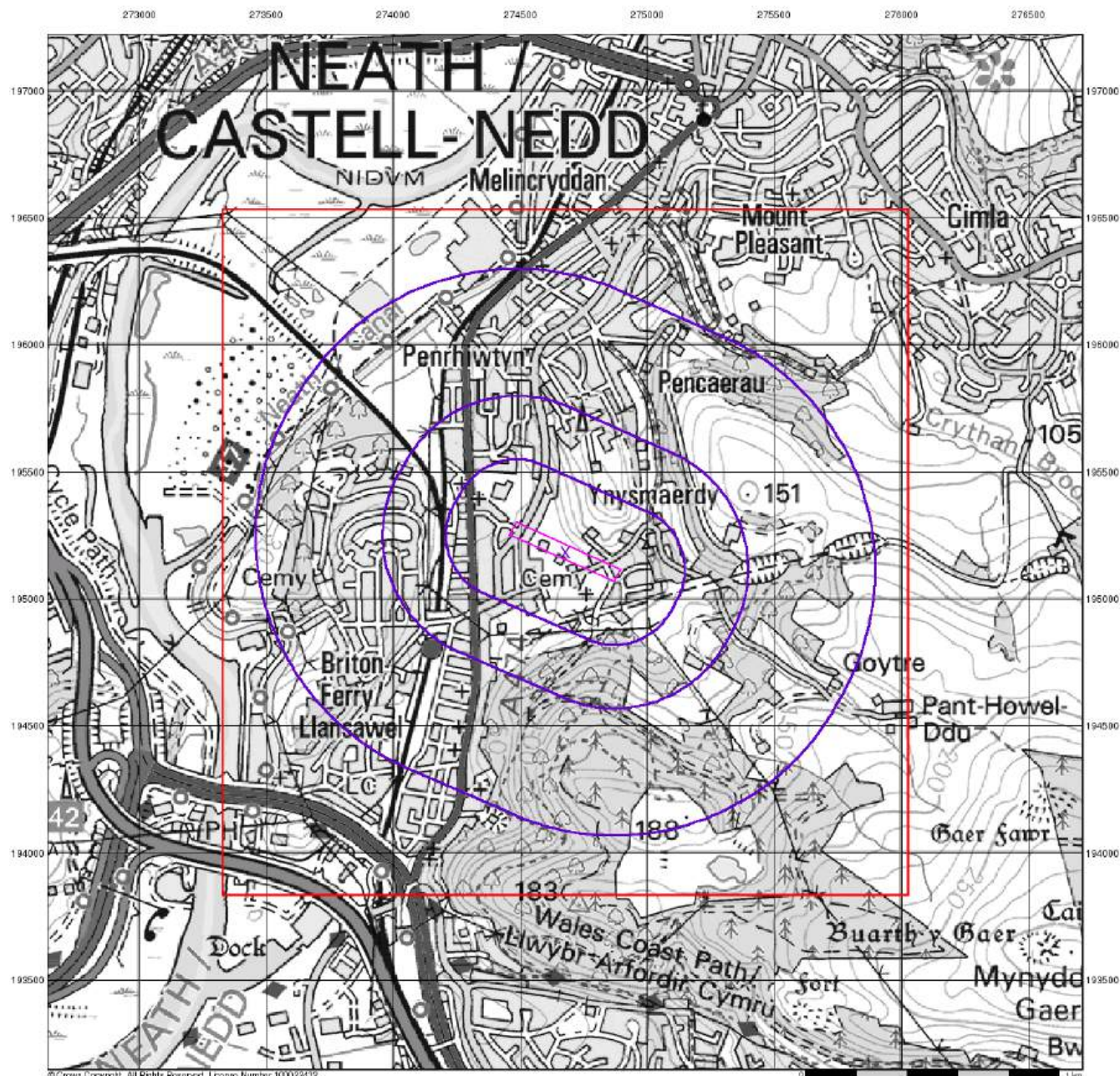
Order Number: 222284714_1_1
 Customer Ref: 5192793
 National Grid Reference: 274680, 195180
 Slice: A
 Site Area (Ha): 2.5
 Search Buffer (m): 1000

Site Details

Site at 274590, 195200

Landmark®
 LANDMARK INFORMATION GROUP

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



© Crown Copyright. All Rights Reserved. Licence Number 100022432

Envirocheck®

LANDMARK INFORMATION GROUP®

Source Protection Zones

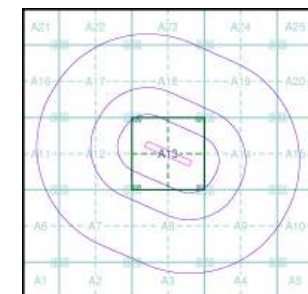
General

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

Agency and Hydrological

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

Site Sensitivity Context Map - Slice A



Order Details

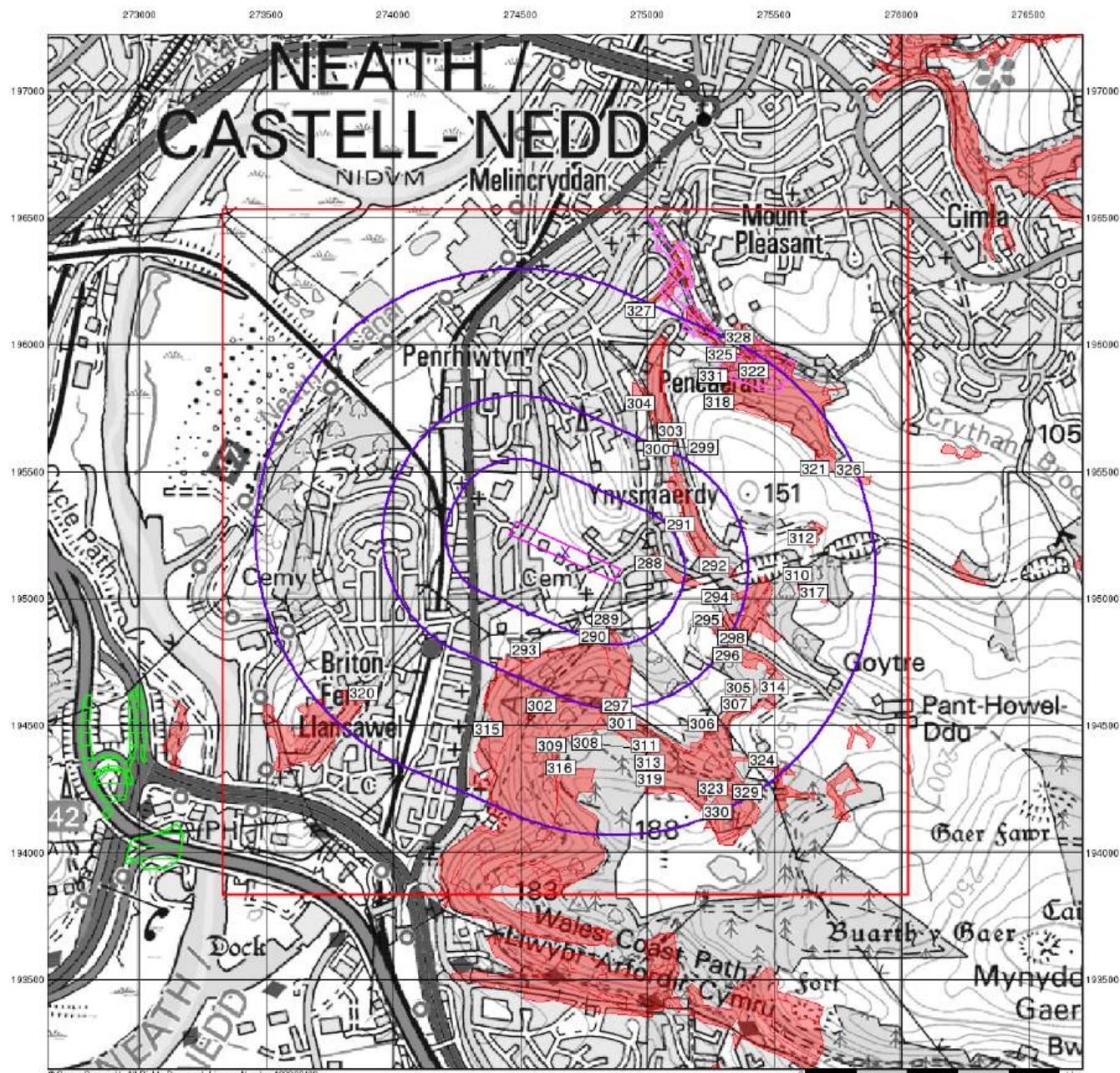
Order Number: 222284714_1_1
 Customer Ref: 5192793
 National Grid Reference: 274680, 195180
 Slice: A
 Site Area (Ha): 2.5
 Search Buffer (m): 1000

Site Details

Site at 274590, 195200

Landmark
 INFORMATION GROUP

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



© Crown Copyright. All Rights Reserved. License Number 100022432

Envirocheck®

LANDMARK INFORMATION GROUP®

Sensitive Land Uses

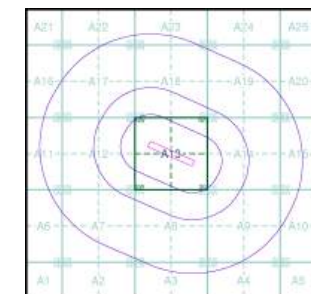
General

- 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

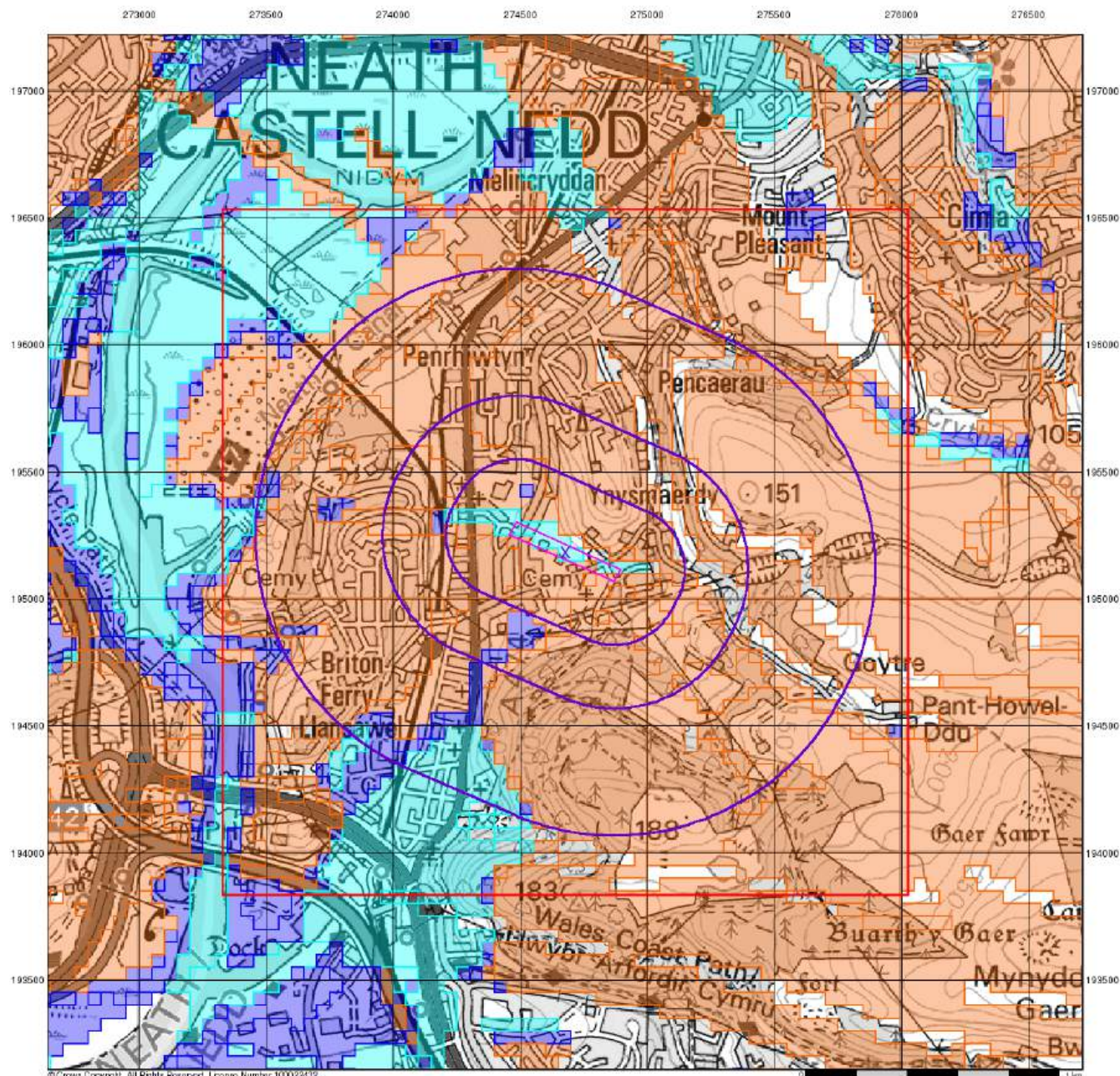
Order Number: 222284714_1_1
 Customer Ref: 5192793
 National Grid Reference: 274680, 195180
 Slice: A
 Site Area (Ha): 2.5
 Search Buffer (m): 1000

Site Details

Site at 274590, 195200

Landmark®
 INFORMATION GROUP

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



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

Envirocheck®

LANDMARK INFORMATION GROUP®

BGS Flood GFS Data

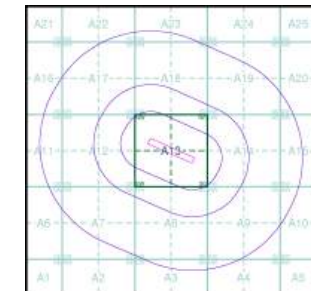
General

- 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: 222284714_1_1
 Customer Ref: 5192793
 National Grid Reference: 274680, 195180
 Slice: A
 Site Area (Ha): 2.5
 Search Buffer (m): 1000

Site Details

Site at 274590, 195200

Landmark®
 LANDMARK INFORMATION GROUP

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

General

- Specified Site
- Specified Buffer(s)
- Bearing Reference Point
- Map ID
- Several of Type 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
- Local Authority Pollution Prevention and Control Enforcement
- Pollution Incident to Controlled Waters
- Prosecution Relating to Authorised Processes
- Prosecution Relating to Controlled Waters
- Registered Radioactive Substance
- River Network or Water Feature
- River Quality Sampling Point
- Substantiated Pollution Incident Register
- Water Abstraction
- Water Industry Act Referral

Hazardous Substances

- COMAH Site
- Explosive Site
- NIHHS Site
- Planning Hazardous Substance Consent
- Planning Hazardous Substance Enforcement

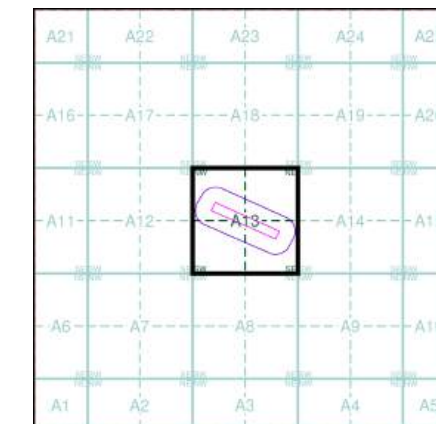
Geological

- BGS Recorded Mineral Site

Waste

- BGS Recorded Landfill Site (Location)
- BGS Recorded Landfill Site
- EA Historic Landfill (Buffered Point)
- EA Historic Landfill (Polygon)
- Integrated Pollution Control Registered Waste Site
- Licensed Waste Management Facility (Landfill Boundary)
- Licensed Waste Management Facility (Location)
- Local Authority Recorded Landfill Site (Location)
- Local Authority Recorded Landfill Site
- Potentially Infilled Land (Non-water)
- Potentially Infilled Land (Non-water)
- Potentially Infilled Land (Non-water)
- Potentially Infilled Land (Water)
- Potentially Infilled Land (Water)
- Potentially Infilled Land (Water)
- Registered Landfill Site
- 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 - Segment A13

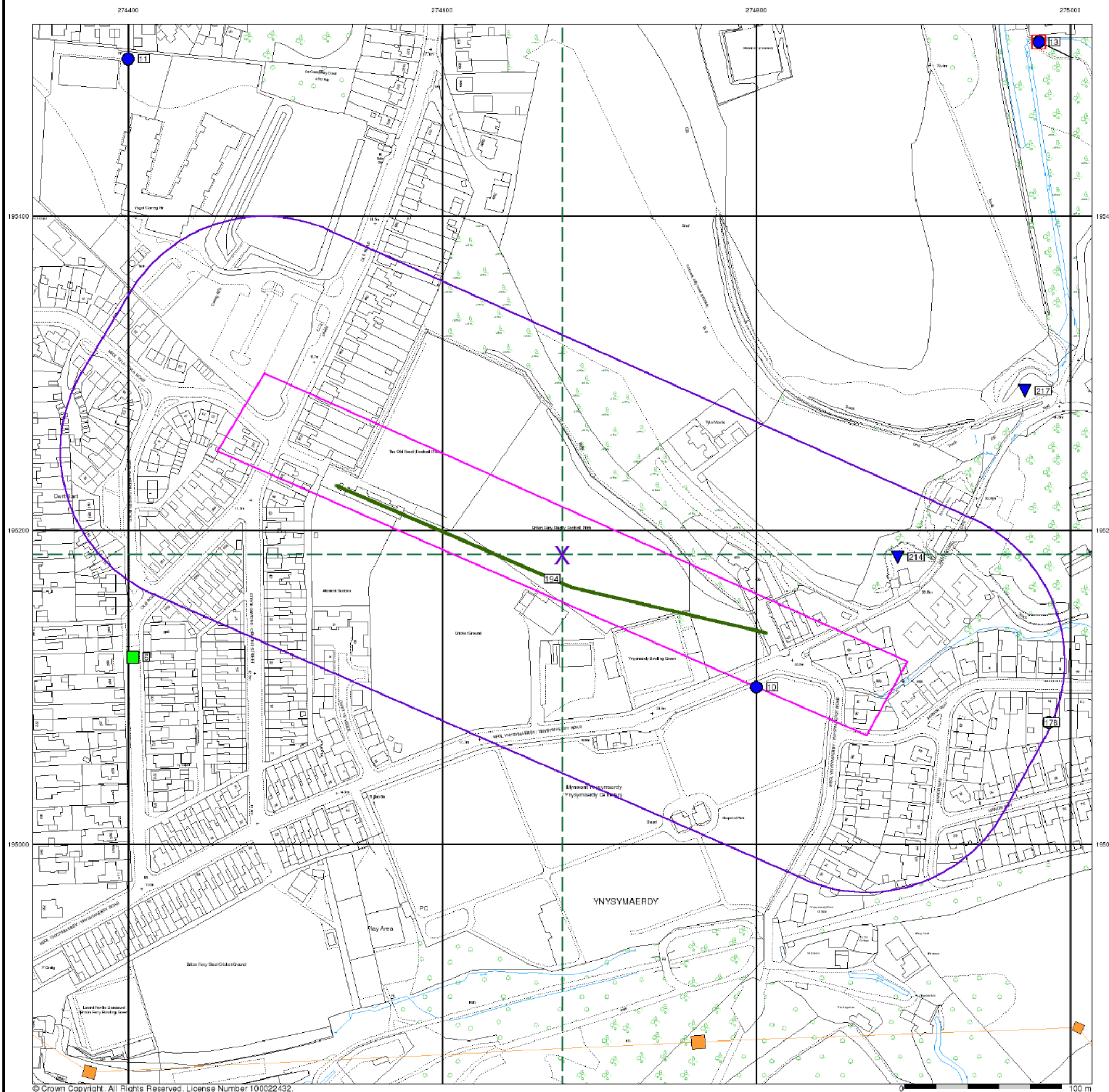


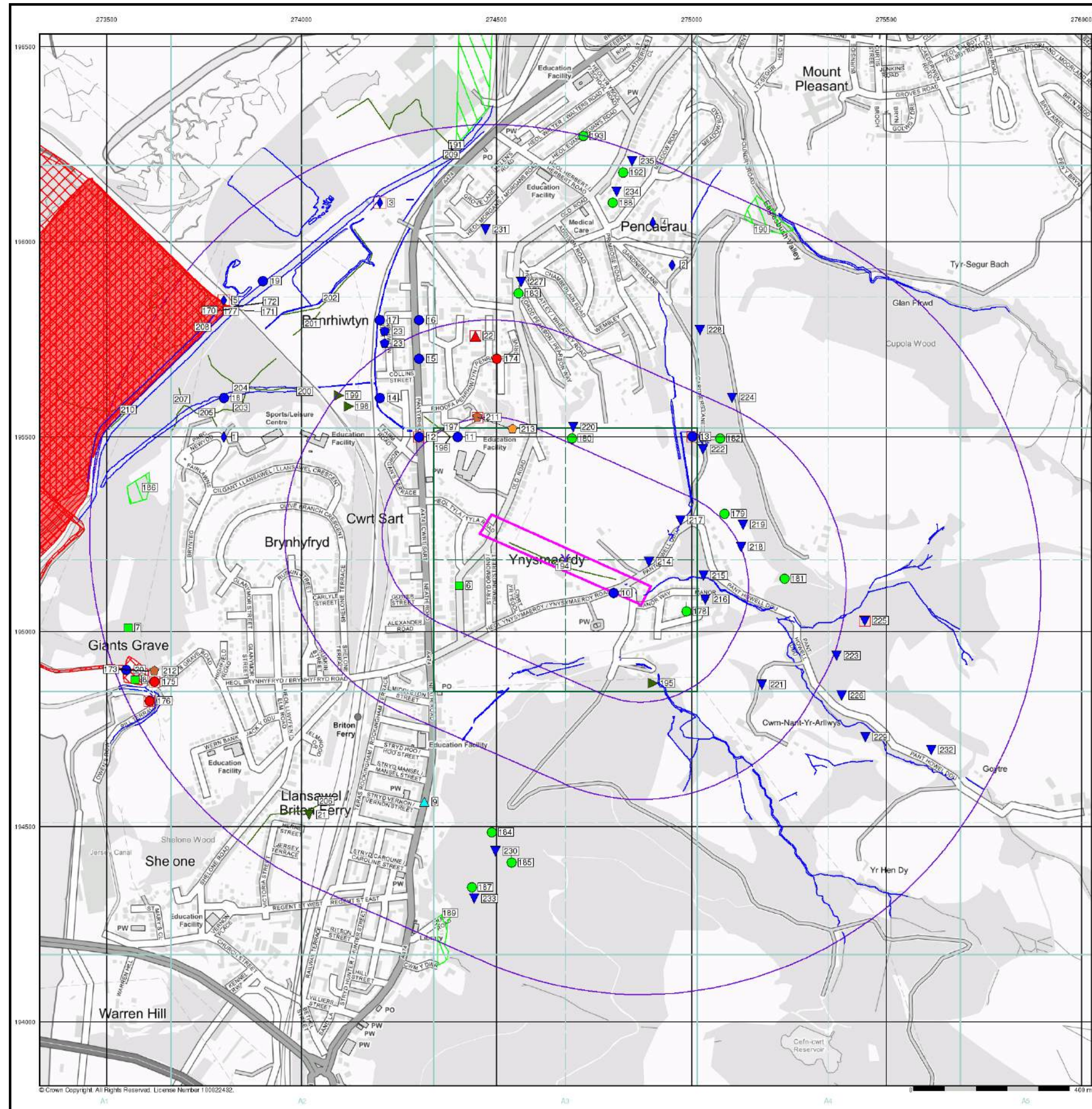
Order Details

Order Number: 222284714_1_1
 Customer Ref: 5192793
 National Grid Reference: 274680, 195180
 Slice: A
 Site Area (Ha): 2.5
 Plot Buffer (m): 100

Site Details

Site at 274590, 195200





© Crown Copyright. All Rights Reserved. License Number 100022482.

- General**

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

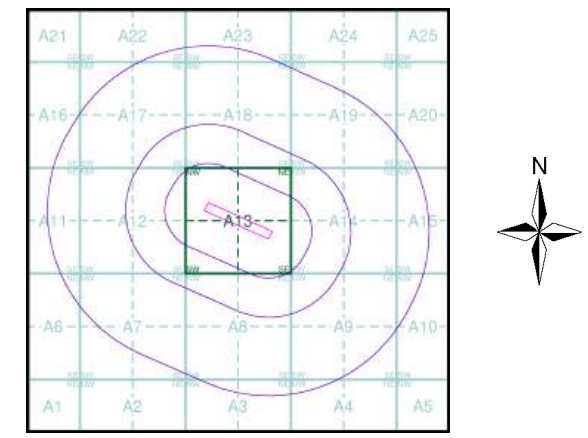
 - Contaminated Land Register Entry or Notice (Location)
 - Contaminated Land Register Entry or Notice
 - Discharge Consent
 - Enforcement or Prohibition Notice
 - Integrated Pollution Control
 - Integrated Pollution Prevention Control
 - Local Authority Integrated Pollution Prevention and Control
 - 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
- Waste**

 - BGS Recorded Landfill Site (Location)
 - BGS Recorded Landfill Site
 - EA Historic Landfill (Buffered Point)
 - EA Historic Landfill (Polygon)
 - Integrated Pollution Control Registered Waste Site
 - Licensed Waste Management Facility (Landfill Boundary)
 - Licensed Waste Management Facility (Location)
 - Local Authority Recorded Landfill Site (Location)
 - Local Authority Recorded Landfill Site
 - Potentially Infilled Land (Non-water)
 - Potentially Infilled Land (Non-water)
 - Potentially Infilled Land (Non-water)
 - Potentially Infilled Land (Water)
 - Potentially Infilled Land (Water)
 - Potentially Infilled Land (Water)
 - Registered Landfill Site (Location)
 - Registered Landfill Site (Point Buffered to 100m)
 - Registered Landfill Site (Point Buffered to 250m)
 - Registered Waste Transfer Site (Location)
 - Registered Waste Transfer Site
 - Registered Waste Treatment or Disposal Site (Location)
 - Registered Waste Treatment or Disposal Site
- Hazardous Substances**

 - COMAH Site
 - Explosive Site
 - NIHHS Site
 - Planning Hazardous Substance Consent
 - Planning Hazardous Substance Enforcement
 - BGS Recorded Mineral Site
- Geological**

 - BGS Recorded Mineral Site

Site Sensitivity Map - Slice A

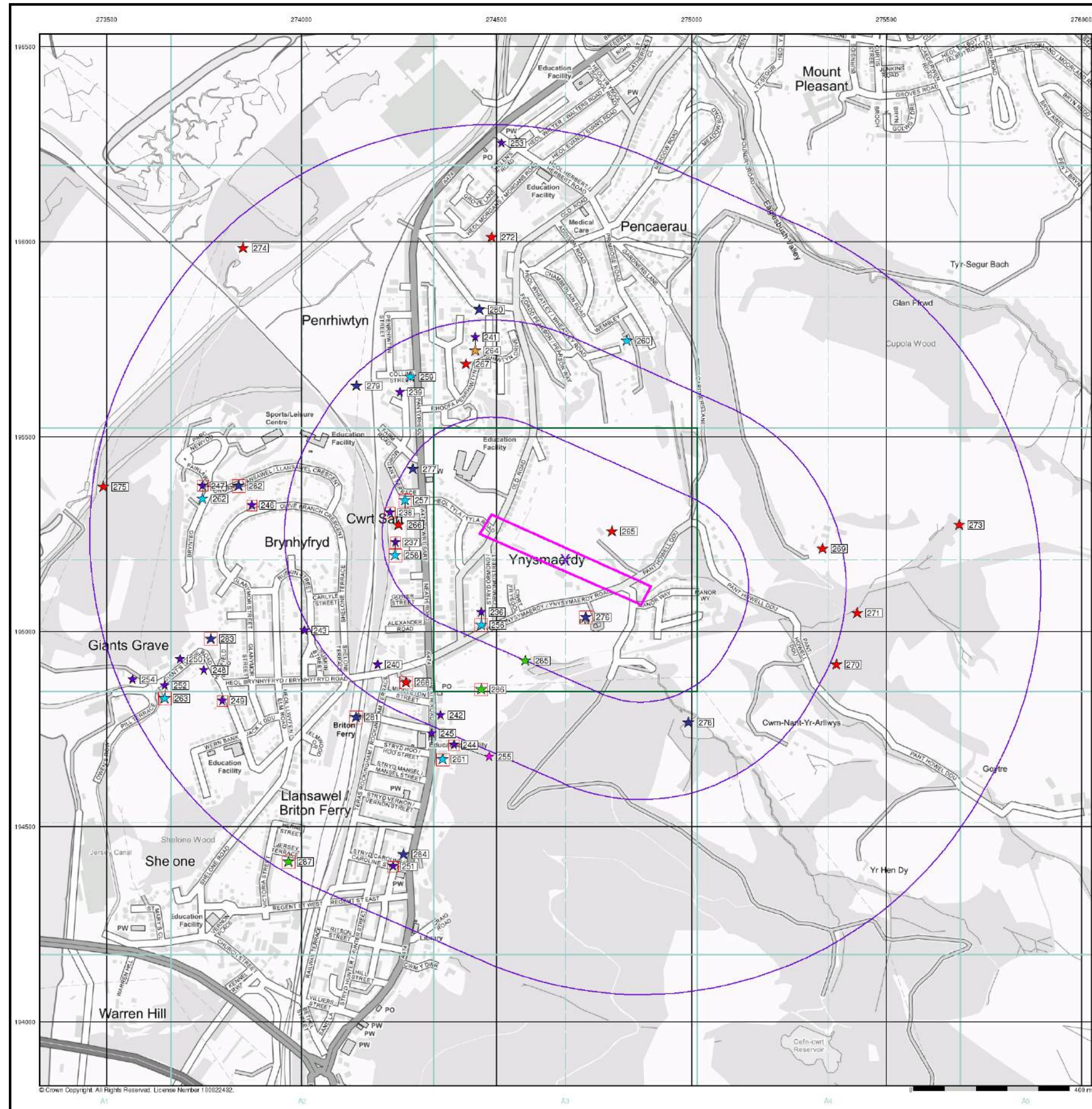


Order Details

Order Number: 222284714_1_1
Customer Ref: 5192793
National Grid Reference: 274680, 195180
Slice: A
Site Area (Ha): 2.5
Search Buffer (m): 1000

Site Details

Site at 274590, 195200



© Crown Copyright. All Rights Reserved. License Number 100022482.

Industrial Land Use Map

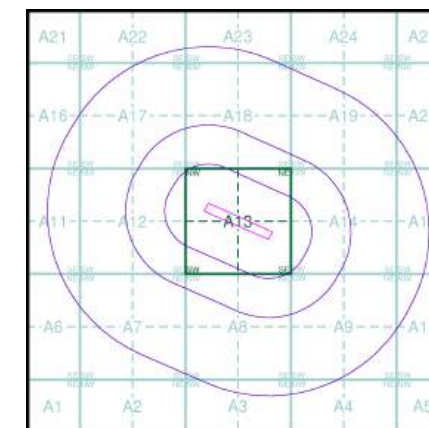
General

- 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: 222284714_1_1
Customer Ref: 5192793
National Grid Reference: 274680, 195180
Slice: A
Site Area (Ha): 2.5
Search Buffer (m): 1000

Site Details

Site at 274590, 195200

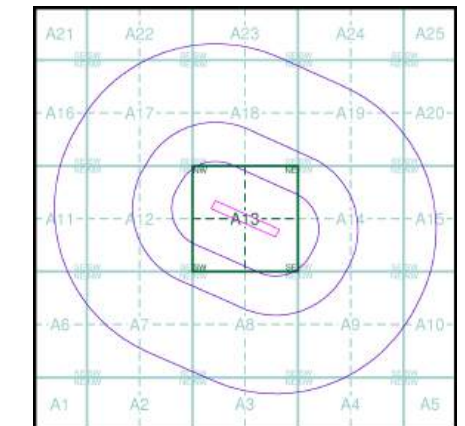
General

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

Agency and Hydrological (Flood)

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

Flood Map - Slice A

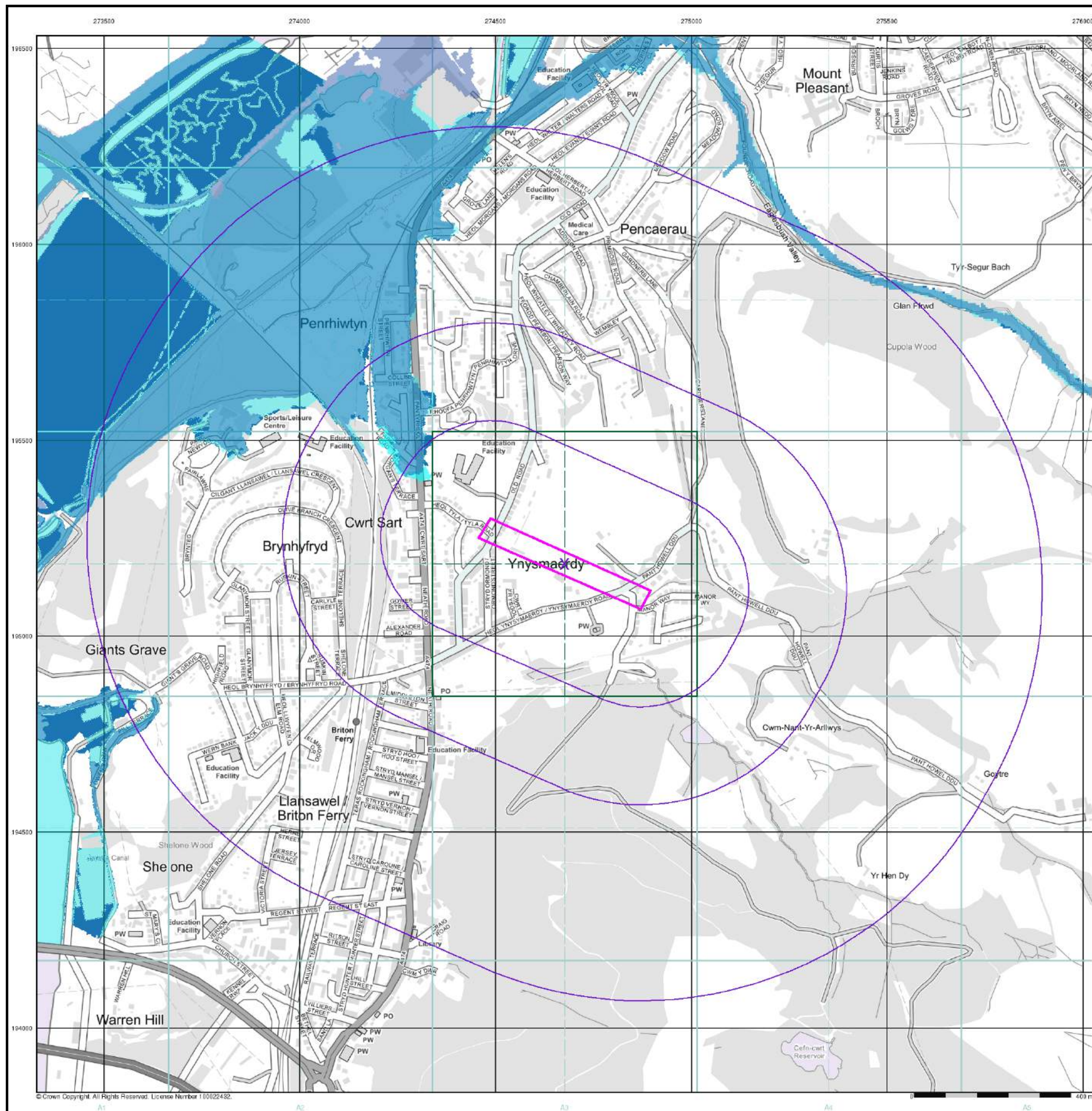


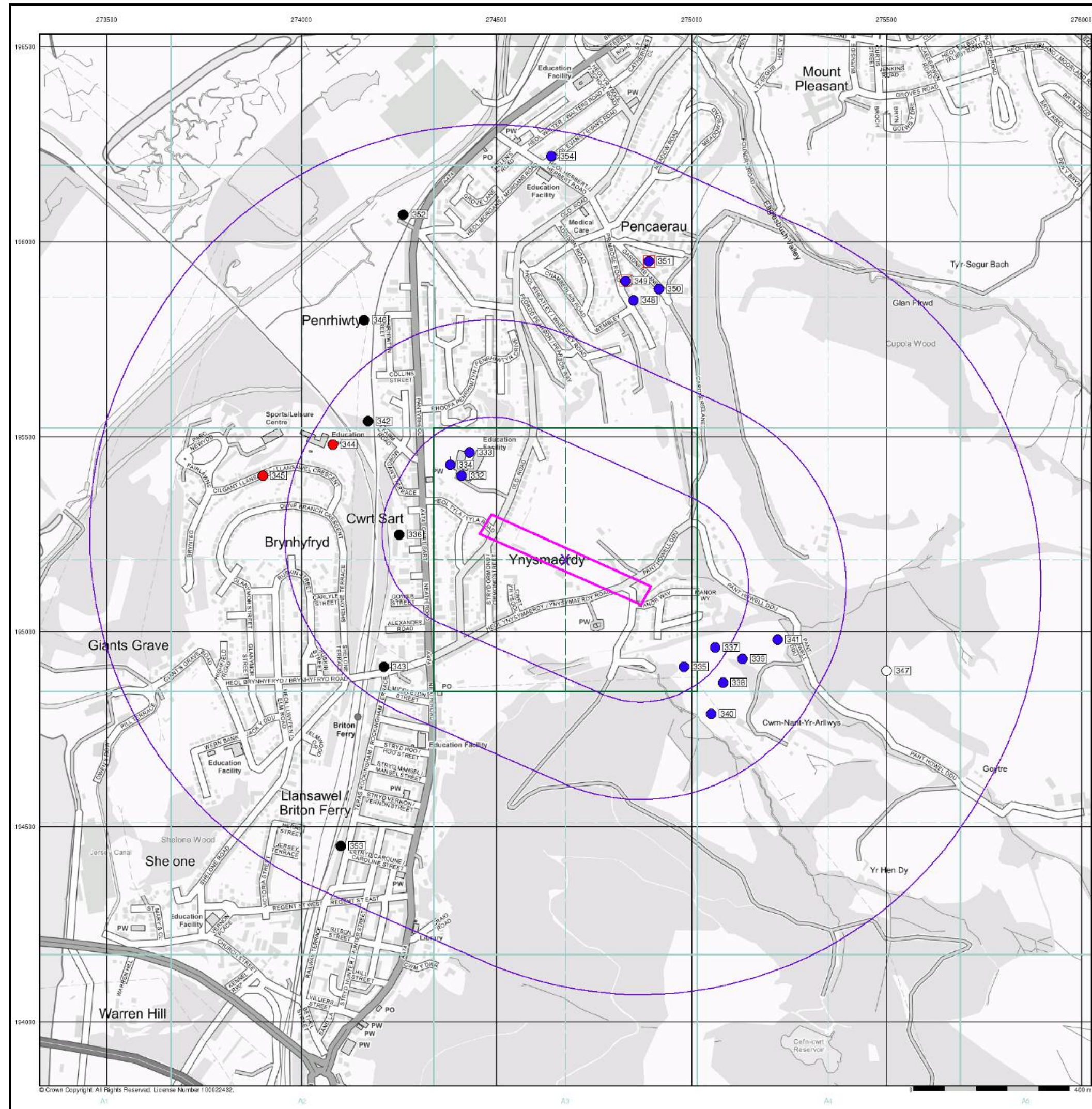
Order Details

Order Number: 222284714_1_1
 Customer Ref: 5192793
 National Grid Reference: 274680, 195180
 Slice: A
 Site Area (Ha): 2.5
 Search Buffer (m): 1000

Site Details

Site at 274590, 195200





© Crown Copyright. All Rights Reserved. License Number 100022482.

Envirocheck®

LANDMARK INFORMATION GROUP®

General

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

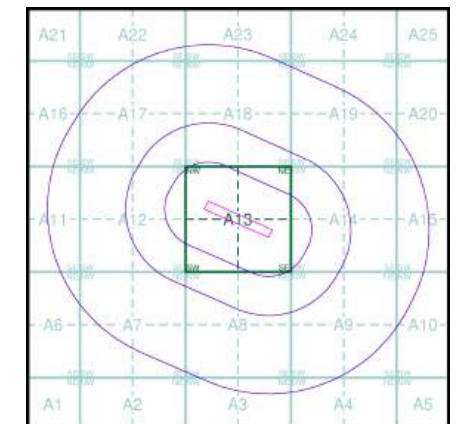
Agency and Hydrological (Boreholes)

- 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

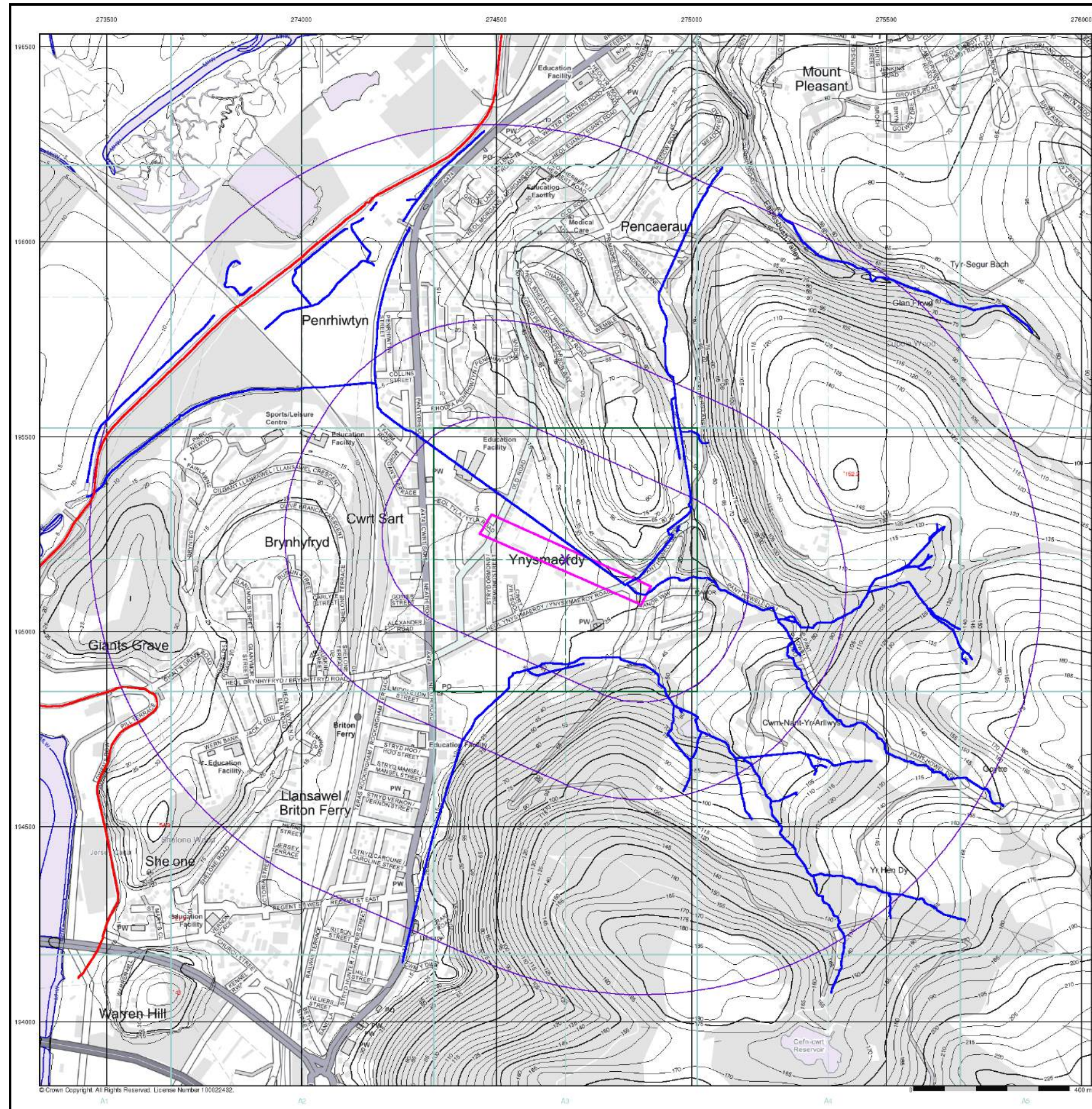
Order Number: 222284714_1_1
Customer Ref: 5192793
National Grid Reference: 274680, 195180
Slice: A
Site Area (Ha): 2.5
Search Buffer (m): 1000

Site Details

Site at 274590, 195200

Landmark®
INFORMATION GROUP

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



© Crown Copyright. All Rights Reserved. License Number 100022482.

Envirocheck®

LANDMARK INFORMATION GROUP®

General

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

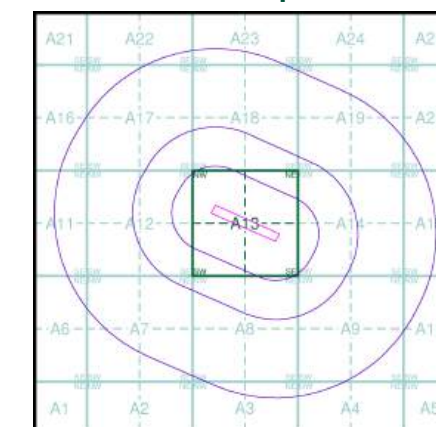
OS Water Network Data

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

Contours (height in meters)

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

OS Water Network Map - Slice A



Order Details

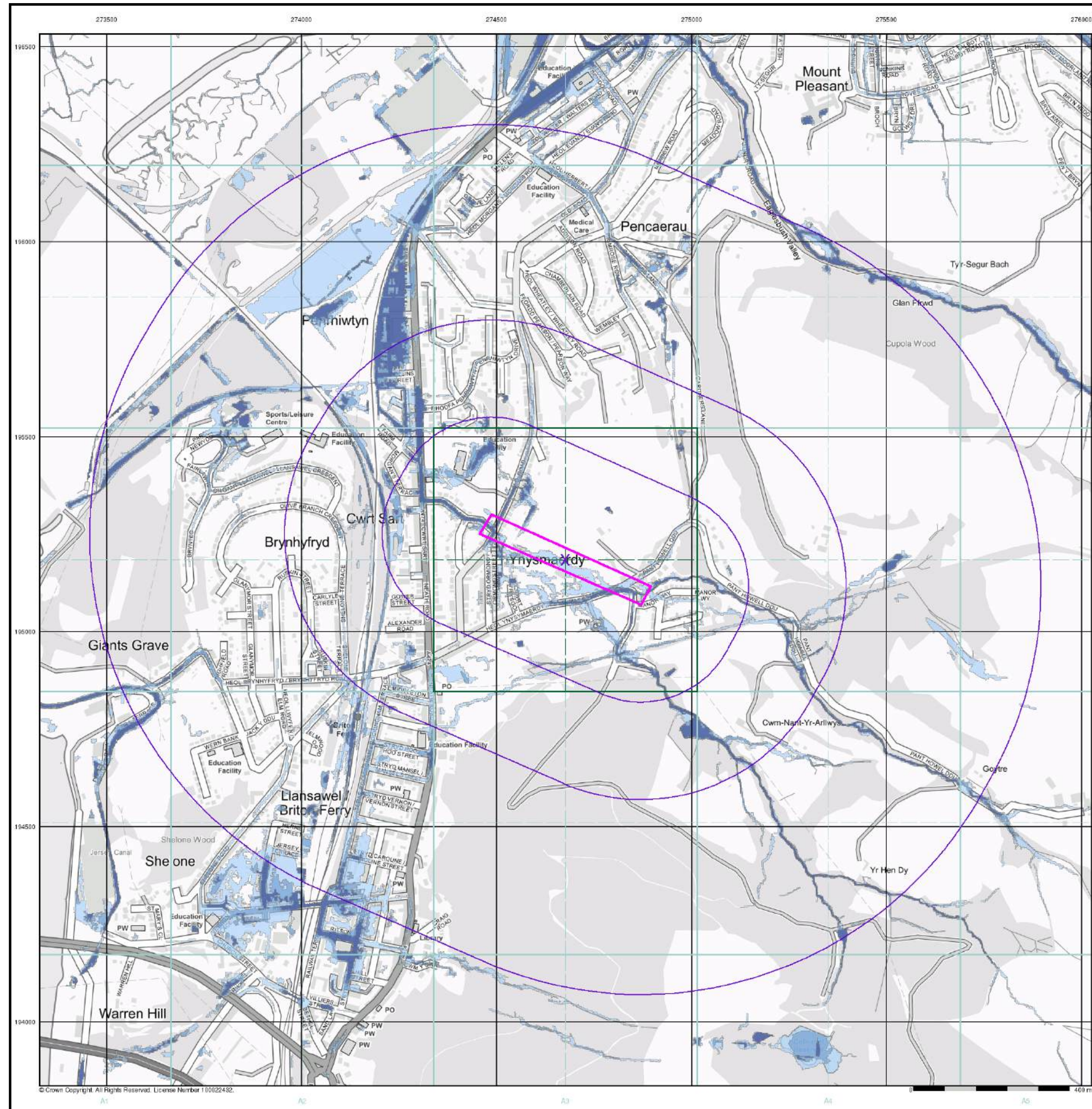
Order Number: 222284714_1_1
Customer Ref: 5192793
National Grid Reference: 274680, 195180
Slice: A
Site Area (Ha): 2.5
Search Buffer (m): 1000

Site Details

Site at 274590, 195200

Landmark®
INFORMATION GROUP

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



© Crown Copyright. All Rights Reserved. License Number 100022482.

General

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

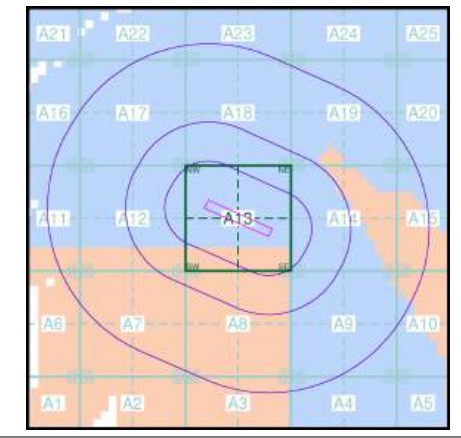
Risk of Flooding from Surface Water

- 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

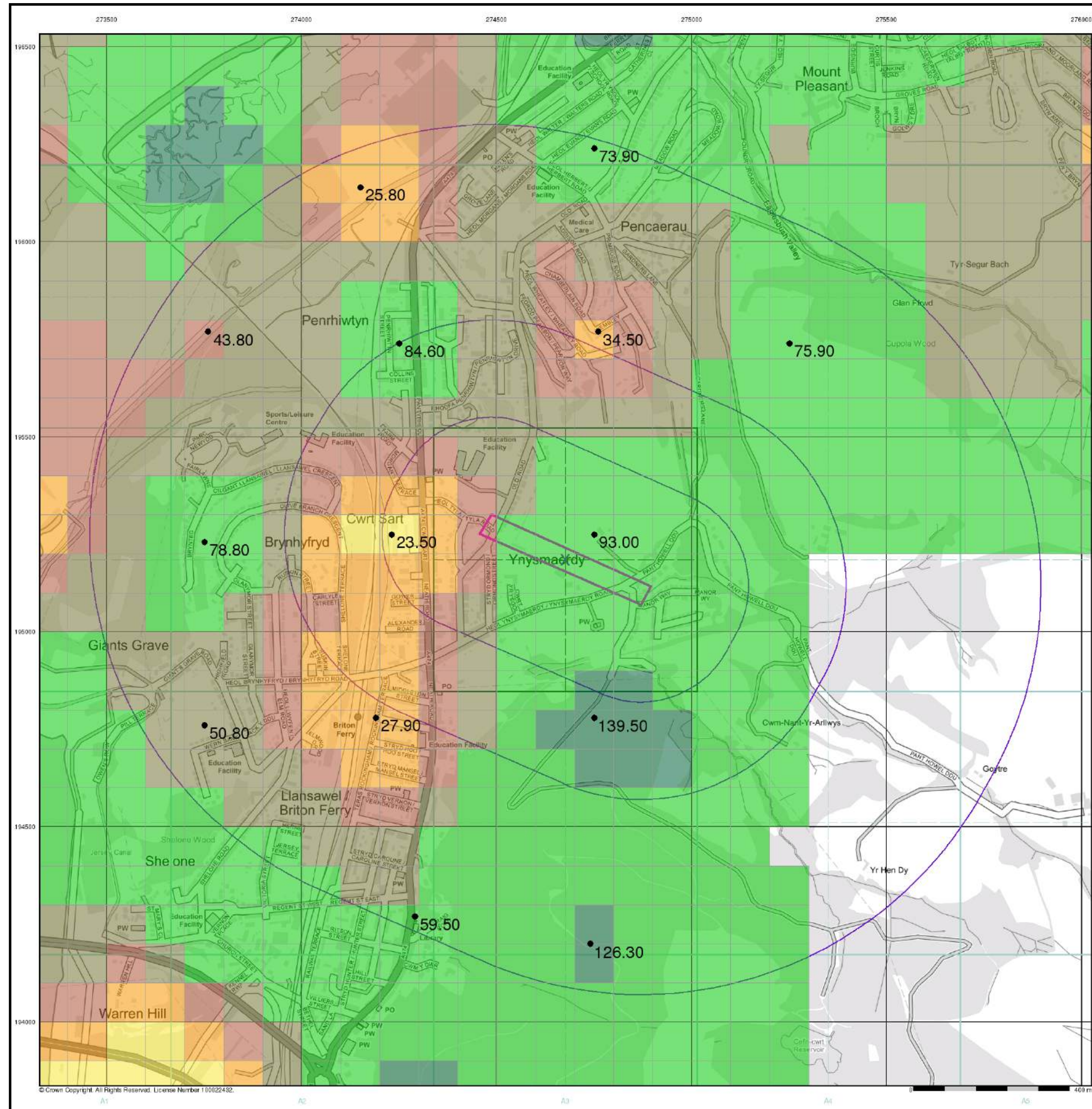


Order Details

Order Number: 222284714_1_1
Customer Ref: 5192793
National Grid Reference: 274680, 195180
Slice: A
Site Area (Ha): 2.5
Search Buffer (m): 1000

Site Details

Site at 274590, 195200



© Crown Copyright. All Rights Reserved. License Number 100022482.

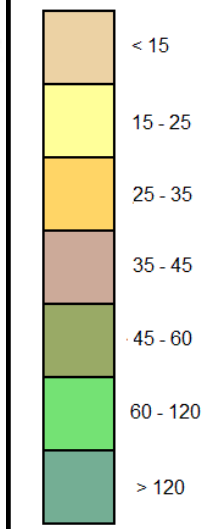
General

Specified Site Specified Buffer(s) Bearing Reference Point

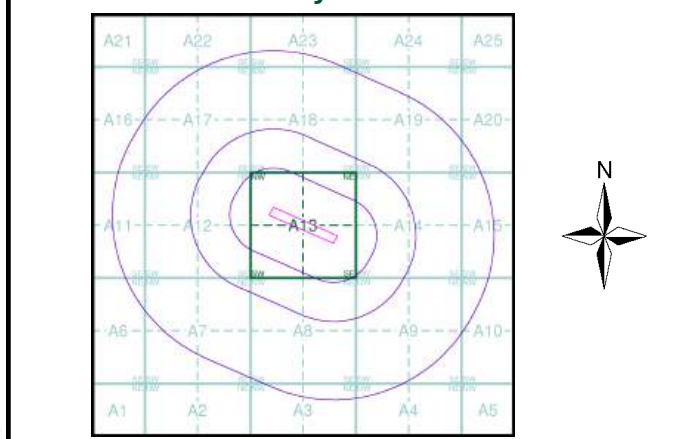
Urban Soil Chemistry Arsenic

BGS Urban Soil Chemistry Measured Concentration Values (mg/kg)

Arsenic Concentrations mg/kg



Urban Soil Chemistry Arsenic - Slice A

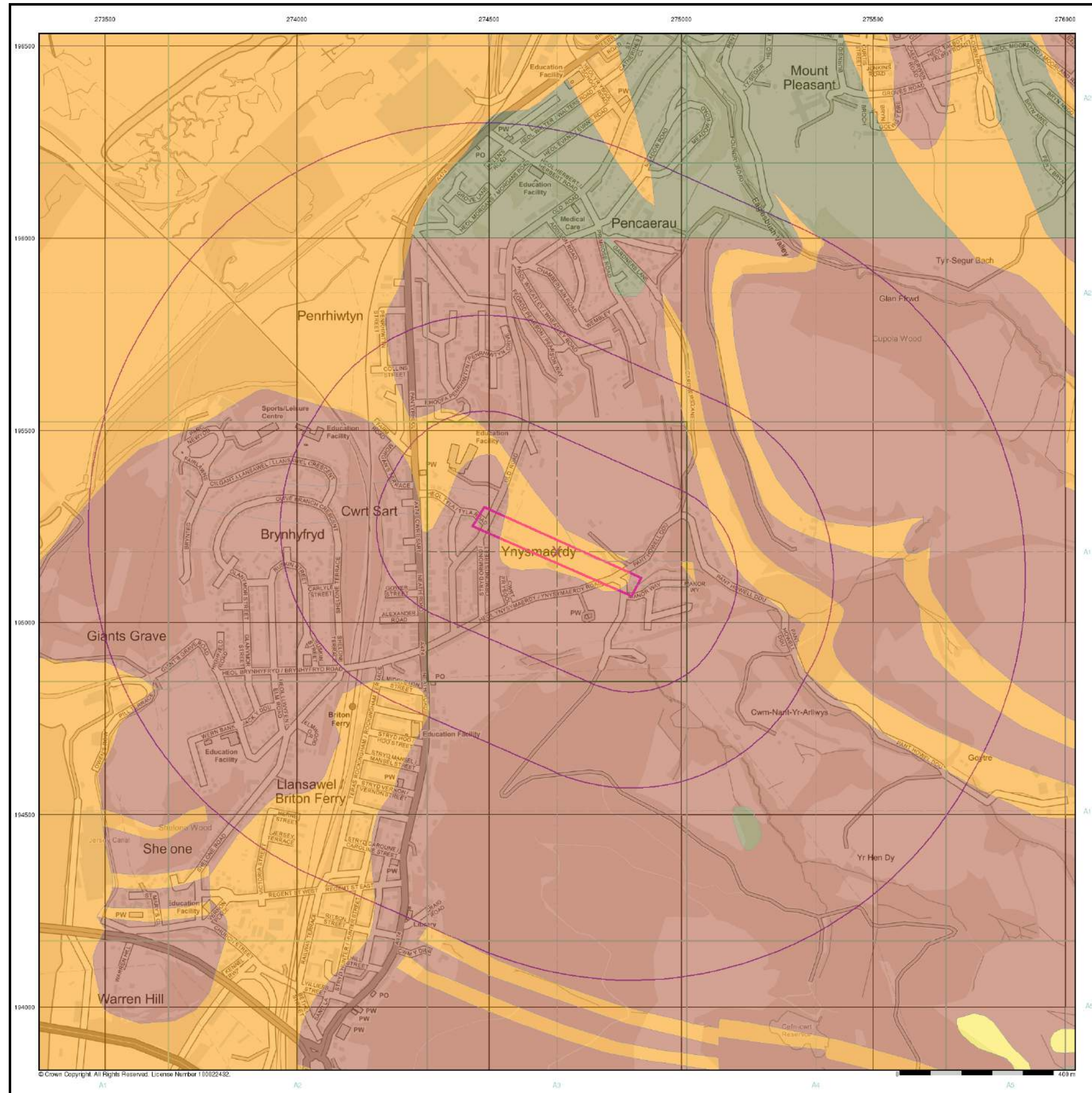


Order Details

Order Details: 222284714_1_1
Customer Ref: 5192793
National Grid Reference: 274680, 195180
Slice: A
Site Area (Ha): 2.5
Search buffer (m): 1000

Site Details

Site at 274590, 195200



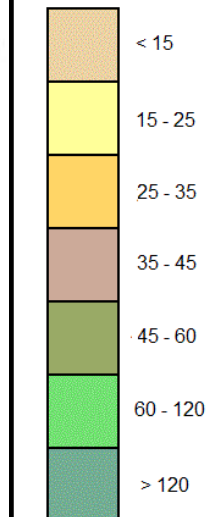
© Crown Copyright. All Rights Reserved. License Number 100022482.

General

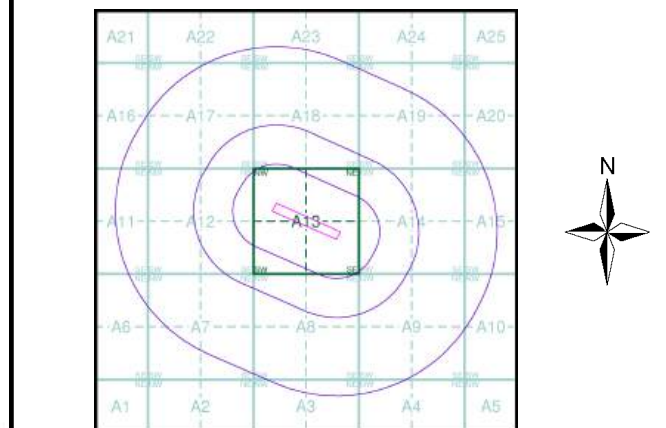
Specified Site Specified Buffer(s) Bearing Reference Point

Estimated Soil Chemistry Arsenic

Arsenic Concentrations mg/kg



Estimated Soil Chemistry Arsenic - Slice A

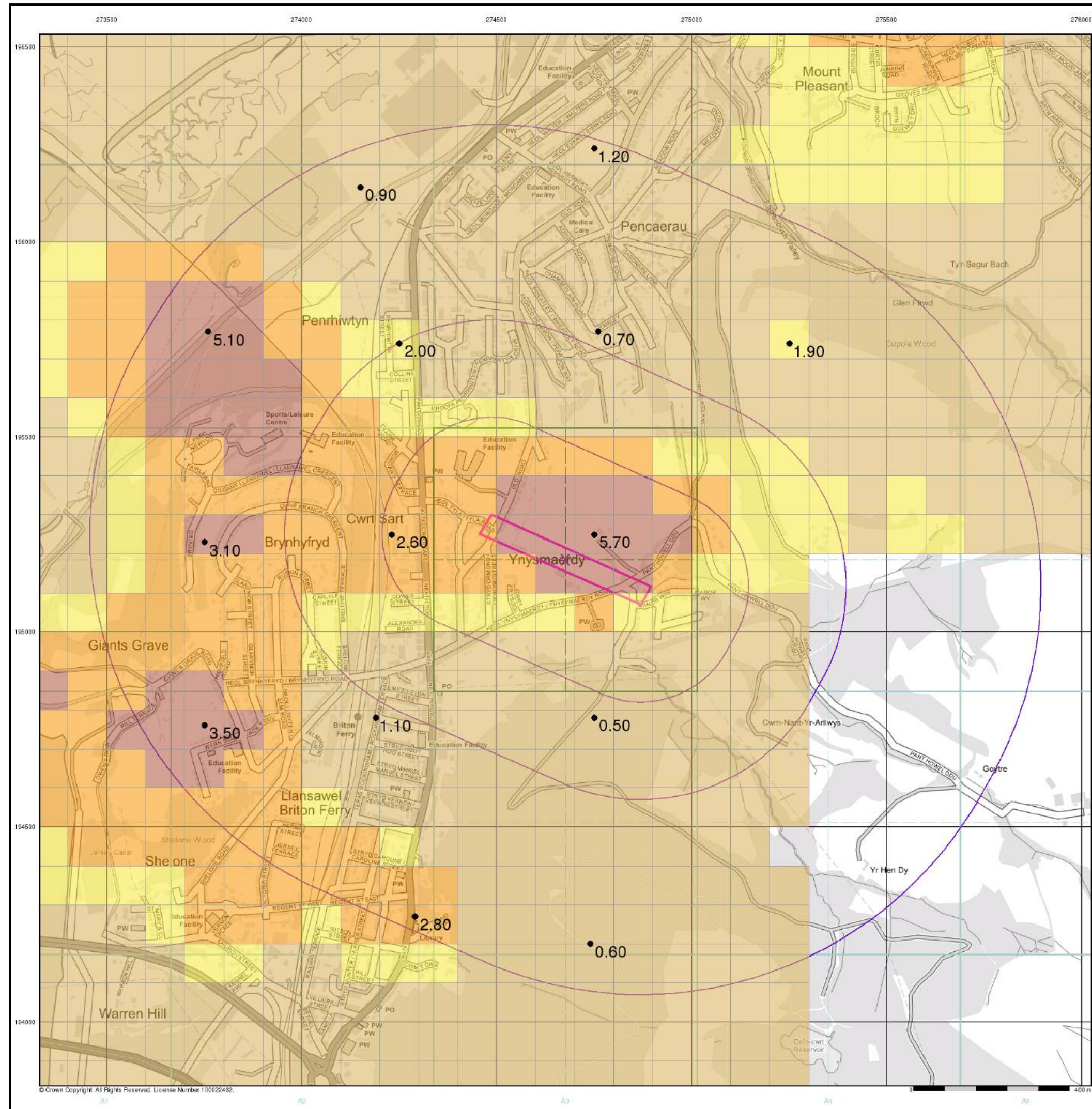


Order Details

Order Details: 222284714_1_1
Customer Ref: 5192793
National Grid Reference: 274680, 195180
Slice: A
Site Area (Ha): 2.5
Search buffer (m): 1000

Site Details

Site at 274590, 195200



© Crown Copyright. All Rights Reserved. License Number 100022482.

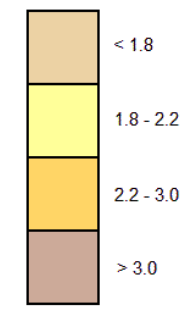
General

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

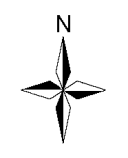
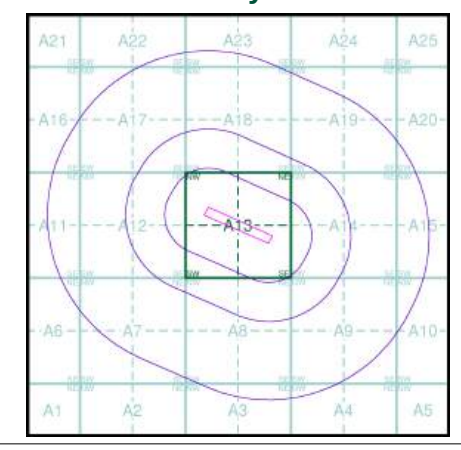
Urban Soil Chemistry Cadmium

BGS Urban Soil Chemistry Measured Concentration Values (mg/kg)

Cadmium Concentrations mg/kg



Urban Soil Chemistry Cadmium - Slice A

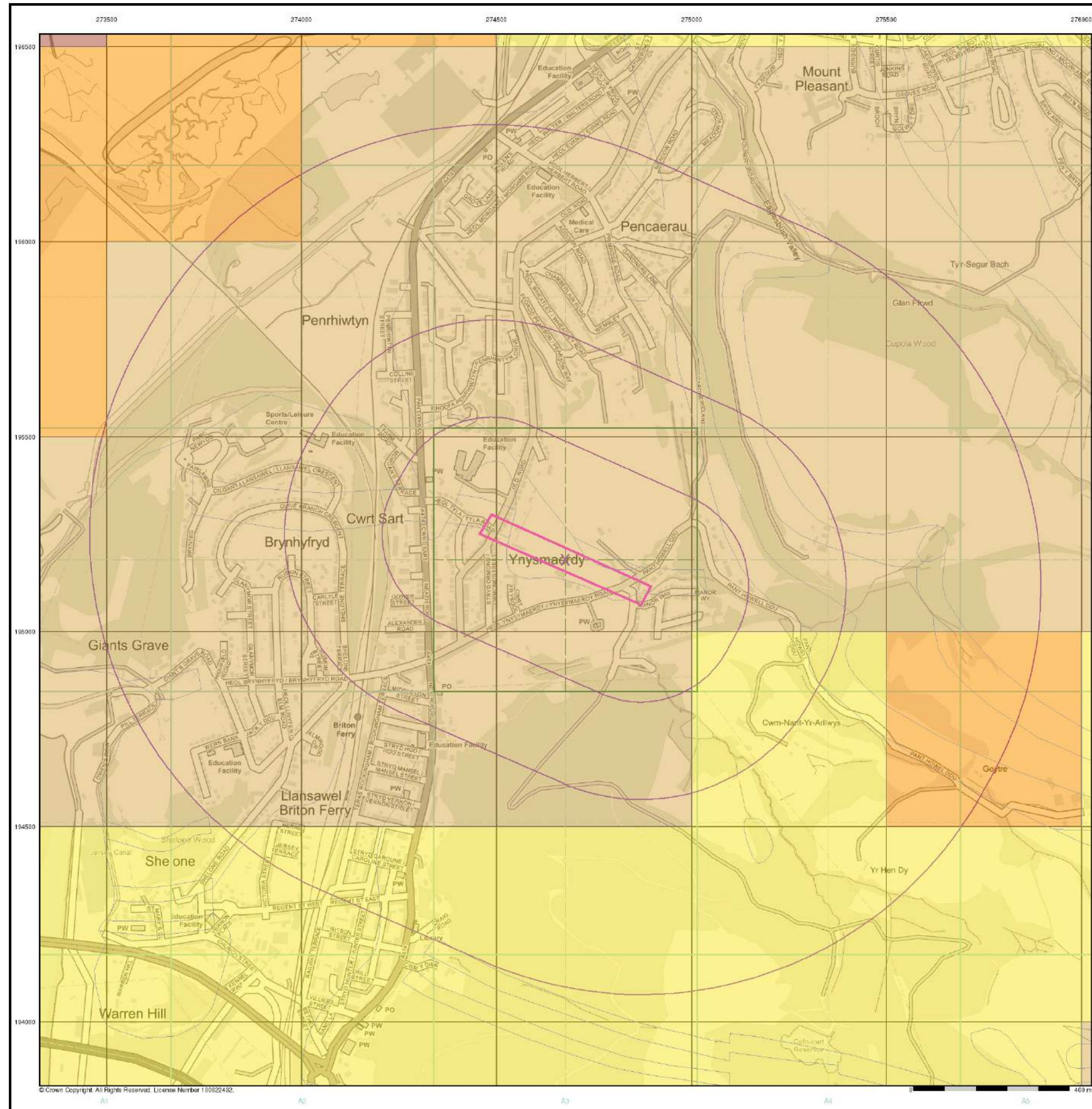


Order Details

Order Details: 222284714_1_1
Customer Ref: 5192793
National Grid Reference: 274680, 195180
Slice: A
Site Area (Ha): 2.5
Search buffer (m): 1000

Site Details

Site at 274590, 195200



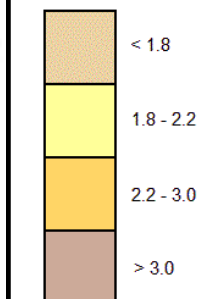
© Crown Copyright. All Rights Reserved. License Number 100022482.

General

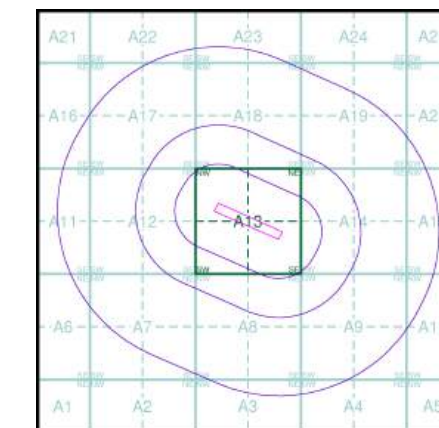
Specified Site Specified Buffer(s) Bearing Reference Point

Estimated Soil Chemistry Cadmium

Cadmium Concentrations mg/kg



Estimated Soil Chemistry Cadmium - Slice A

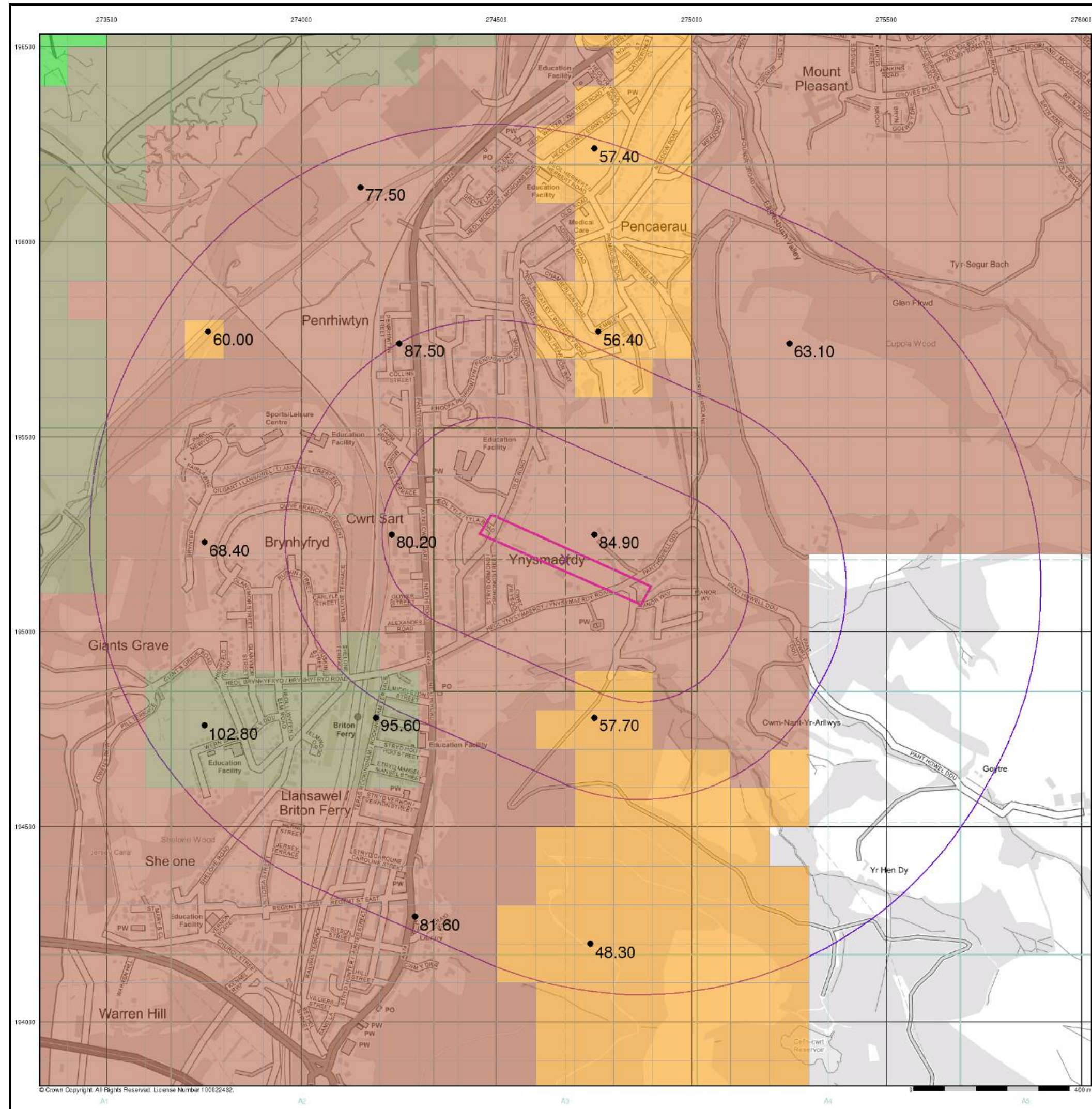


Order Details

Order Details: 222284714_1_1
Customer Ref: 5192793
National Grid Reference: 274680, 195180
Slice: A
Site Area (Ha): 2.5
Search buffer (m): 1000

Site Details

Site at 274590, 195200



© Crown Copyright. All Rights Reserved. License Number 100022482.

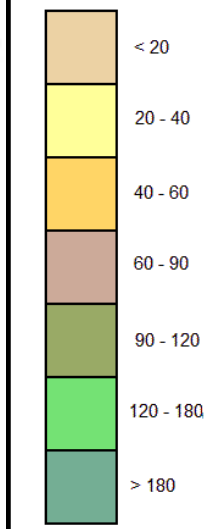
General

Specified Site Specified Buffer(s) Bearing Reference Point

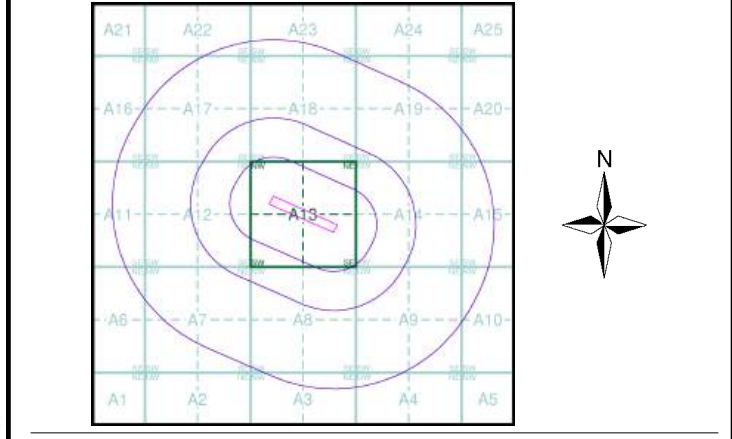
Urban Soil Chemistry Chromium

● BGS Urban Soil Chemistry Measured Concentration Values (mg/kg)

Chromium Concentrations mg/kg



Urban Soil Chemistry Chromium - Slice A

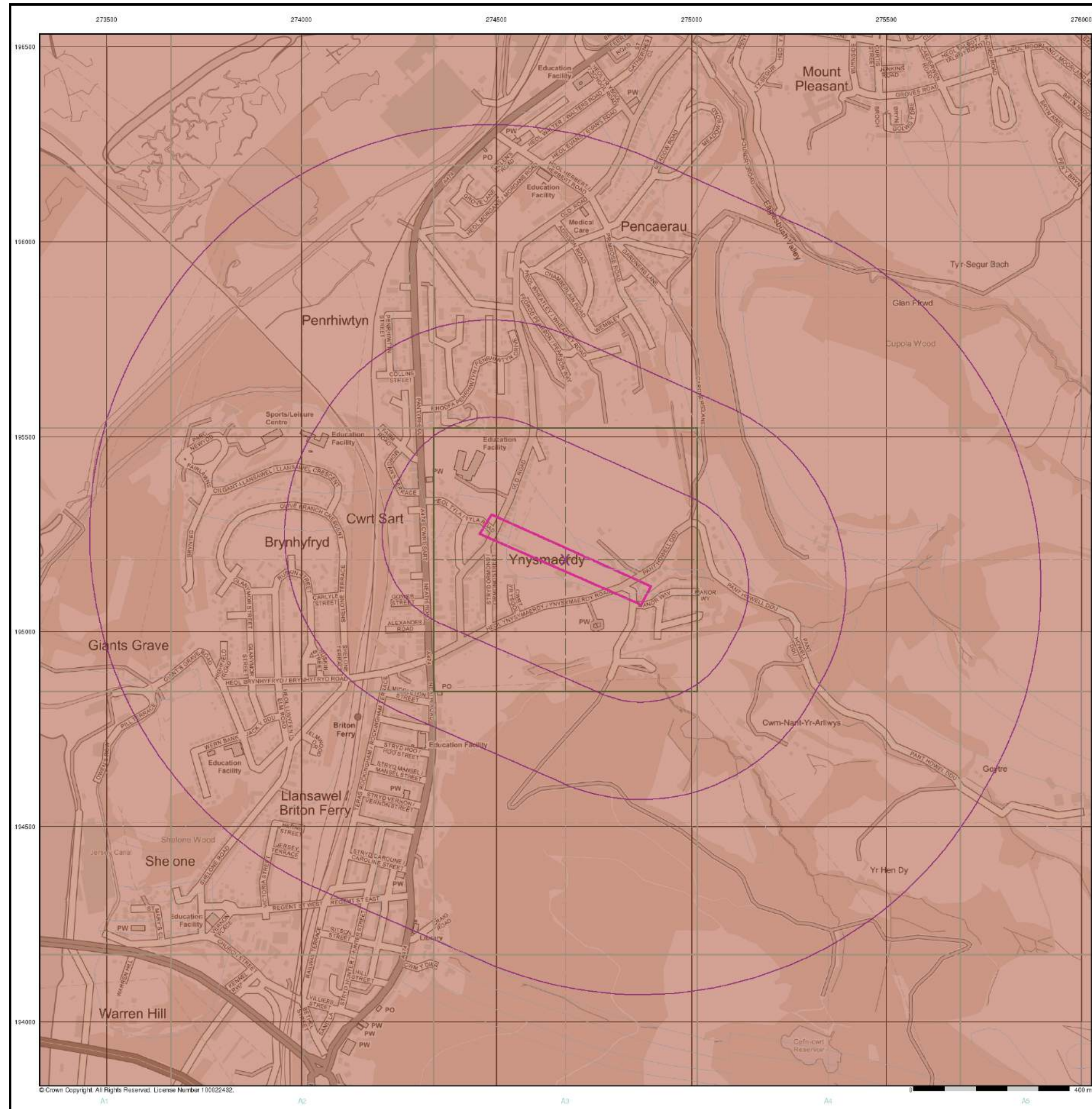


Order Details

Order Details: 222284714_1_1
Customer Ref: 5192793
National Grid Reference: 274680, 195180
Slice: A
Site Area (Ha): 2.5
Search buffer (m): 1000

Site Details

Site at 274590, 195200



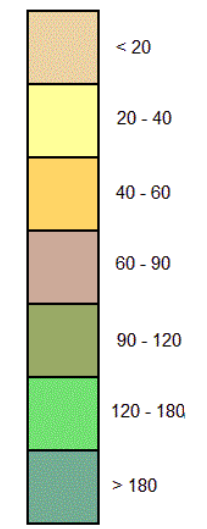
© Crown Copyright. All Rights Reserved. License Number 100022482.

General

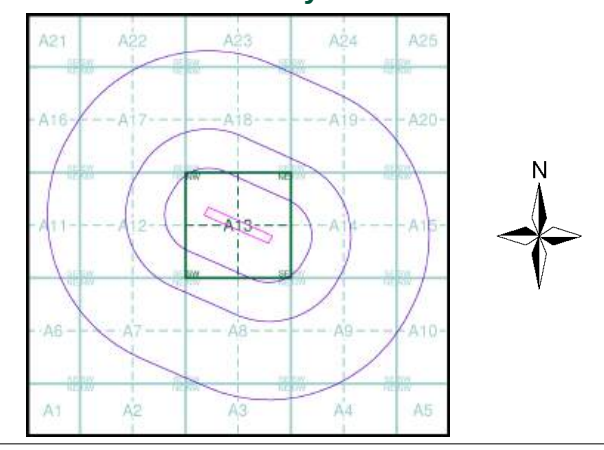
Specified Site Specified Buffer(s) Bearing Reference Point

Estimated Soil Chemistry Chromium

Chromium Concentrations mg/kg



Estimated Soil Chemistry Chromium - Slice A

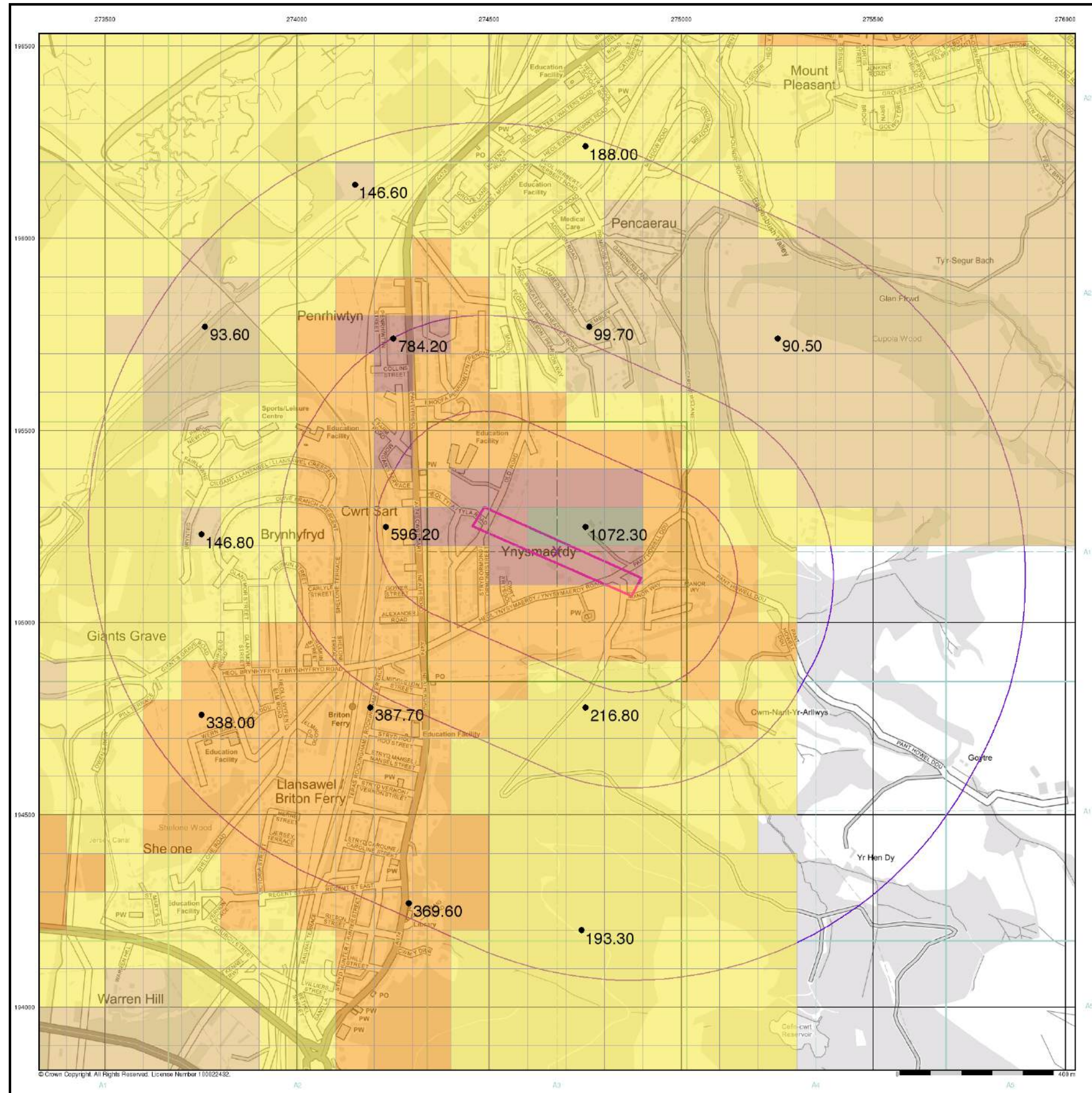


Order Details

Order Details: 222284714_1_1
Customer Ref: 5192793
National Grid Reference: 274680, 195180
Slice: A
Site Area (Ha): 2.5
Search buffer (m): 1000

Site Details

Site at 274590, 195200



© Crown Copyright. All Rights Reserved. License Number 100022482.

General

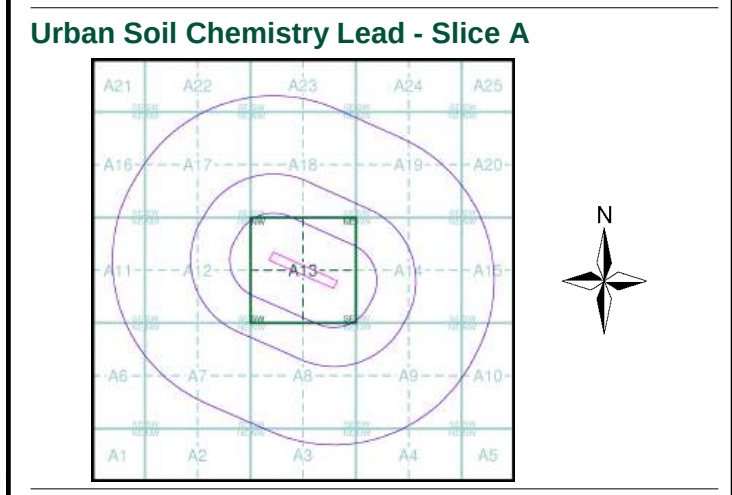
Specified Site Specified Buffer(s) Bearing Reference Point

Urban Soil Chemistry Lead

● BGS Urban Soil Chemistry Measured Concentration Values (mg/kg)

Lead Concentrations mg/kg

< 150
150 - 300
300 - 600
600 - 900
> 900

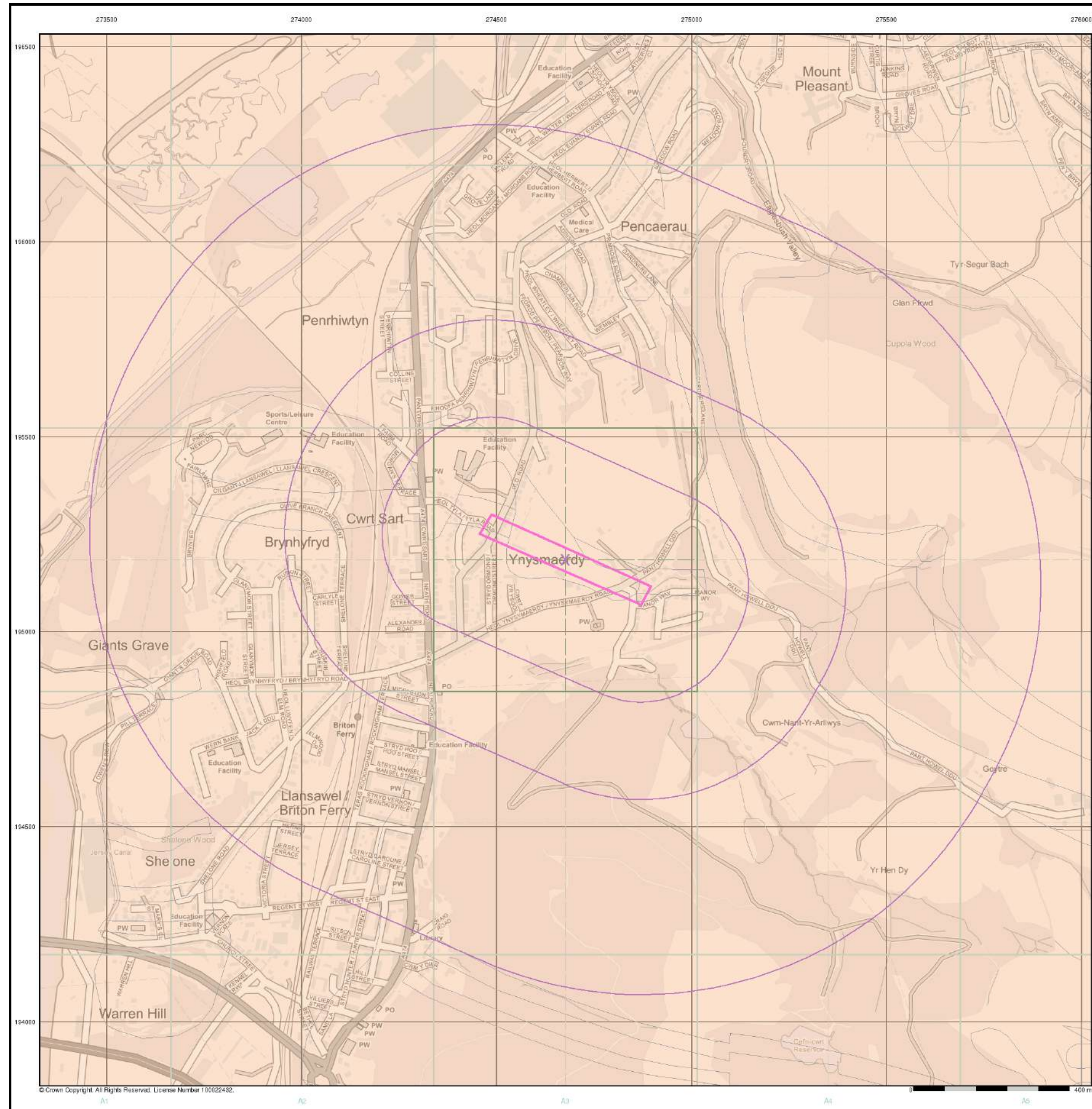


Order Details

Order Details: 222284714_1_1
Customer Ref: 5192793
National Grid Reference: 274680, 195180
Slice: A
Site Area (Ha): 2.5
Search buffer (m): 1000

Site Details

Site at 274590, 195200



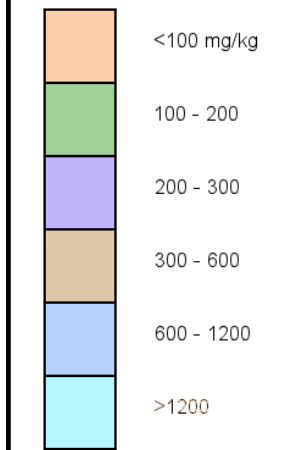
© Crown Copyright. All Rights Reserved. License Number 100022482.

General

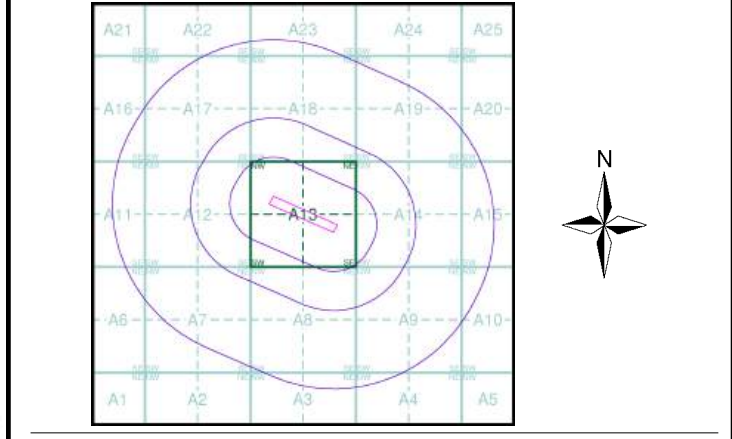
- Specified Site
- Specified Buffer(s)
- Bearing Reference Point

Estimated Soil Chemistry Lead

Lead Concentrations mg/kg



Estimated Soil Chemistry Lead - Slice A

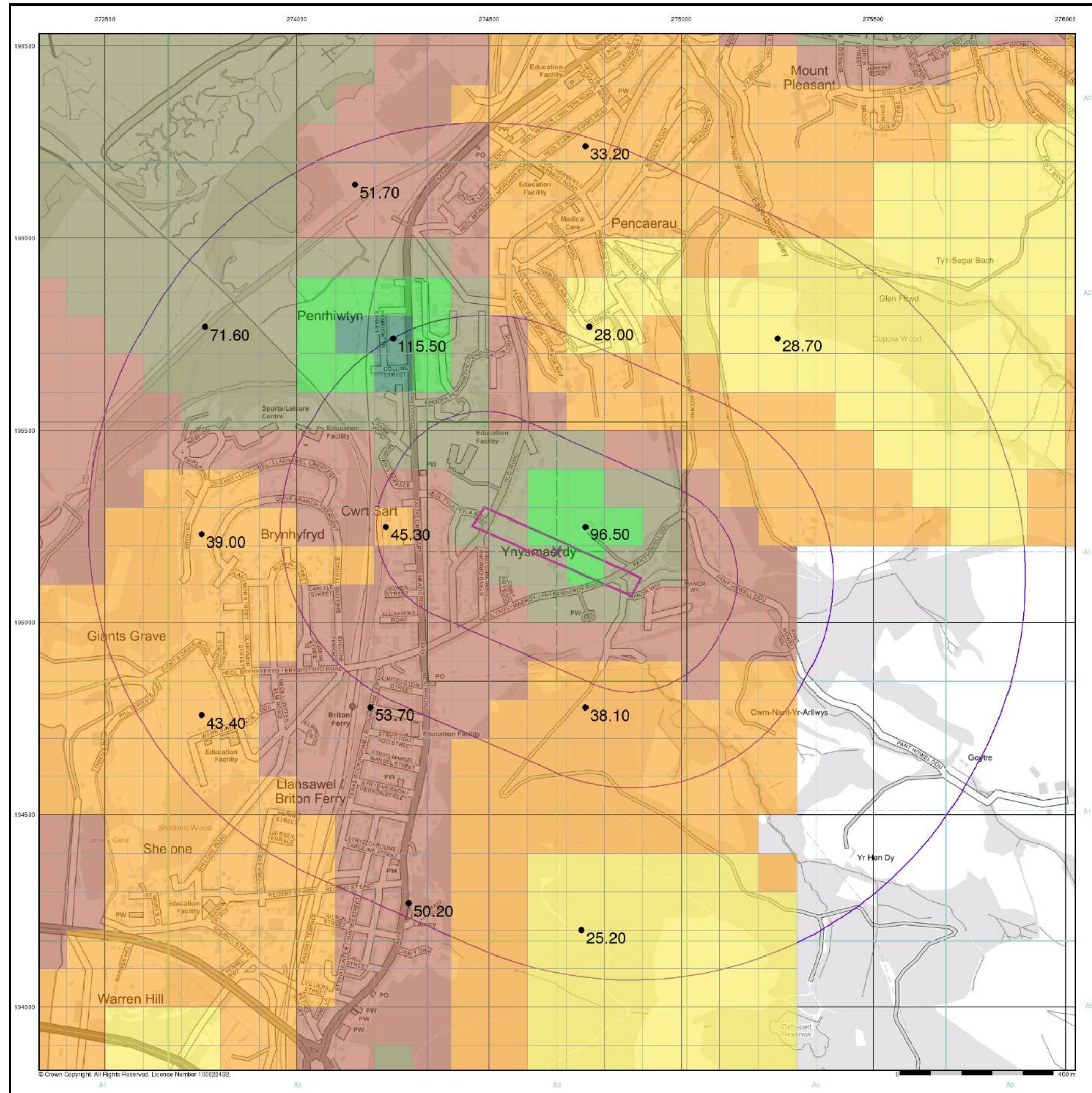


Order Details

Order Details: 222284714_1_1
Customer Ref: 5192793
National Grid Reference: 274680, 195180
Slice: A
Site Area (Ha): 2.5
Search buffer (m): 1000

Site Details

Site at 274590, 195200



© Crown Copyright. All Rights Reserved. License Number 100022482.

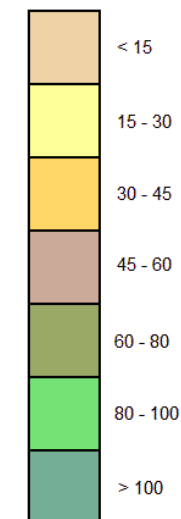
General

Specified Site Specified Buffer(s) Bearing Reference Point

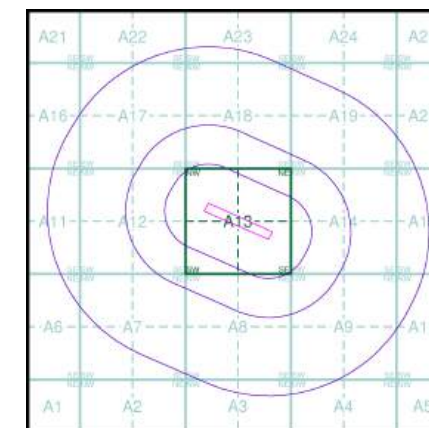
Urban Soil Chemistry Nickel

BGS Urban Soil Chemistry Measured Concentration Values (mg/kg)

Nickel Concentrations mg/kg



Urban Soil Chemistry Nickel - Slice A

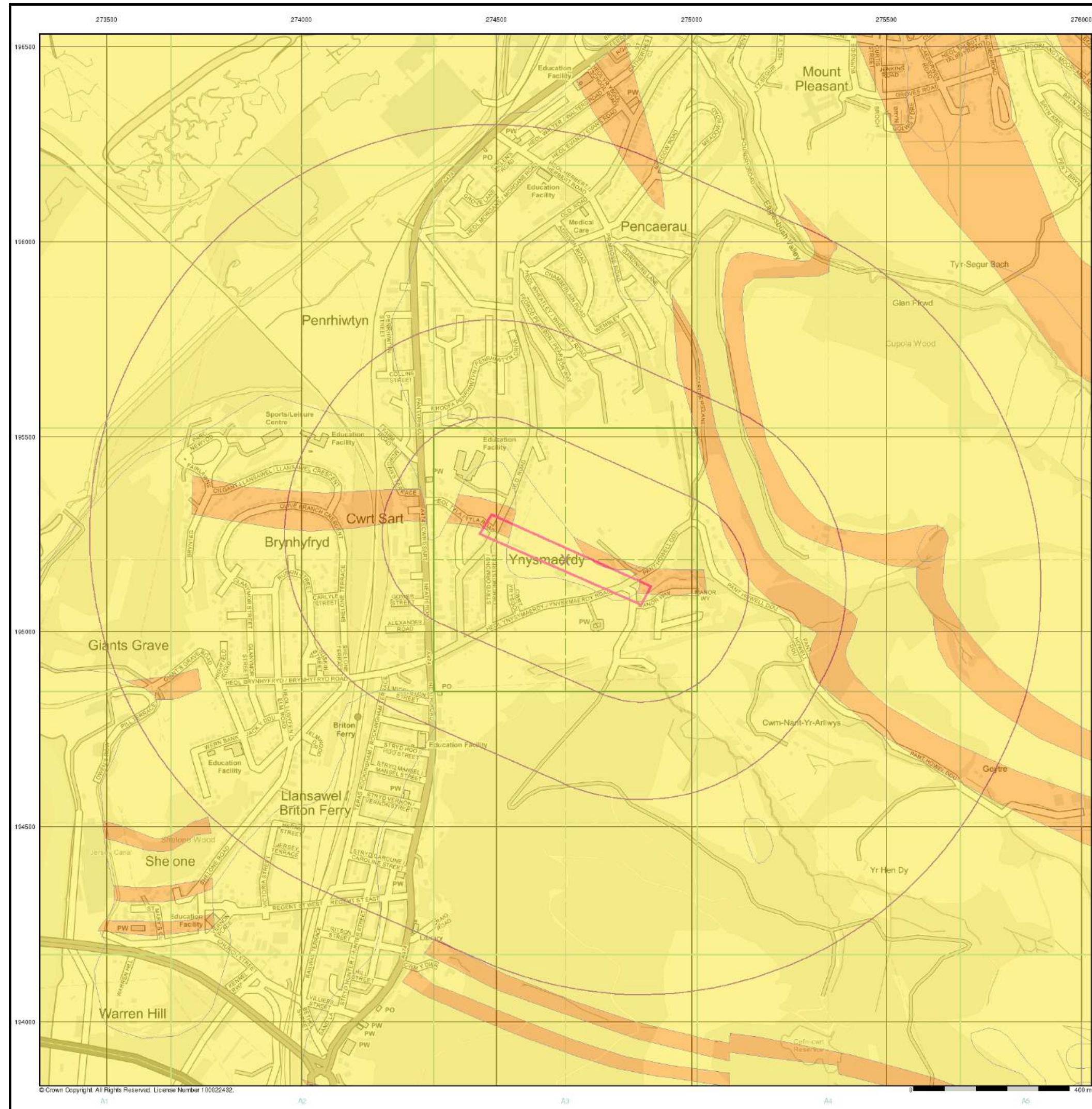


Order Details

Order Details: 222284714_1_1
Customer Ref: 5192793
National Grid Reference: 274680, 195180
Slice: A
Site Area (Ha): 2.5
Search buffer (m): 1000

Site Details

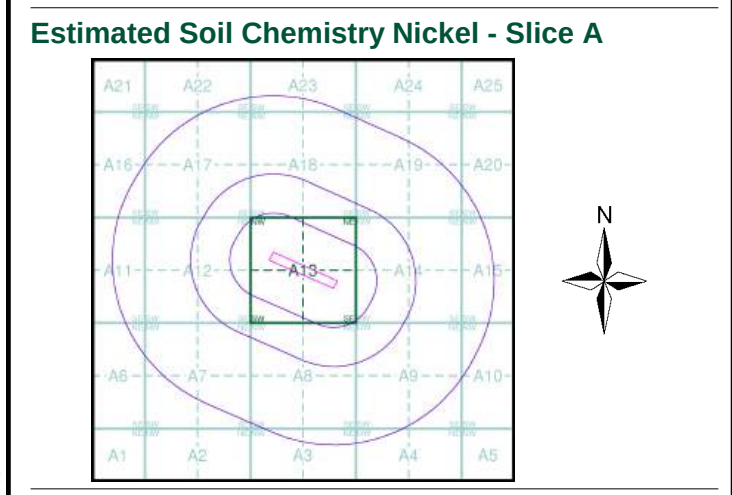
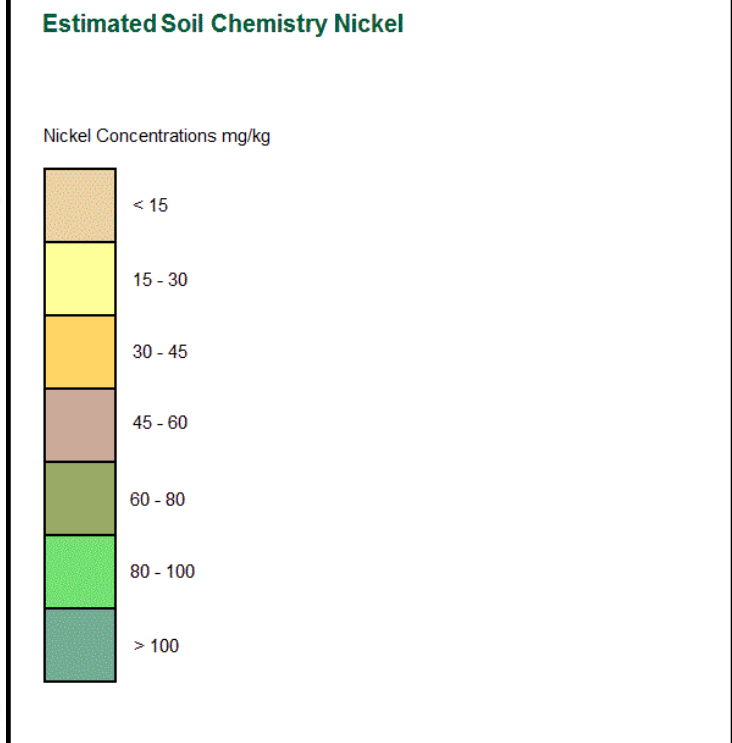
Site at 274590, 195200



© Crown Copyright. All Rights Reserved. License Number 100022482.

General

Specified Site Specified Buffer(s) Bearing Reference Point



Order Details

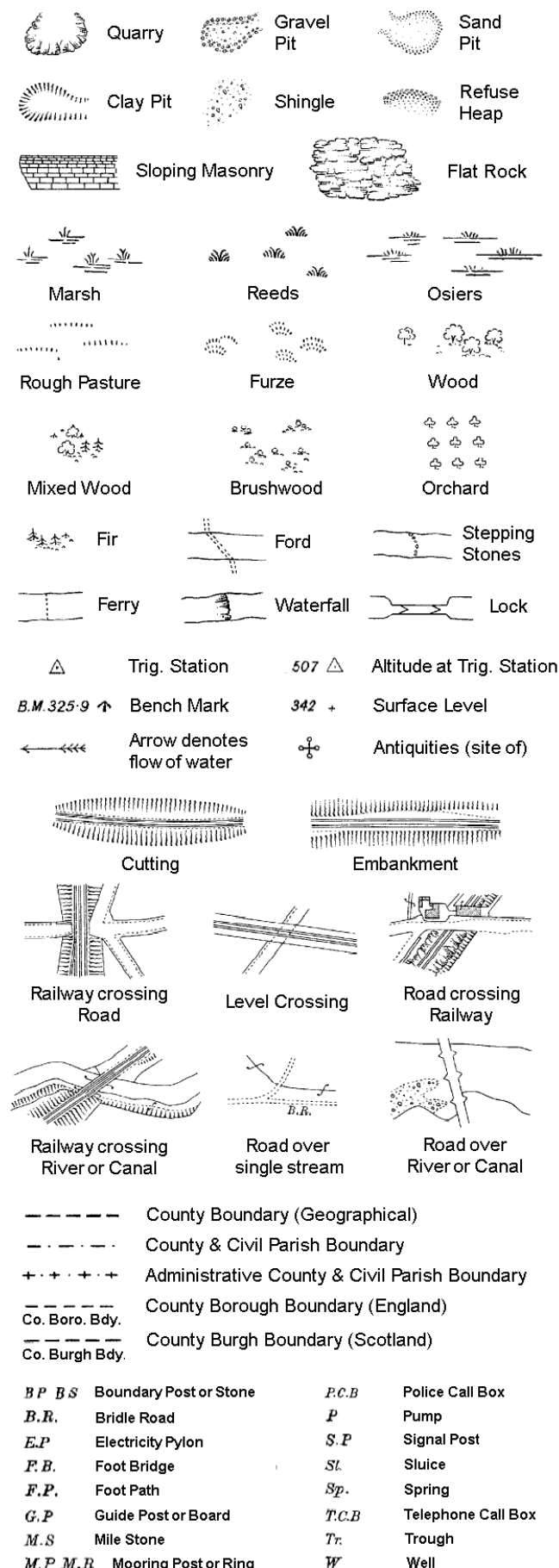
Order Details: 222284714_1_1
Customer Ref: 5192793
National Grid Reference: 274680, 195180
Slice: A
Site Area (Ha): 2.5
Search buffer (m): 1000

Site Details

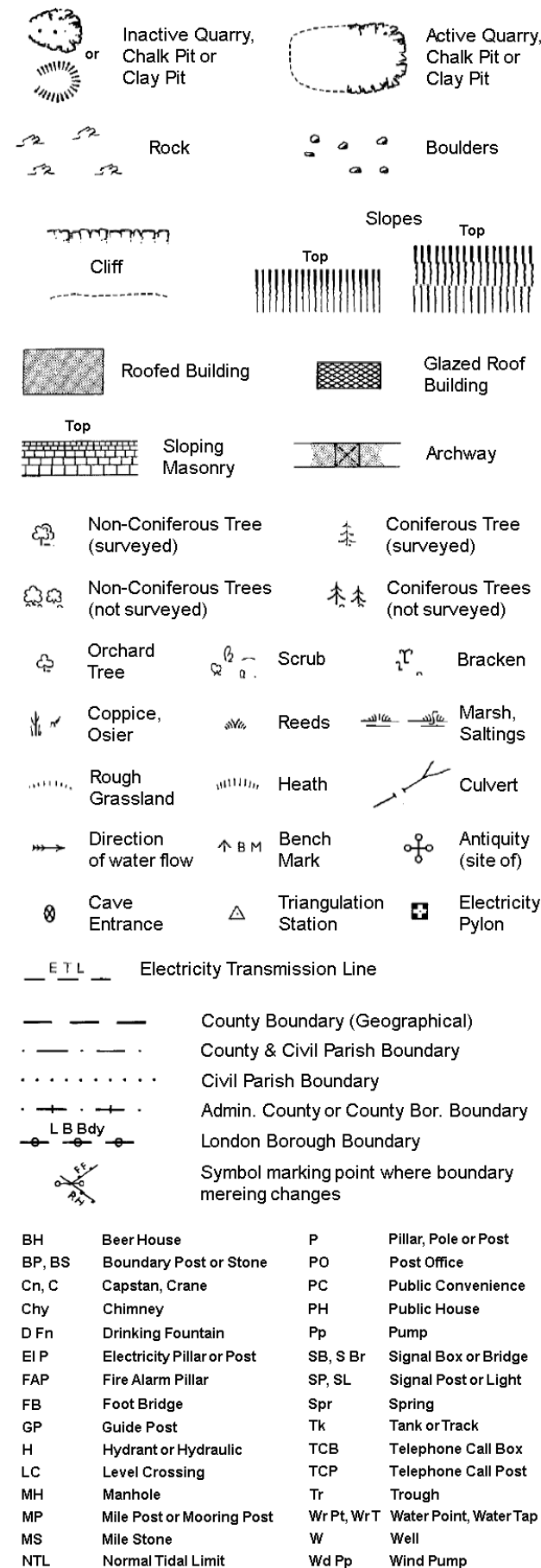
Site at 274590, 195200

Historical Mapping Legends

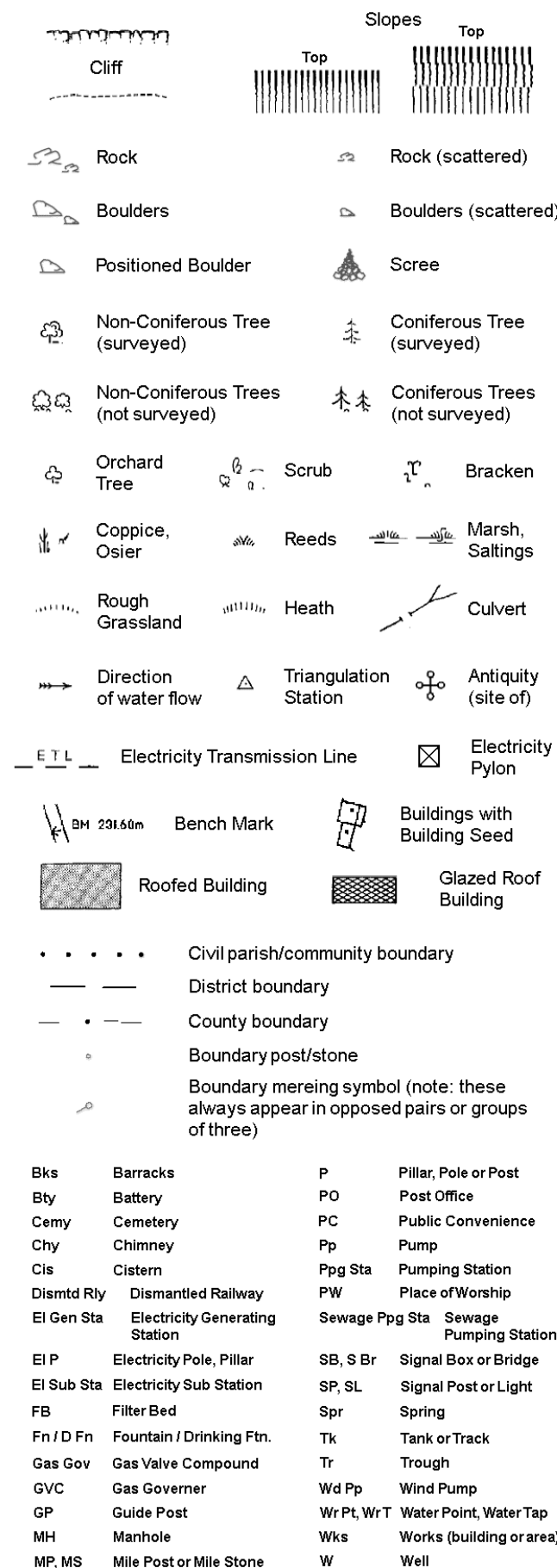
Ordnance Survey County Series and Ordnance Survey Plan 1:2,500



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



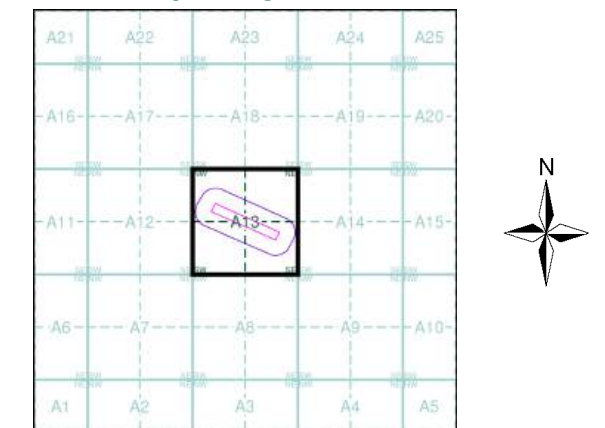
Large-Scale National Grid Data 1:2,500 and 1:1,250



Historical Mapping & Photography included:

Mapping Type	Scale	Date	Pg
Glamorganshire	1:2,500	1878 - 1882	2
Glamorganshire	1:2,500	1899	3
Glamorganshire	1:2,500	1918 - 1919	4
Glamorganshire	1:2,500	1935 - 1941	5
Ordnance Survey Plan	1:1,250	1951	6
Ordnance Survey Plan	1:2,500	1952 - 1971	7
Ordnance Survey Plan	1:1,250	1959 - 1967	8
Ordnance Survey Plan	1:1,250	1967 - 1968	9
Ordnance Survey Plan	1:2,500	1970	10
Additional SIMs	1:1,250	1979 - 1989	11
Additional SIMs	1:1,250	1987 - 1989	12
Additional SIMs	1:1,250	1989	13
Large-Scale National Grid Data	1:1,250	1993	14
Large-Scale National Grid Data	1:2,500	1993	15
Large-Scale National Grid Data	1:1,250	1994	16
Historical Aerial Photography	1:2,500	2000	17

Historical Map - Segment A13

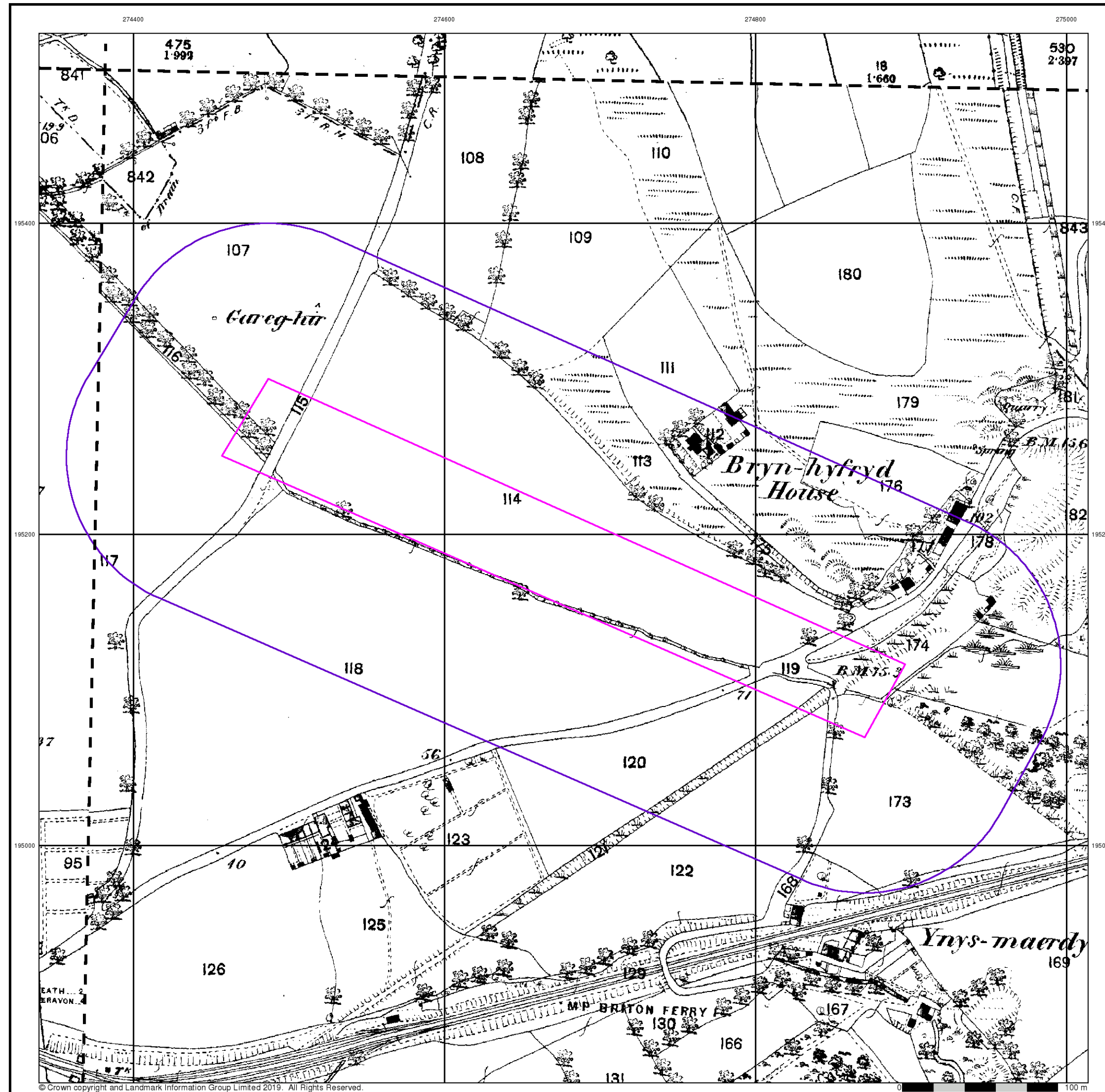


Order Details

Order Number: 222284714_1_1
Customer Ref: 5192793
National Grid Reference: 274680, 195180
Slice: A
Site Area (Ha): 2.5
Search Buffer (m): 100

Site Details

Site at 274590, 195200



Glamorganshire

Published 1878 - 1882

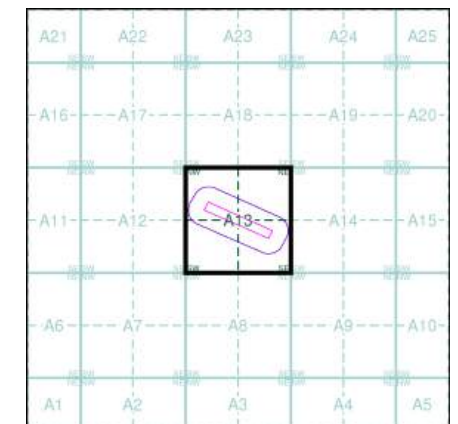
Source map scale - 1:2,500

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)

015_16 1881 1:2,500	016_13 1881 1:2,500
024_04 1882 1:2,500	025_01 1878 1:2,500

Historical Map - Segment A13

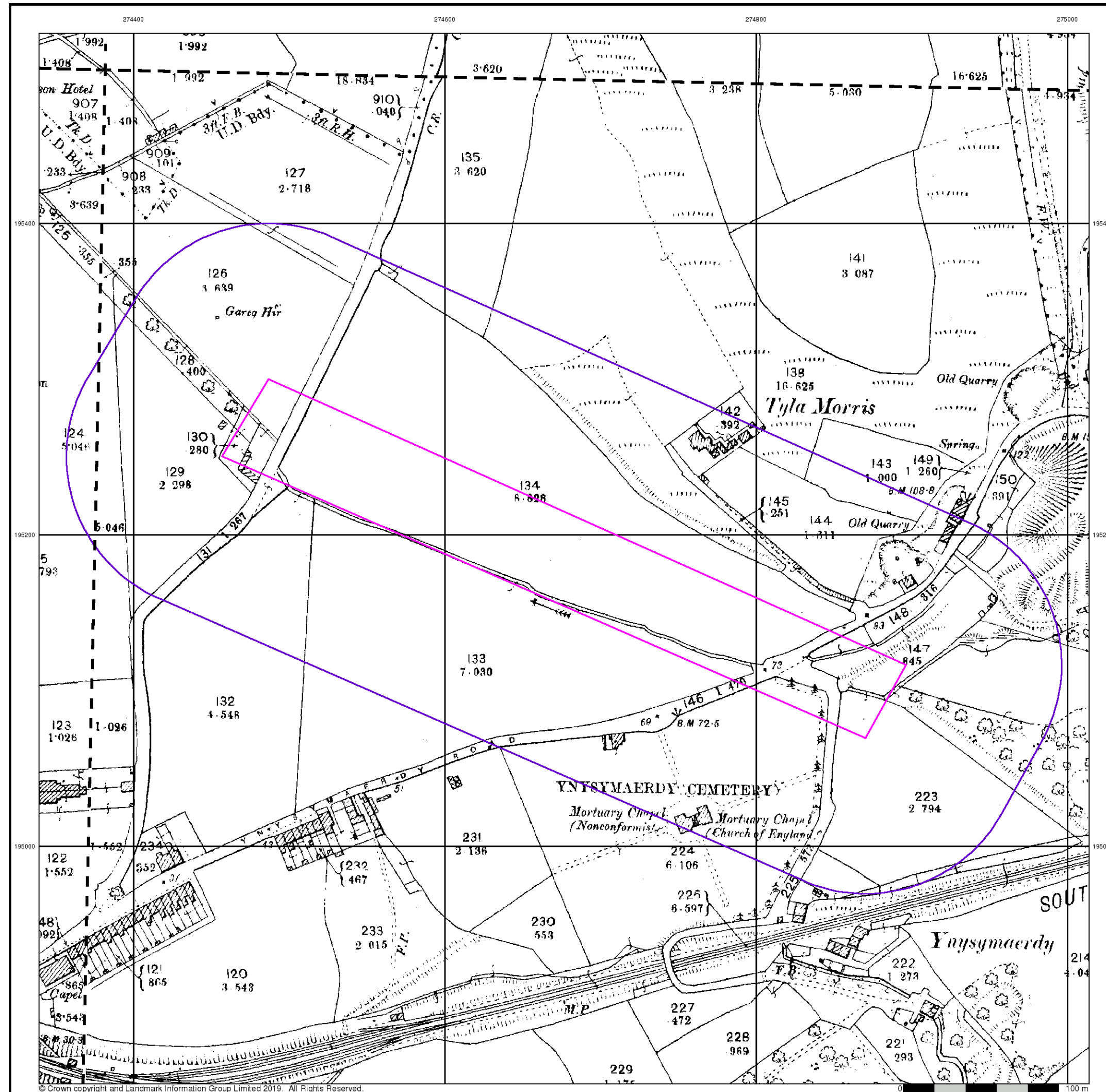


Order Details

Order Number: 222284714_1_1
Customer Ref: 5192793
National Grid Reference: 274680, 195180
Slice: A
Site Area (Ha): 2.5
Search Buffer (m): 100

Site Details

Site at 274590, 195200



Glamorganshire

Published 1899

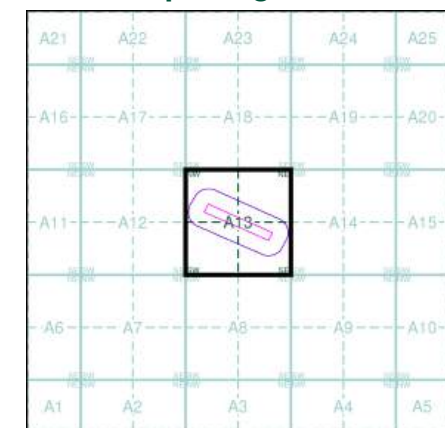
Source map scale - 1:2,500

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

Map Name(s) and Date(s)

015_16 1899 1:2,500	016_13 1899 1:2,500
024_04 1899 1:2,500	025_01 1899 1:2,500

Historical Map - Segment A13

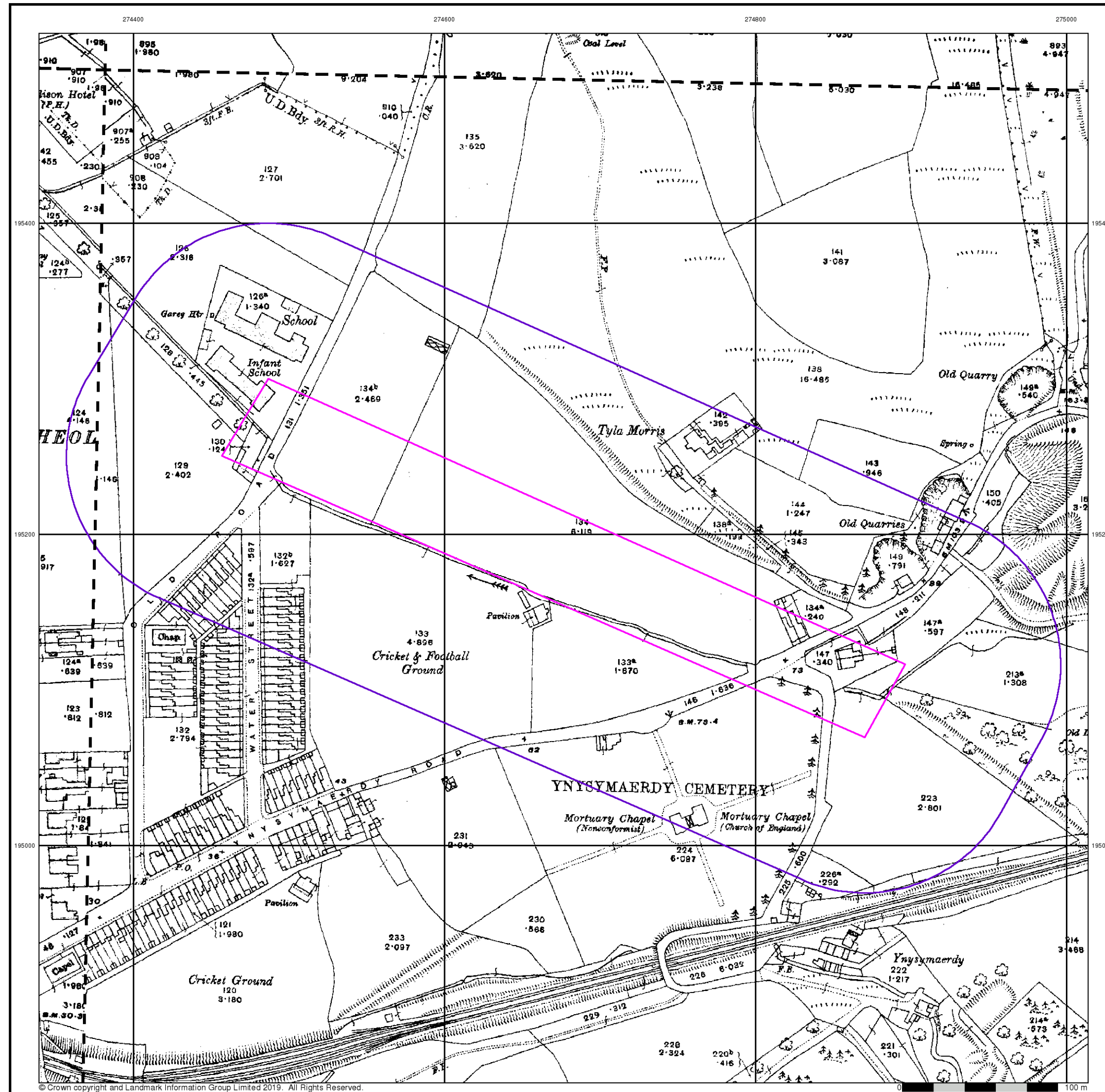


Order Details

Order Number: 222284714_1_1
Customer Ref: 5192793
National Grid Reference: 274680, 195180
Slice: A
Site Area (Ha): 2.5
Search Buffer (m): 100

Site Details

Site at 274590, 195200



© Crown copyright and Landmark Information Group Limited 2019. All Rights Reserved.

Envirocheck®

LANDMARK INFORMATION GROUP®

Glamorganshire

Published 1918 - 1919

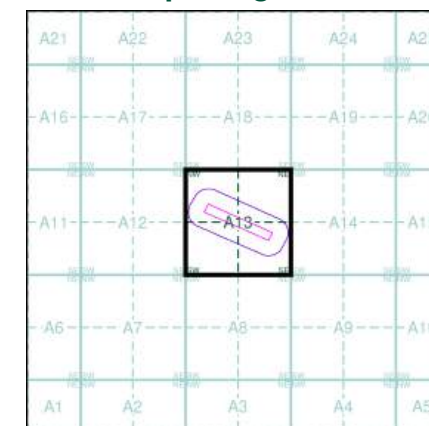
Source map scale - 1:2,500

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

Map Name(s) and Date(s)

015_16 1918 1:2,500	016_13 1919 1:2,500
024_04 1918 1:2,500	025_01 1918 1:2,500

Historical Map - Segment A13



Order Details

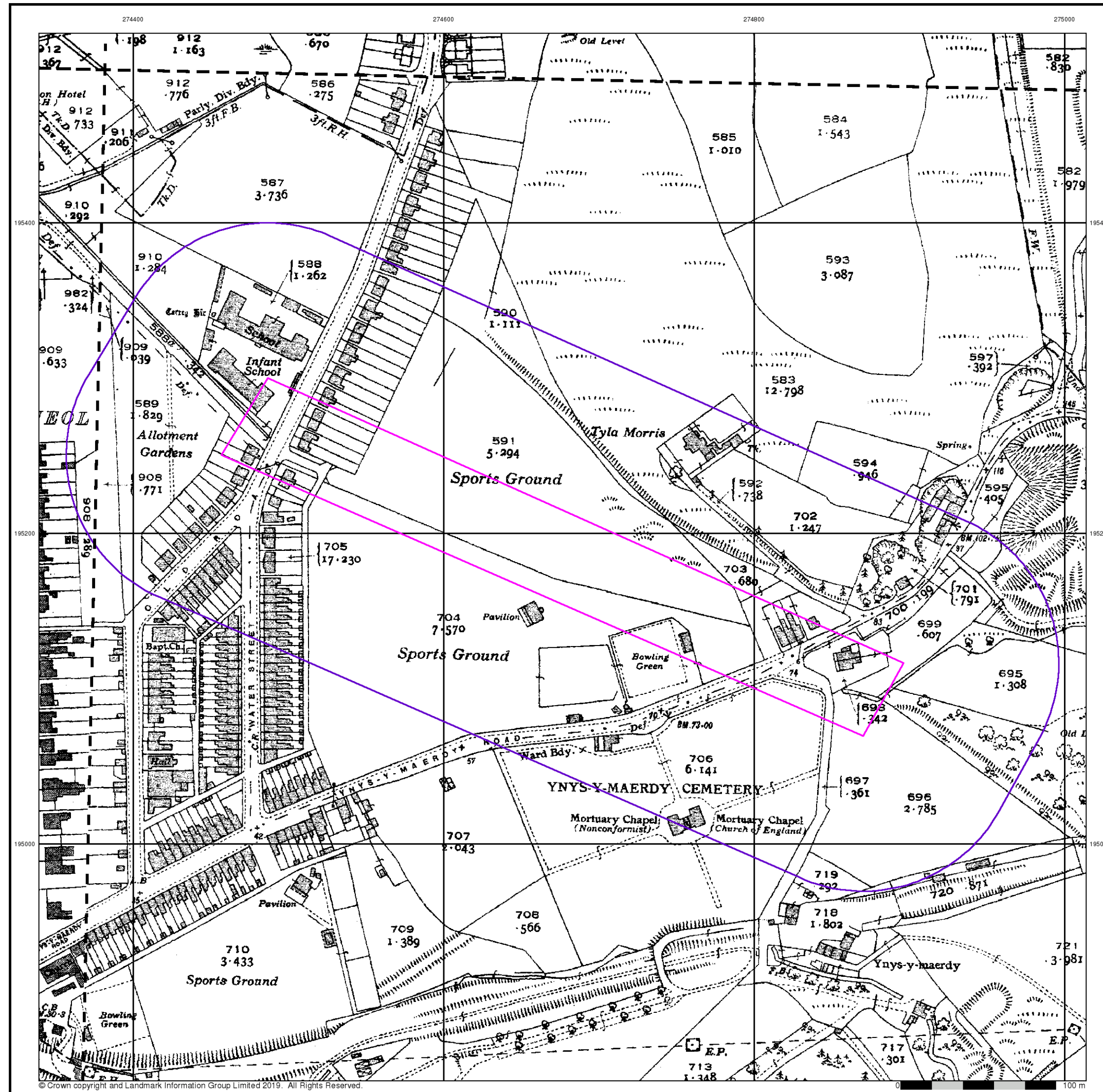
Order Number: 222284714_1_1
Customer Ref: 5192793
National Grid Reference: 274680, 195180
Slice: A
Site Area (Ha): 2.5
Search Buffer (m): 100

Site Details

Site at 274590, 195200

Landmark
INFORMATION GROUP

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



© Crown copyright and Landmark Information Group Limited 2019. All Rights Reserved.

Envirocheck®

LANDMARK INFORMATION GROUP®

Glamorganshire

Published 1935 - 1941

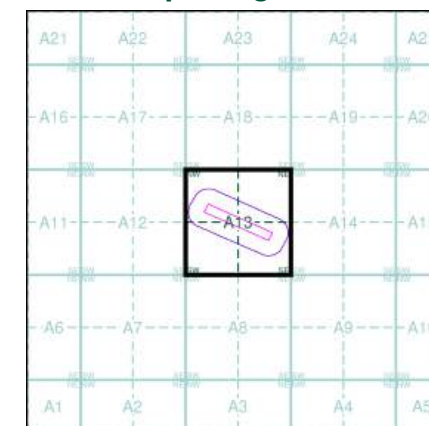
Source map scale - 1:2,500

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

Map Name(s) and Date(s)

015_16 1940 1:2,500	016_13 1935 1:2,500
024_04 1941 1:2,500	025_01 1936 1:2,500

Historical Map - Segment A13



Order Details

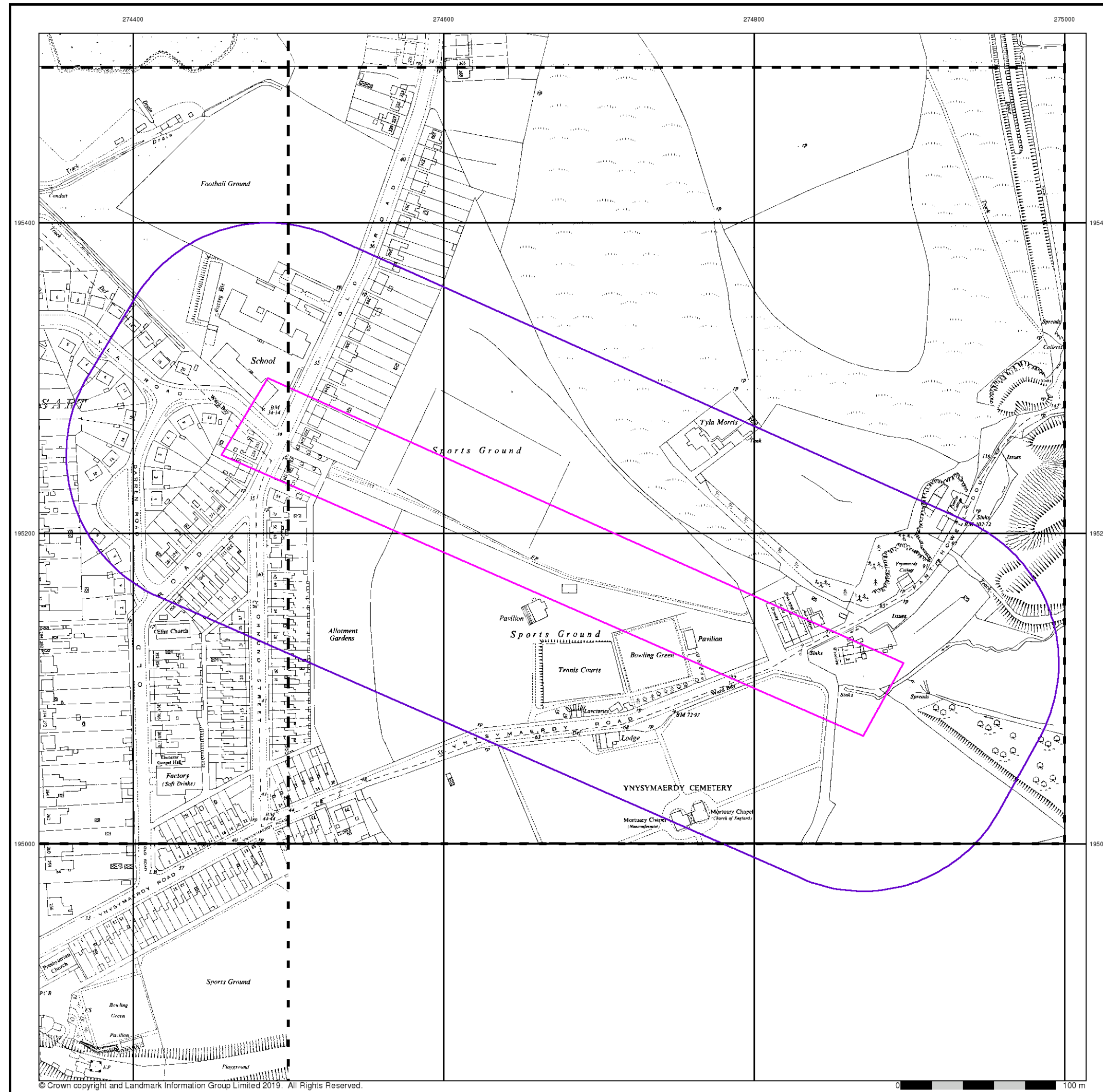
Order Number: 222284714_1_1
Customer Ref: 5192793
National Grid Reference: 274680, 195180
Slice: A
Site Area (Ha): 2.5
Search Buffer (m): 100

Site Details

Site at 274590, 195200

Landmark®
LANDMARK INFORMATION GROUP

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



Ordnance Survey Plan

Published 1951

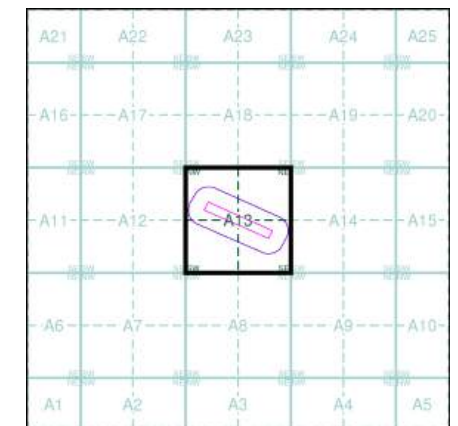
Source map scale - 1:1,250

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)

S7495NW	S7495NE
951	1951
1:1,250	1:1,250
S7495SW	S7495SE
951	1951
1:1,250	1:1,250
S7494NW	
951	
1:1,250	

Historical Map - Segment A13

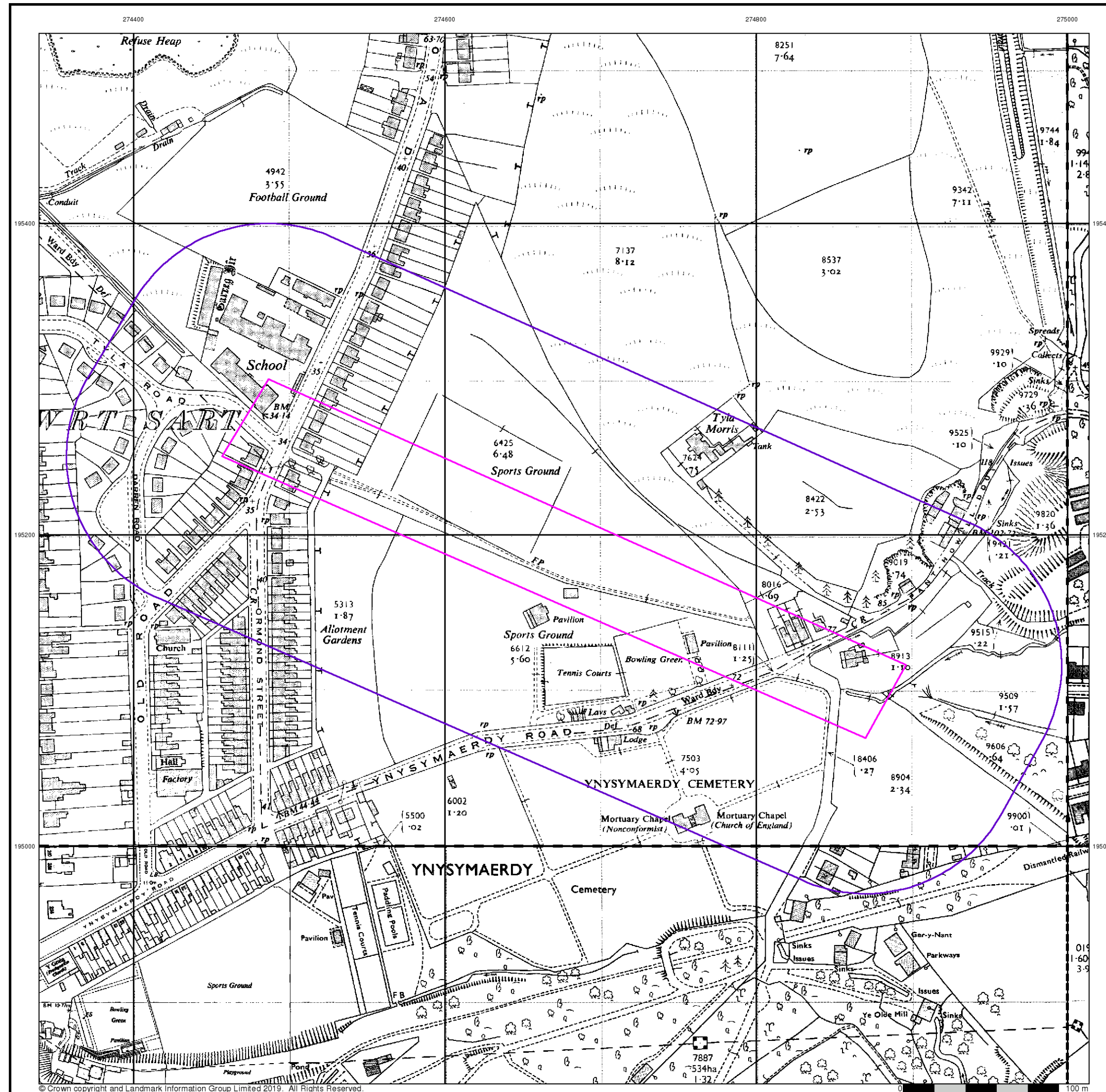


Order Details

Order Number: 222284714_1_1
Customer Ref: 5192793
National Grid Reference: 274680, 195180
Slice: A
Site Area (Ha): 2.5
Search Buffer (m): 100

Site Details

Site at 274590, 195200



© Crown copyright and Landmark Information Group Limited 2019. All Rights Reserved.

Ordnance Survey Plan

Published 1952 - 1971

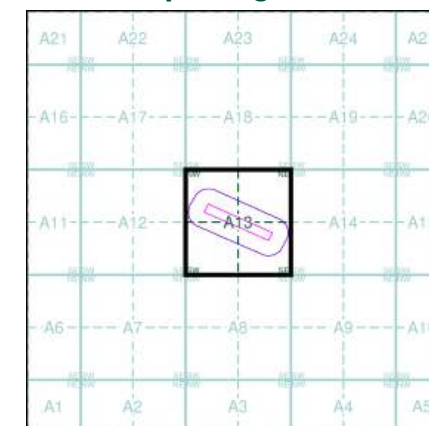
Source map scale - 1:2,500

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)

SS7495 1952 12,500	SS7595 1970 12,500
SS7494 1971 12,500	SS7594 1971 12,500

Historical Map - Segment A13



Order Details

Order Number: 222284714_1_1
Customer Ref: 5192793
National Grid Reference: 274680, 195180
Slice: A
Site Area (Ha): 2.5
Search Buffer (m): 100

Site Details

Site at 274590, 195200