ATKINS

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Caenant Terrace
Skewen Flood Alleviation Scheme

Geotechnical and Geo-Environmental Interpretive Report

Neath Port Talbot County Borough Council

17 December 2020



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1. Introduction

Atkins has been commissioned by Neath Port Talbot County Borough Council (NPTCBC) to undertake detailed design of a flood alleviation scheme located at Caenant Terrace in Skewen.

1.1. Scheme proposals Aims and objectives of the report

Caenant Terrace and the residential properties along the street has been prone to regular flooding from the open channel section of a stream north of Skewen Snooker Club and the under-capacity of the existing culvert that is located beneath Caenant Terrace. . The general area indicating water flow and subsequent flooding at Caenant Terrace is shown in Figure 1-1.



Figure 1-1 - Flood Mechanism at Caenant Terrace

From historical records and hydraulic modelling, the observed risk of flooding has been attributed to the restricted flow capacity of the culvert beneath Caenant Terrace. In addition to this, the culvert is in poor structural condition and debris causes partial blockage of the culvert.

As stated in the NPTCBC Briefing Note [1] and depicted in Figure 1-2andFigure 1-3, it is proposed to construct a new larger culvert and associated inlet structure, to address the flood risk on the upstream side. The new 1050mm culvert will run from the location of the existing 450mm culvert inlet and into the highway, turning east and running to the end of Caenant Terrace, before turning south and re-joining the existing culvert. The scope of works to be considered during detailed design of the preferred option is presented below:

- A trench excavation within the highway at Caenant Terrace, in which a new 1050mm culvert will be laid.
- A new culvert inlet and headwall will be constructed at the same location as the existing inlet, with a trash screen.
- The existing 450mm diameter culvert will be retained to permit existing property drainage, but the upper 10m will be capped to remove the connection to the watercourse.

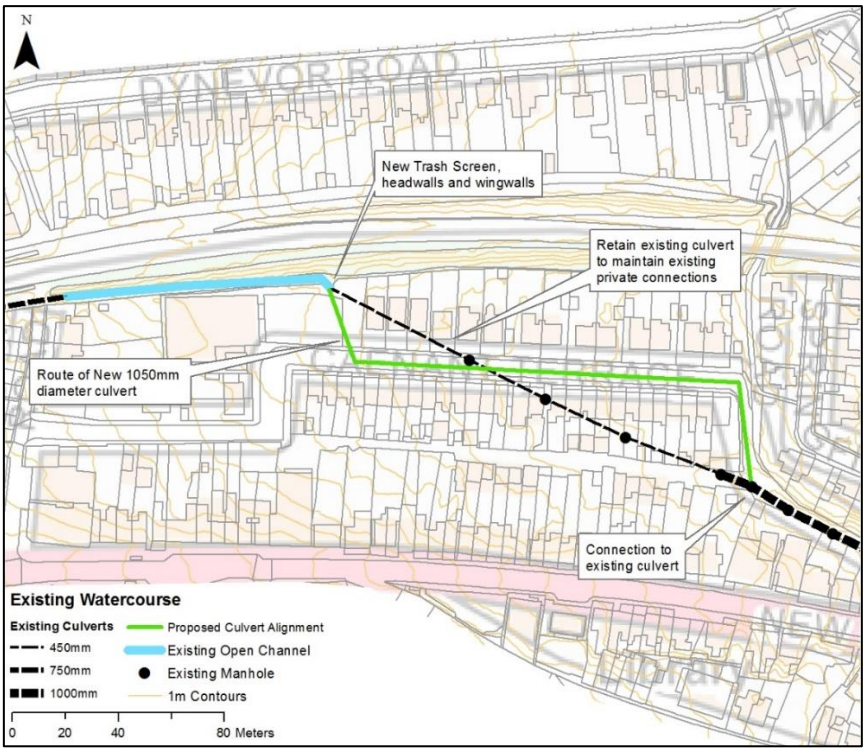


Figure 1-2 - Key Plan of Proposed Works

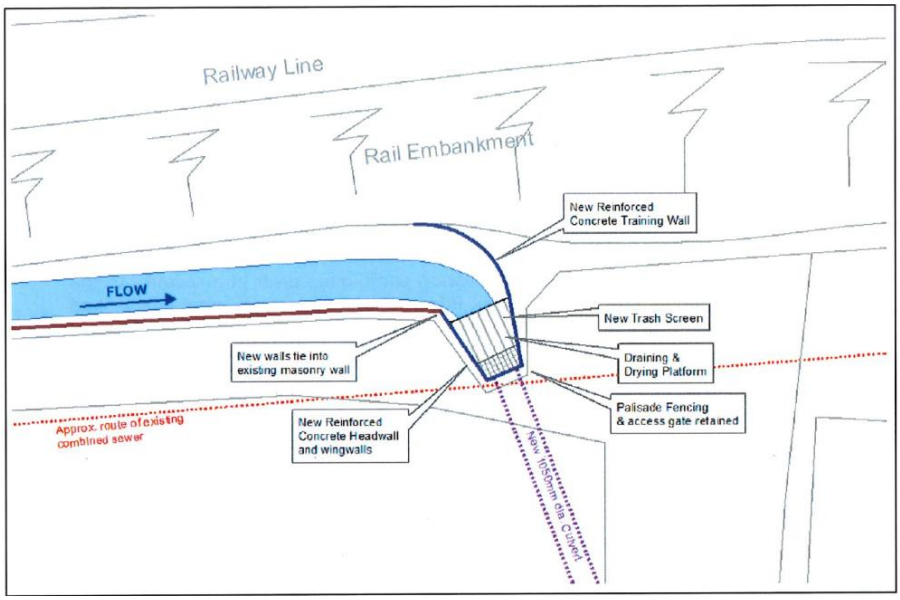


Figure 1-3 - Proposed Trash Screen and Inlet Arrangement

1.2. Aims and objectives of the report

This report aims to:

- Present the site setting
- Report the findings of a ground investigation undertaken in September 2020
- Provide an interpretation of the data and present the ground model

- Present the geotechnical design
- Present the geotechnical risk register
- Provide a land contamination assessment

2. Sources of Information

The sources of information relevant to the site are listed below in Table 2-1. These sources have been used to provide information on the site history and anticipated ground conditions and to assess the likely geotechnical and geo-environmental risks to the design and construction phases of the project.

Table 2-1 - Sources of Information

Topic	Type	Reference and Additional Comments	Author / Publisher
Mapping / Aerial Photography	Ordnance Survey Mapping and Aerial photography	Envirocheck Report [2]	Landmark Information Group
UXO	Map and site assessment	Zetica Unexploded Ordnance (UXO) Risk Map [3] Zetica UXO Pre-Desk Study Assessment [4]	Zetica
Geology	Maps	British Geological Survey (BGS) 1:50,000 sheet 247 Swansea [5] BGS Geoindex Onshore [6] BGS Lexicon of Named Rock Units [7] Envirocheck Report [2]	BGS Landmark Information Group
Hydrology	Maps	NRW Interactive Map of the Natural Environment [8] NRW Lle Map Browser [9]	Natural Resources Wales
Mining and Quarrying	Maps	Envirocheck Report [2]	Landmark Information Group
	Report	CON29M Coal Mining Report [10]	Coal Authority

3. Site Description

3.1. Introduction

The site is located on and surrounding Caenant Terrace in Skewen, South Wales, SA10 6UP in the Neath Valley as shown in Figure 3-1. The site is surrounded by residential as well as commercial buildings. It lies to the north of A4230 New Road. The South Wales Mainline railway runs along the northern boundary of Caenant Terrace. Skewen snooker club is located towards the western end of Caenant Terrace. The Ordnance Survey national grid reference for the centre of the site is SS 72756 97498.

The site is approximately 160m in length and comprises of an asphalt paved residential street with two storey terraced residential properties to the south and detached bungalows to the north. At the eastern extent of the site, Caenant Terrace turns southwards as a concrete surfaced single carriageway. The Skewen snooker and social club and an adjacent gravel surfaced car park is located in the north-western section of the site.

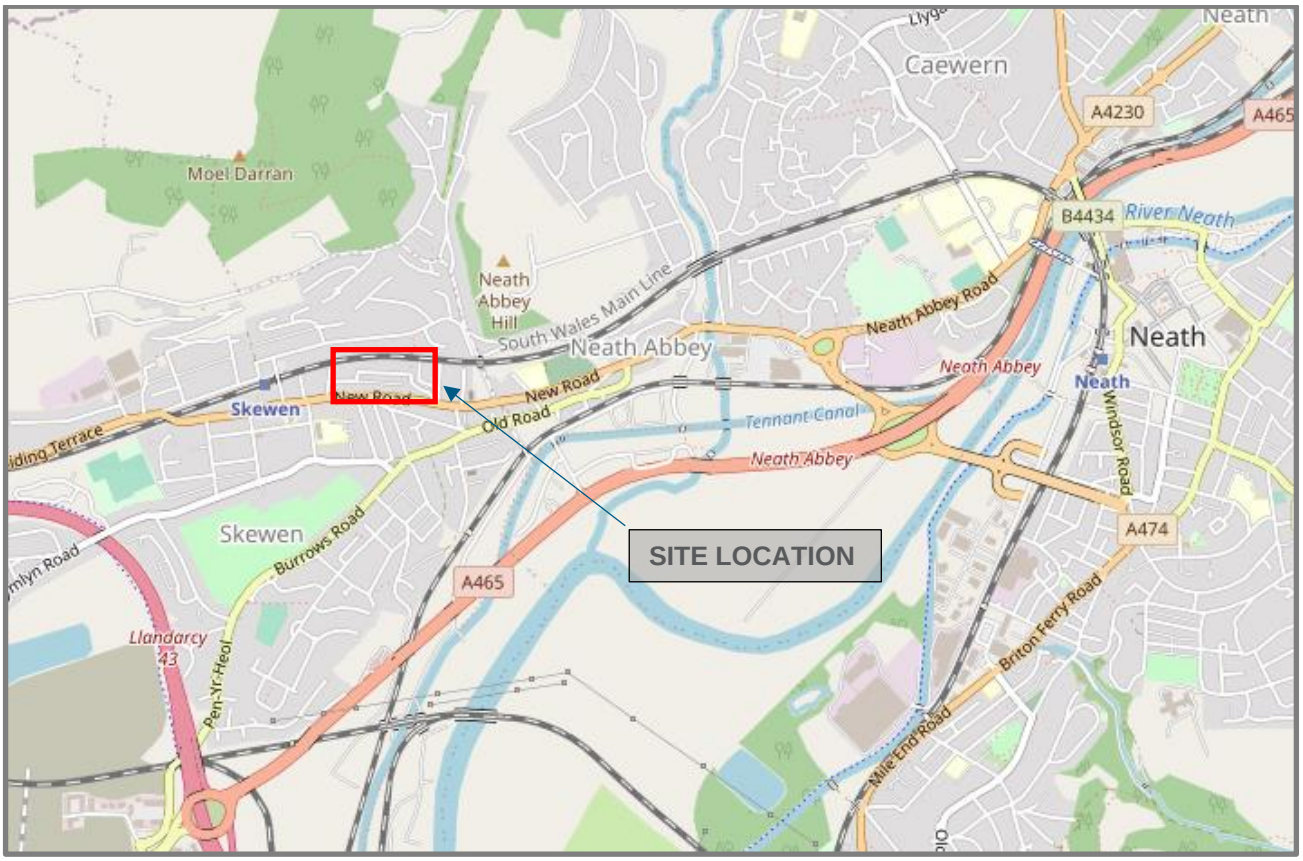


Figure 3-1 - Proposed Site Location (©OpenStreetMap Contributors)

A small watercourse drains from the southern side of the hills at Drummau Fach, flowing southward beneath Drummau Road before entering a culvert which drains beneath Graham Terrace and discharges into an open channel along the northern boundary of the railway adjacent to Brookville drive. Near the Skewen Railway station, the stream re-enters a culvert and flows beneath the railway, re-emerging in an open channel to the south of the railway just to the west of Skewen Snooker Club on Caenant Terrace. The open channel then flows south of the Railway Line, known as Caenant Brook, which goes into culvert to the east of Skewen Snooker Club. The culverted watercourse then flows in a south-easterly direction under Caenant Terrace towards A4230 New Road.

The general topography is such that it slopes down from west to east, with an average elevation of 40m Above Ordnance Datum (AOD) towards the west to 35m AOD towards the eastern side.

3.2. Site History

Key notable land use developments of the site and surrounding area within a 500m radius, indicated in historical mapping provided in the Envirocheck Report, are summarised in Table 3-1. The full Envirocheck report can be found in Appendix D.

Table 3-1 - Summary of Historical Development

Map date and scale	On Site Features	Off-site Features
1876-1881 1:2500	The site is occupied by open land. A watercourse crossed the site from north-west to south-east; land north and south east of the watercourse is occupied by marshland. .	The Great Western Railway is located adjacent to the north of the site, orientated east / west. Gardens of residential properties are located adjacent to south of the site. An unnamed east/west orientated road is located 42 m south of the site (current A4230). A spring is located at “Mount Pleasant”, 122 m north of the site and approximate 175 m south of the site. The surrounding area generally comprised residential and commercial properties in the town of Skewen to the south and farmland / wooded areas to the north.
1884 1:10560	No notable change.	No notable change.
1899 1:2500 1900 1:10560	No notable change.	Residential properties had been developed adjacent to the west of the site. A school had been developed 150 m south-west of the site. A quarry was located 290 m south, 280 m north-east and 500 m north of the site A smithy was located 330 m south of the site.
1918 1:2500	Development of Caenant Terrace and adjacent residential properties had begun in the centre of the site. The former watercourse is no longer shown and is likely culverted. A picture theatre is shown along the western boundary.	Further residential development had taken place to the north and west. An unnamed rectangular structure had been developed adjacent to the west of the site. The smithy and quarry to the south were not present. A “mineral railway”, orientated north-west / south-eats, was located 200 m east of the site. A railway station was present 250 m west of the site. A colliery including two identified shafts and branch lines was located 215 m north-west of the site.
1921 1:10560	No notable change.	No notable change.
1938-1940 1:10560	No notable change.	No notable change.
1940 1:2500	Further development of residential properties had occurred along Caenant Terrace. A square building	Further residential development had taken place to the north.

	was located in the north-west of the site (current Snooker Club).	Branch lines associated with the colliery to the north-west had been removed. The mineral railway tracks to the east had also been removed with residential development in place.
1945 1:10560 Aerial Photograph	No notable change.	The quarry 500 m north had expanded.
1951-1952 / 1952 1:1250 1:10,560	Further development of residential properties had occurred along Caenant Terrace (equivalent to current layout).	The quarry 280 m north-east was not present.
1962-1970 1:1250 1965 1:10,000	Further development of residential properties had occurred along Caenant Terrace (equivalent to current layout). Club and Hall shown at the western extent of the site.	No notable change.
1962-1989 1:1250	No notable change.	British Legion Club shown immediately west of the site.
1970 1:10,000	No notable change.	No notable change.
1970-1974 1:1250	No notable change.	Residential development had taken place on the colliery 215 m north-west.
1980 1:10,000	No notable change.	The quarry, 500 m was disused; 'tips' were located within the quarried extent.
1986-1989 1:1250	No notable change.	A garage is located 60 m south-west of the site.
1992 1:10,000	No notable change.	No notable change.
1993 - 2000 1:1250	No notable change.	No notable change.
2006 1:10,000	No notable change.	The quarry, 500 m is identified as wooded.
2019 1:1000	No notable change.	No notable change.

3.3. Geology

This section describes the geology of the area in and around the proposed site. The geology of the area is summarised from the BGS 1:50,000 Sheet 247 Swansea [5, 6] and Envirocheck report [2]. The superficial and bed rock geology is presented in Appendix B.

3.3.1. Made Ground

An area of recorded Made Ground is identified approximately 200 m to the north-west of the site, covering the area of Oak Hill Park and the adjacent open space to the north. Further Made Ground is anticipated to be present across the site associated with development of the existing residential properties and carriageways.

3.3.2. Superficial Deposits

Superficial Deposits at the site comprises Glacial Till. The Glacial Till is anticipated to comprise sandy clay with gravels.

3.3.3. Bedrock Geology

The site is underlain by Sandstone of Hughes Member Group. As per BGS, Hughes Member is described as '*Green-grey, lithic arenites ("Pennant sandstones"), with thin mudstone/siltstone and seat earth interbeds, and mainly thin coals*.'

3.3.4. Structural Geology

Three faults are shown in the area, the closest is approximately 500m east of the site which trends north to south. from the site.

3.4. Existing Ground Investigation Data

3.4.1. BGS Borehole Records

No historical BGS exploratory holes are present close to the site. The BGS online maps report two historical exploratory holes (SS79NW262 and SS79NW68) approximately 400m northwest from the site and three historical exploratory holes (SS79NW98, SS79NW102, SS79NW103) approximately 600m southeast. These exploratory holes are considered to be too far from the site and unlikely to reflect the ground conditions on site.

3.5. Coal Mining

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

Table 3-2 – Coal Authority Report Summary

Coal Mining Activity/ Hazard	Description
Underground coal mining	The coal mining report from the Coal Authority [10], provided as Appendix F, states that the site is in a surface area that could be affected by underground mining in one seam of coal at 100m to 110m depth and last worked in 1912. Presently, the site is not within a surface area that could be affected by underground mining. Also, 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 20m 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 200m 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 50m 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.

3.6. Radon Affected Areas

The site is in a lower probability radon area (less than 1% of homes are estimated to be at or above the Action Level). Even though radon potential is reported on site (Quadrant Ref: A13NE(S)), it is mentioned that no radon protective measures are necessary in the construction of new dwellings or extensions.

3.7. Active Trades

A summary of historical and active trades registered on the site and in the surrounding area within 250 m of the site which may potentially give rise to contamination which may affect the site is provided below:

- On-site - motor garage / MOT testing centre located on site (active trade);
- Off-site 10 m west – motor garage (historical trade);
- Off-site 60 m south-west – motor garage (historical trade);
- Off-site 144 m west – laundry (historical trade);
- Off-site 180 m west – motor garage (active trade); and,
- Off-site 250 m south – motor garage (active trade).

3.8. Unexploded Ordnance

Zetica has produced freely available risk assessments [3, 4] indicting the potential risk of air dropped World War 2 unexploded ordnance (UXO) to be present on the site. The map 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 ground ordnance or non World War 2 derived ordnance.

The Zetica risk map and Pre-Desk Study Assessment (PDSA) for the site are provided in Appendix E.

3.9. Hydrogeology

With reference to the BGS onshore GeoIndex [6] and the Envirocheck report [2], the Glacial Till is classified as a Secondary Undifferentiated Aquifer. The Pennant Sandstone Formation is classified as a Secondary A Aquifer. The site is not located on, or within 1km of, a groundwater source protection zone.

Ordnance Survey mapping indicates a number of springs in the surrounding area which may indicate shallow groundwater.

3.9.1. Licenced Groundwater Abstractions

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

3.10. Hydrology

With reference to the Natural Resources Wales online flood map [8], Lle map browser [9] and the Envirocheck report, the nearest surface water feature is a culverted unnamed on-site watercourse flowing to the south-east. The Tennant Canal is located 440 m to the north-east. The Clydach River is 750 m east, flowing south into the River Neath. The River Neath, located 775 m south-east of the site, flows south towards the Bristol Channel.

The site is located in flood zone 1 which is defined as an area with a low risk of flooding from rivers with a less than 0.1% (1 in 1000) probability of flooding annually. The area immediately surrounding the existing culvert is assessed as having up to a high risk of flooding from surface water.

3.10.1. Abstractions

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

3.10.2. Discharge Consents and Pollution Incidents

There is one discharge consent located 5 m north of the site related to storm tank overflow to the rear of 38 Caenant Terrace to surface water. There are no further discharge consents located up hydraulic gradient of the site.

There is one recorded pollution incident located 85 m west, up hydraulic gradient of the site, related to a category 3 minor incident in 1991; no information on the contaminant or receiving watercourse is provided in the record.

3.11. Statutory Designations

Areas of Ancient Woodland are located to the north of the site, the nearest areas to the site are located 230 m north-west, 290 m north-east and 300 m east.

3.12. Waste

Envirocheck records [2] indicate a historical landfill site is located approximately 480 m east of the site at Neath Abbey Refuse Site; there are no details of the waste type received or the dates of operation.

Potentially infilled land within 500 m of the site, not recorded or licenced as a historical landfill, is located 130 m north-west, 279 m south, 336 m east, 416 m north-east and 474 m north of the site. No details are available relating to these areas, but they may be associated with infilling of historical pits or quarries.

4. Field Work

4.1. Ground Investigations

A ground investigation was designed by Atkins and carried out by Quantum Geotech between the 1st and 10th September 2020. The objective of the ground investigation was to obtain geotechnical and geo-environmental information for the proposed development. The ground investigation comprised:

- 2 no. Windowless Sampled boreholes to a target depth of 8mBGL (Prefix CT-BH)
- 7 no. Hand Excavated Pits / Trenches to a depth of 1.2mBGL (Prefix CT-HP)
- 2 no. surface water samples
- In-Situ Testing
- Ground Penetrating Radar Survey to identify underground services.
- Geotechnical and geo-environmental laboratory testing.

A plan indicating the position of all exploratory hole positions is presented in Figure 4-1 below.

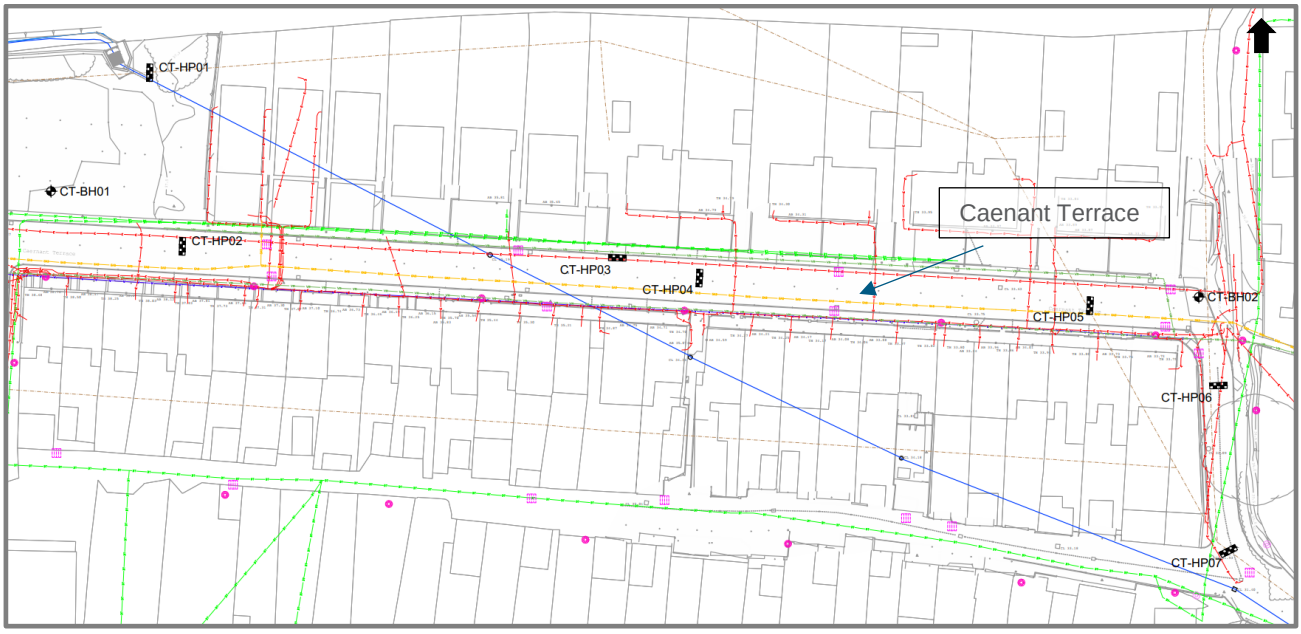


Figure 4-1 - Exploratory Hole Plan

The ground investigation was supervised full time by an Atkins Geotechnical Engineer. The ground investigation was undertaken to:

- characterise the nature and thickness of any Made Ground, Superficial Deposits and depth to solid geology underlying the site;
- provide groundwater and soil samples for in-situ and laboratory geotechnical and geo-environmental testing; and
- characterise the groundwater regime;
- Identify and prove locations of existing services

4.1.1. Factual Report

A copy of the factual report produced by Quantum Geotech is included in Appendix G.

Both window sample boreholes WS01 and WS02 refused on hard ground at 3.30 and 3.45m respectively.

4.1.2. Summary of In-situ testing

Standard Penetration Testing (SPTs)were undertaken in the boreholes through the full depth. The results are included in the factual report in Appendix G.

4.1.3. Summary of Geotechnical Laboratory testing

. A summary of tests undertaken can be seen below in Table 4-1. Results of the Geotechnical laboratory testing can be found in the factual report in Appendix G

Table 4-1 - Summary of geotechnical laboratory testing

Test Type	Strata	Depth (mBGL)	Number of tests
Moisture content	Alluvium	2.20	1
	Till	1.60 - 3.10	2
Atterberg Limits	Alluvium	2.20	1
	Till	1.60 - 3.10	2
Particle size distribution	Till	1.60 – 3.10	2
BRE SD1	Made ground	1.80	1
	Alluvium	2.00	1
	Till	1.10	1

4.1.4. Summary of Geo-Environmental Testing

A summary of Geo-Environmental testing undertaken on samples taken from the Ground Investigation can be seen below in Table 4-1

Table 4-1 - Summary of Geo-Environmental Testing

Testing	Number of Tests
Suite E (Soil Samples Schedule S1.20.3)	12
Suite D (Brownfield site pyrite present)	3
Suite F (Leachate Samples Schedule S.20.3)	12
Suite H (Water Samples Schedule S.1.20.3)	2

5. Ground Summary

5.1. Ground Model

A ground model has been developed for the site based on desk study and ground investigation information. The ground model is presented in Table 5-1.

Table 5-1 - Ground Model

Layer No.	Geology	Typical thickness (m)	Depth to top (m bgl)	Depth to base (m bgl)	Approx. Top of unit (m AOD)	Description
1	Asphalt	Min – 0.06 Max 0.12	0.00	Min – 0.06 Max 0.12–	34.8	Wearing Course
2	Made Ground*	Min – 0.7 Max – 2.3	Min – 0.06 Max – 0.12	Min – 0.9 Max – 2.3	34.7	Grey, brown and black slightly sandy gravelly silty CLAY. Gravel is fine to course angular limestone (SUB-BASE). Sub rounded brick, clinker and sandstone.
3	Alluvium	Min – 0.9 Max – 1.4	Min – 0.9 Max – 1.9	Min – 2 Max – 3.3	34.2	Stiff grey very sandy SILT with many wood fragments. Sand is fine. Stiff grey gravelly CLAY (Alluvium).
3	Glacial Till	>2.55	Min – 0.90 Max – 3.10	Not proven	32.54	Stiff to very stiff grey very gravelly locally very sandy CLAY. Gravel is subrounded to rounded fine to coarse

*Depending on location, plastic ducting maybe encountered associated with the utilities presented in the map in Appendix A. Till and Alluvium was differentiated on the basis of consistency, gravel content and organic content. WS02 returned no recovery between 2.00m and refusal of the borehole at 3.45m. Based on SPT values recorded with in the no recovery section of the borehole it is considered that no strata changes occurred between these depths. Both boreholes refused at similar depths indicating either a consistent strengthening of the Glacial Till with depth or a change in strata.

Though the no Alluvium was recorded on the BGS mapping, the material considered Alluvium in Table 5-1 was due to the strength of the deposits and no presence of gravels and cobbles. A 1.20m thickness of Alluvium was unidentified in WS01 and is likely present due to the local proximity of the nearby water course. No Alluvium was identified within WS02; this is possibly due to removal either during the construction of the adjacent houses or the construction of the railway underpass located at the north western corner of the site and linking to Caenant Terrace by a slightly raised footpath at the eastern end of the road.

5.2. Standard Pentration Testing

The results of the in-situ tests conducted during the drilling of the boreholes is presented in Table 5-2 below:

Table 5-2 - SPT Results

Test Type	Stratum	Hole Reference	Depth (m bgl)	N Value
Standard Penetration Test	Made Ground	WS01	1.00	20
	Alluvium	WS01	2.00	17
		WS02	1.20 (possible zone of mixing)	12
	Glacial Till	WS01	3.00	27
		WS01	3.30	85*
		WS02	2.00	17
		WS02	3.00	26
		WS02	3.45	61*

*Value extrapolated from SPT blow count at refusal

5.3. Groundwater

5.3.1. Summary of Results

Groundwater was encountered in one borehole (WS02) and four trial pits (HP01, HP04, HP05 and HP07). It is likely, however that the majority of water encountered withing the hand excavated pits/trenches was either surface run off or perched water associated with site proven defective highways drainage. Table 5-3 summarises the groundwater strikes recorded on the exploratory hole logs and the stratum at which the strike was encountered. Inflow depths observed in the hand excavated pits/trenches were approximated and recorded from the shallowest evidence of water seepage to ground level. The groundwater levels presented are subject to diurnal, seasonal and climatic variation.

Table 5-3 - Groundwater level

Hole ID	Groundwater Strike		Stratum
	m bgl	m AOD	
WS02	1.00(rose to 0.64m)	32.44(rose to 32.9)	Made Ground
HP01	1.9 *	35.73	Made Ground
HP04	1.1*	32.78	Made Ground
HP05	1*	32.33	Made Ground
HP06	0.73*	32.67	Made Ground
HP07	1.5*	30.96	Made Ground

*Most likely water from perched water table or broken highways drainage leaking in to made ground.

5.4. Contaminated Ground

No visual evidence of non-aqueous phase liquids (NAPL) were reported during the site investigation. Visual evidence of contamination within the soil comprised clinker and fragments of brick. There was no olfactory evidence of contamination reported from the site investigation. A summary of visual evidence of contamination within soils is presented in Table 5-4.

Table 5-4 - Contaminated Ground Evidence

Exploratory Hole Location	Depth (m bgl)	Strata	Visual Evidence of Contamination
HP01	0.00 – 1.20	Made Ground	Fragments of glass, brick and concrete
HP02	0.00 - 0.75	Made Ground	Plastic ducting associated with utilities
HP03	0.40 – 1.10	Made Ground	Clinker
HP04	0.00 – 1.10	Made Ground	Plastic ducting and electric warning tile associated with utilities
HP05	0.00 – 1.20	Made Ground	Plastic ducting associated with utilities
WS01	0.00 – 1.70	Made Ground	Brick and clinker
WS01	0.26 – 0.90	Made Ground	Brick and clinker

More detailed descriptions of the contaminated ground can be seen in the exploratory hole logs in Appendix G.

6. Ground Conditions and Material Properties

This section reports on an evaluation of the ground conditions and material parameters based on information obtained during the ground investigation in order to inform detailed design and to identify key geotechnical risks.

6.1. Made Ground

Made Ground was encountered in all seven hand excavated pits/trenches and two boreholes, ranging from 0.7m thick to 2.3m thick and has been described as sandy silty gravelly clay. The base of the Made Ground varies from 30.9m AOD to 35.8m AOD. The proposed pipe invert will generally be between 2.5m to 2,7m bgl. Therefore, given the thickness and variability of the Made Ground it has been discounted for use as an engineering material or fill within this report.

6.2. Alluvial Deposits

Alluvium was encountered in borehole WS01 and hand excavated trench HP03. A possible zone of Alluvial /Glacial Till mixing was identified in WS02. Although not logged as a separate unit, the strata is described as becoming gravelly below 1.5mBGL. It is likely the material between the base of the Made Ground and 1.5m is a mixture of alluvial silty clay and stiffer Glacial Till. The lack of organic fragments as seen in WS01 reduces confidence in separating these two descriptions into separate units. The Alluvium has been described as firm to stiff very sandy SILT and CLAY with frequent fragments of wood.

Classification

One moisture content test was carried out on the Alluvium. The results indicated a moisture content of 24%.

One Atterberg Limit test was undertaken on the Alluvium The results indicate a Plasticity Index of 12%, a Liquid Limit of 28% and a Plastic Limit of 12%. The results indicate the Alluvium to be clay of low plasticity.

No Particle Size Distribution Testing was undertaken within the Alluvium.

1no. SPT was undertaken within proven Alluvium strata. This returned an N value of 17 which has been used to derive parameters below.

Unit Weight

Due to the presence of organic material within the Alluvium, it is likely the unit weight will be variable throughout the strata. Based on a typical description of stiff clay and guidance given in BS8002 [11], a unit weight of 18kN/m^3 is recommended.

Undrained Shear Strength (c_u)

No tests were carried out to directly determine undrained shear strength (c_u). Stroud's [12] correlation with can SPT N has been used to estimate a c_u value using a Plasticity Index of 12%. This indicates an f_1 of 5.2 (taken form C504 [13]). Based on this and the only SPT N value undertaken in the strata of 12 indicates a c_u of 62.4kPa. This is considered high for Alluvium; therefore, based on engineering judgement and previous experience a c_u of 50kPa is recommended.

Effective Stress

No testing was carried out to determine effective stress parameters, Guidance set out in BS8002 [11] has been used to estimate the effective angle of shearing ($\varphi'_{cv,k}$) as follows:

$$\varphi'_{cv,k} = (42° - 12.5log_{10} I_P)$$

Using the equation above indicates a $\varphi'_{cv,k}$ of 29°, which is considered appropriate for the Alluvium.

As no test data is available an effective cohesion (c') of 0kPa is recommended.

Compressibility

No testing has been carried out to determine the modulus of volume compressibility (M_v) has been derived using Stroud's [12] correlation with Plasticity Index and SPT N. A Plasticity Index of 12% indicates a f_2 of 0.7; using this and an SPT N of 12 indicates an M_v of 0.12m^2/MN.

Youngs Modulus (E_u)

No tests were carried out to determine E_u. Using correlation with M_v set out in CIRIA R143 [14] E_u is estimated to be 8MPa.

Poisson's ratio (v)

No Laboratory tests were undertaken to be able to determine Poisson's ratio; however Tomlinson [15] suggest a typical Poisson's ratio for silty clays is between 0.2 and 0.3. Due to the borderline cohesive/granular nature of the Alluvium representative value of 0.3 is recommended for design.

6.3. Glacial Till

Till (Glacial till) was encountered in both windowless sample boreholes below approximately 3mBGL. Due to the composition of the Till being both stiff and consisting of large diameter gravel and cobbles progression of the borehole using window sample techniques was limited. On refusal of the sample barrel an SPT was undertaken at the base of each the open hole to allow for an approximate strength to be obtained. Both final SPT's refused on what is assumed to be cobbles/boulders resulting in the values being considered misrepresentative of the strata as a whole. The limited recovery of Till was logged as stiff grey very gravelly CLAY. Gravel is fine to coarse sub-rounded sandstone.

Material properties have been taken from the Quantum Factual report where possible and where not, derived and interpreted from laboratory data, in-situ testing and published information.

Classification

Moisture content and Atterberg Limit tests were undertaken on two samples of Till. The sample taken at 1.60m in WS02 although not logged as Till is assumed to be a zone of mixing between the overlying possible alluvial material and the underlying proven Till. This strata is logged as having an increasing gravel content below 1.50m which is assumed to be the top of the identified till. Both samples taken returned low moisture content values of 6% and 9% respectively and similarly low plasticity index values of 19% and 13%. It should be noted that the higher Plasticity Index value of 19% (seen in the sample taken from proven Till in WS01) returned the lowest moisture content of 6%

Two PSD tests were undertaken on samples of Glacial Till. Both samples tested exhibit fines percentage values greater than 35% (WS01 and WS02 42% and 41% respectively) indicating the material should be classified as cohesive. Details of the different fractions passed can be seen in Table 6-1 below.

Table 6-1 - PSD summary for Till

BH (Depth)	Total Passing (%)			
	Gravel	Sand	Silt	Clay
WS01 (3.10m)	16	42	29	13
WS02 (1.60m)	23	36	26	15

Five Standard Penetration Tests were undertaken in the Till material. Two of these tests were undertaken within the 'No Recovery' zone in WS02. As mentioned previously this zone and a portion of the overlying strata have been assumed to be Till or a zone of mixing between the overlying alluvium and the Till. The SPT N values within this zone range from 17 (consistent with the overlying material) to 28 (consistent with the underlying Till) as such the lower value SPT N value of 17 has been disregarded as non-representative.

For design purposes the two SPT's undertaken at the base of each hole have also been disregarded due to their high blow count and low penetration. These tests were likely undertaken on a cobble or boulder and

therefore are not representative of the soil mass. A summary of the SPT's taken forward for design purposed are detailed in Table 6-2 below.

Table 6-2 - SPT's in Till

Borehole (depth)	SPT N value
WS01 (3.00)	27
WS02 (3.00)	28

Unit Weight

Based on a typical description of stiff clay and guidance given in BS8002 [11], a unit weight of 18kN/m^3 is recommended.

Undrained Shear Strength (c_u)

No tests were carried out to determine c_u. Stroud's [12] correlation with can SPT N has been used to estimate the c_u. Using a Plasticity Index of 14% indicates a f_1 of 5.6 (taken from CIRIA C504 [13]). Based on this and a typical N value of 27 indicates a c_u of 151kPa.

The strength of the material was described as stiff on the borehole logs; it is therefore recommended a c_u of 75kPa is adopted for design.

Effective Stress

No testing was carried out to determine effective stress parameters, Guidance set out in BS8002 [11] has been used to estimate the effective angle of shearing ($\varphi'_{cv,k}$) as follows:

$$\varphi'_{cv,k} = (42° - 12.5log_{10}\, I_P)$$

Using the equation above indicates a $\varphi'_{cv,k}$ of 27°. This is considered low based on previous experience of Till. It is therefore recommended a $\varphi'_{cv,k}$ of 29° is used for the design and also as recommended for the Alluvium.

As no test data is available an effective cohesion (c') of 0kPa is recommended.

Compressibility

No testing has been carried out to determine the modulus of volume compressibility (M_v) has been derived using Stroud's [12] correlation with Plasticity Index and SPT N. A Plasticity Index of 14% indicates a f_2 of 0.6; using this and an SPT N of 21 indicates an M_v of 0.08m^2/MN.

Youngs Modulus (E_u)

No tests were carried out to determine E_u. Using correlation with M_v set out in CIRIA R143 [14] E_u is estimated to be 12MPa.

Poisson's ratio (v)

No Laboratory tests were undertaken to be able to determine Poisson's ratio; however Tomlinson [15] suggest a typical Poisson's ratio for silty clays is between 0.2 and 0.3. Due to the borderline cohesive/granular nature of the Till representative value of 0.3 is recommended for design.

6.4. Design Parameter Summary

A summary of the geotechnical parameters is included in below.

Table 6-3 - Summary of Geotechnical Parameters

Strata	Parameter	Recommended Value
Alluvium	Moisture Content	24%
	Plasticity Index	12%
	Modulus of volume compressibility (Mv)	0.05 m^3/MN (derived)
	Young's Modulus (Eu)	16.8MPa (derived)
	Poisson's Ratio	0.3
	Unit Weight	18 – 20 kN/m^3 (derived)
	Undrained shear strength	62.4Pa (derived)
	Effective angle of shearing	29° (derived)
Glacial Till	Moisture Content	9%
	Plasticity Index	13-19%
	Modulus of volume compressibility (Mv)	0.07 m^3/MN (derived)
	Young's Modulus (Eu)	12-20MPa (derived)
	Poisson's Ratio	0.3
	Unit Weight	18kN/m^3 (derived)
	Undrained shear strength	75kPa taken from site description
	Effective angle of shearing	29° (derived)

6.4.1. Protection of Buried concrete

Three suites of tests were carried out on samples taken from site to determine the chemical aggressivity of soil and groundwater on buried concrete in accordance with BRE Special Digest 1 [16].

Tests were undertaken on all three strata present on site. The results indicate the following maximum (or minimum for pH) values:

- Water soluble sulphate (2:1 leachate equivalent) of 0.05g/l (SO_4);
- Total sulphur of <0.14% (S);
- Acid soluble sulphate of 0.33% (SO_4);
- pH of 7.37

Based on the test results, it is recommended that a Design Sulphate Class DS-2 and an Aggressive Chemical Environment for Concrete (ACEC) Class of AC-2 concrete is used for for the construction of any buried concrete on site.

7. Engineering Assessment

7.1. Assumptions

The designs are based on the following assumptions:

- Culvert and inlet structure will be founded on material with a c_u of 75kPa or greater;
- Groundwater level is expected to be close to surface and for this design has been modelled at 0.50mbgl across the site;
- At the western extent of the site, the culvert will be 3.75m wide and 6.60m in length. This forms the inlet structure and trash screen;
- Thereafter, the culvert will comprise a concrete pipe with an inner 1.05m diameter and an estimated outer diameter of 1.25m;
- As the detailed design for the culvert and inlet structure was not available at the time of preparing this report, the foundation dimensions have been calculated for allowable bearing capacity;
- No lateral loading on the foundations;
- Total settlement tolerance of 25mm and a differential settlement tolerance of 15mm; and
- Unit weight of reinforced concrete is 24kN/m^3.

7.2. Bearing capacity

The bearing capacity for the inlet structure and culvert was determined in accordance with BS EN 1997-1 [17] for Equilibrium (EQU) as no variable loads have been provided at this stage.

The square culvert, including the inlet structure will consist of a reinforced concrete chamber which will be founded at approximately 3.0m depth.

The concrete pipe culvert will be founded at approximately 3.0m depth.

Using methods set out in BS EN 1997-1 [17] the allowable bearing capacity for the inlet structure and culvert is calculated to be 200kN/m^2.

7.3. Settlement

It is anticipated that due to the likely net increase in loading from the culverts, that settlement will be minimal, if any. It is recommended that settlement is considered as the detailed design for the culvert progresses and design loads are available.

7.4. Excavations and Temporary Works

Excavation risks associated with the variability of Made Ground and Superficial Deposits are expected. These relate to the heterogeneity of the materials comprising irregular gravel fractions, which may be encountered and effect the shape and size of the excavation and the excavatability of the material. An effective temporary support method such as trench boxes, sheeting or Larsen's piles will be required to prevent open excavations from instability and collapsing.

The ground investigation information and site observations indicate a ground water level between 0.6m and 1.8mbgl. Flooding was also highlighted as an issue during the ground investigation due to rainwater flowing into open excavations and ineffective and damaged highways drainage. De-watering solutions using pumps will be required for open excavations to preventing flooding of the site. It is likely the ground water level is significantly lower during the mid and late summer months. It would be prudent therefore to plan any deep excavations works to this period of the year in order to take advantage of the reduced water levels and flooding risk.

Due to the limited depth of exploratory holes available in the site area an accurate bedrock depth cannot be obtained. The next available boreholes presented by the BGS show sandstone at 2.8 - 3.5m bgl.

8. Preliminary Contamination Assessment

8.1. Introduction

Land contamination is assessed through the identification and assessment of Potential Contaminant Linkages (PCLs). The approach in the following section is in accordance with the Contaminated Land Exposure Assessment (CLEA) model produced by DEFRA and the Environment Agency and as outlined in the DEFRA/Environment Agency Land Contamination Risk Management Guidance (LCRM) [18].

The LCRM provides a technical framework for identifying and remediating contamination through the application of a risk management process. The assessment involves the development of a conceptual site model (CSM) which describes the source-pathway-receptor relationship between potential sources of contamination and associated contaminants from both on-site and off-site sources, receptors to such contamination and potential pathways between the two. If all three are present or considered likely to be present, they are described as PCLs which can be subject to the risk assessment process.

The question of whether risk is unacceptable in any particular case involves scientific and technical assessments together with appropriate criteria by which to judge the risk and conclude the level of risk which would be unacceptable.

The assessment framework and guidance given within the LCRM has been applied to this Preliminary Risk Assessment (PRA). The PRA comprises a desk study review, development of a preliminary CSM (pCSM), and a qualitative risk assessment.

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 which may be present. Such risks must be adequately mitigated by the measures required under current legislation, specifically the Construction Design Management (CDM) Regulations [19] 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 been assumed that personal protective equipment (PPE) and health and safety best practices will be adopted during the construction works and acute risks to construction workers / site visitors have therefore not been considered as part of this assessment.

8.2. Preliminary Conceptual Site Model

8.2.1. Potential Contamination Sources

Based on the historical maps and the desk study information summarised in Section 3, the following potential sources of contamination have been identified. The list of activities and contaminants of concern listed should not be considered exhaustive and provides a guide to the likely range of contaminants which may be present at or surrounding the site.

8.2.1.1. On-site

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

- Made Ground comprising localised residual contamination from construction of existing carriageway, infrastructure and residential properties;
- Localised spills/leaks of oils on the carriageway / driveways / gardens;
- atmospheric fall out of exhaust contaminants from road traffic comprising inorganics and heavy metals; and,
- potentially contaminated perched water/groundwater underlying the site.

8.2.1.2. 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:

- surface water and road run-off from Caenant Terrace carriageway which may contain hydrocarbons and heavy metals;
- localised spills/leaks of oils and fuels from locomotives using the adjacent railway; and,
- potentially contaminated groundwater associate with off-site industry (colliery).

8.2.2. Potential Receptors to Contamination

The potential receptors depend upon the current and proposed end use of the site. The site comprises a road and residential properties. On this basis, the following receptors have been identified as having potential for impact.

8.2.2.1. Human

Potential human receptors are considered to comprise:

- on-site users (pedestrians);
- on-site users (future maintenance workers); and,
- off-site users (occupants / users of adjacent residential properties / leisure facilities).

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.

8.2.2.2. Controlled Waters

Potential controlled waters receptors are considered to comprise:

- surface watercourses (unnamed culverted watercourse – tributary of the River Neath);
- groundwater within the superficial (Glacial Till) Secondary Undifferentiated Aquifer; and,
- groundwater within the bedrock (Pennant Sandstone Formation) Secondary A Aquifer

8.2.2.3. Property

Potential property receptors are considered to comprise:

- Existing and future below ground infrastructure (drainage); and,
- Off site adjacent properties (residents, commercial / leisure properties).

8.2.3. Potential Pathways

The potential pathways depend upon the current and proposed end use of the site. The two sites predominately comprise open fields and woodland and are proposed to be used for surface water storage with infrequent access for maintenance only. On this basis, the following potential pathways have been identified.

8.2.3.1. 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; and,
- off-site migration of contaminants in soil derived dust and run-off followed by dermal contact / inhalation / ingestion.

8.2.3.2. 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.

8.2.3.3. 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;
- direct contact of migrating contaminated groundwater within infrastructure, services and structures; and,

8.3. Preliminary Risk Assessment

In order to identify PCLs to human health, controlled waters and property, a preliminary CSM has been produced and is summarised in Table 8-1. A preliminary qualitative assessment of the identified PCLs has been undertaken, in accordance with the CIRIA C552 report [20], with the PCLs given a risk rating based on the current condition of the proposed works areas and the proposed end use.

Table 8-1 - Preliminary Conceptual Site Model

Source	Receptor	Pathway	Potential Consequence	Probability	Risk
On-site Made Ground comprising localised residual contamination from construction of existing carriageway, infrastructure and residential properties. May comprise a range of inorganic and organic contaminants; Localised spills/leaks of oils on the carriageway / driveways / gardens; atmospheric fall out of exhaust contaminants from road traffic comprising inorganics and heavy metals; and, potentially contaminated perched water/groundwater underlying the site.	On site users of the road (pedestrians)	Dermal contact / ingestion / inhalation of contaminants in soil and soil-derived dust	Medium	Unlikely The site is a residential street comprising hardstanding roads and pavements which are accessed infrequently by transient pedestrians accessing residential properties and leisure facilities. Therefore, it is unlikely that site users will come into contact with soil or soil derived dusts. There will be short term exposure of soils during construction although best practice site management procedures are likely to be implemented which will minimise short term exposure risk. Post works, hardstanding will be reinstated	Low
	On-site future maintenance workers	Dermal contact / ingestion / inhalation of contaminants in soil and soil-derived dust dermal contact / ingestion of	Medium	Unlikely Current and future maintenance on the culvert may require localised excavation with potential for workers to come into direct contact with soils or inhale soil derived dusts.	Low

		contaminants in groundwater within excavations		This work is likely to be short term and infrequent. Works will be risk assessed and best practice controls are likely to be used (e.g. gloves, and protective clothing) minimising potential for exposure.	
	Off-site users of residential properties and leisure facilities	Off-site migration of contaminants in soil derived dust and run-off followed by dermal contact / inhalation / ingestion	Medium	Unlikely The current and future site condition is understood to comprise hardstanding and therefore soils will be encapsulated beneath removing the potential for generation of soil derived dusts.	Low
	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	Likely The site comprises a drainage culvert carrying a surface watercourse. Therefore, works are likely to result in disturbance of soils during excavation and construction which may result in the release of contaminants in unsaturated Made Ground soils with potential migration to surface water. Site best practice procedures require implementation of mitigation to prevent silt entering the watercourse. However, as works will be taking place within the watercourse and based on the available information, the risk cannot be completely discounted.	Moderate
	Groundwater in the underlying superficial	Leaching or dissolution of contaminants in soils and subsequent migration of	Medium	Likely The site is underlain by Glacial Till which is classified as a Secondary	Moderate

	and bedrock aquifers	contaminants in groundwater vertical migration of dissolved phase contaminants to the underlying groundwater;		Undifferentiated Aquifer. The works are likely to result in disturbance of soils during excavation and construction which may result in the release of contaminants in unsaturated Made Ground soils with potential migration to groundwater.	
	Existing and future below ground infrastructure	Direct contact of contaminated soils/water with infrastructure, services and structures and subsequent chemical attack	Mild	Unlikely Current and future below ground infrastructure is assumed to have been / will be constructed to appropriate standards for the site to withstand attack from soil chemistry.	Very Low
Off-site surface water and road run-off from Caenant Terrace carriageway which may contain hydrocarbons and heavy metals; localised spills/leaks of oils and fuels from locomotives using the adjacent railway; potentially contaminated groundwater associate with off-site industry (colliery).	On-site future maintenance workers	Dermal contact / ingestion of contaminants in groundwater within excavations	Medium	Unlikely Potentially contaminated groundwater may migrate to the site from off-site sources (colliery, infilled ground of unknown provenance) with the potential for direct contact in excavations. This work is likely to be short term and infrequent. Works will be risk assessed and best practice controls are likely to be used (e.g. gloves, and protective clothing) minimising potential for exposure.	Low
	Surface water in the on-site culvert	Lateral migration of dissolved phase contaminants in groundwater to surface water migration of contaminants	Medium	Low Likelihood Potentially contaminated groundwater may migrate to the site from off-site sources (colliery, infilled ground of unknown provenance). The depth to groundwater is	Moderate / Low

		in surface water runoff		currently unknown but if the on- site watercourse is in hydraulic continuity with groundwater there is the potential for migration of contaminants into surface water.	
	Existing and future below ground infrastructure	Direct contact of migrating contaminated groundwater within infrastructure, services and structures	Mild	Unlikely Current and future below ground infrastructure is assumed to have been / will be constructed to appropriate standards for the site to withstand attack from soil chemistry.	Very Low

8.4. Waste Classification and Material Reuse

If material is proposed to be removed or re-used off-site or reused on-site as part of the works, it will require appropriate classification and / or sorting to demonstrate suitability. The actual material to be excavated should be analysed and assessed as suitable for reuse by assessing potential risk to human and controlled water receptors. There should also be a clear requirement for reuse in the scheme design and may require consideration as part of a materials management plan or U1 exemption. It is the Contractor's responsibility to appropriately classify material excavated and ensure adequate testing is completed.

9. Geotechnical Risk Register

Table 9-1 – Geotechnical risk matrix

Risk Probability (P)		Risk Impact (I)		Risk Rating (R)	
1	Highly Unlikely	1	Very low	1	Trivial
2	Unlikely	2	Low	4	Tolerable
3	Low likelihood	3	Medium	9	Substantial
4	Likely	4	High	16	Intolerable
5	Highly Likely	5	Very high	25	Intolerable

Table 9-2 – Geotechnical risk register

Hazard	Impact	Initial Risk Rating			Mitigation Measures	Risk after mitigation			Residual Risk
		P	I	R		P	I	R	
Damage to underground services	Injury to site personnel. Compensation events for residents left without power, water, etc	4	5	20	Ground penetrating radar survey and hand dug pits carried out as part of the ground investigation to determine and record all services. Excavations to be planned and major construction activities undertaken away from areas of known high service density. All known services to be marked on the highway prior to breaking ground. Services to be exposed within excavation for as little time as possible before backfill	2	5	10	Temporary exposure of services within trench
Unforeseen ground conditions	Re-design, increased cost and delay in works.	3	2	6	Carry out ground investigation to determine ground conditions. Design culvert foundation taking into account the results of the GI Excavate and replace any soft spots.	1	2	2	None anticipated
Unexpected groundwater conditions (elevated or seepage)	Redesign, construction delays, increased cost	4	3	12	Undertake appropriate ground investigation to determine if any groundwater present. Use GI to determine design groundwater level and undertake the design based on this data. .	4	2	8	Appropriate dewatering scheme shall be implemented to lower the ground water levels and facilitate construction activities.
Potential contamination in soils or groundwater	Localised contamination in Made Ground and / or groundwater associated with on site historical construction or on-site migration from adjacent off-site commercial sources (e.g. colliery and garages). Potential mobilisation of contaminants in unsaturated Made Ground soils with migration to surface watercourses or groundwater.	3	4	12	Investigate potential contamination sources as part of the ground investigation and provide the data to the contractor. Site personnel to undergo toolbox talk on the potential presence of contamination. . Obtain samples of soils to analyse for potential risks to human health and controlled waters.	2	4	8	Localised pockets of contamination during construction.

					Implement best practice site procedures to prevent migration of potential contaminants or silt into surface watercourses or groundwater.				
Presence of encountering Asbestos Containing Material (ACM)	Risk to health of site workers if ACM is disturbed during temporary works. Resulting in the site classification being uplifted.	3	4	12	Ensure the risk is briefed to all site personal and that adequate mitigation measure are in place for removal if required. All site personnel to undergo toolbox talk to highlight the risk of ACM.	1	4	4	Positive identification does not remove the risk of exposure

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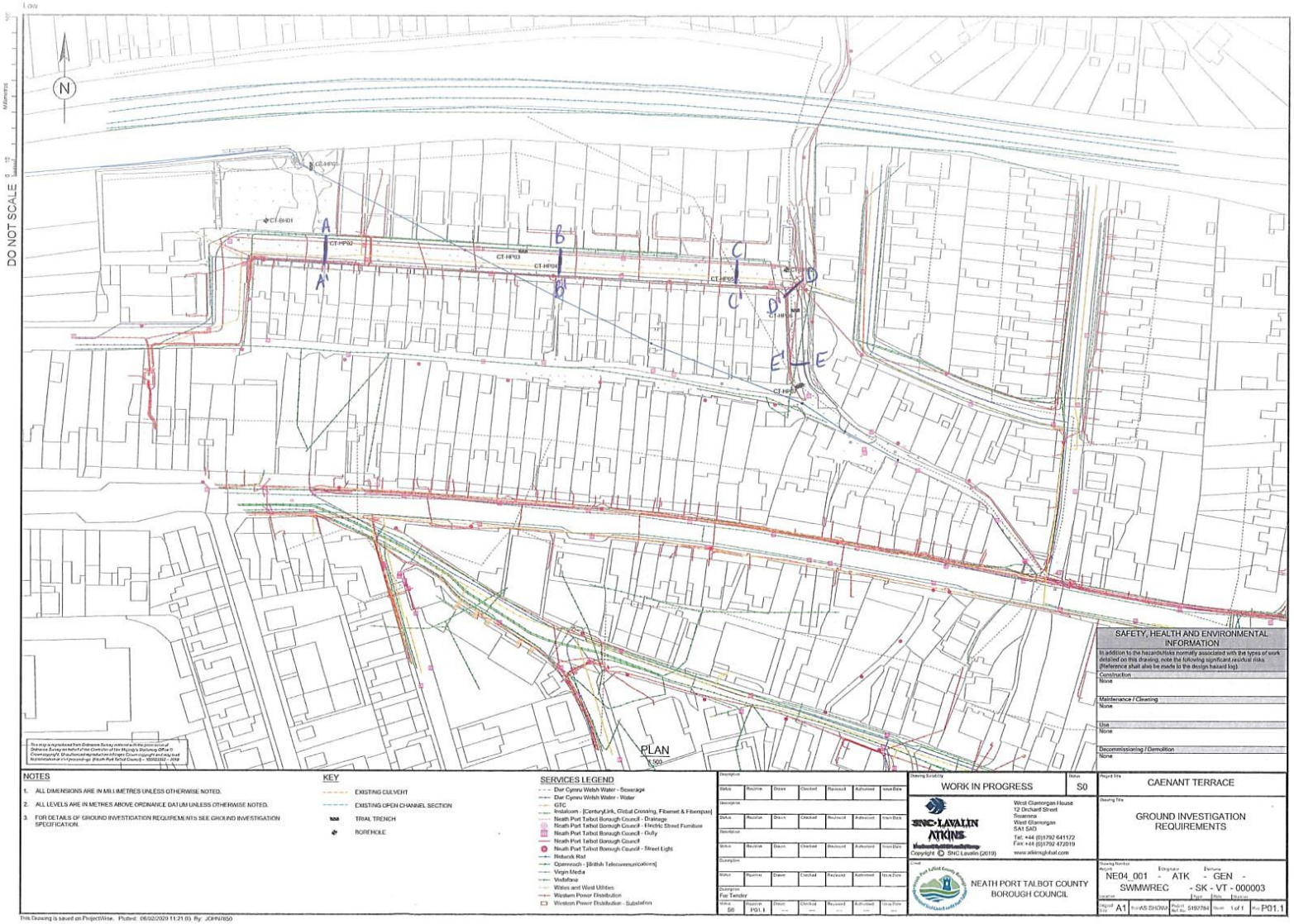
[33] Bowles, 1983.

Appendix A. Location Maps

A.1. Site Location Plan

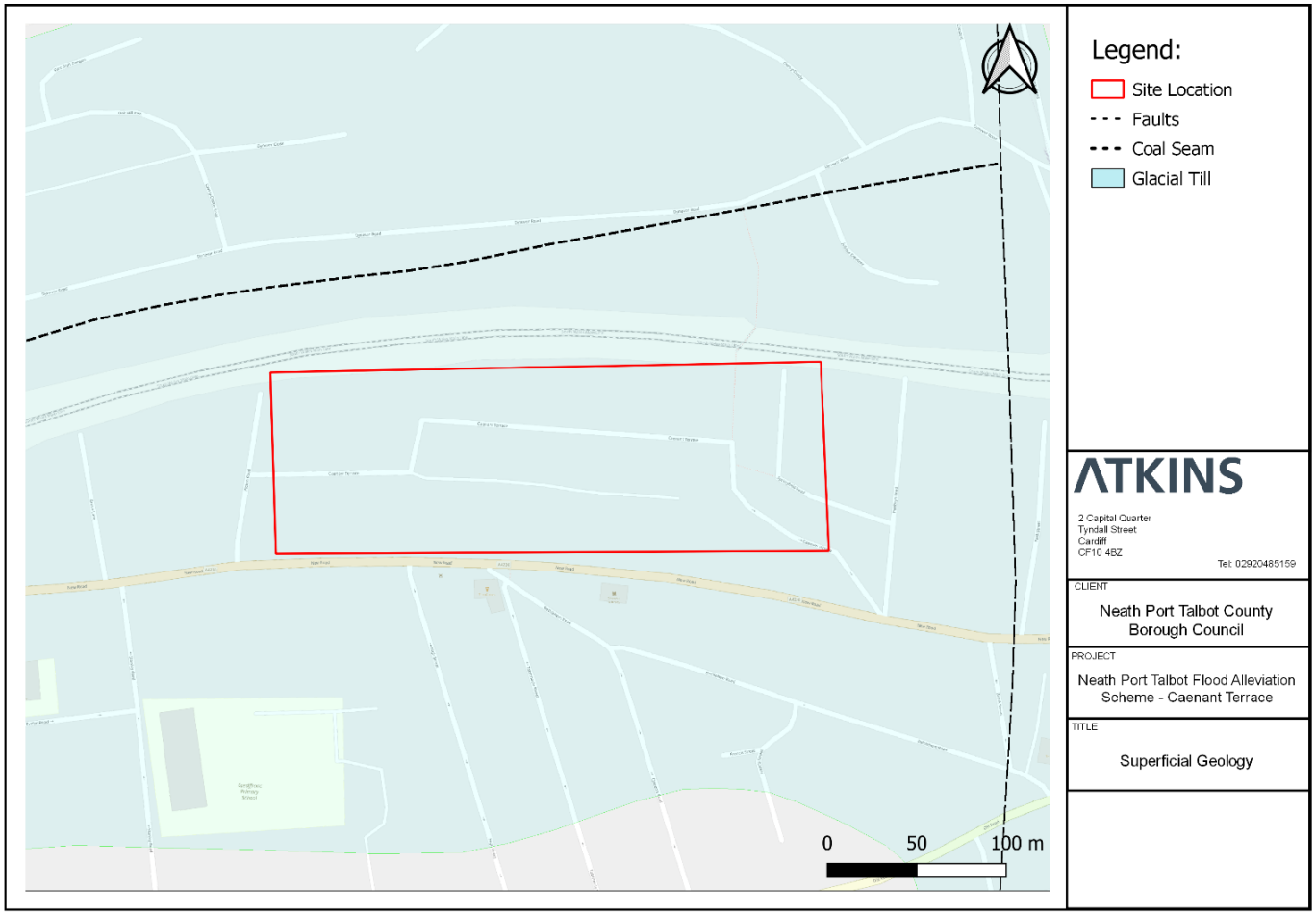

Skewen
Neath
Legend:
Site Location
0
50
100 m
ATKINS
2 Capital Quarter
Tyndall Street
Cardiff
CF10 4BZ
Tel: 02920485159
CLIENT
Neath Port Talbot County Borough Council
PROJECT
Neath Port Talbot Flood Alleviation Scheme - Caenant Terrace
TITLE
Site Location Plan

A.2. Utilities Map

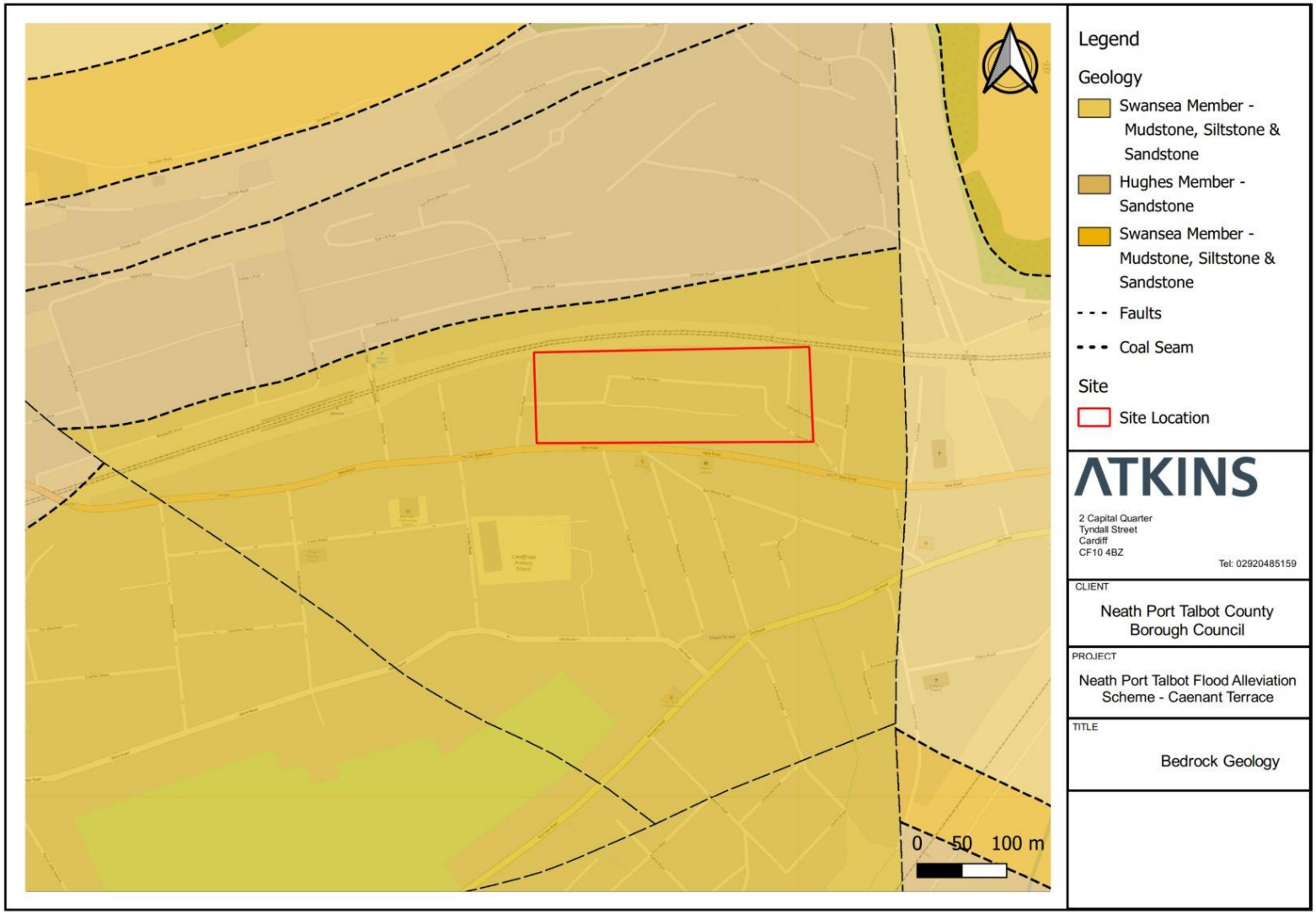


Appendix B. Geological Maps

B.1. Superficial Geology



B.2. Bedrock Geology



Appendix C. Historic Borehole Records

C.1. Borehole Data

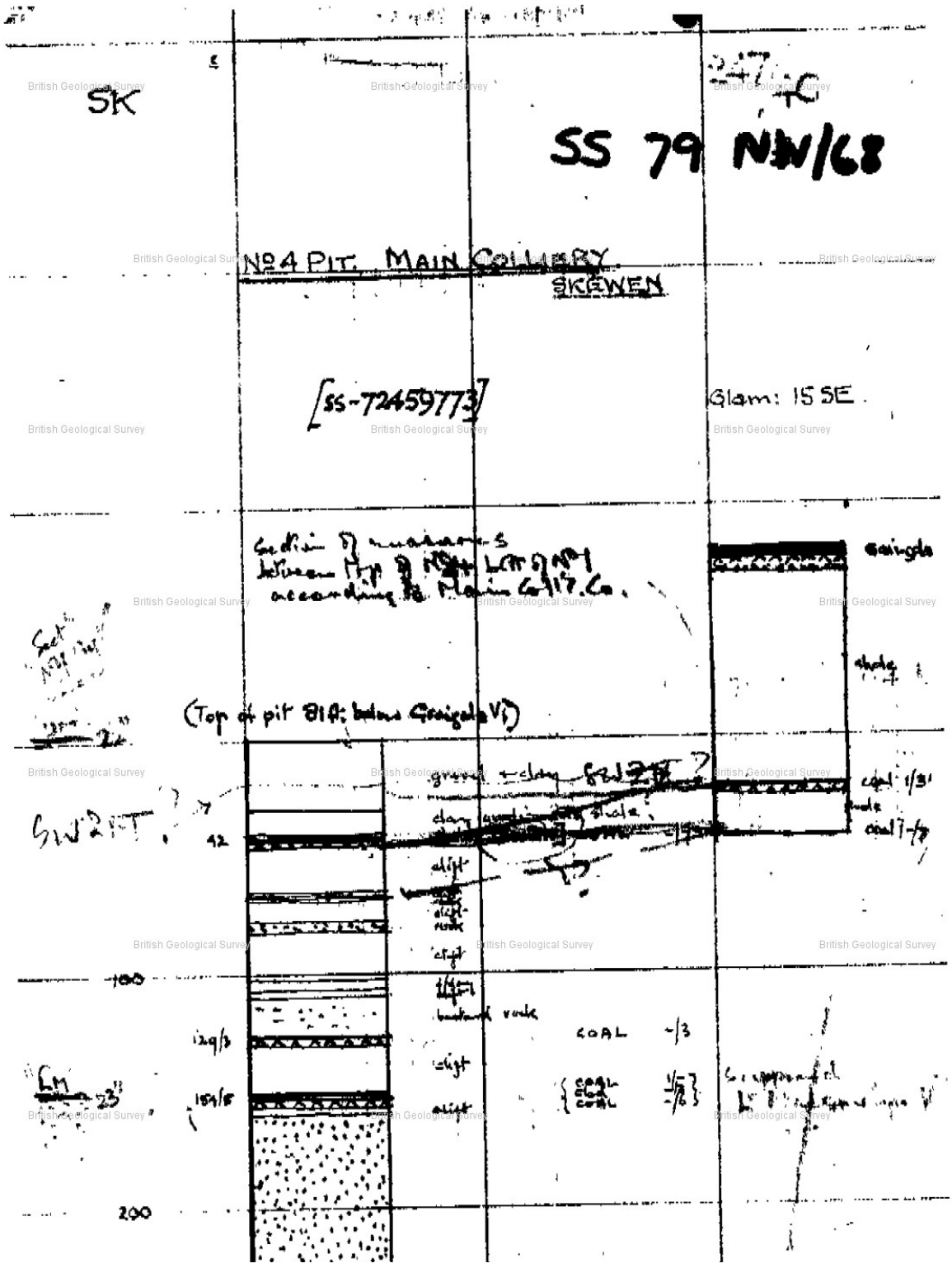
Ref	Ground Water Level	Asphalt		Made Ground		Alluvium	
		Top Depth (m)	Base Depth (m)	Top Depth (m)	Base Depth (m)	Top Depth (m)	Base Depth (m)
HP01				0	1.2		
HP02		0	0.06	0.06	0.75		
HP03		0	0.08	0.08	1.1	1.1	2
HP04	1.1	0	0.06	0.06	1.2		
HP05	1	0	0.07	0.06	1.2		
WS01				0	1.9	1.9	3.3
WS02		0	0.07	0.07	0.9	0.9	2

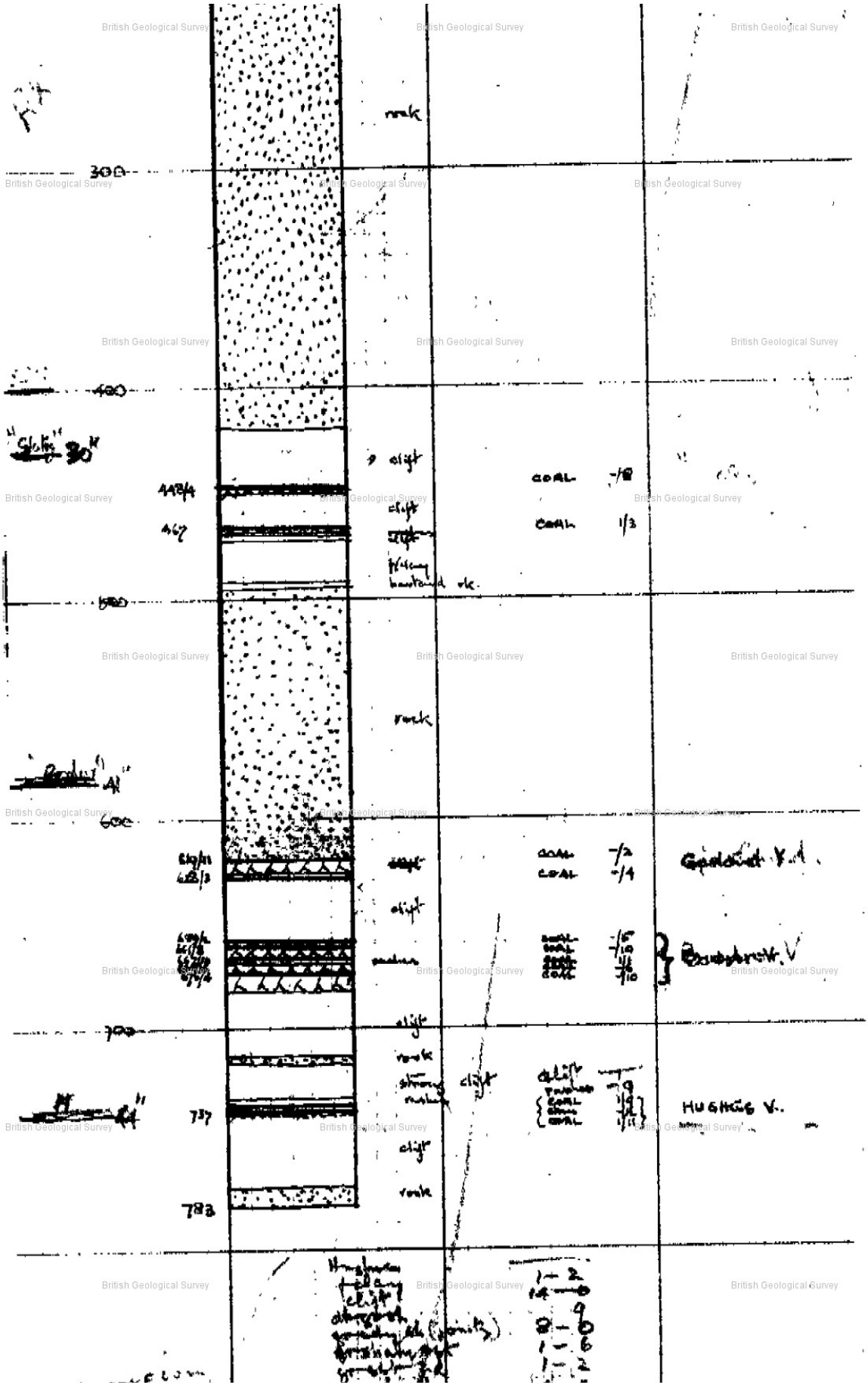
British Geological Survey
NATURAL ENVIRONMENT RESEARCH COUNCIL

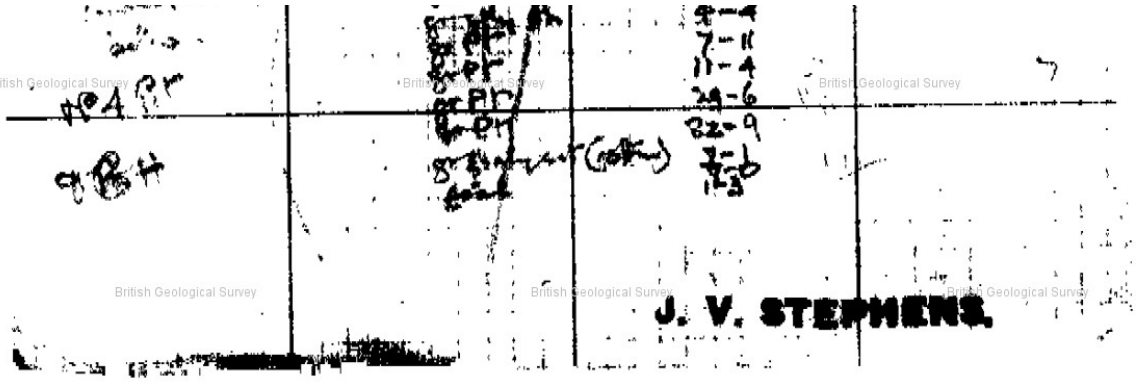
Version 2.0.6

BGS ID: 371311 : BGS Reference: SS79NW68
British National Grid (27700) : 272470,197750
Report an issue with this borehole

<< < Prev Page 1 of 2 Next > >>




rock
300
"Shale" 30'
400
4484
467
COAL 1/2
COAL 1/3
rock
500
rock
41'
600
COAL 1/2
COAL 1/4
Gannister V.
COAL 1/5
COAL 1/10
Gannister V.
700
rock
737
Hughes V.
783
rock
1 - 2
14 - 0
9
8 - 6
1 - 6
1 - 2



British Geological Survey

British Geological Survey
NATURAL ENVIRONMENT RESEARCH COUNCIL

Version 2.0.6

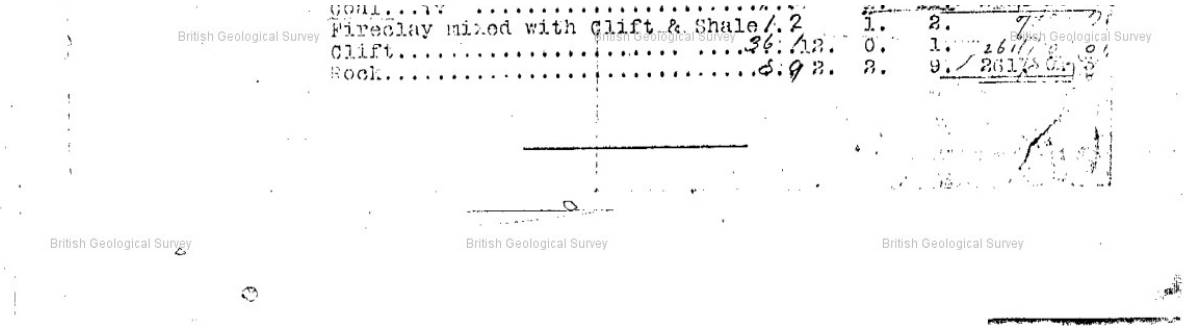
BGS ID: 371311 : BGS Reference: SS79NW68
British National Grid (27700) : 272470,197750
Report an issue with this borehole

N.G.R 7247 9775
N.S. 247. Glam. 15 SE E
Vertical Sections Sheet 87, No 11. 1" 247.
SS79NW 68/68
...MAIN COLLIERIES.- Swansea Valley
Com^d. by Mr. H. T. Dalis.

Description of Strata sunk through at No. 4 Pit.

The top of the pit is 27 yards below the crop of the Graigola Vein

	Yds.	Ft.	In.		
Gravel & Clay	30.	10.	0.	5.	30 5
Clay changing into shale	10.	3.	1.	0.	40 5
Shale	1.		1.	0.	41 5
Coal		7.		7.	42 0
Fireclay	2.	4.	3.	4.	44 4
Clift	21.	2 7.	0.	2.	65 6
Rock		6		6.	66 0
Clift	1.	1	1.	1.	67 1
Rock	1.	8	1.	8.	68 9
Clift	9.	0 3.	0.	0.	81 9
Rock	4.	0 1.	1.	0.	85 9
Clift	21.	0 7.	0.	0.	102 9
Fireclay	6.	0 2.	0.	0.	108 9
Clift	2.	3	2.	3.	111 0
Bastard Rock	18.	0 6.	0.	0.	129 0
Coal		3		3.	129 3
Fireclay	2.	3	2.	3.	131 6
Clift	21.	2 7.	0.	2.	152 8
Coal	1.	0	1.	0.	153 8
Clod		3		3.	154 5
Coal		9		6.	157 5
Fireclay	3.	0 1.	0.	0.	160 5
Clift	3.	0 1.	0.	0.	163 5
Rock	260.	386.	2.	3.	420 8
Clift	27.	0 9.	0.	0.	447 8
Coal		8		8.	448 4
Fireclay	3.	0 1.	0.	0.	465 9
Clift	17.	5 5.	2.	5.	467 0
Coal	1.	3	1.	3.	468 2
Fireclay	3.	3 1.	0.	3.	470 3
Rashes		3		3.	470 6
Clift	3.	0 1.	0.	0.	473 6
Fireclay	18.	9 6.	0.	9.	492 3
Bastard Rock	3.	0 1.	0.	0.	495 3
Rock	124.	641.	1.	6.	611 9
Coal		2		2.	612 11
Fireclay	8.	0 2.	2.	0.	625 11
Coal		4		4.	626 3
Clift	30.	6 10.	0.	0.	658 9
Coal		5		5.	659 2
Fireclay	1.	8	1.	8.	660 1
Coal		10		10.	661 8
Fireclay	2.	1	2.	1.	663 9
Coal	4.	1 1.	1.	1.	667 10
Rashes		2		2.	668 0
Coal		6		6.	668 6
Fireclay	4.	0 2.	0.	0.	672 6
Coal		10		10.	673 4
Fireclay	7.	0 2.	1.	0.	682 4
Clift	31.	7 10.	1.	7½.	713 11½
Rock	3.	0 1.	0.	0.	716 11½
Clift (Strong)	15.	6 5.	0.	6.	732 5½
Rashes		9		9.	733 2½
Coal Hughes' Seam	1.	9	1.	9.	734 11½
Stone		1½		1½.	734 11½



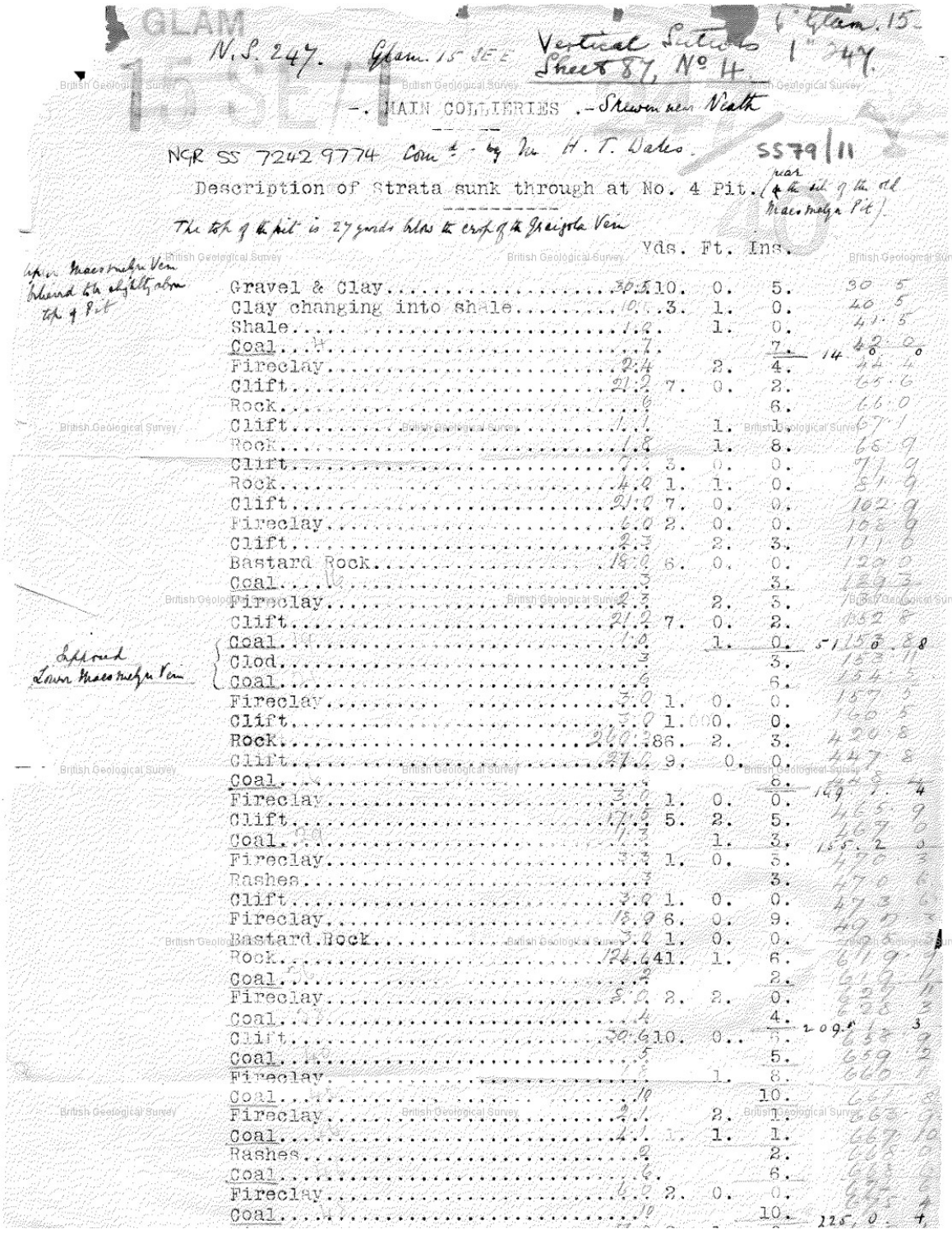
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Version 2.0.6

BGS ID: 371505 : BGS Reference: SS79NW262
British National Grid (27700) : 272420,197740

Report an issue with this borehole

<< < Prev Page 2 of 2 Next > >>



GLAM
N.S. 247. Glam. 15 SE E Vertical Sections Sheet 87, No 4. 1" = 47.
15 SE E
British Geological Survey

-. MAIN COLLIERIES .- Strewn near Neath

NGR SS 7242 9774 Com[d] by Mr H. T. Wales. SS79/11

Description of Strata sunk through at No. 4 Pit. (near the old & the old Maesmelyn Pit)

The top of the pit is 27 yards below the crop of the Graigola Vein

	Yds.	Ft.	Ins.		
Upper Maesmelyn Vein Inbound the slightly above top of Pit					
Gravel & Clay	30.1	10.	0.	5.	30 5
Clay changing into shale	10.[illegible]	3.	1.	0.	40 5
Shale	1.[illegible]		1.	0.	41 5
Coal	7.			7.	42 0
				14	6 0
Fireclay	2.4		2.	4.	44 4
Clift	21.2	7.	0.	2.	65 6
Rock	6			6.	66 0
Clift	1.1		1.	1.	67 1
Rock	1.[illegible]		1.	8.	68 9
Clift	[illegible]	3.	0.	0.	71 9
Rock	4.9	1.	1.	0.	81 9
Clift	21.9	7.	0.	0.	102 9
Fireclay	6.0	2.	0.	0.	108 9
Clift	2.3		2.	3.	111 0
Bastard Rock	18.0	6.	0.	0.	120 0
Coal	3			3.	120 3
Fireclay	2.3		2.	3.	123 6
Clift	21.2	7.	0.	2.	152 8
Coal	1.0		1.	0.	153 8
Clod	3			3.	153 11
Coal	6			6.	154 5
Lower Maesmelyn Vein					
Fireclay	3.0	1.	0.	0.	157 5
Clift	3.0	1.	0.	0.	160 5
Rock	24.0	86.	2.	3.	420 8
Clift	27.0	9.	0.	0.	447 8
Coal	[illegible]			6.	448 2
				149	1 4
Fireclay	3.0	1.	0.	0.	465 9
Clift	17.5	5.	2.	5.	487 6
Coal	1.3		1.	3.	488 9
				155	2 3
Fireclay	3.3	1.	0.	3.	492 6
Rashes	3			3.	492 9
Clift	3.0	1.	0.	0.	495 9
Fireclay	15.9	6.	0.	9.	511 6
Bastard Rock	3.4	1.	0.	0.	515 6
Rock	124.4	41.	1.	6.	641 0
Coal	2			2.	641 2
Fireclay	2.0	2.	2.	0.	643 2
Coal	4			4.	643 6
				209	1 3
Clift	30.6	10.	0.	6.	653 0
Coal	5			5.	653 5
Fireclay	[illegible]		1.	8.	654 1
Coal	10			10.	655 11
Fireclay	2.1		2.	1.	658 0
Coal	4.1		1.	1.	659 2
Rashes	2			2.	659 4
Coal	6			6.	660 0
Fireclay	4.0	2.	0.	0.	662 0
Coal	10			10.	662 10
				125	0 4

Fireclay	1.	2.	1.	0.		
Clift	21.	10.	1.	7½.		
Rock	3.	0.	1.	0.		
Clift (Strong)	5.	4.	5.	0.	6.	
Rashes					9.	
Coal Hughes' Seam	1.	9		1.	9.	
Stone		1½			1½.	24. 2 0
Coal	1.	0		1.	11.	245. 12. 3
Fireclay mixed with Clift & Shale	1.	2		1.	8.	738 2
Clift	24.	12.		0.	1.	261. 2 0
Rock	2.	9	2.	2.	9.	2617 0 3

British Geological Survey

PROJECT : NEATH - ABERCRAVENNY TRUNK ROAD, A465 SS 79 NW 98

LOCATION : ABERDULAIS - LLANDARCY, ADDITIONAL SOIL SURVEY (ROUTE 'J') N.G.R. 7310 9709

GROUND LEVEL DIA. OF CASING : INS. TO FT.

INCLINATION : VERTICAL INS. TO FT.

SCALE OF LOG : 1" = 10 ft. SHEET 1 OF 1

TYPE OF BORING : JCB Machine

Daily Progress	Reduced Level	Depth	Legend	Sampling Type	Sampling Depth	Nat. m %	Description and Remarks, including Water Observations.	Key to Laboratory Tests
		0						
		2' 6" (0.76m)		D			Fill	
				D			Glacial deposits.	
		10' 0" (3.1m)						
							CONTINUED	

U(4) = 4" Dia. Undisturbed Sample
D = Disturbed Sample
△ = Water Sample
S( ) = Standard Penetration Test
C( ) = Cone Penetration Test
Figures in Brackets Indicate No. of Blows
* Indicates Penetration in Ins. for 50 Blows
V = Vane Test

TX = Triaxial Test
CV = Consolidation Test
I = Index Test
O = Compaction Test
Ch = Chemical Test

Trial Pit No. 14

SS 79 NW 102-103

Holst Soil Engineering Limited

Borehole No. 22

BOREHOLE LOG

SS79NW/102

Contract No. SI2228/F3152
Location Skewen
Client Neath Borough Council
Method of Boring Percussion
Diameter of Borehole 203mm

N.G. ref. 7299.9709

Sheet 1 of 1
Chainage
Ground Level
Date 20/5/75

Description of Strata	Legend	Depth below G.L(m)	Thickness of Strata(m)	Type of Sample	c KN/sq.m	ø deg	m.c. %	γ Kg/cum	N
MADEGROUND: Soft sandy clay		0.70	0.70	0.50					
Loose brown/grey SAND with clay lenses		1.50	0.80	1.60					10
Medium dense coarse GRAVEL to find gravel silty SAND with lenses of clay		6.00		3.50					21
				5.50					24
									23

Type of Sample
□ Undisturbed Sample
○ Disturbed Sample
△ Water Sample
I Penetration Test
c Apparent Cohesion
ø Angle of Friction
m.c. Moisture Content
γ Bulk Density
N S.P.T. Value

Remarks (Observations of Ground Water etc)
Water encountered at 3.10 m 20/5/75 C.D.300m
Standing level 1.00 m 20/5/75, hole collapsed on withdrawal of casing.

Water levels are subject to seasonal or tidal variations and should not be taken as constant

Borehole No. 23

BOREHOLE LOG SS 79 NW/102 -103

Contract No. SI2228/F3152
Location Skewen
Client Neath Borough Council,
Method of Boring Percussion
Diameter of Borehole 203 mm

Sheet 1 of 1
Chainage
Ground Level
Date 20-21/5/75

Description of Strata	Legend	Depth below G.L(m)	Thickness of Strata(m)	Type of Sample	c KN/sq.m	ø deg	m.c. %	y Kg/cum	N
MADEGROUND: Clay and ash				0.50					9
		2.30	2.30	2.20					25
Medium dense to dense coarse GRAVEL to find grained SAND with a clay matrix				3.50					37
		6.00	3.70	5.50					39

Type of Sample
□ Undisturbed Sample
○ Disturbed Sample
△ Water Sample
I Penetration Test
c Apparent Cohesion
ø Angle of Friction
m.c. Moisture Content
y Bulk Density
N S.P.T. Value

Remarks (Observations of Ground Water etc)

Water encountered at 0.90 m
Standing level at 1.20 m

Water levels are subject to seasonal or tidal variations and should not be taken as constant

Duplicate SS79 NW | 102-103

Horst Soil Engineering Limited Borehole No. **22**

BOREHOLE LOG

Contract No. SI2228/F3152
Location Skewen
Client Neath Borough Council
Method of Boring Percussion
Diameter of Borehole 203mm

Sheet 1 of 1
Chainage
Ground Level
Date 20/5/75

Description of Strata	Legend	Depth below G.L(m)	Thickness of Strata(m)	Type of Sample	c KN/sq.m	ø deg	m.c. %	y Kg/cum	N
MADEGROUND: Soft sandy clay		0.70	0.70	0.50					
Loose brown/grey SAND with clay lenses		1.50	0.80	1.60					10
Medium dense coarse GRAVEL to find gravel silty SAND with lenses of clay		6.00		3.50					21
									24
				5.50					23

Type of Sample
□ Undisturbed Sample
○ Disturbed Sample
△ Water Sample
I Penetration Test
c Apparent Cohesion
ø Angle of Friction
m.c. Moisture Content
y Bulk Density
N S.P.T. Value

Remarks (Observations of Ground Water etc)

Water encountered at 3.10 m 20/5/75 C.D.300m
Standing level 1.00 m 20/5/75, hole collapsed on withdrawal of casing.

Water levels are subject to seasonal or tidal variations and should not be taken as constant

Holst Soil Engineering Limited

Borehole No. 23

BOREHOLE LOG

SS 79 NW 103

Contract No. SI2228/F3152
Location Skewen
Client Neath Borough Council,
Method of Boring Percussion
Diameter of Borehole 203 mm

N.G. ref. 7299.9702

Sheet 1 of 1
Chainage
Ground Level
Date 20-21/5/75

Description of Strata	Legend	Depth below G.L(m)	Thickness of Strata(m)	Type of Sample	c KN/sq.m	ø deg	m.c. %	y Kg/cum	N
MADEGROUND: Clay and ash				0.50					9
		2.30	2.30	2.20					25
Medium dense to dense coarse GRAVEL to find grained SAND with a clay matrix				3.50					37
		6.00	3.70	5.50					39

Type of Sample
□ Undisturbed Sample
○ Disturbed Sample
△ Water Sample
I Penetration Test
c Apparent Cohesion
ø Angle of Friction
m.c. Moisture Content
y Bulk Density
N S.P.T. Value

Remarks (Observations of Ground Water etc)
Water encountered at 0.90 m
Standing level at 1.20 m

Water levels are subject to seasonal or tidal variations and should not be taken as constant

Holst Soil Engineering Limited

Borehole No. 23A

BOREHOLE LOG

Contract No SI2228/F3152
Location Skewen
Client Neath Borough Council,
Method of Boring Percussion
Diameter of Borehole 203 mm

Not tited.

Sheet 1 of 1
Chainage
Ground Level
Date 21/5/75

Description of Strata	Legend	Depth below G.L.(m)	Thickness of Strata(m)	Type of Sample	c KN/sq.m	ø deg	m.c. %	y Kg/cum	N
MADEGROUND : Clay and ash		2.20	2.20						

Type of Sample
□ Undisturbed Sample
○ Disturbed Sample
△ Water Sample
I Penetration Test
c Apparent Cohesion
ø Angle of Friction
m.c. Moisture Content
y Bulk Density
N S.P.T. Value

Remarks (Observations of Ground Water etc)

Borehole terminated at 2.20 m due to impassable obstruction
Borehole Dry.

Water levels are subject to seasonal or tidal variations and should not be taken as constant

Holst Soil Engineering Limited

Borehole No. 23B

BOREHOLE LOG

Contract No. SI2228/F3152
Location Skewen
Client Neath Borough Council
Method of Boring Percussion
Diameter of Borehole 203 mm

Not fitted

Sheet 1 of 1
Chainage
Ground Level
Date 21/5/75

Description of Strata	Legend	Depth below G.L(m)	Thickness of Strata(m)	Type of Sample	c KN/sq.m	ø deg	m.c. %	y Kg/cum	N
MADEGROUND : Clay and Ash		1.60	1.60						

Type of Sample
□ Undisturbed Sample
○ Disturbed Sample
△ Water Sample
I Penetration Test
c Apparent Cohesion
ø Angle of Friction
m.c. Moisture Content
y Bulk Density
N S.P.T. Value

Remarks (Observations of Ground Water etc)
Borehole terminated at 1.60 m due to impassable obstruction

Borehole Dry.

Water levels are subject to seasonal or tidal variations and should not be taken as constant

British Geological Survey

Appendix D. Envirocheck Report

Envirocheck® Report:

Datasheet

Order Details:

Order Number:
222279469_1_1

Customer Reference:
5192784

National Grid Reference:
272720, 197480

Slice:
A

Site Area (Ha):
2.44

Search Buffer (m):
1000

Site Details:

Site at 272710, 197500

Client Details:

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

Envirocheck®
LANDMARK INFORMATION GROUP®

Contents

Report Section	Page Number
Summary	-
Agency & Hydrological	1
Waste	40
Hazardous Substances	-
Geological	46
Industrial Land Use	66
Sensitive Land Use	89
Data Currency	91
Data Suppliers	96
Useful Contacts	97

Introduction

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

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Report Version v53.0

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Summary

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		4	2	31
Prosecutions Relating to Controlled Waters			n/a	n/a	n/a
Enforcement and Prohibition Notices					
Integrated Pollution Controls					
Integrated Pollution Prevention And Control					
Local Authority Integrated Pollution Prevention And Control					
Local Authority Pollution Prevention and Controls	pg 11				6
Local Authority Pollution Prevention and Control Enforcements	pg 12				1
Nearest Surface Water Feature	pg 12	Yes			
Pollution Incidents to Controlled Waters	pg 13		3	3	15
Prosecutions Relating to Authorised Processes	pg 16			1	
Registered Radioactive Substances	pg 16				1
River Quality	pg 16				3
River Quality Biology Sampling Points					
River Quality Chemistry Sampling Points	pg 17				2
Substantiated Pollution Incident Register					
Water Abstractions	pg 18				(*4)
Water Industry Act Referrals	pg 19				1
Groundwater Vulnerability Map	pg 19	Yes	n/a	n/a	n/a
Bedrock Aquifer Designations	pg 20	Yes	n/a	n/a	n/a
Superficial Aquifer Designations	pg 20	Yes	n/a	n/a	n/a
Source Protection Zones					
Extreme Flooding from Rivers or Sea without Defences				n/a	n/a
Flooding from Rivers or Sea without Defences				n/a	n/a
Areas Benefiting from Flood Defences				n/a	n/a
Flood Water Storage Areas				n/a	n/a
Flood Defences				n/a	n/a
OS Water Network Lines	pg 20	1	14	16	145

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Summary

Data Type	Page Number	On Site	0 to 250m	251 to 500m	501 to 1000m (*up to 2000m)
Waste					
BGS Recorded Landfill Sites					
Historical Landfill Sites	pg 40			1	
Integrated Pollution Control Registered Waste Sites					
Licensed Waste Management Facilities (Landfill Boundaries)					
Licensed Waste Management Facilities (Locations)	pg 40				10
Local Authority Landfill Coverage	pg 42	1	n/a	n/a	n/a
Local Authority Recorded Landfill Sites					
Potentially Infilled Land (Non-Water)	pg 42		1	4	11
Potentially Infilled Land (Water)	pg 43	1	2		21
Registered Landfill Sites					
Registered Waste Transfer Sites					
Registered Waste Treatment or Disposal Sites	pg 45				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					

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Summary

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 46	Yes	n/a	n/a	n/a
BGS Estimated Soil Chemistry	pg 46	Yes	Yes	Yes	Yes
BGS Recorded Mineral Sites	pg 51		4	16	33
BGS Urban Soil Chemistry	pg 60		Yes	Yes	Yes
BGS Urban Soil Chemistry Averages	pg 64	Yes			
CBSCB Compensation District			n/a	n/a	n/a
Coal Mining Affected Areas	pg 64	Yes	n/a	n/a	n/a
Mining Instability	pg 64	Yes	n/a	n/a	n/a
Man-Made Mining Cavities					
Natural Cavities	pg 64			1	1
Non Coal Mining Areas of Great Britain				n/a	n/a
Potential for Collapsible Ground Stability Hazards	pg 64	Yes		n/a	n/a
Potential for Compressible Ground Stability Hazards	pg 64		Yes	n/a	n/a
Potential for Ground Dissolution Stability Hazards				n/a	n/a
Potential for Landslide Ground Stability Hazards	pg 65	Yes	Yes	n/a	n/a
Potential for Running Sand Ground Stability Hazards	pg 65	Yes		n/a	n/a
Potential for Shrinking or Swelling Clay Ground Stability Hazards	pg 65	Yes		n/a	n/a
Radon Potential - Radon Affected Areas			n/a	n/a	n/a
Radon Potential - Radon Protection Measures			n/a	n/a	n/a
Industrial Land Use					
Contemporary Trade Directory Entries	pg 66	1	26	23	98
Fuel Station Entries	pg 79				2
Points of Interest - Commercial Services	pg 79	4	1	8	33
Points of Interest - Education and Health					
Points of Interest - Manufacturing and Production	pg 83		3	7	26
Points of Interest - Public Infrastructure	pg 86		3	3	5
Points of Interest - Recreational and Environmental	pg 87		2	2	8
Gas Pipelines					
Underground Electrical Cables					

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Summary

Data Type	Page Number	On Site	0 to 250m	251 to 500m	501 to 1000m (*up to 2000m)
Sensitive Land Use					
Ancient Woodland	pg 89		1	9	15
Areas of Adopted Green Belt					
Areas of Unadopted Green Belt					
Areas of Outstanding Natural Beauty					
Environmentally Sensitive Areas					
Forest Parks					
Local Nature Reserves					
Marine Nature Reserves					
National Nature Reserves					
National Parks					
Nitrate Sensitive Areas					
Nitrate Vulnerable Zones					
Ramsar Sites					
Sites of Special Scientific Interest					
Special Areas of Conservation					
Special Protection Areas					
World Heritage Sites					

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
	BGS Groundwater Flooding Susceptibility Flooding Type: Limited Potential for Groundwater Flooding to Occur	A13SE (S)	0	1	272724 197450
	BGS Groundwater Flooding Susceptibility Flooding Type: Limited Potential for Groundwater Flooding to Occur	A13NE (S)	0	1	272724 197479
	BGS Groundwater Flooding Susceptibility Flooding Type: Limited Potential for Groundwater Flooding to Occur	A13NE (E)	39	1	272900 197479
	BGS Groundwater Flooding Susceptibility Flooding Type: Potential for Groundwater Flooding to Occur at Surface	A13NE (N)	43	1	272724 197600
	BGS Groundwater Flooding Susceptibility Flooding Type: Limited Potential for Groundwater Flooding to Occur	A13SE (SE)	49	1	272900 197400
	BGS Groundwater Flooding Susceptibility Flooding Type: Potential for Groundwater Flooding of Property Situated Below Ground Level	A13NE (E)	139	1	273000 197500
	BGS Groundwater Flooding Susceptibility Flooding Type: Potential for Groundwater Flooding to Occur at Surface	A13NE (E)	139	1	273000 197479
	BGS Groundwater Flooding Susceptibility Flooding Type: Potential for Groundwater Flooding to Occur at Surface	A13NE (E)	142	1	273000 197550
	BGS Groundwater Flooding Susceptibility Flooding Type: Potential for Groundwater Flooding of Property Situated Below Ground Level	A13NE (NE)	160	1	273000 197600
	BGS Groundwater Flooding Susceptibility Flooding Type: Potential for Groundwater Flooding of Property Situated Below Ground Level	A13SE (SE)	161	1	273000 197350
	BGS Groundwater Flooding Susceptibility Flooding Type: Potential for Groundwater Flooding of Property Situated Below Ground Level	A13SE (SE)	190	1	273000 197300
	BGS Groundwater Flooding Susceptibility Flooding Type: Potential for Groundwater Flooding of Property Situated Below Ground Level	A13NE (E)	191	1	273050 197550
	BGS Groundwater Flooding Susceptibility Flooding Type: Potential for Groundwater Flooding of Property Situated Below Ground Level	A13NW (NW)	221	1	272450 197700
	BGS Groundwater Flooding Susceptibility Flooding Type: Limited Potential for Groundwater Flooding to Occur	A13SE (SE)	227	1	273000 197250
	BGS Groundwater Flooding Susceptibility Flooding Type: Potential for Groundwater Flooding of Property Situated Below Ground Level	A13NE (NE)	229	1	272850 197750
	BGS Groundwater Flooding Susceptibility Flooding Type: Potential for Groundwater Flooding of Property Situated Below Ground Level	A14NW (E)	239	1	273100 197500
	BGS Groundwater Flooding Susceptibility Flooding Type: Limited Potential for Groundwater Flooding to Occur	A14NW (NE)	272	1	273100 197650
	BGS Groundwater Flooding Susceptibility Flooding Type: Limited Potential for Groundwater Flooding to Occur	A18SW (NW)	306	1	272550 197850
	BGS Groundwater Flooding Susceptibility Flooding Type: Potential for Groundwater Flooding of Property Situated Below Ground Level	A14SW (SE)	317	1	273150 197300
	BGS Groundwater Flooding Susceptibility Flooding Type: Potential for Groundwater Flooding of Property Situated Below Ground Level	A13SE (SE)	338	1	273050 197150
	BGS Groundwater Flooding Susceptibility Flooding Type: Potential for Groundwater Flooding of Property Situated Below Ground Level	A12NE (W)	357	1	272250 197650
	BGS Groundwater Flooding Susceptibility Flooding Type: Potential for Groundwater Flooding of Property Situated Below Ground Level	A14SW (SE)	368	1	273100 197150

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
	BGS Groundwater Flooding Susceptibility Flooding Type: Potential for Groundwater Flooding of Property Situated Below Ground Level	A8NE (SE)	380	1	273050 197100
	BGS Groundwater Flooding Susceptibility Flooding Type: Potential for Groundwater Flooding of Property Situated Below Ground Level	A12NE (W)	404	1	272200 197650
	BGS Groundwater Flooding Susceptibility Flooding Type: Potential for Groundwater Flooding to Occur at Surface	A9NW (SE)	407	1	273100 197100
	BGS Groundwater Flooding Susceptibility Flooding Type: Limited Potential for Groundwater Flooding to Occur	A8NE (SE)	424	1	273050 197050
	BGS Groundwater Flooding Susceptibility Flooding Type: Potential for Groundwater Flooding to Occur at Surface	A8NE (SE)	451	1	273000 197000
	BGS Groundwater Flooding Susceptibility Flooding Type: Limited Potential for Groundwater Flooding to Occur	A12NE (W)	452	1	272150 197650
	BGS Groundwater Flooding Susceptibility Flooding Type: Potential for Groundwater Flooding of Property Situated Below Ground Level	A14SW (SE)	452	1	273250 197200
	BGS Groundwater Flooding Susceptibility Flooding Type: Potential for Groundwater Flooding of Property Situated Below Ground Level	A14NW (E)	489	1	273350 197479
1	**Discharge Consents** Operator: Dwr Cymru Cyfyngedig Property Type: Sewerage Network - Sewers - Water Company Location: Cso 34 Rear 38 Caenant Trce Neath, Cso 34 Rear Of 38 Caenant Terrac, Neath Port Talbot, Wales Authority: Natural Resources Wales Catchment Area: Not Supplied Reference: Bp0316501 Permit Version: 1 Effective Date: 31st March 2004 Issued Date: 31st March 2004 Revocation Date: Not Supplied Discharge Type: Sewage Discharges - Stw Storm Overflow/Storm Tank - Water Company Discharge Environment: Freshwater Stream/River Receiving Water: Trib Of Tennant Canal **Status:** **Effective** Positional Accuracy: Located by supplier to within 10m	A13NE (NE)	4	2	272756 197526
1	**Discharge Consents** Operator: Dwr Cymru Cyfyngedig Property Type: Sewerage Network - Sewers - Water Company Location: Cso 34 Rear 38 Caenant Trce Neath, Cso 34 Rear Of 38 Caenant Terrac, Neath Port Talbot, Wales Authority: Natural Resources Wales Catchment Area: Not Supplied Reference: Bp0316501 Permit Version: 1 Effective Date: 31st March 2004 Issued Date: 31st March 2004 Revocation Date: Not Supplied Discharge Type: Sewage Discharges - Stw Storm Overflow/Storm Tank - Water Company Discharge Environment: Freshwater Stream/River Receiving Water: Trib Of Tennant Canal **Status:** **Effective** Positional Accuracy: Located by supplier to within 10m	A13NE (NE)	4	2	272756 197526

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
2	**Discharge Consents** Operator: Dwr Cymru Cyfyngedig Property Type: Sewerage Network - Pumping Staions Location: Cso No 31 Opp New Road Skewen, Opposite New Road, Neath Authority: Natural Resources Wales Catchment Area: Not Supplied Reference: Bp0303801 Permit Version: 1 Effective Date: 5th March 2003 Issued Date: 5th March 2003 Revocation Date: Not Supplied Discharge Type: Sewage Discharges - Stw Storm Overflow/Storm Tank - Water Company Discharge Environment: Freshwater Stream/River Receiving Water: Stream To The Tennant Canal **Status: Effective** Positional Accuracy: Located by supplier to within 10m	A14SW (E)	249	2	273107 197400
2	**Discharge Consents** Operator: Dwr Cymru Cyfyngedig Property Type: Sewerage Network - Pumping Staions Location: Cso No 31 Opp New Road Skewen, Opposite New Road, Neath Authority: Natural Resources Wales Catchment Area: Not Supplied Reference: Bp0303801 Permit Version: 1 Effective Date: 5th March 2003 Issued Date: 5th March 2003 Revocation Date: Not Supplied Discharge Type: Sewage Discharges - Stw Storm Overflow/Storm Tank - Water Company Discharge Environment: Freshwater Stream/River Receiving Water: Stream To The Tennant Canal **Status: Effective** Positional Accuracy: Located by supplier to within 10m	A14SW (E)	249	2	273107 197400
3	**Discharge Consents** Operator: Dwr Cymru Cyfyngedig Property Type: Sewerage Network - Sewers - Water Company Location: Old Road Cso Old Road Skewen Neath, Old Road, Skewen Authority: Natural Resources Wales Catchment Area: Not Supplied Reference: Bp0353701 Permit Version: 1 Effective Date: 31st March 2006 Issued Date: 31st March 2006 Revocation Date: Not Supplied Discharge Type: Sewage Discharges - Stw Storm Overflow/Storm Tank - Water Company Discharge Environment: Freshwater Stream/River Receiving Water: Un-Named Trib Of Tennant Canal **Status: Effective** Positional Accuracy: Located by supplier to within 10m	A14SW (E)	402	2	273250 197330
3	**Discharge Consents** Operator: Dwr Cymru Cyfyngedig Property Type: Sewerage Network - Sewers - Water Company Location: Old Road Cso Old Road Skewen Neath, Old Road, Skewen Authority: Natural Resources Wales Catchment Area: Not Supplied Reference: Bp0353701 Permit Version: 1 Effective Date: 31st March 2006 Issued Date: 31st March 2006 Revocation Date: Not Supplied Discharge Type: Sewage Discharges - Stw Storm Overflow/Storm Tank - Water Company Discharge Environment: Freshwater Stream/River Receiving Water: Un-Named Trib Of Tennant Canal **Status: Effective** Positional Accuracy: Located by supplier to within 10m	A14SW (E)	402	2	273250 197330

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
4	**Discharge Consents** Operator: Dwr Cymru Cyfyngedig Property Type: Sewerage Network - Pumping Staions Location: Neath Abbey Ps Skewen Neath Port T, Neath Abbey Pumping Station, Skewen, Neath, Neath Port Talbot Authority: Natural Resources Wales Catchment Area: Not Supplied Reference: Bp0224301 Permit Version: 2 Effective Date: 31st March 2009 Issued Date: 7th March 2005 Revocation Date: Not Supplied Discharge Type: Sewage Discharges - Stw Storm Overflow/Storm Tank - Water Company Discharge Environment: Freshwater Stream/River Receiving Water: River Clydach **Status: Effective** Positional Accuracy: Located by supplier to within 10m	A14SW (SE)	510	2	273310 197190
4	**Discharge Consents** Operator: Dwr Cymru Cyfyngedig Property Type: Sewerage Network - Pumping Staions Location: Neath Abbey Ps Skewen Neath Port T, Neath Abbey Pumping Station, Skewen, Neath, Neath Port Talbot Authority: Natural Resources Wales Catchment Area: Not Supplied Reference: Bp0224301 Permit Version: 2 Effective Date: 31st March 2009 Issued Date: 7th March 2005 Revocation Date: Not Supplied Discharge Type: Sewage Discharges - Stw Storm Overflow/Storm Tank - Water Company Discharge Environment: Freshwater Stream/River Receiving Water: River Clydach **Status: Effective** Positional Accuracy: Located by supplier to within 10m	A14SW (SE)	510	2	273310 197190
4	**Discharge Consents** Operator: Dwr Cymru Cyfyngedig Property Type: Sewerage Network - Pumping Staions Location: Neath Abbey Ps Skewen Neath Port T, Neath Abbey Pumping Station, Skewen, Neath, Neath Port Talbot Authority: Natural Resources Wales Catchment Area: Not Supplied Reference: BP0224201 Permit Version: 1 Effective Date: 23rd December 1993 Issued Date: 23rd December 1993 Revocation Date: Not Supplied Discharge Type: Sewage Discharges - Stw Storm Overflow/Storm Tank - Water Company Discharge Environment: Freshwater Stream/River Receiving Water: River Clydach **Status: Effective** Positional Accuracy: Located by supplier to within 100m	A14SW (SE)	510	2	273310 197190
4	**Discharge Consents** Operator: Dwr Cymru Cyfyngedig Property Type: Sewerage Network - Pumping Staions Location: Neath Abbey Ps Skewen Neath Port T, Neath Abbey Pumping Station, Skewen, Neath, Neath Port Talbot Authority: Natural Resources Wales Catchment Area: Not Supplied Reference: Bp0224201 Permit Version: 1 Effective Date: 23rd December 1993 Issued Date: 23rd December 1993 Revocation Date: Not Supplied Discharge Type: Sewage Discharges - Stw Storm Overflow/Storm Tank - Water Company Discharge Environment: Freshwater Stream/River Receiving Water: River Clydach **Status: Effective** Positional Accuracy: Located by supplier to within 10m	A14SW (SE)	510	2	273310 197190

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
5	**Discharge Consents** Operator: Dwr Cymru Cyfyngedig Property Type: Sewerage Network - Sewers - Water Company Location: Skewen N'Th Abbey Swo12 Neath Authority: Natural Resources Wales Catchment Area: River Neath Reference: BW2902501 Permit Version: 1 Effective Date: 20th October 1989 Issued Date: 20th October 1989 Revocation Date: 31st March 2006 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	A14SW (E)	516	2	273360 197300
6	**Discharge Consents** Operator: Dwr Cymru Cyfyngedig Property Type: Water Supply Grid Location: Longford Chlor.Overflow Authority: Natural Resources Wales Catchment Area: Not Supplied Reference: Bp0189901 Permit Version: 1 Effective Date: 2nd October 1989 Issued Date: 2nd October 1989 Revocation Date: 14th March 1994 Discharge Type: Unspecified Discharge Environment: Not Supplied Receiving Water: To Land **Status: Consent expired** Positional Accuracy: Located by supplier to within 100m	A19SW (NE)	671	2	273200 198100
7	**Discharge Consents** Operator: Dwr Cymru Cyfyngedig Property Type: Sewerage Network - Sewers - Water Company Location: Pentre Fynnon Skewen Neath Authority: Natural Resources Wales Catchment Area: River Neath Reference: Bp0064317 Permit Version: 3 Effective Date: 29th March 1996 Issued Date: 28th March 1996 Revocation Date: 31st December 1997 Discharge Type: Unspecified Discharge Environment: Not Supplied Receiving Water: Estuarial Waters Of River Neat **Status: Consent expired** Positional Accuracy: Located by supplier to within 10m	A9SW (SE)	756	2	273280 196800
7	**Discharge Consents** Operator: Dwr Cymru Cyfyngedig Property Type: Sewerage Network - Sewers - Water Company Location: Pentre Fynnon Skewen Neath Authority: Natural Resources Wales Catchment Area: River Neath Reference: Bp0064317 Permit Version: 2 Effective Date: 28th November 1992 Issued Date: 28th August 1992 Revocation Date: 28th March 1996 Discharge Type: Unspecified Discharge Environment: Not Supplied Receiving Water: Estuarial Waters Of River Neat **Status: Authorisation revoked** Positional Accuracy: Located by supplier to within 100m	A9SW (SE)	756	2	273280 196800

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
7	**Discharge Consents** Operator: Dwr Cymru Cyfyngedig Property Type: Sewerage Network - Sewers - Water Company Location: Pentre Fynnon Skewen Neath Authority: Natural Resources Wales Catchment Area: River Neath Reference: Bp0064317 Permit Version: 1 Effective Date: 9th October 1987 Issued Date: 9th October 1987 Revocation Date: 27th November 1992 Discharge Type: Unspecified Discharge Environment: Not Supplied Receiving Water: Estuarial Waters Of River Neat **Status: Authorisation revoked** Positional Accuracy: Located by supplier to within 10m	A9SW (SE)	756	2	273280 196800
8	**Discharge Consents** Operator: Dwr Cymru Cyfyngedig Property Type: Water Supply Grid Location: Darran S.Res Chl.Overfl Authority: Natural Resources Wales Catchment Area: Not Supplied Reference: Bp0179401 Permit Version: 1 Effective Date: 2nd October 1989 Issued Date: 2nd October 1989 Revocation Date: 14th March 1994 Discharge Type: Unspecified Discharge Environment: Not Supplied Receiving Water: To Land **Status: Consent expired** Positional Accuracy: Located by supplier to within 100m	A17NE (NW)	777	2	272200 198200
9	**Discharge Consents** Operator: Dwr Cymru Cyfyngedig Property Type: Sewerage Network - Pumping Staions Location: Pentreffynnon Ps Neath Abbey Ind Es, Neath Abbey Ind Est Neath Authority: Natural Resources Wales Catchment Area: NEATH ESTUARY Reference: BP0256101 Permit Version: 1 Effective Date: 31st December 1997 Issued Date: 19th September 1996 Revocation Date: Not Supplied Discharge Type: Sewage Discharges - Stw Storm Overflow/Storm Tank - Water Company Discharge Environment: Saline Estuary Receiving Water: Estuarial Waters River Neath **Status: Effective** Positional Accuracy: Located by supplier to within 100m	A9SW (SE)	787	2	273240 196740
9	**Discharge Consents** Operator: Dwr Cymru Cyfyngedig Property Type: Sewerage Network - Pumping Staions Location: Pentreffynnon Ps Neath Abbey Ind Es, Neath Abbey Ind Est Neath Authority: Natural Resources Wales Catchment Area: NEATH ESTUARY Reference: Bp0256101 Permit Version: 1 Effective Date: 31st December 1997 Issued Date: 19th September 1996 Revocation Date: Not Supplied Discharge Type: Sewage Discharges - Stw Storm Overflow/Storm Tank - Water Company Discharge Environment: Saline Estuary Receiving Water: Estuarial Waters River Neath **Status: Effective** Positional Accuracy: Located by supplier to within 10m	A9SW (SE)	787	2	273240 196740

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
10	**Discharge Consents** Operator: Dwr Cymru Cyfyngedig Property Type: Sewerage Network - Sewers - Water Company Location: Swo Pt.R.Nth Old Dock On W Ba Authority: Natural Resources Wales Catchment Area: River Neath Reference: Bb4000508 Permit Version: 1 Effective Date: 8th November 1972 Issued Date: 8th November 1972 Revocation Date: 14th March 1994 Discharge Type: Unspecified Discharge Environment: Not Supplied Receiving Water: River Neath **Status: Consent expired** Positional Accuracy: Located by supplier to within 10m	A9SW (SE)	810	2	273330 196770
11	**Discharge Consents** Operator: Freezeramp Limited Property Type: Not Supplied Location: Gillards Waste Management Site, Old Crown Works, Nr Neath Abbey Wharf, Skewen, Neath Port Talbot, Sa10 6bl Authority: Natural Resources Wales Catchment Area: Not Supplied Reference: Bp0325901 Permit Version: 2 Effective Date: 26th November 2012 Issued Date: 26th November 2012 Revocation Date: Not Supplied Discharge Type: Trade Discharges - Site Drainage Discharge Environment: Into Land Receiving Water: Into Land **Status: Effective** Positional Accuracy: Located by supplier to within 10m	A8SE (S)	821	2	273046 196630
11	**Discharge Consents** Operator: Mr M P Gillards Property Type: Industrial Waste Site Location: Gillards Waste Management Site, Old Crown Works, Nr Neath Abbey Wharf, Skewen, Neath Port Talbot, Sa10 6bl Authority: Natural Resources Wales Catchment Area: Not Supplied Reference: Bp0325901 Permit Version: 1 Effective Date: 27th September 2005 Issued Date: 27th September 2005 Revocation Date: 25th November 2012 Discharge Type: Trade Discharges - Site Drainage Discharge Environment: Into Land Receiving Water: Into Land **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	A8SE (S)	821	2	273046 196630
12	**Discharge Consents** Operator: Bryn Ogwy Estates Ltd Property Type: Undefined Or Other Location: Housing Dev' Between Highlands Authority: Natural Resources Wales Catchment Area: Not Supplied Reference: Bb3031101 Permit Version: 1 Effective Date: 2nd October 1972 Issued Date: 2nd October 1972 Revocation Date: 7th December 1993 Discharge Type: Unspecified Discharge Environment: Not Supplied Receiving Water: River Clydach **Status: Consent expired** Positional Accuracy: Located by supplier to within 10m	A19NW (NE)	917	2	273120 198400

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
13	**Discharge Consents** Operator: Neath Port Talbot County Borough Council Property Type: Not Supplied Location: Tregelles Court Depot Neath Abbey, Neath, Neath Port Talbot, Sa10 7df Authority: Natural Resources Wales Catchment Area: CLYDACH - HEADWATERS TO CONF WITH RIVER NEATH Reference: Bp0273501 Permit Version: 1 Effective Date: 8th September 1998 Issued Date: 8th September 1998 Revocation Date: Not Supplied Discharge Type: Trade And Other Matter Discharge Discharge Environment: Freshwater Stream/River Receiving Water: River Clydach **Status: Effective** Positional Accuracy: Located by supplier to within 100m	A15SW (E)	940	2	273800 197400
13	**Discharge Consents** Operator: Neath Port Talbot County Borough Council Property Type: Other Road Passenger Transport Location: Tregelles Court Depot Neath Abbey, Neath, Neath Port Talbot, Sa10 7df Authority: Natural Resources Wales Catchment Area: River Neath Reference: BP027350101 Permit Version: 1 Effective Date: 8th September 1998 Issued Date: 8th September 1998 Revocation Date: Not Supplied Discharge Type: Trade Effluent Discharge Environment: Freshwater Stream/River Receiving Water: River Clydach **Status: New Consent (Water Resources Act 1991, Section 88 & Schedule 10 as amended by Environment Act 1995)** Positional Accuracy: Manually corrected supplier location	A15SW (E)	940	2	273800 197400
14	**Discharge Consents** Operator: Neath Borough Council Property Type: Undefined Or Other Location: Sheltered Housing Development Pen Y, Pen Yr Heol Skewen Authority: Natural Resources Wales Catchment Area: River Neath Reference: Bp0039301 Permit Version: 1 Effective Date: 16th March 1987 Issued Date: 16th March 1987 Revocation Date: 29th September 1992 Discharge Type: Unspecified Discharge Environment: Not Supplied Receiving Water: Stream At Pen-Yr-Heol **Status: Consent expired** Positional Accuracy: Located by supplier to within 10m	A7SE (SW)	949	2	272260 196550
15	**Discharge Consents** Operator: Dwr Cymru Cyfyngedig Property Type: Undefined Or Other Location: Swo.Point S. Southeast Of Neat Authority: Natural Resources Wales Catchment Area: River Neath Reference: Bb4000513 Permit Version: 1 Effective Date: 8th November 1972 Issued Date: 8th November 1972 Revocation Date: 14th March 1994 Discharge Type: Unspecified Discharge Environment: Not Supplied Receiving Water: River Clydach **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	A15SW (E)	949	2	273770 197160

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
15	**Discharge Consents** Operator: Dwr Cymru Cyfyngedig Property Type: Undefined Or Other Location: Swo.Point S. Southeast Of Neat Authority: Natural Resources Wales Catchment Area: River Neath Reference: Bw2902201 Permit Version: 1 Effective Date: 8th November 1972 Issued Date: 8th November 1972 Revocation Date: 14th March 1994 Discharge Type: Unspecified Discharge Environment: Not Supplied Receiving Water: River Clydach **Status: Consent expired** Positional Accuracy: Located by supplier to within 10m	A15SW (E)	949	2	273770 197160
15	**Discharge Consents** Operator: Dwr Cymru Cyfyngedig Property Type: Sewerage Network - Pumping Station - Water Company Location: Neath Abbey Ps Neath Authority: Natural Resources Wales Catchment Area: River Neath Reference: BP0224301 Permit Version: 1 Effective Date: 20th December 1993 Issued Date: 20th December 1993 Revocation Date: 27th July 2005 Discharge Type: Public Sewage: Storm Sewage Overflow Discharge Environment: Not Supplied Receiving Water: River Clydach **Status: New Consent, by Application (Water Resources Act 1991, Section 88)** Positional Accuracy: Located by supplier to within 100m	A15SW (E)	972	2	273800 197180
16	**Discharge Consents** Operator: Matt Price (Motor Engineers) Ltd Property Type: Undefined Or Other Location: Discharge Of Surface Water Poi Authority: Natural Resources Wales Catchment Area: River Neath Reference: Bb3030703 Permit Version: 1 Effective Date: 9th August 1972 Issued Date: 9th August 1972 Revocation Date: 7th December 1993 Discharge Type: Unspecified Discharge Environment: Not Supplied Receiving Water: River Clydach **Status: Consent expired** Positional Accuracy: Located by supplier to within 10m	A15NW (E)	976	2	273830 197640
16	**Discharge Consents** Operator: Matt Price (Motor Engineers) Ltd Property Type: Undefined Or Other Location: Discharge Of Surface Water Authority: Natural Resources Wales Catchment Area: River Neath Reference: Bb3030702 Permit Version: 1 Effective Date: 9th August 1972 Issued Date: 9th August 1972 Revocation Date: 7th December 1993 Discharge Type: Unspecified Discharge Environment: Not Supplied Receiving Water: River Clydach **Status: Consent expired** Positional Accuracy: Located by supplier to within 10m	A15NW (E)	978	2	273830 197650

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
16	**Discharge Consents** Operator: Matt Price (Motor Engineers) Ltd Property Type: Undefined Or Other Location: Discharge Of Surface Water Authority: Natural Resources Wales Catchment Area: Not Supplied Reference: Ba2031201 Permit Version: 1 Effective Date: 19th February 1965 Issued Date: 19th February 1965 Revocation Date: 22nd November 1993 Discharge Type: Unspecified Discharge Environment: Not Supplied Receiving Water: River Clydach **Status: Consent expired** Positional Accuracy: Located by supplier to within 10m	A15NW (E)	978	2	273830 197650
16	**Discharge Consents** Operator: Matt Price (Motor Engineers) Ltd Property Type: Undefined Or Other Location: Discharge Of Surface Water Authority: Natural Resources Wales Catchment Area: Not Supplied Reference: Ba2005501 Permit Version: 1 Effective Date: 21st August 1963 Issued Date: 21st August 1963 Revocation Date: 22nd November 1993 Discharge Type: Unspecified Discharge Environment: Not Supplied Receiving Water: River Clydach **Status: Consent expired** Positional Accuracy: Located by supplier to within 10m	A15NW (E)	978	2	273830 197650
16	**Discharge Consents** Operator: Matt Price (Motor Engineers) Ltd Property Type: Undefined Or Other Location: Discharge Of Surface Water Authority: Natural Resources Wales Catchment Area: Not Supplied Reference: Ba2005502 Permit Version: 1 Effective Date: 21st August 1963 Issued Date: 21st August 1963 Revocation Date: 22nd November 1993 Discharge Type: Unspecified Discharge Environment: Not Supplied Receiving Water: River Clydach **Status: Consent expired** Positional Accuracy: Located by supplier to within 10m	A15NW (E)	978	2	273830 197650
16	**Discharge Consents** Operator: Matt Price (Motor Engineers) Ltd Property Type: Undefined Or Other Location: Discharge Of Rainwater To Clyd Authority: Natural Resources Wales Catchment Area: River Neath Reference: Bb3030701 Permit Version: 1 Effective Date: 9th August 1972 Issued Date: 9th August 1972 Revocation Date: 7th December 1993 Discharge Type: Unspecified Discharge Environment: Not Supplied Receiving Water: River Clydach **Status: Consent expired** Positional Accuracy: Located by supplier to within 10m	A15NW (E)	980	2	273830 197670

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
17	**Discharge Consents** Operator: Neath Port Talbot County Borough Council Property Type: Not Supplied Location: Vehicle Maintenance Workshop Tregel, Tregelles Court, Neath Abbey, Neath, Sa10 7df Authority: Natural Resources Wales Catchment Area: CLYDACH - HEADWATERS TO CONF WITH RIVER NEATH Reference: Ba1000201 Permit Version: 1 Effective Date: 22nd October 1951 Issued Date: 22nd October 1951 Revocation Date: Not Supplied Discharge Type: Not Supplied Discharge Environment: Freshwater Stream/River Receiving Water: River Clydach **Status: Effective** Positional Accuracy: Located by supplier to within 10m	A15NW (E)	980	2	273841 197531
18	**Discharge Consents** Operator: Angepher (Mining) Ltd Property Type: Undefined Or Other Location: Neath Abbey Darren Colliery Longfor, Darren Colliery Longford Authority: Natural Resources Wales Catchment Area: River Neath Reference: Bp0089501 Permit Version: 1 Effective Date: 1st November 1988 Issued Date: 1st November 1988 Revocation Date: 5th June 1995 Discharge Type: Unspecified Discharge Environment: Not Supplied Receiving Water: Tributary River Clydach **Status: Consent expired** Positional Accuracy: Located by supplier to within 100m	A23SE (N)	989	2	273000 198500
19	**Discharge Consents** Operator: David Walsh Gibbon And Sarah Lousie Walsh Gibbon Property Type: Domestic Property (Single) Location: No2 Taillwydd Road Neath Abbey, Neath Port Talbot, Wales, Sa10 7dt Authority: Natural Resources Wales Catchment Area: Not Supplied Reference: Bp0315701 Permit Version: 1 Effective Date: 15th December 2003 Issued Date: 15th December 2003 Revocation Date: 3rd April 2009 Discharge Type: Sewage Discharges - Final/Treated Effluent - Not Water Company Discharge Environment: Freshwater Stream/River Receiving Water: A Trib Of The Afon Clydach **Status: Revoked (Water Resources Act 1991, Section 88 & Schedule 10 as amended by Environment Act 1995)** Positional Accuracy: Located by supplier to within 10m	A15NW (E)	999	2	273833 197753
20	**Prosecutions Relating to Controlled Waters** Location: River Clydach (tributary of), Drymau Road, NEATH, West Glamorgan, SA10 6NU Prosecution Text: EA Welsh Data 02/09/1999, Polluting an unnamed tributary of the River Clydach with industrial metal. Offence committed 25/04/1995. Prosecution Act: WRA91 s85(1) Hearing Date: 22nd April 1996 Verdict: Guilty Fine: 1500 Cost: 968 Positional Accuracy: Manually positioned to the road within the address or location	A14NW (E)	220	4	273081 197487
21	**Local Authority Pollution Prevention and Controls** Name: Arden Motors Limited Location: Units 5 & 6 Lonlas Industrial Estate, Skewen, Sa10 6rp Authority: Neath Port Talbot County Borough Council, Environmental Health Department Permit Reference: E3/1/127 Dated: 10th April 2008 Process Type: Local Authority Pollution Prevention and Control Description: PG6/34 Respraying of road vehicles **Status: Permitted** Positional Accuracy: Located by supplier to within 10m	A12NW (W)	641	3	271944 197518

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
22	**Local Authority Pollution Prevention and Controls** Name: S Wernick & Sons Ltd Location: Nidum Works, Monastery Road, Neath Abbey, NEATH, West Glamorgan, SA10 7DS Authority: Neath Port Talbot County Borough Council, Environmental Health Department Permit Reference: Not Given Dated: Not Supplied Process Type: Local Authority Air Pollution Control Description: PG6/2 Manufacture of timber and wood-based products **Status: Authorisation revoked** Positional Accuracy: Automatically positioned to the address	A14SE (E)	766	3	273623 197364
23	**Local Authority Pollution Prevention and Controls** Name: Steel Supply Co (Western) Limited Location: Neath Abbey Wharf, Jenkins Road, Skewen, NEATH, West Glamorgan, SA10 6BL Authority: Neath Port Talbot County Borough Council, Environmental Health Department Permit Reference: E3/1/43 Dated: 27th January 1993 Process Type: Local Authority Air Pollution Control Description: PG3/5 Coal, coke and coal product processes **Status: Authorised** Positional Accuracy: Manually positioned to the address or location	A8SE (S)	805	3	273015 196639
23	**Local Authority Pollution Prevention and Controls** Name: Johnson Brothers Coal Factors Limited Location: Abbey Site, Neath Abbey Wharf, Skewen, NEATH, West Glamorgan, SA10 6BL Authority: Neath Port Talbot County Borough Council, Environmental Health Department Permit Reference: E3/1/50 Dated: 27th January 1993 Process Type: Local Authority Air Pollution Control Description: PG3/5 Coal, coke and coal product processes **Status: Authorisation has varied** Positional Accuracy: Automatically positioned to the address	A8SE (S)	815	3	273015 196629
24	**Local Authority Pollution Prevention and Controls** Name: Tarmac Topmix Ltd Location: Neath Abbey Transmix Depot, Neath Abbey, NEATH, West Glamorgan, SA10 7DR Authority: Neath Port Talbot County Borough Council, Environmental Health Department Permit Reference: B04 Dated: 19th December 1992 Process Type: Local Authority Air Pollution Control Description: PG3/1Blending, packing, loading and use of bulk cement **Status: Authorisation revoked** Positional Accuracy: Manually positioned within the geographical locality	A14SE (E)	860	3	273714 197326
25	**Local Authority Pollution Prevention and Controls** Name: Malthurst Petroleum Limited Location: Skewen Service Station, A465 Trunk Road, Neath, Sa10 7dr Authority: Neath Port Talbot County Borough Council, Environmental Health Department Permit Reference: E3/1/84 Dated: 23rd June 1999 Process Type: Local Authority Pollution Prevention and Control Description: PG1/14 Petrol filling station **Status: Permitted** Positional Accuracy: Located by supplier to within 10m	A8SW (S)	896	3	272708 196539
26	**Local Authority Pollution Prevention and Control Enforcements** Location: Neath Abbey Wharf, Jenkins Road, Skewen, Neath, West Glamorgan, Sa10 6bl Type: Air Pollution Control Enforcement Notice Reference: E3/1/43 Date Issued: 27th January 1993 Enforcement Date: Not Supplied Details: Required To Re-Instate Fully Operational Industrial Wheelwash Positional Accuracy: Manually positioned to the address or location	A8SE (S)	805	3	273015 196639
	Nearest Surface Water Feature	A13NW (NW)	0	-	272688 197529

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
27	**Pollution Incidents to Controlled Waters** Property Type: Not Given Location: SKEWEN Authority: Environment Agency, Welsh Region Pollutant: Unknown Note: Not Supplied Incident Date: 24th May 1991 Incident Reference: 751 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	A13NW (W)	84	4	272500 197500
28	**Pollution Incidents to Controlled Waters** Property Type: Not Given Location: Electro-Plating Company Authority: Environment Agency, Welsh Region Pollutant: Oils - Diesel (Including Agricultural) Note: Not Supplied Incident Date: 9th October 1994 Incident Reference: 21548 Catchment Area: Not Given Receiving Water: Not Given Cause of Incident: Unknown Incident Severity: Category 3 - Minor Incident Positional Accuracy: Located by supplier to within 100m	A14NW (E)	239	4	273100 197500
28	**Pollution Incidents to Controlled Waters** Property Type: Not Given Location: Location Description Not Available Authority: Environment Agency, Welsh Region Pollutant: Unknown Note: Not Supplied Incident Date: 9th October 1994 Incident Reference: 21548 Catchment Area: Not Given Receiving Water: Not Given Cause of Incident: Unknown Incident Severity: Category 3 - Minor Incident Positional Accuracy: Located by supplier to within 100m	A14NW (E)	239	4	273100 197495
29	**Pollution Incidents to Controlled Waters** Property Type: Other Transport Location: Windows Factory, NEATH ABBEY Authority: Environment Agency, Welsh Region Pollutant: Mud/Clay/Soil Note: Neglect Incident Date: 12th September 1994 Incident Reference: 21147 Catchment Area: Not Given Receiving Water: Not Given Cause of Incident: Spillage Incident Severity: Category 2 - Significant Incident Positional Accuracy: Located by supplier to within 100m	A14SW (E)	341	4	273200 197400
30	**Pollution Incidents to Controlled Waters** Property Type: Abandoned mine Location: Abbey Ruins, Near Coalworks And Scrapyard Authority: Environment Agency, Welsh Region Pollutant: Light Oil Note: Not Supplied Incident Date: 9th October 1995 Incident Reference: 26326 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	A14SW (E)	364	4	273200 197300
31	**Pollution Incidents to Controlled Waters** Property Type: Not Given Location: NEATH ABBEY Authority: Environment Agency, Welsh Region Pollutant: Oils - Diesel (Including Agricultural) Note: River Clydach; Spillage Incident Date: 3rd April 1998 Incident Reference: 35374 Catchment Area: Not Given Receiving Water: Not Given Cause of Incident: Accidental Spillage/Leakage Incident Severity: Category 3 - Minor Incident Positional Accuracy: Located by supplier to within 100m	A8NE (SE)	451	4	273000 197000

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
32	**Pollution Incidents to Controlled Waters** Property Type: Not Given Location: Jenkins And Usk Garage, Wildmill, Skewen, NEATH Authority: Environment Agency, Welsh Region Pollutant: Chemicals - Other Organic Note: Deliberate Act Incident Date: 29th December 1996 Incident Reference: 30835 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	A12SE (W)	504	4	272100 197300
33	**Pollution Incidents to Controlled Waters** Property Type: Not Given Location: SKEWEN Authority: Environment Agency, Welsh Region Pollutant: Mud/Clay/Soil Note: Not Supplied Incident Date: 13th November 1995 Incident Reference: 27058 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	A12SW (W)	685	4	271900 197400
34	**Pollution Incidents to Controlled Waters** Property Type: Not Given Location: Stream Authority: Environment Agency, Welsh Region Pollutant: Sullage Note: Not Supplied Incident Date: 11th May 1992 Incident Reference: 4756 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	A12NW (W)	738	4	271900 197800
35	**Pollution Incidents to Controlled Waters** Property Type: Water Company Sewage: Sewerage Location: Pentreffynnon Outfall Authority: Environment Agency, Welsh Region Pollutant: Unknown Note: Not Supplied Incident Date: 5th December 1994 Incident Reference: 22118 Catchment Area: Not Given Receiving Water: Not Given Cause of Incident: Effluent Discharge Incident Severity: Category 3 - Minor Incident Positional Accuracy: Located by supplier to within 100m	A9SW (SE)	768	4	273300 196800
36	**Pollution Incidents to Controlled Waters** Property Type: Waste Handling Facilities Location: Drummau Farm, Skewen Next To, Green Bank Authority: Environment Agency, Welsh Region Pollutant: Light Oil Note: Neglect Incident Date: 20th May 1992 Incident Reference: 4751 Catchment Area: Not Given Receiving Water: Not Given Cause of Incident: Spillage Incident Severity: Category 2 - Significant Incident Positional Accuracy: Located by supplier to within 100m	A17SW (NW)	781	4	271900 197900
37	**Pollution Incidents to Controlled Waters** Property Type: Not Given Location: Dwr Y Felin Road, NEATH Authority: Environment Agency, Welsh Region Pollutant: Light Oil Note: Not Supplied Incident Date: 16th April 1991 Incident Reference: 129 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	A19SE (NE)	799	4	273500 198000

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
38	**Pollution Incidents to Controlled Waters** Property Type: Not Given Location: Culvert, CLYDACH Authority: Environment Agency, Welsh Region Pollutant: Milk/Creamery Wastes Note: Not Supplied Incident Date: 16th September 1991 Incident Reference: 3538 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	A14SE (E)	850	4	273700 197300
39	**Pollution Incidents to Controlled Waters** Property Type: Water Company Sewage: Sewerage Location: CLYDACH Authority: Environment Agency, Welsh Region Pollutant: Farm Effluent/Slurry Note: Inadequate Design/Capacity Incident Date: 11th February 1992 Incident Reference: 3031 Catchment Area: Not Given Receiving Water: Not Given Cause of Incident: Direct Discharge Incident Severity: Category 2 - Significant Incident Positional Accuracy: Located by supplier to within 100m	A9NE (E)	902	4	273700 197100
40	**Pollution Incidents to Controlled Waters** Property Type: Stables Location: Drummau Woods Authority: Environment Agency, Welsh Region Pollutant: Farm Effluent/Slurry Note: Deliberate Act Incident Date: 13th October 1994 Incident Reference: 21657 Catchment Area: Not Given Receiving Water: Not Given Cause of Incident: Direct Discharge Incident Severity: Category 3 - Minor Incident Positional Accuracy: Located by supplier to within 100m	A17SW (NW)	915	4	271800 197995
40	**Pollution Incidents to Controlled Waters** Property Type: Stables Location: Drummau Woods Authority: Environment Agency, Welsh Region Pollutant: Light Oil Note: Deliberate Act Incident Date: 13th October 1994 Incident Reference: 21657 Catchment Area: Not Given Receiving Water: Not Given Cause of Incident: Direct Discharge Incident Severity: Category 2 - Significant Incident Positional Accuracy: Located by supplier to within 100m	A17SW (NW)	917	4	271800 198000
41	**Pollution Incidents to Controlled Waters** Property Type: Waste Handling Facilities Location: Below Road Bridge, NEATH ABBEY Authority: Environment Agency, Welsh Region Pollutant: Unknown Note: Blocked Sewer Incident Date: 2nd May 1991 Incident Reference: 763 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	A15NW (E)	939	4	273800 197500
42	**Pollution Incidents to Controlled Waters** Property Type: Water Company Sewage: Storm Overflow Location: NEATH ABBEY Authority: Environment Agency, Welsh Region Pollutant: Oils - Diesel (Including Agricultural) Note: Blocked Sewer Incident Date: 12th December 1995 Incident Reference: 26862 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	A8SE (S)	940	4	273000 196500

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
43	**Pollution Incidents to Controlled Waters** Property Type: Waste Handling Facilities Location: Adjacent Chip Shop, Smiths Arms, NEATH Authority: Environment Agency, Welsh Region Pollutant: Algae Note: Poor Operational Practise Incident Date: 1st May 1992 Incident Reference: 4720 Catchment Area: Not Given Receiving Water: Not Given Cause of Incident: Direct Discharge Incident Severity: Category 2 - Significant Incident Positional Accuracy: Located by supplier to within 100m	A15NW (E)	942	4	273800 197600
44	**Pollution Incidents to Controlled Waters** Property Type: Not Given Location: Monastery Abbey, By Ponderosa, NEATH ABBEY Authority: Environment Agency, Welsh Region Pollutant: Miscellaneous - Fire water / Foam Note: Mechanical/Electrical Plant Failure Incident Date: 30th September 1996 Incident Reference: 30081 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	A15SW (E)	967	4	273800 197200
45	**Pollution Incidents to Controlled Waters** Property Type: Not Given Location: Dyffryn Clydach Authority: Environment Agency, Welsh Region Pollutant: Unknown Note: Inadequate Design/Capacity Incident Date: 15th July 1996 Incident Reference: 29290 Catchment Area: Not Given Receiving Water: Not Given Cause of Incident: Direct Discharge Incident Severity: Category 3 - Minor Incident Positional Accuracy: Located by supplier to within 100m	A19SE (NE)	991	4	273650 198120
46	**Prosecutions Relating to Authorised Processes** Location: Land At Jenkins Road, Neath Abbey Wharf, Neath, Mid Glamorgan, Sa10 7 Prosecution Text: Two Armchairs Fly-Tipped On Land Without A Wml - One Year Conditional Discharge Served Prosecution Act: Epa90 S33 & S34 Hearing Date: 30th July 2003 Verdict: Guilty Fine: 0 Costs: 263 Positional Accuracy: Manually positioned to the road within the address or location	A14SW (SE)	382	4	273197 197250
47	**Registered Radioactive Substances** Name: B.E.L. Geophysical Borehole Ser Ltd Location: Unit 16, Neath Abbey Industrial Estate, NEATH, SA10 7DR Authority: Scottish Environment Protection Agency, Head Office Permit Reference: IPB/3/3/234 Dated: 10th January 1995 Process Type: Registration under S10 RSA for the keeping and use of mobile Radioactive sources (was RSA60 S3) Description: Registration under S7 or S10 RSA for the keeping and use of radioactive material or apparatus for 1 or more tracer test sources dated pre April 1991 **Status: Not Given** Positional Accuracy: Manually positioned to the address or location	A9NW (SE)	564	5	273261 197033
	River Quality Name: Port Tennant Canal GQA Grade: River Quality E Reach: Jersey Marine B - Neath Abbey Estimated Distance (km): 5 Flow Rate: Flow greater than 80 cumecs Flow Type: Canal Year: 2000	A9NW (SE)	691	4	273332 196922

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
	River Quality Name: Neath Canal GQA Grade: River Quality D Reach: Conf.Neath - Aberdulais Aqueduct Estimated Distance (km): 8 Flow Rate: Flow greater than 80 cumecs Flow Type: Canal Year: 2000	A9SE (SE)	872	4	273402 196743
	River Quality Name: Clydach GQA Grade: River Quality A Reach: Tidal Limit - Dyffryn Arms Bryncoch Estimated Distance (km): 4.3 Flow Rate: Flow less than 0.62 cumecs Flow Type: River Year: 2000	A15SW (E)	964	4	273824 197465
48	**River Quality Chemistry Sampling Points** Name: Port Tennant Canal Reach: Neath Abbey To Confluence River Neath Estimated Distance: 4.00 Objective: Not Supplied Positional Accuracy: Located by supplier to within 10m Year: 1990 GQA Grade: Not Supplied Compliance: Not Supplied Year: 1993 GQA Grade: River Quality Chemistry GQA Grade C - Fairly Good Compliance: Not Supplied Year: 1994 GQA Grade: River Quality Chemistry GQA Grade C - Fairly Good Compliance: Not Supplied Year: 1995 GQA Grade: River Quality Chemistry GQA Grade B - Good Compliance: Not Supplied Year: 1996 GQA Grade: River Quality Chemistry GQA Grade C - Fairly Good Compliance: Not Supplied Year: 1997 GQA Grade: River Quality Chemistry GQA Grade C - Fairly Good Compliance: Not Supplied Year: 1998 GQA Grade: River Quality Chemistry GQA Grade C - Fairly Good Compliance: Not Supplied Year: 1999 GQA Grade: River Quality Chemistry GQA Grade B - Good Compliance: Not Supplied Year: 2000 GQA Grade: River Quality Chemistry GQA Grade B - Good Compliance: Not Supplied Year: 2001 GQA Grade: River Quality Chemistry GQA Grade B - Good Compliance: Not Supplied Year: 2002 GQA Grade: River Quality Chemistry GQA Grade C - Fairly Good Compliance: Not Supplied Year: 2003 GQA Grade: River Quality Chemistry GQA Grade C - Fairly Good Compliance: Not Supplied Year: 2004 GQA Grade: River Quality Chemistry GQA Grade C - Fairly Good Compliance: Not Supplied Year: 2005 GQA Grade: River Quality Chemistry GQA Grade C - Fairly Good Compliance: Not Supplied Year: 2006 GQA Grade: River Quality Chemistry GQA Grade C - Fairly Good Compliance: Not Supplied Year: 2007 GQA Grade: River Quality Chemistry GQA Grade C - Fairly Good Compliance: Not Supplied Year: 2008 GQA Grade: River Quality Chemistry GQA Grade C - Fairly Good Compliance: Not Supplied Year: 2009 GQA Grade: River Quality Chemistry GQA Grade C - Fairly Good Compliance: Not Supplied	A15SW (E)	891	4	273740 197288

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
49	**River Quality Chemistry Sampling Points** Name: Clydach Reach: Tidal Limit To Dyffryn Arms Bryncoch Estimated Distance: 4.30 Objective: Not Supplied Positional Accuracy: Located by supplier to within 10m Year: 1990 GQA Grade: River Quality Chemistry GQA Grade B - Good Compliance: Not Supplied Year: 1993 GQA Grade: River Quality Chemistry GQA Grade A - Very Good Compliance: Not Supplied Year: 1994 GQA Grade: River Quality Chemistry GQA Grade A - Very Good Compliance: Not Supplied Year: 1995 GQA Grade: River Quality Chemistry GQA Grade A - Very Good Compliance: Not Supplied Year: 1996 GQA Grade: River Quality Chemistry GQA Grade A - Very Good Compliance: Not Supplied Year: 1997 GQA Grade: River Quality Chemistry GQA Grade A - Very Good Compliance: Not Supplied Year: 1998 GQA Grade: River Quality Chemistry GQA Grade A - Very Good Compliance: Not Supplied Year: 1999 GQA Grade: River Quality Chemistry GQA Grade A - Very Good Compliance: Not Supplied Year: 2000 GQA Grade: River Quality Chemistry GQA Grade A - Very Good Compliance: Not Supplied Year: 2001 GQA Grade: River Quality Chemistry GQA Grade A - Very Good Compliance: Not Supplied Year: 2002 GQA Grade: River Quality Chemistry GQA Grade B - Good Compliance: Not Supplied Year: 2003 GQA Grade: River Quality Chemistry GQA Grade B - Good Compliance: Not Supplied Year: 2004 GQA Grade: River Quality Chemistry GQA Grade B - Good Compliance: Not Supplied Year: 2005 GQA Grade: River Quality Chemistry GQA Grade B - Good Compliance: Not Supplied Year: 2006 GQA Grade: River Quality Chemistry GQA Grade B - Good Compliance: Not Supplied Year: 2007 GQA Grade: River Quality Chemistry GQA Grade A - Very Good Compliance: Not Supplied Year: 2008 GQA Grade: River Quality Chemistry GQA Grade A - Very Good Compliance: Not Supplied Year: 2009 GQA Grade: River Quality Chemistry GQA Grade A - Very Good Compliance: Not Supplied	A15NW (E)	975	4	273830 197627
	Water Abstractions Operator: St Mowden Properties Plc Licence Number: 22/59/5/0005 Permit Version: 102 Location: North Site Reservoir Authority: Natural Resources Wales Abstraction: Petrochemicals: Non-Evaporative Cooling Abstraction Type: Water may be abstracted from a single point Source: Surface Daily Rate (m3): Not Supplied Yearly Rate (m3): Not Supplied Details: Not Supplied Authorised Start: 01 January Authorised End: 31 December Permit Start Date: 29th July 2010 Permit End Date: Not Supplied Positional Accuracy: Located by supplier to within 10m	A1NW (SW)	1699	2	271290 196340

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
	Water Abstractions Operator: Bp Oil Llandarcy Refinery Ltd Licence Number: 22/59/5/0005 Permit Version: 101 Location: North Site Reservoir Authority: Environment Agency, Welsh Region Abstraction: Petrochemicals: Non-Evaporative Cooling Abstraction Type: Water may be abstracted from a single point Source: Surface Daily Rate (m3): Not Supplied Yearly Rate (m3): Not Supplied Details: Not Supplied Authorised Start: 01 January Authorised End: 31 December Permit Start Date: 31st March 2005 Permit End Date: Not Supplied Positional Accuracy: Located by supplier to within 10m	A1NW (SW)	1699	4	271290 196340
	Water Abstractions Operator: Bp Oil Llandarcy Refinery Ltd Licence Number: 22/59/5/0005 Permit Version: 100 Location: North Site Reservoir Authority: Environment Agency, Welsh Region Abstraction: Petrochemicals: Non-Evaporative Cooling Abstraction Type: Water may be abstracted from a single point Source: Surface Daily Rate (m3): Not Supplied Yearly Rate (m3): Not Supplied Details: North Site Reservoir Authorised Start: 01 January Authorised End: 31 December Permit Start Date: 1st April 2001 Permit End Date: Not Supplied Positional Accuracy: Located by supplier to within 100m	A1NW (SW)	1699	4	271290 196340
	Water Abstractions Operator: St Mowden Properties Plc Licence Number: 22/59/5/0005 Permit Version: Not Supplied Location: North Site Reservoir At B P Refinery Llandarcy Authority: Natural Resources Wales Abstraction: Petrochemicals: Non-Evaporative Cooling Abstraction Type: Water may be abstracted from a single point Source: Surface Daily Rate (m3): Not Supplied Yearly Rate (m3): Not Supplied Details: 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	A1NW (SW)	1699	2	271290 196340
50	**Water Industry Act Referrals** Name: Clancy Docwra Ltd Location: CLANCY DOCWRA LTD, UNIT 15 NEATH ABBEY IND EST, NEATH ABBEY, NEATH, WEST GLAMORGAN, SA10 7DR Authority: Natural Resources Wales Permit Reference: AW3490 Dated: 29th July 1996 Process Type: Permissions or amendments to discharge under the Water Industry Act 1991 Description: Processes which result in the discharge of Special Category effluents under The Trade Effluents (Prescribed Processes and Substances) Regulations **Status: Application cancelled** Positional Accuracy: Manually positioned to the address or location	A9NW (SE)	523	2	273228 197058
	Groundwater Vulnerability Map Combined Classification: Secondary Bedrock Aquifer - High Vulnerability Combined Vulnerability: High Combined Aquifer: Productive Bedrock Aquifer, Productive Superficial Aquifer Pollutant Speed: High Bedrock Flow: Well Connected Fractures Dilution: >550 mm/year Baseflow Index: <40% Superficial Patchiness: <90% Superficial Thickness: <3m Superficial Recharge: No Data	A13NE (S)	0	2	272724 197479

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
	Bedrock Aquifer Designations Aquifer Designation: Secondary Aquifer - A	A13NE (S)	0	2	272724 197479
	Superficial Aquifer Designations Aquifer Designation: Secondary Aquifer - Undifferentiated	A13NE (S)	0	2	272724 197479
	Extreme Flooding from Rivers or Sea without Defences None				
	Flooding from Rivers or Sea without Defences None				
	Areas Benefiting from Flood Defences None				
	Flood Water Storage Areas None				
	Flood Defences None				
51	**OS Water Network Lines** Watercourse Form: Inland river Watercourse Length: 105.6 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Neath Primacy: 1	A13NW (NW)	0	6	272688 197529
52	**OS Water Network Lines** Watercourse Form: Inland river Watercourse Length: 18.0 Watercourse Level: Not Supplied Permanent: True Watercourse Name: Not Supplied Catchment Name: Neath Primacy: 1	A13SE (SE)	112	6	272953 197367
53	**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	A13SE (SE)	128	6	272970 197364
54	**OS Water Network Lines** Watercourse Form: Inland river Watercourse Length: 6.1 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Neath Primacy: 1	A13NE (N)	128	6	272768 197651
55	**OS Water Network Lines** Watercourse Form: Inland river Watercourse Length: 139.0 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Neath Primacy: 1	A13NE (NE)	150	6	272971 197629
56	**OS Water Network Lines** Watercourse Form: Inland river Watercourse Length: 16.6 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Neath Primacy: 1	A13NE (E)	163	6	273023 197538

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
57	**OS Water Network Lines** Watercourse Form: Inland river Watercourse Length: 187.6 Watercourse Level: Not Supplied Permanent: True Watercourse Name: Not Supplied Catchment Name: Neath Primacy: 1	A13NE (NE)	168	6	272957 197658
58	**OS Water Network Lines** Watercourse Form: Inland river Watercourse Length: 30.8 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Neath Primacy: 1	A13NE (E)	178	6	273039 197534
59	**OS Water Network Lines** Watercourse Form: Inland river Watercourse Length: 39.6 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Neath Primacy: 1	A13SE (E)	182	6	273028 197359
60	**OS Water Network Lines** Watercourse Form: Inland river Watercourse Length: 34.2 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Neath Primacy: 1	A13NE (E)	185	6	273046 197504
61	**OS Water Network Lines** Watercourse Form: Inland river Watercourse Length: 278.7 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Neath Primacy: 1	A13NW (W)	190	6	272395 197495
62	**OS Water Network Lines** Watercourse Form: Inland river Watercourse Length: 7.4 Watercourse Level: Not Supplied Permanent: True Watercourse Name: Not Supplied Catchment Name: Neath Primacy: 1	A14NW (E)	214	6	273075 197488
63	**OS Water Network Lines** Watercourse Form: Inland river Watercourse Length: 82.5 Watercourse Level: Not Supplied Permanent: True Watercourse Name: Not Supplied Catchment Name: Neath Primacy: 1	A14SW (E)	216	6	273065 197361
64	**OS Water Network Lines** Watercourse Form: Inland river Watercourse Length: 77.2 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Neath Primacy: 1	A14NW (E)	218	6	273078 197482
65	**OS Water Network Lines** Watercourse Form: Inland river Watercourse Length: 64.9 Watercourse Level: Not Supplied Permanent: True Watercourse Name: Not Supplied Catchment Name: Neath Primacy: 1	A14SW (E)	248	6	273107 197410

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
66	**OS Water Network Lines** Watercourse Form: Inland river Watercourse Length: 29.6 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Neath Primacy: 1	A14NW (E)	280	6	273139 197553
67	**OS Water Network Lines** Watercourse Form: Inland river Watercourse Length: 100.7 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Neath Primacy: 1	A14SW (E)	296	6	273148 197359
68	**OS Water Network Lines** Watercourse Form: Inland river Watercourse Length: 120.7 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Neath Primacy: 1	A12SE (W)	315	6	272269 197433
69	**OS Water Network Lines** Watercourse Form: Inland river Watercourse Length: 158.5 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Neath Primacy: 1	A12SE (W)	320	6	272264 197441
70	**OS Water Network Lines** Watercourse Form: Inland river Watercourse Length: 61.2 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Neath Primacy: 1	A18SE (NE)	346	6	272984 197844
71	**OS Water Network Lines** Watercourse Form: Inland river Watercourse Length: 13.7 Watercourse Level: Underground Permanent: True Watercourse Name: Not Supplied Catchment Name: Neath Primacy: 1	A14SW (E)	392	6	273242 197342
72	**OS Water Network Lines** Watercourse Form: Inland river Watercourse Length: 56.9 Watercourse Level: Not Supplied Permanent: True Watercourse Name: Not Supplied Catchment Name: Neath Primacy: 1	A18SE (NE)	401	6	272977 197904
73	**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)	403	6	273252 197332
74	**OS Water Network Lines** Watercourse Form: Inland river Watercourse Length: 94.1 Watercourse Level: Not Supplied Permanent: True Watercourse Name: Not Supplied Catchment Name: Neath Primacy: 1	A14SW (E)	411	6	273259 197331

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
75	**OS Water Network Lines** Watercourse Form: Inland river Watercourse Length: 10.6 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Neath Primacy: 1	A12SE (W)	456	6	272128 197414
76	**OS Water Network Lines** Watercourse Form: Inland river Watercourse Length: 10.3 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Neath Primacy: 1	A18SE (NE)	457	6	272982 197961
77	**OS Water Network Lines** Watercourse Form: Canal Watercourse Length: 893.8 Watercourse Level: On ground surface Permanent: True Watercourse Name: Tennant Canal Catchment Name: Neath Primacy: 1	A14SW (SE)	458	6	273239 197172
78	**OS Water Network Lines** Watercourse Form: Canal Watercourse Length: 80.2 Watercourse Level: On ground surface Permanent: True Watercourse Name: Tennant Canal Catchment Name: Neath Primacy: 1	A14SW (SE)	458	6	273247 197185
79	**OS Water Network Lines** Watercourse Form: Canal Watercourse Length: 1.7 Watercourse Level: On ground surface Permanent: True Watercourse Name: Tennant Canal Catchment Name: Neath Primacy: 1	A14SW (E)	475	6	273298 197246
80	**OS Water Network Lines** Watercourse Form: Canal Watercourse Length: 20.4 Watercourse Level: Underground Permanent: True Watercourse Name: Tennant Canal Catchment Name: Neath Primacy: 1	A14SW (E)	476	6	273299 197246
81	**OS Water Network Lines** Watercourse Form: Canal Watercourse Length: 261.5 Watercourse Level: On ground surface Permanent: True Watercourse Name: Tennant Canal Catchment Name: Neath Primacy: 1	A14SW (E)	488	6	273317 197257
82	**OS Water Network Lines** Watercourse Form: Inland river Watercourse Length: 16.0 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Neath Primacy: 1	A14SW (E)	505	6	273349 197304
83	**OS Water Network Lines** Watercourse Form: Inland river Watercourse Length: 18.2 Watercourse Level: Underground Permanent: True Watercourse Name: Not Supplied Catchment Name: Neath Primacy: 1	A14SW (E)	521	6	273365 197304

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
84	**OS Water Network Lines** Watercourse Form: Inland river Watercourse Length: 72.4 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Neath Primacy: 1	A14SW (E)	539	6	273383 197300
85	**OS Water Network Lines** Watercourse Form: Inland river Watercourse Length: 10.8 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Neath Primacy: 1	A8NE (S)	580	6	272898 196851
86	**OS Water Network Lines** Watercourse Form: Inland river Watercourse Length: 28.8 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Neath Primacy: 1	A8NW (S)	586	6	272634 196853
87	**OS Water Network Lines** Watercourse Form: Inland river Watercourse Length: 9.4 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Neath Primacy: 1	A8NE (S)	589	6	272904 196842
88	**OS Water Network Lines** Watercourse Form: Inland river Watercourse Length: 42.9 Watercourse Level: Underground Permanent: True Watercourse Name: Not Supplied Catchment Name: Neath Primacy: 1	A14SE (E)	611	6	273454 197288
89	**OS Water Network Lines** Watercourse Form: Inland river Watercourse Length: 15.8 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Neath Primacy: 1	A8NE (S)	613	6	272895 196817
90	**OS Water Network Lines** Watercourse Form: Inland river Watercourse Length: 140.9 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Neath Primacy: 1	A8NE (S)	625	6	272891 196805
91	**OS Water Network Lines** Watercourse Form: Inland river Watercourse Length: 1.2 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Neath Primacy: 1	A8NE (S)	625	6	272892 196805
92	**OS Water Network Lines** Watercourse Form: Inland river Watercourse Length: 164.1 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Neath Primacy: 1	A9NW (SE)	635	6	273100 196842

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
93	**OS Water Network Lines** Watercourse Form: Inland river Watercourse Length: 62.3 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Neath Primacy: 1	A8SE (S)	642	6	272903 196788
94	**OS Water Network Lines** Watercourse Form: Inland river Watercourse Length: 140.2 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Neath Primacy: 1	A18NE (N)	650	6	272925 198167
95	**OS Water Network Lines** Watercourse Form: Inland river Watercourse Length: 19.9 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Neath Primacy: 1	A18NE (N)	650	6	272905 198170
96	**OS Water Network Lines** Watercourse Form: Inland river Watercourse Length: 3.5 Watercourse Level: Underground Permanent: True Watercourse Name: Not Supplied Catchment Name: Neath Primacy: 1	A18NE (N)	651	6	272902 198170
97	**OS Water Network Lines** Watercourse Form: Inland river Watercourse Length: 1.1 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Neath Primacy: 1	A18NE (N)	651	6	272901 198170
98	**OS Water Network Lines** Watercourse Form: Inland river Watercourse Length: 7.5 Watercourse Level: Underground Permanent: True Watercourse Name: Not Supplied Catchment Name: Neath Primacy: 1	A18NE (N)	651	6	272901 198170
99	**OS Water Network Lines** Watercourse Form: Inland river Watercourse Length: 76.1 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Neath Primacy: 1	A14SE (E)	652	6	273497 197290
100	**OS Water Network Lines** Watercourse Form: Inland river Watercourse Length: 196.0 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Neath Primacy: 1	A18NE (N)	653	6	272860 198178
101	**OS Water Network Lines** Watercourse Form: Inland river Watercourse Length: 15.7 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Neath Primacy: 1	A8SE (S)	665	6	272736 196770

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
102	**OS Water Network Lines** Watercourse Form: Inland river Watercourse Length: 3.9 Watercourse Level: Underground Permanent: True Watercourse Name: Not Supplied Catchment Name: Neath Primacy: 1	A8SE (S)	666	6	272732 196769
103	**OS Water Network Lines** Watercourse Form: Inland river Watercourse Length: 33.9 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Neath Primacy: 1	A8SW (S)	667	6	272696 196769
104	**OS Water Network Lines** Watercourse Form: Inland river Watercourse Length: 24.1 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Neath Primacy: 1	A17SE (NW)	673	6	272089 197980
105	**OS Water Network Lines** Watercourse Form: Inland river Watercourse Length: 27.9 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Neath Primacy: 1	A17SE (NW)	678	6	272089 197988
106	**OS Water Network Lines** Watercourse Form: Inland river Watercourse Length: 140.6 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Neath Primacy: 1	A9SW (SE)	696	6	273081 196769
107	**OS Water Network Lines** Watercourse Form: Inland river Watercourse Length: 140.6 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Neath Primacy: 1	A8SE (S)	716	6	272945 196719
108	**OS Water Network Lines** Watercourse Form: Inland river Watercourse Length: 3.0 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Neath Primacy: 2	A14SE (E)	726	6	273573 197291
109	**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	A14SE (E)	726	6	273573 197291
110	**OS Water Network Lines** Watercourse Form: Inland river Watercourse Length: 3.1 Watercourse Level: Underground Permanent: True Watercourse Name: Not Supplied Catchment Name: Neath Primacy: 2	A14SE (E)	728	6	273574 197288

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
111	**OS Water Network Lines** Watercourse Form: Tidal river Watercourse Length: 6.2 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Neath Primacy: 1	A9NE (SE)	729	6	273462 197017
112	**OS Water Network Lines** Watercourse Form: Inland river Watercourse Length: 143.5 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Neath Primacy: 1	A9NE (SE)	729	6	273501 197082
113	**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: 2	A14SE (E)	730	6	273576 197285
114	**OS Water Network Lines** Watercourse Form: Inland river Watercourse Length: 5.1 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Neath Primacy: 1	A18NE (NE)	731	6	273052 198226
115	**OS Water Network Lines** Watercourse Form: Canal Watercourse Length: 417.4 Watercourse Level: suspendedOrElevated Permanent: True Watercourse Name: Tennant Canal Catchment Name: Neath Primacy: 1	A14SE (E)	732	6	273576 197279
116	**OS Water Network Lines** Watercourse Form: Tidal river Watercourse Length: 516.2 Watercourse Level: On ground surface Permanent: True Watercourse Name: River Clydach Catchment Name: Neath Primacy: 1	A9NE (SE)	733	6	273470 197023
117	**OS Water Network Lines** Watercourse Form: Tidal river Watercourse Length: 157.0 Watercourse Level: On ground surface Permanent: True Watercourse Name: River Clydach Catchment Name: Neath Primacy: 1	A9NE (SE)	735	6	273468 197016
118	**OS Water Network Lines** Watercourse Form: Inland river Watercourse Length: 188.8 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Neath Primacy: 1	A18NE (NE)	736	6	273054 198230
119	**OS Water Network Lines** Watercourse Form: Inland river Watercourse Length: 91.6 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Neath Primacy: 1	A12NW (W)	737	6	271896 197788

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
120	**OS Water Network Lines** Watercourse Form: Inland river Watercourse Length: 109.7 Watercourse Level: Not Supplied Permanent: True Watercourse Name: Not Supplied Catchment Name: Neath Primacy: 1	A18NE (N)	740	6	272723 198262
121	**OS Water Network Lines** Watercourse Form: Inland river Watercourse Length: 61.8 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Neath Primacy: 1	A18NE (N)	748	6	272785 198270
122	**OS Water Network Lines** Watercourse Form: Inland river Watercourse Length: 7.6 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Neath Primacy: 1	A12NW (W)	766	6	271819 197534
123	**OS Water Network Lines** Watercourse Form: Inland river Watercourse Length: 91.2 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Neath Primacy: 1	A12NW (W)	774	6	271834 197716
124	**OS Water Network Lines** Watercourse Form: Inland river Watercourse Length: 122.1 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Neath Primacy: 1	A9NE (SE)	774	6	273498 196991
125	**OS Water Network Lines** Watercourse Form: Tidal river Watercourse Length: 100.3 Watercourse Level: On ground surface Permanent: True Watercourse Name: Afon Nedd Catchment Name: Neath Primacy: 1	A9NW (SE)	778	6	273360 196833
126	**OS Water Network Lines** Watercourse Form: Lake Watercourse Length: 11.3 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Neath Primacy: 1	A17SW (NW)	782	6	271885 197876
127	**OS Water Network Lines** Watercourse Form: Inland river Watercourse Length: 89.4 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Neath Primacy: 1	A8SE (S)	789	6	272945 196645
128	**OS Water Network Lines** Watercourse Form: Tidal river Watercourse Length: 256.1 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Neath Primacy: 1	A9NW (SE)	789	6	273342 196805

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
129	**OS Water Network Lines** Watercourse Form: Tidal river Watercourse Length: 575.6 Watercourse Level: On ground surface Permanent: True Watercourse Name: Afon Nedd Catchment Name: Neath Primacy: 1	A9NW (SE)	789	6	273342 196805
130	**OS Water Network Lines** Watercourse Form: Inland river Watercourse Length: 62.3 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Neath Primacy: 1	A9NE (SE)	790	6	273548 197041
131	**OS Water Network Lines** Watercourse Form: Inland river Watercourse Length: 74.4 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Neath Primacy: 1	A17SW (NW)	791	6	271926 197962
132	**OS Water Network Lines** Watercourse Form: Inland river Watercourse Length: 5.2 Watercourse Level: Underground Permanent: True Watercourse Name: Not Supplied Catchment Name: Neath Primacy: 1	A17SW (NW)	793	6	271874 197876
133	**OS Water Network Lines** Watercourse Form: Tidal river Watercourse Length: 9.9 Watercourse Level: On ground surface Permanent: True Watercourse Name: River Clydach Catchment Name: Neath Primacy: 1	A9NE (SE)	793	6	273420 196868
134	**OS Water Network Lines** Watercourse Form: Inland river Watercourse Length: 114.3 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Neath Primacy: 1	A18NE (N)	797	6	272766 198319
135	**OS Water Network Lines** Watercourse Form: Lake Watercourse Length: 11.2 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Neath Primacy: 1	A17SW (NW)	797	6	271869 197876
136	**OS Water Network Lines** Watercourse Form: Tidal river Watercourse Length: 74.2 Watercourse Level: On ground surface Permanent: True Watercourse Name: Afon Nedd Catchment Name: Neath Primacy: 1	A9NE (SE)	798	6	273418 196858
137	**OS Water Network Lines** Watercourse Form: Inland river Watercourse Length: 7.1 Watercourse Level: Underground Permanent: True Watercourse Name: Not Supplied Catchment Name: Neath Primacy: 1	A17SW (NW)	808	6	271858 197877

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
138	**OS Water Network Lines** Watercourse Form: Inland river Watercourse Length: 89.9 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Neath Primacy: 1	A9NE (SE)	813	6	273486 196911
139	**OS Water Network Lines** Watercourse Form: Inland river Watercourse Length: 60.1 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Neath Primacy: 1	A9NE (SE)	813	6	273487 196911
140	**OS Water Network Lines** Watercourse Form: Lake Watercourse Length: 9.0 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Neath Primacy: 1	A17SW (NW)	814	6	271851 197877
141	**OS Water Network Lines** Watercourse Form: Inland river Watercourse Length: 10.4 Watercourse Level: Underground Permanent: True Watercourse Name: Not Supplied Catchment Name: Neath Primacy: 1	A17SW (NW)	823	6	271842 197877
142	**OS Water Network Lines** Watercourse Form: Inland river Watercourse Length: 12.1 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Neath Primacy: 1	A9NE (SE)	823	6	273601 197070
143	**OS Water Network Lines** Watercourse Form: Inland river Watercourse Length: 24.7 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Neath Primacy: 1	A9NE (SE)	824	6	273601 197069
144	**OS Water Network Lines** Watercourse Form: Inland river Watercourse Length: 171.4 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Neath Primacy: 1	A18NW (N)	827	6	272658 198351
145	**OS Water Network Lines** Watercourse Form: Inland river Watercourse Length: 30.8 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Neath Primacy: 1	A12NW (W)	829	6	271793 197772
146	**OS Water Network Lines** Watercourse Form: Lake Watercourse Length: 3.1 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Neath Primacy: 1	A17SW (NW)	830	6	271913 198013

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
147	**OS Water Network Lines** Watercourse Form: Inland river Watercourse Length: 78.3 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Neath Primacy: 1	A19SE (NE)	831	6	273503 198048
148	**OS Water Network Lines** Watercourse Form: Inland river Watercourse Length: 226.0 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Neath Primacy: 1	A17SW (NW)	832	6	271911 198014
149	**OS Water Network Lines** Watercourse Form: Lake Watercourse Length: 27.1 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Neath Primacy: 1	A17SW (NW)	832	6	271831 197878
150	**OS Water Network Lines** Watercourse Form: Inland river Watercourse Length: 248.9 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Neath Primacy: 1	A18NE (N)	839	6	272893 198360
151	**OS Water Network Lines** Watercourse Form: Inland river Watercourse Length: 55.7 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Neath Primacy: 1	A9NE (SE)	840	6	273541 196937
152	**OS Water Network Lines** Watercourse Form: Inland river Watercourse Length: 7.3 Watercourse Level: Underground Permanent: True Watercourse Name: Not Supplied Catchment Name: Neath Primacy: 1	A8SE (S)	844	6	272878 196585
153	**OS Water Network Lines** Watercourse Form: Inland river Watercourse Length: 23.2 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Neath Primacy: 1	A7SE (SW)	848	6	272306 196641
154	**OS Water Network Lines** Watercourse Form: Inland river Watercourse Length: 75.8 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Neath Primacy: 1	A8SE (S)	849	6	272873 196580
155	**OS Water Network Lines** Watercourse Form: Inland river Watercourse Length: 24.8 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Neath Primacy: 1	A17SW (NW)	854	6	271805 197873

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
156	**OS Water Network Lines** Watercourse Form: Inland river Watercourse Length: 18.5 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Neath Primacy: 1	A12NW (W)	858	6	271769 197791
157	**OS Water Network Lines** Watercourse Form: Tidal river Watercourse Length: 30.2 Watercourse Level: On ground surface Permanent: True Watercourse Name: Afon Nedd Catchment Name: Neath Primacy: 1	A9NE (SE)	859	6	273488 196844
158	**OS Water Network Lines** Watercourse Form: Inland river Watercourse Length: 11.0 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Neath Primacy: 1	A8SE (S)	859	6	272780 196573
159	**OS Water Network Lines** Watercourse Form: Tidal river Watercourse Length: 13.5 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Not Supplied Primacy: 1	A9NE (SE)	859	6	273488 196844
160	**OS Water Network Lines** Watercourse Form: Inland river Watercourse Length: 44.2 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Neath Primacy: 1	A9NE (SE)	859	6	273601 196995
161	**OS Water Network Lines** Watercourse Form: Inland river Watercourse Length: 102.0 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Neath Primacy: 1	A17SW (W)	862	6	271788 197856
162	**OS Water Network Lines** Watercourse Form: Inland river Watercourse Length: 65.0 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Neath Primacy: 1	A17SW (W)	862	6	271788 197856
163	**OS Water Network Lines** Watercourse Form: Inland river Watercourse Length: 51.4 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Neath Primacy: 1	A7SE (SW)	864	6	272314 196621
164	**OS Water Network Lines** Watercourse Form: Inland river Watercourse Length: 5.1 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Neath Primacy: 1	A7SE (SW)	867	6	272310 196620

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
165	**OS Water Network Lines** Watercourse Form: Inland river Watercourse Length: 53.4 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Neath Primacy: 1	A7SE (SW)	872	6	272309 196615
166	**OS Water Network Lines** Watercourse Form: Inland river Watercourse Length: 6.1 Watercourse Level: Underground Permanent: True Watercourse Name: Not Supplied Catchment Name: Neath Primacy: 1	A12NW (W)	873	6	271755 197798
167	**OS Water Network Lines** Watercourse Form: Inland river Watercourse Length: 186.2 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Neath Primacy: 1	A9SE (SE)	875	6	273448 196780
168	**OS Water Network Lines** Watercourse Form: Inland river Watercourse Length: 120.4 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Neath Primacy: 1	A11NE (W)	876	6	271709 197530
169	**OS Water Network Lines** Watercourse Form: Inland river Watercourse Length: 25.6 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Neath Primacy: 1	A9NE (SE)	880	6	273594 196943
170	**OS Water Network Lines** Watercourse Form: Inland river Watercourse Length: 10.2 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Neath Primacy: 1	A9NE (SE)	880	6	273594 196943
171	**OS Water Network Lines** Watercourse Form: Inland river Watercourse Length: 88.7 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Neath Primacy: 1	A9NE (SE)	881	6	273600 196951
172	**OS Water Network Lines** Watercourse Form: Inland river Watercourse Length: 51.4 Watercourse Level: Not Supplied Permanent: True Watercourse Name: Not Supplied Catchment Name: Neath Primacy: 1	A19SE (NE)	888	6	273578 198046
173	**OS Water Network Lines** Watercourse Form: Tidal river Watercourse Length: 15.7 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Not Supplied Primacy: 1	A9NE (SE)	889	6	273512 196826

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
174	**OS Water Network Lines** Watercourse Form: Inland river Watercourse Length: 12.3 Watercourse Level: Not Supplied Permanent: True Watercourse Name: Not Supplied Catchment Name: Neath Primacy: 2	A18NE (N)	889	6	272806 198410
175	**OS Water Network Lines** Watercourse Form: Inland river Watercourse Length: 78.6 Watercourse Level: Not Supplied Permanent: True Watercourse Name: Not Supplied Catchment Name: Neath Primacy: 1	A18NE (N)	889	6	272806 198410
176	**OS Water Network Lines** Watercourse Form: Tidal river Watercourse Length: 490.5 Watercourse Level: On ground surface Permanent: True Watercourse Name: Afon Nedd Catchment Name: Neath Primacy: 1	A9NE (SE)	889	6	273512 196826
177	**OS Water Network Lines** Watercourse Form: Inland river Watercourse Length: 172.0 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Neath Primacy: 2	A18NE (N)	890	6	272789 198411
178	**OS Water Network Lines** Watercourse Form: Inland river Watercourse Length: 121.2 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Neath Primacy: 1	A9NE (SE)	893	6	273526 196834
179	**OS Water Network Lines** Watercourse Form: Inland river Watercourse Length: 96.5 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Neath Primacy: 1	A9SE (SE)	896	6	273411 196723
180	**OS Water Network Lines** Watercourse Form: Inland river Watercourse Length: 108.7 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Neath Primacy: 1	A18NE (N)	897	6	273028 198403
181	**OS Water Network Lines** Watercourse Form: Inland river Watercourse Length: 25.6 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Neath Primacy: 1	A9NE (SE)	905	6	273618 196934
182	**OS Water Network Lines** Watercourse Form: Inland river Watercourse Length: 11.6 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Neath Primacy: 1	A9NE (SE)	905	6	273618 196934

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
183	**OS Water Network Lines** Watercourse Form: Tidal river Watercourse Length: 34.6 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Not Supplied Primacy: 1	A9SW (SE)	909	6	273315 196642
184	**OS Water Network Lines** Watercourse Form: Inland river Watercourse Length: 52.6 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Neath Primacy: 2	A9SW (SE)	909	6	273315 196642
185	**OS Water Network Lines** Watercourse Form: Inland river Watercourse Length: 71.9 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Neath Primacy: 1	A19NW (N)	911	6	273069 198407
186	**OS Water Network Lines** Watercourse Form: Inland river Watercourse Length: 14.8 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Neath Primacy: 1	A9NE (SE)	914	6	273613 196910
187	**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	A9NE (SE)	914	6	273613 196910
188	**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	A9NE (SE)	916	6	273629 196932
189	**OS Water Network Lines** Watercourse Form: Inland river Watercourse Length: 296.1 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Neath Primacy: 1	A19NW (NE)	922	6	273127 198403
190	**OS Water Network Lines** Watercourse Form: Inland river Watercourse Length: 81.4 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Tawe Primacy: 1	A7SW (SW)	923	6	271936 196784
191	**OS Water Network Lines** Watercourse Form: Inland river Watercourse Length: 6.6 Watercourse Level: Underground Permanent: True Watercourse Name: Not Supplied Catchment Name: Neath Primacy: 1	A7SE (SW)	923	6	272279 196571

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
192	**OS Water Network Lines** Watercourse Form: Tidal river Watercourse Length: 176.5 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Neath Primacy: 1	A9SW (SE)	926	6	273297 196613
193	**OS Water Network Lines** Watercourse Form: Inland river Watercourse Length: 206.9 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Neath Primacy: 1	A18NE (N)	926	6	272989 198437
194	**OS Water Network Lines** Watercourse Form: Lake Watercourse Length: 125.0 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Neath Primacy: 1	A9SW (SE)	926	6	273297 196613
195	**OS Water Network Lines** Watercourse Form: Tidal river Watercourse Length: 1.9 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Not Supplied Primacy: 1	A9SW (SE)	926	6	273297 196613
196	**OS Water Network Lines** Watercourse Form: Inland river Watercourse Length: 37.2 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Neath Primacy: 1	A9SW (SE)	926	6	273299 196614
197	**OS Water Network Lines** Watercourse Form: Inland river Watercourse Length: 93.4 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Neath Primacy: 1	A7SE (SW)	929	6	272275 196565
198	**OS Water Network Lines** Watercourse Form: Inland river Watercourse Length: 83.0 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Neath Primacy: 1	A9NE (SE)	932	6	273680 196985
199	**OS Water Network Lines** Watercourse Form: Inland river Watercourse Length: 16.4 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Neath Primacy: 1	A19SE (NE)	937	6	273607 198088
200	**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	A9SW (SE)	939	6	273366 196638

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
201	**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: 1	A9SW (SE)	944	6	273364 196631
202	**OS Water Network Lines** Watercourse Form: Inland river Watercourse Length: 43.6 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Neath Primacy: 1	A9SW (SE)	944	6	273364 196631
203	**OS Water Network Lines** Watercourse Form: Inland river Watercourse Length: 235.8 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Neath Primacy: 1	A17SW (NW)	945	6	271738 197944
204	**OS Water Network Lines** Watercourse Form: Inland river Watercourse Length: 113.3 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Neath Primacy: 1	A8SE (S)	948	6	272749 196485
205	**OS Water Network Lines** Watercourse Form: Inland river Watercourse Length: 12.2 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Neath Primacy: 1	A9NE (SE)	951	6	273663 196920
206	**OS Water Network Lines** Watercourse Form: Inland river Watercourse Length: 76.8 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Neath Primacy: 1	A19SE (NE)	953	6	273619 198098
207	**OS Water Network Lines** Watercourse Form: Inland river Watercourse Length: 14.1 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Neath Primacy: 1	A9SW (SE)	958	6	273331 196595
208	**OS Water Network Lines** Watercourse Form: Inland river Watercourse Length: 96.4 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Tawe Primacy: 1	A7SW (SW)	963	6	271955 196712
209	**OS Water Network Lines** Watercourse Form: Inland river Watercourse Length: 39.7 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Neath Primacy: 1	A9NE (SE)	963	6	273675 196916

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
210	**OS Water Network Lines** Watercourse Form: Inland river Watercourse Length: 82.6 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Neath Primacy: 1	A18NE (N)	964	6	272784 198485
211	**OS Water Network Lines** Watercourse Form: Inland river Watercourse Length: 79.8 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Neath Primacy: 1	A11NE (W)	965	6	271634 197689
212	**OS Water Network Lines** Watercourse Form: Inland river Watercourse Length: 129.4 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Neath Primacy: 1	A9SW (SE)	966	6	273344 196593
213	**OS Water Network Lines** Watercourse Form: Inland river Watercourse Length: 198.7 Watercourse Level: On ground surface Permanent: True Watercourse Name: River Clydach Catchment Name: Neath Primacy: 1	A15NW (E)	967	6	273825 197600
214	**OS Water Network Lines** Watercourse Form: Inland river Watercourse Length: 128.1 Watercourse Level: On ground surface Permanent: True Watercourse Name: River Clydach Catchment Name: Neath Primacy: 1	A15NW (E)	974	6	273828 197639
215	**OS Water Network Lines** Watercourse Form: Inland river Watercourse Length: 3.3 Watercourse Level: On ground surface Permanent: True Watercourse Name: River Clydach Catchment Name: Neath Primacy: 1	A15NW (E)	974	6	273828 197634
216	**OS Water Network Lines** Watercourse Form: Inland river Watercourse Length: 219.8 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Neath Primacy: 1	A9SE (SE)	979	6	273505 196693
217	**OS Water Network Lines** Watercourse Form: Inland river Watercourse Length: 119.9 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Neath Primacy: 1	A9SE (SE)	980	6	273535 196718
218	**OS Water Network Lines** Watercourse Form: Inland river Watercourse Length: 50.0 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Neath Primacy: 1	A10NW (E)	981	6	273789 197113

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
219	**OS Water Network Lines** Watercourse Form: Inland river Watercourse Length: 79.6 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Neath Primacy: 1	A23SW (N)	984	6	272685 198507
220	**OS Water Network Lines** Watercourse Form: Inland river Watercourse Length: 259.9 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Neath Primacy: 1	A9SE (SE)	990	6	273472 196651
221	**OS Water Network Lines** Watercourse Form: Inland river Watercourse Length: 66.8 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Neath Primacy: 1	A9SE (SE)	996	6	273627 196794
222	**OS Water Network Lines** Watercourse Form: Inland river Watercourse Length: 157.9 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Neath Primacy: 1	A9SE (SE)	996	6	273627 196794
223	**OS Water Network Lines** Watercourse Form: Inland river Watercourse Length: 57.9 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Neath Primacy: 1	A9SE (SE)	998	6	273410 196596
224	**OS Water Network Lines** Watercourse Form: Inland river Watercourse Length: 52.9 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Tawe Primacy: 1	A7SW (SW)	999	6	271862 196752
225	**OS Water Network Lines** Watercourse Form: Inland river Watercourse Length: 35.2 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Neath Primacy: 1	A9NE (SE)	999	6	273709 196903
226	**OS Water Network Lines** Watercourse Form: Inland river Watercourse Length: 56.6 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Neath Primacy: 1	A9NE (SE)	999	6	273709 196903

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
227	**Historical Landfill Sites** Licence Holder: Not Supplied Location: Neath Abbey, Port Talbot Name: Neath Abbey Refuse Sute Operator Location: Not Supplied Boundary Accuracy: As Supplied Provider Reference: EAHLD34828 First Input Date: Not Supplied Last Input Date: Not Supplied Specified Waste Type: Not Supplied EA Waste Ref: 0 Regis Ref: Not Supplied WRC Ref: Not Supplied BGS Ref: Not Supplied Other Ref: Not Supplied	A14SW (E)	477	2	273309 197268
228	**Licensed Waste Management Facilities (Locations)** Licence Number: MB3093HF Location: Old Crown Works, Neath Abbey Wharf, Skewen, Neath, Neath Port Talb, Neath Port Talbot, SA10 6BL Operator Name: Freezeramp Limited Operator Location: Not Supplied Authority: Natural Resources Wales Site Category: Not Supplied **Licence Status: Effective** Issued: 8th August 1996 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	A8SE (S)	787	2	272972 196650
228	**Licensed Waste Management Facilities (Locations)** Licence Number: 34141 Location: Neath Abbey Wharf, Skewen, Neath, SA10 6BL Operator Name: Freezeramp Limited Operator Location: Not Supplied Authority: Natural Resources Wales Site Category: Metal Recycling Sites (Vehicle Dismantlers) **Licence Status: Transferred** Issued: 12th May 1996 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	A8SE (S)	787	2	272972 196650
229	**Licensed Waste Management Facilities (Locations)** Licence Number: 102553 Location: Unit 9, Monastery Business Centre, Monastery Road, Neath Abbey, Neath, SA10 7DW Operator Name: Abbey Salvage Ltd Operator Location: Not Supplied Authority: Natural Resources Wales Site Category: Vehicle depollution facility **Licence Status: Modified** Issued: 7th April 2011 Last Modified: 21st February 2014 Expires: Not Supplied Suspended: Not Supplied Revoked: Not Supplied Surrendered: Not Supplied IPPC Reference: Not Supplied Positional Accuracy: Located by supplier to within 10m	A14NE (E)	866	2	273727 197497

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
229	**Licensed Waste Management Facilities (Locations)** Licence Number: VP3298VM Location: Abbey Salvage Vehicle Depollution Site, Neath Abbey, Neath, West Glamorgan, Neath Port Talbot, SA10 7DW Operator Name: Abbey Salvage Ltd Operator Location: Not Supplied Authority: Natural Resources Wales Site Category: Not Supplied **Licence Status: Expired** Issued: 7th April 2011 Last Modified: Not Supplied Expires: 19th August 2016 Suspended: Not Supplied Revoked: Not Supplied Surrendered: Not Supplied IPPC Reference: Not Supplied Positional Accuracy: Located by supplier to within 10m	A14NE (E)	866	2	273727 197497
230	**Licensed Waste Management Facilities (Locations)** Licence Number: GB3831AM Location: Derwen Aggregates Ltd, Neath Abbey Wharf, Neath, West Glam, Neath Port Talbot, SA10 6BL Operator Name: Derwen Aggregates Ltd Operator Location: Not Supplied Authority: Natural Resources Wales Site Category: Not Supplied **Licence Status: Effective** Issued: 19th June 2018 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	A8SE (S)	883	2	272995 196557
231	**Licensed Waste Management Facilities (Locations)** Licence Number: 104190 Location: Neath Abbey Wharf, Neath Abbey, Neath, SA10 6BL Operator Name: Derwen Plant Company Ltd Operator Location: Not Supplied Authority: Natural Resources Wales Site Category: Physical Treatment Facilities **Licence Status: Modified** Issued: 20th June 2012 Last Modified: 5th June 2014 Expires: Not Supplied Suspended: Not Supplied Revoked: Not Supplied Surrendered: Not Supplied IPPC Reference: Not Supplied Positional Accuracy: Located by supplier to within 10m	A8SE (S)	897	2	273059 196555
232	**Licensed Waste Management Facilities (Locations)** Licence Number: FP3893SF Location: Recycling and Recovery Facility, Neath Abbey Wharf, Skewen, Neath, Neath Port Talbot, SA10 6BL Operator Name: Derwen Recycling Ltd. Operator Location: Not Supplied Authority: Natural Resources Wales Site Category: Not Supplied **Licence Status: Effective** Issued: 6th August 2018 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	A8SE (S)	967	2	272945 196466

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
232	**Licensed Waste Management Facilities (Locations)** Licence Number: FP3893SF Location: Recycling and Recovery Facility, Neath Abbey Wharf, Skewen, Neath, Neath Port Talbot, SA10 6BL Operator Name: Derwen Recycling Ltd. Operator Location: Not Supplied Authority: Natural Resources Wales Site Category: Not Supplied **Licence Status: Effective** Issued: 6th August 2018 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	A8SE (S)	967	2	272945 196466
233	**Licensed Waste Management Facilities (Locations)** Licence Number: 104887 Location: The Old Forge, Monastry Road, Neath Abbey, Neath, SA10 7DW Operator Name: Rees Jonathan Mark Operator Location: Not Supplied Authority: Natural Resources Wales Site Category: Metal Recycling Site <25000 tps **Licence Status: Issued** Issued: 4th January 2013 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	A15SW (E)	996	2	273840 197249
233	**Licensed Waste Management Facilities (Locations)** Licence Number: MB3333DG Location: The Old Forge, The Old Forge, Monastry Road, Neath Abbey, Neath, West Glamorgan, Neath Port Talbot, SA10 7DW Operator Name: Jonathan Mark Rees Operator Location: Not Supplied Authority: Natural Resources Wales Site Category: Not Supplied **Licence Status: Effective** Issued: 4th January 2013 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	A15SW (E)	996	2	273840 197249
	Local Authority Landfill Coverage Name: Neath Port Talbot County Borough Council - Has supplied landfill data		0	3	272724 197479
234	**Potentially Infilled Land (Non-Water)** Bearing Ref: NW Use: Unknown Filled Ground (Pit, quarry etc) Date of Mapping: 1992	A13NW (NW)	128	-	272542 197645
235	**Potentially Infilled Land (Non-Water)** Bearing Ref: S Use: Unknown Filled Ground (Pit, quarry etc) Date of Mapping: 1992	A13SW (S)	279	-	272692 197158
236	**Potentially Infilled Land (Non-Water)** Bearing Ref: E Use: Unknown Filled Ground (Pit, quarry etc) Date of Mapping: 1992	A14SW (E)	336	-	273178 197322
237	**Potentially Infilled Land (Non-Water)** Bearing Ref: NE Use: Unknown Filled Ground (Pit, quarry etc) Date of Mapping: 1992	A18SE (NE)	416	-	273041 197895
238	**Potentially Infilled Land (Non-Water)** Bearing Ref: N Use: Unknown Filled Ground (Pit, quarry etc) Date of Mapping: 1992	A18SE (N)	474	-	272861 197995

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
239	**Potentially Infilled Land (Non-Water)** Bearing Ref: S Use: Unknown Filled Ground (Pit, quarry etc) Date of Mapping: 1992	A8NE (S)	529	-	272872 196901
240	**Potentially Infilled Land (Non-Water)** Bearing Ref: S Use: Unknown Filled Ground (Pit, quarry etc) Date of Mapping: 1992	A8NE (S)	581	-	272882 196849
241	**Potentially Infilled Land (Non-Water)** Bearing Ref: S Use: Unknown Filled Ground (Pit, quarry etc) Date of Mapping: 1992	A8NE (S)	590	-	272757 196843
242	**Potentially Infilled Land (Non-Water)** Bearing Ref: S Use: Unknown Filled Ground (Pit, quarry etc) Date of Mapping: 1992	A8NE (S)	594	-	272794 196838
243	**Potentially Infilled Land (Non-Water)** Bearing Ref: W Use: Unknown Filled Ground (Pit, quarry etc) Date of Mapping: 1992	A12NW (W)	620	-	271964 197494
244	**Potentially Infilled Land (Non-Water)** Bearing Ref: W Use: Unknown Filled Ground (Pit, quarry etc) Date of Mapping: 1992	A12NW (W)	634	-	271955 197598
245	**Potentially Infilled Land (Non-Water)** Bearing Ref: NE Use: Unknown Filled Ground (Pit, quarry etc) Date of Mapping: 1992	A19NW (NE)	816	-	273211 198258
246	**Potentially Infilled Land (Non-Water)** Bearing Ref: N Use: Unknown Filled Ground (Pit, quarry etc) Date of Mapping: 1992	A18NE (N)	878	-	272804 198399
247	**Potentially Infilled Land (Non-Water)** Bearing Ref: W Use: Unknown Filled Ground (Pit, quarry etc) Date of Mapping: 1992	A11SE (W)	906	-	271678 197421
248	**Potentially Infilled Land (Non-Water)** Bearing Ref: E Use: Unknown Filled Ground (Pit, quarry etc) Date of Mapping: 1992	A15NW (E)	984	-	273840 197620
249	**Potentially Infilled Land (Non-Water)** Bearing Ref: NE Use: Unknown Filled Ground (Pit, quarry etc) Date of Mapping: 1992	A19NW (NE)	996	-	273204 198455
250	**Potentially Infilled Land (Water)** Use: Unknown Filled Ground (Pond, marsh, river, stream, dock etc) Date of Mapping: 1900	A13NE (N)	0	-	272735 197511
251	**Potentially Infilled Land (Water)** Use: Unknown Filled Ground (Pond, marsh, river, stream, dock etc) Date of Mapping: 1884	A13NE (NE)	32	-	272826 197553
252	**Potentially Infilled Land (Water)** Use: Unknown Filled Ground (Pond, marsh, river, stream, dock etc) Date of Mapping: 1965	A13NE (NE)	205	-	272985 197683
253	**Potentially Infilled Land (Water)** Use: Unknown Filled Ground (Pond, marsh, river, stream, dock etc) Date of Mapping: 1940	A19SW (NE)	509	-	273256 197842
254	**Potentially Infilled Land (Water)** Use: Unknown Filled Ground (Pond, marsh, river, stream, dock etc) Date of Mapping: 1884	A14SW (E)	524	-	273367 197295
255	**Potentially Infilled Land (Water)** Use: Unknown Filled Ground (Pond, marsh, river, stream, dock etc) Date of Mapping: 1940	A14SE (E)	647	-	273485 197263
256	**Potentially Infilled Land (Water)** Use: Unknown Filled Ground (Pond, marsh, river, stream, dock etc) Date of Mapping: 1940	A8SW (S)	672	-	272722 196763

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
257	**Potentially Infilled Land (Water)** Use: Unknown Filled Ground (Pond, marsh, river, stream, dock etc) Date of Mapping: 1965	A9NE (SE)	683	-	273443 197073
258	**Potentially Infilled Land (Water)** Use: Unknown Filled Ground (Pond, marsh, river, stream, dock etc) Date of Mapping: 1900	A14SE (SE)	691	-	273487 197140
259	**Potentially Infilled Land (Water)** Use: Unknown Filled Ground (Pond, marsh, river, stream, dock etc) Date of Mapping: 1884	A8SW (S)	731	-	272428 196727
260	**Potentially Infilled Land (Water)** Use: Unknown Filled Ground (Pond, marsh, river, stream, dock etc) Date of Mapping: 1900	A8SE (S)	755	-	273008 196689
261	**Potentially Infilled Land (Water)** Use: Unknown Filled Ground (Pond, marsh, river, stream, dock etc) Date of Mapping: 1884	A14SE (E)	762	-	273608 197282
262	**Potentially Infilled Land (Water)** Use: Unknown Filled Ground (Pond, marsh, river, stream, dock etc) Date of Mapping: 1965	A14SE (E)	780	-	273622 197263
263	**Potentially Infilled Land (Water)** Use: Unknown Filled Ground (Pond, marsh, river, stream, dock etc) Date of Mapping: 1940	A14SE (E)	805	-	273657 197312
264	**Potentially Infilled Land (Water)** Use: Unknown Filled Ground (Pond, marsh, river, stream, dock etc) Date of Mapping: 1884	A14SE (E)	811	-	273639 197205
265	**Potentially Infilled Land (Water)** Use: Unknown Filled Ground (Pond, marsh, river, stream, dock etc) Date of Mapping: 1900	A14SE (E)	812	-	273666 197332
266	**Potentially Infilled Land (Water)** Use: Unknown Filled Ground (Pond, marsh, river, stream, dock etc) Date of Mapping: 1965	A14SE (E)	825	-	273669 197267
267	**Potentially Infilled Land (Water)** Use: Unknown Filled Ground (Pond, marsh, river, stream, dock etc) Date of Mapping: 1965	A7SE (SW)	833	-	272112 196756
268	**Potentially Infilled Land (Water)** Use: Unknown Filled Ground (Pond, marsh, river, stream, dock etc) Date of Mapping: 1965	A19NW (NE)	855	-	273118 198336
269	**Potentially Infilled Land (Water)** Use: Unknown Filled Ground (Pond, marsh, river, stream, dock etc) Date of Mapping: 1965	A7SW (SW)	856	-	272021 196797
270	**Potentially Infilled Land (Water)** Use: Unknown Filled Ground (Pond, marsh, river, stream, dock etc) Date of Mapping: 1940	A14SE (E)	868	-	273715 197279
271	**Potentially Infilled Land (Water)** Use: Unknown Filled Ground (Pond, marsh, river, stream, dock etc) Date of Mapping: 1965	A14SE (E)	900	-	273715 197149
272	**Potentially Infilled Land (Water)** Use: Unknown Filled Ground (Pond, marsh, river, stream, dock etc) Date of Mapping: 1965	A7SW (SW)	908	-	272023 196728
273	**Potentially Infilled Land (Water)** Use: Unknown Filled Ground (Pond, marsh, river, stream, dock etc) Date of Mapping: 1965	A3NW (S)	999	-	272699 196436

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
	Registered Waste Treatment or Disposal Sites				
274	Licence Holder: M P Gillard Licence Reference: SWW 157L Site Location: Old Crown Works, Neath Abbey Wharf, Skewen, Neath, West Glamorgan Operator Location: As Site Address Authority: Environment Agency Wales, South West Area Site Category: Scrapyard Max Input Rate: Very Small (Less than 10,000 tonnes per year) Waste Source Restrictions: No known restriction on source of waste Licence Status: Operational as far as is knownOperational Dated: 8th August 1996 Preceded By Licence: Not Given Superseded By Licence: Not Given Positional Accuracy: Manually positioned to the address or location Boundary Quality: Not Supplied Authorised Waste: Batteries Max.Stor; Engines Max.Stor; Liquids As Part Of Vehs Max.Stor; Scrap Vehicles Max.Stor; Tyres Max.Stor Prohibited Waste: Elemental Sodium/Potassium; Liquid Waste N.O.S.; Metal In Fine Powder Form; Oil Contam. Metal Swarf; Percussive/Explosive/Similar Waste; Spec.Waste (Epa'90:S62/1996 Regs)N.O.S; Sub'S Control. Radioactive Subs Act'60; Waste N.O.S.; Waste With Flam.Solvent (Except Petrol	A8SE (S)	802	4	273050 196650

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
	BGS 1:625,000 Solid Geology Description: South Wales Upper Coal Measures Formation	A13NE (S)	0	1	272724 197479
	BGS Estimated Soil Chemistry Source: British Geological Survey, National Geoscience Information Service Soil Sample Type: Sediment Arsenic Concentration: 35 - 45 mg/kg Cadmium Concentration: 3.0 - 6.0 mg/kg Chromium Concentration: 60 - 90 mg/kg Lead Concentration: <100 mg/kg Nickel Concentration: 15 - 30 mg/kg	A13NE (S)	0	1	272724 197479
	BGS Estimated Soil Chemistry Source: British Geological Survey, National Geoscience Information Service Soil Sample Type: Sediment Arsenic Concentration: 35 - 45 mg/kg Cadmium Concentration: 3.0 - 6.0 mg/kg Chromium Concentration: 60 - 90 mg/kg Lead Concentration: <100 mg/kg Nickel Concentration: 30 - 45 mg/kg	A13NW (N)	55	1	272707 197599
	BGS Estimated Soil Chemistry Source: British Geological Survey, National Geoscience Information Service Soil Sample Type: Sediment Arsenic Concentration: 35 - 45 mg/kg Cadmium Concentration: 3.0 - 6.0 mg/kg Chromium Concentration: 60 - 90 mg/kg Lead Concentration: <100 mg/kg Nickel Concentration: 30 - 45 mg/kg	A13SE (S)	130	1	272772 197288
	BGS Estimated Soil Chemistry Source: British Geological Survey, National Geoscience Information Service Soil Sample Type: Sediment Arsenic Concentration: 25 - 35 mg/kg Cadmium Concentration: 3.0 - 6.0 mg/kg Chromium Concentration: 60 - 90 mg/kg Lead Concentration: <100 mg/kg Nickel Concentration: 30 - 45 mg/kg	A13NE (NE)	207	1	273037 197630
	BGS Estimated Soil Chemistry Source: British Geological Survey, National Geoscience Information Service Soil Sample Type: Sediment Arsenic Concentration: 25 - 35 mg/kg Cadmium Concentration: 3.0 - 6.0 mg/kg Chromium Concentration: 60 - 90 mg/kg Lead Concentration: <100 mg/kg Nickel Concentration: 30 - 45 mg/kg	A13NW (NW)	233	1	272601 197771
	BGS Estimated Soil Chemistry Source: British Geological Survey, National Geoscience Information Service Soil Sample Type: Sediment Arsenic Concentration: 45 - 60 mg/kg Cadmium Concentration: 3.0 - 6.0 mg/kg Chromium Concentration: 60 - 90 mg/kg Lead Concentration: <100 mg/kg Nickel Concentration: 15 - 30 mg/kg	A14NW (NE)	280	1	273108 197654

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 Concentration: 35 - 45 mg/kg Cadmium Concentration: 3.0 - 6.0 mg/kg Chromium Concentration: 60 - 90 mg/kg Lead Concentration: <100 mg/kg Nickel Concentration: 30 - 45 mg/kg	A18SW (NW)	338	1	272487 197850
	BGS Estimated Soil Chemistry Source: British Geological Survey, National Geoscience Information Service Soil Sample Type: Sediment Arsenic Concentration: 35 - 45 mg/kg Cadmium Concentration: 3.0 - 6.0 mg/kg Chromium Concentration: 60 - 90 mg/kg Lead Concentration: <100 mg/kg Nickel Concentration: 15 - 30 mg/kg	A8NE (SE)	344	1	272991 197111
	BGS Estimated Soil Chemistry Source: British Geological Survey, National Geoscience Information Service Soil Sample Type: Sediment Arsenic Concentration: 35 - 45 mg/kg Cadmium Concentration: 3.0 - 6.0 mg/kg Chromium Concentration: 60 - 90 mg/kg Lead Concentration: <100 mg/kg Nickel Concentration: 15 - 30 mg/kg	A18SW (N)	429	1	272620 197954
	BGS Estimated Soil Chemistry Source: British Geological Survey, National Geoscience Information Service Soil Sample Type: Sediment Arsenic Concentration: 35 - 45 mg/kg Cadmium Concentration: 3.0 - 6.0 mg/kg Chromium Concentration: 60 - 90 mg/kg Lead Concentration: <100 mg/kg Nickel Concentration: 15 - 30 mg/kg	A8NE (SE)	449	1	272991 197000
	BGS Estimated Soil Chemistry Source: British Geological Survey, National Geoscience Information Service Soil Sample Type: Sediment Arsenic Concentration: 35 - 45 mg/kg Cadmium Concentration: 3.0 - 6.0 mg/kg Chromium Concentration: 60 - 90 mg/kg Lead Concentration: <100 mg/kg Nickel Concentration: 15 - 30 mg/kg	A18SE (NE)	489	1	273011 197986
	BGS Estimated Soil Chemistry Source: British Geological Survey, National Geoscience Information Service Soil Sample Type: Sediment Arsenic Concentration: 25 - 35 mg/kg Cadmium Concentration: 3.0 - 6.0 mg/kg Chromium Concentration: 60 - 90 mg/kg Lead Concentration: <100 mg/kg Nickel Concentration: 15 - 30 mg/kg	A14SW (E)	519	1	273364 197306

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 Concentration: 35 - 45 mg/kg Cadmium Concentration: 3.0 - 6.0 mg/kg Chromium Concentration: 60 - 90 mg/kg Lead Concentration: <100 mg/kg Nickel Concentration: 15 - 30 mg/kg	A8NW (S)	535	1	272539 196901
	BGS Estimated Soil Chemistry Source: British Geological Survey, National Geoscience Information Service Soil Sample Type: Sediment Arsenic Concentration: 35 - 45 mg/kg Cadmium Concentration: 3.0 - 6.0 mg/kg Chromium Concentration: 60 - 90 mg/kg Lead Concentration: <100 mg/kg Nickel Concentration: 15 - 30 mg/kg	A14NE (E)	567	1	273428 197497
	BGS Estimated Soil Chemistry Source: British Geological Survey, National Geoscience Information Service Soil Sample Type: Sediment Arsenic Concentration: 45 - 60 mg/kg Cadmium Concentration: 3.0 - 6.0 mg/kg Chromium Concentration: 60 - 90 mg/kg Lead Concentration: <100 mg/kg Nickel Concentration: 30 - 45 mg/kg	A12NW (W)	608	1	272000 197691
	BGS Estimated Soil Chemistry Source: British Geological Survey, National Geoscience Information Service Soil Sample Type: Sediment Arsenic Concentration: 25 - 35 mg/kg Cadmium Concentration: 3.0 - 6.0 mg/kg Chromium Concentration: 60 - 90 mg/kg Lead Concentration: <100 mg/kg Nickel Concentration: 30 - 45 mg/kg	A19SW (NE)	628	1	273367 197893
	BGS Estimated Soil Chemistry Source: British Geological Survey, National Geoscience Information Service Soil Sample Type: Sediment Arsenic Concentration: 35 - 45 mg/kg Cadmium Concentration: 3.0 - 6.0 mg/kg Chromium Concentration: 60 - 90 mg/kg Lead Concentration: 100 - 200 mg/kg Nickel Concentration: 15 - 30 mg/kg	A14NE (E)	639	1	273500 197500
	BGS Estimated Soil Chemistry Source: British Geological Survey, National Geoscience Information Service Soil Sample Type: Sediment Arsenic Concentration: 45 - 60 mg/kg Cadmium Concentration: 3.0 - 6.0 mg/kg Chromium Concentration: 60 - 90 mg/kg Lead Concentration: 100 - 200 mg/kg Nickel Concentration: 15 - 30 mg/kg	A14NE (E)	639	1	273500 197500

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 Concentration: 35 - 45 mg/kg Cadmium Concentration: 3.0 - 6.0 mg/kg Chromium Concentration: 60 - 90 mg/kg Lead Concentration: <100 mg/kg Nickel Concentration: 30 - 45 mg/kg	A19SW (NE)	665	1	273371 197948
	BGS Estimated Soil Chemistry Source: British Geological Survey, National Geoscience Information Service Soil Sample Type: Sediment Arsenic Concentration: 45 - 60 mg/kg Cadmium Concentration: 3.0 - 6.0 mg/kg Chromium Concentration: 60 - 90 mg/kg Lead Concentration: <100 mg/kg Nickel Concentration: 30 - 45 mg/kg	A7NW (SW)	672	1	272000 197110
	BGS Estimated Soil Chemistry Source: British Geological Survey, National Geoscience Information Service Soil Sample Type: Sediment Arsenic Concentration: 25 - 35 mg/kg Cadmium Concentration: 3.0 - 6.0 mg/kg Chromium Concentration: 60 - 90 mg/kg Lead Concentration: 100 - 200 mg/kg Nickel Concentration: 30 - 45 mg/kg	A19SE (NE)	705	1	273500 197819
	BGS Estimated Soil Chemistry Source: British Geological Survey, National Geoscience Information Service Soil Sample Type: Sediment Arsenic Concentration: 35 - 45 mg/kg Cadmium Concentration: 3.0 - 6.0 mg/kg Chromium Concentration: 60 - 90 mg/kg Lead Concentration: <100 mg/kg Nickel Concentration: 30 - 45 mg/kg	A17NE (NW)	718	1	272298 198183
	BGS Estimated Soil Chemistry Source: British Geological Survey, National Geoscience Information Service Soil Sample Type: Sediment Arsenic Concentration: 35 - 45 mg/kg Cadmium Concentration: 3.0 - 6.0 mg/kg Chromium Concentration: 60 - 90 mg/kg Lead Concentration: <100 mg/kg Nickel Concentration: 30 - 45 mg/kg	A8SW (SW)	726	1	272403 196739
	BGS Estimated Soil Chemistry Source: British Geological Survey, National Geoscience Information Service Soil Sample Type: Sediment Arsenic Concentration: 35 - 45 mg/kg Cadmium Concentration: 3.0 - 6.0 mg/kg Chromium Concentration: 60 - 90 mg/kg Lead Concentration: 100 - 200 mg/kg Nickel Concentration: 30 - 45 mg/kg	A19SE (NE)	734	1	273500 197882

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 Concentration: 25 - 35 mg/kg Cadmium Concentration: 2.2 - 3.0 mg/kg Chromium Concentration: 60 - 90 mg/kg Lead Concentration: <100 mg/kg Nickel Concentration: 15 - 30 mg/kg	A9NE (SE)	770	1	273500 197000
	BGS Estimated Soil Chemistry Source: British Geological Survey, National Geoscience Information Service Soil Sample Type: Sediment Arsenic Concentration: 25 - 35 mg/kg Cadmium Concentration: 3.0 - 6.0 mg/kg Chromium Concentration: 60 - 90 mg/kg Lead Concentration: 100 - 200 mg/kg Nickel Concentration: 15 - 30 mg/kg	A14NE (E)	775	1	273636 197500
	BGS Estimated Soil Chemistry Source: British Geological Survey, National Geoscience Information Service Soil Sample Type: Sediment Arsenic Concentration: 35 - 45 mg/kg Cadmium Concentration: 3.0 - 6.0 mg/kg Chromium Concentration: 60 - 90 mg/kg Lead Concentration: <100 mg/kg Nickel Concentration: 30 - 45 mg/kg	A8SE (S)	819	1	272800 196612
	BGS Estimated Soil Chemistry Source: British Geological Survey, National Geoscience Information Service Soil Sample Type: Sediment Arsenic Concentration: 25 - 35 mg/kg Cadmium Concentration: 3.0 - 6.0 mg/kg Chromium Concentration: 60 - 90 mg/kg Lead Concentration: <100 mg/kg Nickel Concentration: 30 - 45 mg/kg	A8SE (S)	833	1	272782 196599
	BGS Estimated Soil Chemistry Source: British Geological Survey, National Geoscience Information Service Soil Sample Type: Sediment Arsenic Concentration: 25 - 35 mg/kg Cadmium Concentration: 3.0 - 6.0 mg/kg Chromium Concentration: 60 - 90 mg/kg Lead Concentration: <100 mg/kg Nickel Concentration: 30 - 45 mg/kg	A19SE (NE)	883	1	273603 198000
	BGS Estimated Soil Chemistry Source: British Geological Survey, National Geoscience Information Service Soil Sample Type: Sediment Arsenic Concentration: 45 - 60 mg/kg Cadmium Concentration: 3.0 - 6.0 mg/kg Chromium Concentration: 60 - 90 mg/kg Lead Concentration: <100 mg/kg Nickel Concentration: 30 - 45 mg/kg	A17NW (NW)	896	1	272000 198203

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 Concentration: 35 - 45 mg/kg Cadmium Concentration: 3.0 - 6.0 mg/kg Chromium Concentration: 60 - 90 mg/kg Lead Concentration: <100 mg/kg Nickel Concentration: 30 - 45 mg/kg	A8SE (S)	941	1	272844 196489
	BGS Estimated Soil Chemistry Source: British Geological Survey, National Geoscience Information Service Soil Sample Type: Sediment Arsenic Concentration: 35 - 45 mg/kg Cadmium Concentration: >6.0 mg/kg Chromium Concentration: 60 - 90 mg/kg Lead Concentration: 100 - 200 mg/kg Nickel Concentration: 15 - 30 mg/kg	A23SE (N)	989	1	273000 198500
	BGS Estimated Soil Chemistry Source: British Geological Survey, National Geoscience Information Service Soil Sample Type: Sediment Arsenic Concentration: 35 - 45 mg/kg Cadmium Concentration: >6.0 mg/kg Chromium Concentration: 60 - 90 mg/kg Lead Concentration: 100 - 200 mg/kg Nickel Concentration: 30 - 45 mg/kg	A23SE (N)	998	1	273000 198511
	BGS Estimated Soil Chemistry Source: British Geological Survey, National Geoscience Information Service Soil Sample Type: Sediment Arsenic Concentration: 25 - 35 mg/kg Cadmium Concentration: 3.0 - 6.0 mg/kg Chromium Concentration: 60 - 90 mg/kg Lead Concentration: 100 - 200 mg/kg Nickel Concentration: 30 - 45 mg/kg	A15NW (E)	999	1	273842 197710
	BGS Estimated Soil Chemistry Source: British Geological Survey, National Geoscience Information Service Soil Sample Type: Sediment Arsenic Concentration: 45 - 60 mg/kg Cadmium Concentration: 3.0 - 6.0 mg/kg Chromium Concentration: 60 - 90 mg/kg Lead Concentration: 100 - 200 mg/kg Nickel Concentration: 15 - 30 mg/kg	A15NW (E)	999	1	273842 197710
275	**BGS Recorded Mineral Sites** Site Name: Main Colliery Level Location: Skewen, Neath, West Glamorgan Source: British Geological Survey, National Geoscience Information Service Reference: 229841 Type: Underground **Status: Ceased** Operator: Main Colliery Co., Ltd. Operator Location: Not Supplied Periodic Type: Carboniferous Geology: Hughes Coal (South Wales) Commodity: Coal - Deep Positional Accuracy: Located by supplier to within 10m	A13NW (NW)	190	1	272490 197689

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
276	**BGS Recorded Mineral Sites** Site Name: East Graigola Slant Location: Neath Abbey, Neath, West Glamorgan Source: British Geological Survey, National Geoscience Information Service Reference: 229859 Type: Underground **Status: Ceased** Operator: Unknown Operator Operator Location: Not Supplied Periodic Type: Carboniferous Geology: Swansea Member Commodity: Coal - Deep Positional Accuracy: Located by supplier to within 10m	A14NW (E)	206	1	273061 197571
277	**BGS Recorded Mineral Sites** Site Name: Main Colliery No. 3 Pit Location: Skewen, Neath, West Glamorgan Source: British Geological Survey, National Geoscience Information Service Reference: 188771 Type: Underground **Status: Ceased** Operator: Main Colliery Co., Ltd. Operator Location: Not Supplied Periodic Type: Carboniferous Geology: Hughes Coal (South Wales) Commodity: Coal - Deep Positional Accuracy: Located by supplier to within 10m	A13NW (NW)	244	1	272490 197750
277	**BGS Recorded Mineral Sites** Site Name: Main Colliery No. 4 Pit Location: Neath, Neath Port Talbot Source: British Geological Survey, National Geoscience Information Service Reference: 188770 Type: Underground **Status: Ceased** Operator: Main Colliery Co., Ltd. Operator Location: Not Supplied Periodic Type: Carboniferous Geology: Hughes Coal (South Wales) Commodity: Coal - Deep Positional Accuracy: Located by supplier to within 10m	A13NW (NW)	249	1	272452 197735
278	**BGS Recorded Mineral Sites** Site Name: Pentre-Ffynnon Location: Skewen, Neath, West Glamorgan Source: British Geological Survey, National Geoscience Information Service Reference: 154105 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	A13SW (S)	269	1	272677 197169
279	**BGS Recorded Mineral Sites** Site Name: Maesmelyn Level Location: Moore Town, Skewen, Neath, West Glamorgan Source: British Geological Survey, National Geoscience Information Service Reference: 229843 Type: Underground **Status: Ceased** Operator: Dynevor Main Colliery Co., Ltd. Operator Location: Not Supplied Periodic Type: Carboniferous Geology: Hughes Member Commodity: Coal - Deep Positional Accuracy: Located by supplier to within 10m	A12NE (NW)	292	1	272325 197658
279	**BGS Recorded Mineral Sites** Site Name: Maesmelyn Level Location: Moore Town, Skewen, Neath, West Glamorgan Source: British Geological Survey, National Geoscience Information Service Reference: 229844 Type: Underground **Status: Ceased** Operator: Dynevor Main Colliery Co., Ltd. Operator Location: Not Supplied Periodic Type: Carboniferous Geology: Hughes Member Commodity: Coal - Deep Positional Accuracy: Located by supplier to within 10m	A12NE (NW)	322	1	272311 197695

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
280	**BGS Recorded Mineral Sites** Site Name: Graig Location: Birchgrove, Neath, West Glamorgan Source: British Geological Survey, National Geoscience Information Service Reference: 154120 Type: Opencast **Status: Ceased** Operator: Unknown Operator Operator Location: Not Supplied Periodic Type: Carboniferous Geology: Swansea Member Commodity: Sandstone Positional Accuracy: Located by supplier to within 10m	A14NW (E)	332	1	273168 197646
281	**BGS Recorded Mineral Sites** Site Name: Skewen Main No. 4 Level Location: Skewen, Neath, West Glamorgan Source: British Geological Survey, National Geoscience Information Service Reference: 229842 Type: Underground **Status: Ceased** Operator: Wm. Prestwich & Sons, Ltd Operator Location: Not Supplied Periodic Type: Carboniferous Geology: Swansea Member Commodity: Coal - Deep Positional Accuracy: Located by supplier to within 10m	A12NE (NW)	350	1	272334 197769
281	**BGS Recorded Mineral Sites** Site Name: Skewen Main No. 4 Level Location: Neath, Neath Port Talbot Source: British Geological Survey, National Geoscience Information Service Reference: 188772 Type: Underground **Status: Ceased** Operator: Individual'S Name Withheld Operator Location: Not Supplied Periodic Type: Carboniferous Geology: Hughes Member Commodity: Coal - Deep Positional Accuracy: Located by supplier to within 10m	A12NE (NW)	353	1	272311 197748
282	**BGS Recorded Mineral Sites** Site Name: Maesmelin Pit Location: Skewen, Neath, West Glamorgan Source: British Geological Survey, National Geoscience Information Service Reference: 229840 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)	355	1	272724 197877
283	**BGS Recorded Mineral Sites** Site Name: Graig Location: Birchgrove, Neath, West Glamorgan Source: British Geological Survey, National Geoscience Information Service Reference: 154092 Type: Opencast **Status: Ceased** Operator: Unknown Operator Operator Location: Not Supplied Periodic Type: Carboniferous Geology: Swansea Member Commodity: Sandstone Positional Accuracy: Located by supplier to within 10m	A14NW (NE)	357	1	273071 197809
284	**BGS Recorded Mineral Sites** Site Name: Maesmelyn Level Location: Skewen, Neath, West Glamorgan Source: British Geological Survey, National Geoscience Information Service Reference: 229837 Type: Underground **Status: Ceased** Operator: Unknown Operator Operator Location: Not Supplied Periodic Type: Carboniferous Geology: Graigola Coal (South Wales) Commodity: Coal - Deep Positional Accuracy: Located by supplier to within 10m	A18SW (N)	357	1	272589 197882

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
285	**BGS Recorded Mineral Sites** Site Name: Main Colliery, No. 7 Pit Location: Neath Abbey, Neath, West Glamorgan Source: British Geological Survey, National Geoscience Information Service Reference: 229857 Type: Underground **Status: Ceased** Operator: Main Colliery Co., Ltd. Operator Location: Not Supplied Periodic Type: Carboniferous Geology: Graigola Coal (South Wales) Commodity: Coal - Deep Positional Accuracy: Located by supplier to within 10m	A14SW (SE)	359	1	273174 197256
286	**BGS Recorded Mineral Sites** Site Name: Graig Level Location: Neath Abbey, Neath, West Glamorgan Source: British Geological Survey, National Geoscience Information Service Reference: 229836 Type: Underground **Status: Ceased** Operator: Unknown Operator Operator Location: Not Supplied Periodic Type: Carboniferous Geology: Swansea Member Commodity: Coal - Deep Positional Accuracy: Located by supplier to within 10m	A18SE (NE)	398	1	273043 197874
287	**BGS Recorded Mineral Sites** Site Name: Maesmelyn Location: Birchgrove, Neath, West Glamorgan Source: British Geological Survey, National Geoscience Information Service Reference: 154121 Type: Opencast **Status: Ceased** Operator: Unknown Operator Operator Location: Not Supplied Periodic Type: Carboniferous Geology: Swansea Member Commodity: Sandstone Positional Accuracy: Located by supplier to within 10m	A18SW (NW)	406	1	272534 197927
288	**BGS Recorded Mineral Sites** Site Name: Brithdir Quarries Location: Moore Town, Skewen, Neath, West Glamorgan Source: British Geological Survey, National Geoscience Information Service Reference: 154093 Type: Opencast **Status: Ceased** Operator: Unknown Operator Operator Location: Not Supplied Periodic Type: Carboniferous Geology: Swansea Member Commodity: Sandstone Positional Accuracy: Located by supplier to within 10m	A12NE (NW)	431	1	272233 197774
289	**BGS Recorded Mineral Sites** Site Name: Main Colliery, No. 8 Pit Location: Neath Abbey, Neath, West Glamorgan Source: British Geological Survey, National Geoscience Information Service Reference: 229858 Type: Underground **Status: Ceased** Operator: Main Colliery Co., Ltd. Operator Location: Not Supplied Periodic Type: Carboniferous Geology: Graigola Coal (South Wales) Commodity: Coal - Deep Positional Accuracy: Located by supplier to within 10m	A14SW (E)	434	1	273271 197290
290	**BGS Recorded Mineral Sites** Site Name: Maesmelyn Location: Birchgrove, Neath, West Glamorgan Source: British Geological Survey, National Geoscience Information Service Reference: 154091 Type: Opencast **Status: Ceased** Operator: Unknown Operator Operator Location: Not Supplied Periodic Type: Carboniferous Geology: Swansea Member Commodity: Sandstone Positional Accuracy: Located by supplier to within 10m	A18SE (N)	454	1	272755 197976

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
291	**BGS Recorded Mineral Sites** Site Name: Brithdir Quarries Location: Skewen, Neath, West Glamorgan Source: British Geological Survey, National Geoscience Information Service Reference: 229839 Type: Opencast **Status: Ceased** Operator: Unknown Operator Operator Location: Not Supplied Periodic Type: Carboniferous Geology: Swansea Member Commodity: Sandstone Positional Accuracy: Located by supplier to within 10m	A12NE (NW)	467	1	272176 197750
292	**BGS Recorded Mineral Sites** Site Name: Pentre-Ffynnon Location: Skewen, Neath, West Glamorgan Source: British Geological Survey, National Geoscience Information Service Reference: 154106 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	A8NE (S)	510	1	272875 196920
293	**BGS Recorded Mineral Sites** Site Name: Penshanel Level Location: Skewen, Neath, West Glamorgan Source: British Geological Survey, National Geoscience Information Service Reference: 229838 Type: Underground **Status: Ceased** Operator: Unknown Operator Operator Location: Not Supplied Periodic Type: Carboniferous Geology: Swansea Member Commodity: Coal - Deep Positional Accuracy: Located by supplier to within 10m	A18SE (N)	540	1	272927 198056
294	**BGS Recorded Mineral Sites** Site Name: Maesmelyn Location: Neath Abbey, Neath, West Glamorgan Source: British Geological Survey, National Geoscience Information Service Reference: 228794 Type: Opencast **Status: Ceased** Operator: Bater Bros. & Co. (Materials) Ltd. Operator Location: Not Supplied Periodic Type: Carboniferous Geology: Swansea Member Commodity: Sandstone Positional Accuracy: Located by supplier to within 10m	A18SE (N)	558	1	272733 198080
295	**BGS Recorded Mineral Sites** Site Name: Pentre-Ffynnon Location: Skewen, Neath, West Glamorgan Source: British Geological Survey, National Geoscience Information Service Reference: 154107 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	A8NE (S)	580	1	272797 196852
296	**BGS Recorded Mineral Sites** Site Name: Graig Quarries Location: Neath Abbey, Neath, West Glamorgan Source: British Geological Survey, National Geoscience Information Service Reference: 229835 Type: Opencast **Status: Ceased** Operator: Unknown Operator Operator Location: Not Supplied Periodic Type: Carboniferous Geology: Swansea Member Commodity: Sandstone Positional Accuracy: Located by supplier to within 10m	A19SW (NE)	580	1	273112 198043

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
297	**BGS Recorded Mineral Sites** Site Name: Pentre-Ffynnon Location: Skewen, Neath, West Glamorgan Source: British Geological Survey, National Geoscience Information Service Reference: 154125 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	A8NE (S)	587	1	272887 196843
298	**BGS Recorded Mineral Sites** Site Name: Graig Quarries Location: Neath Abbey, Neath, West Glamorgan Source: British Geological Survey, National Geoscience Information Service Reference: 154119 Type: Opencast **Status: Ceased** Operator: Unknown Operator Operator Location: Not Supplied Periodic Type: Carboniferous Geology: Swansea Member Commodity: Sandstone Positional Accuracy: Located by supplier to within 10m	A19SW (NE)	616	1	273174 198051
299	**BGS Recorded Mineral Sites** Site Name: Cwm Du Brick Works Quarries Location: Moore Town, Skewen, Neath, West Glamorgan Source: British Geological Survey, National Geoscience Information Service Reference: 229849 Type: Opencast **Status: Ceased** Operator: Taylor J. Brooks & Co., Ltd. Operator Location: Not Supplied Periodic Type: Carboniferous Geology: Hughes Member Commodity: Common Clay and Shale Positional Accuracy: Located by supplier to within 10m	A12NW (W)	662	1	271922 197500
300	**BGS Recorded Mineral Sites** Site Name: Cwm Du Brick Works Quarries Location: Moore Town, Skewen, Neath, West Glamorgan Source: British Geological Survey, National Geoscience Information Service Reference: 229850 Type: Opencast **Status: Ceased** Operator: Taylor J. Brooks & Co., Ltd. Operator Location: Not Supplied Periodic Type: Carboniferous Geology: Hughes Member Commodity: Common Clay and Shale Positional Accuracy: Located by supplier to within 10m	A12NW (W)	676	1	271915 197614
301	**BGS Recorded Mineral Sites** Site Name: Brithdir Level Location: Moore Town, Skewen, Neath, West Glamorgan Source: British Geological Survey, National Geoscience Information Service Reference: 229856 Type: Underground **Status: Ceased** Operator: Unknown Operator Operator Location: Not Supplied Periodic Type: Carboniferous Geology: Tir Edmond Coal (South Wales) Commodity: Coal - Deep Positional Accuracy: Located by supplier to within 10m	A12NW (W)	678	1	271955 197777
302	**BGS Recorded Mineral Sites** Site Name: Brithdir Quarries Location: Moore Town, Skewen, Neath, West Glamorgan Source: British Geological Survey, National Geoscience Information Service Reference: 229846 Type: Opencast **Status: Ceased** Operator: Unknown Operator Operator Location: Not Supplied Periodic Type: Carboniferous Geology: Swansea Member Commodity: Sandstone Positional Accuracy: Located by supplier to within 10m	A12NW (W)	680	1	271936 197729

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
303	**BGS Recorded Mineral Sites** Site Name: Dynevor Main Colliery, Old Slant Location: Moore Town, Skewen, Neath, West Glamorgan Source: British Geological Survey, National Geoscience Information Service Reference: 229853 Type: Underground **Status: Ceased** Operator: Dynevor Main Colliery Co., Ltd. Operator Location: Not Supplied Periodic Type: Carboniferous Geology: Graigola Coal (South Wales) Commodity: Coal - Deep Positional Accuracy: Located by supplier to within 10m	A12NW (W)	718	1	271866 197484
304	**BGS Recorded Mineral Sites** Site Name: Lower Graigola Colliery Level Location: Moore Town, Skewen, Neath, West Glamorgan Source: British Geological Survey, National Geoscience Information Service Reference: 154099 Type: Underground **Status: Ceased** Operator: Unknown Operator Operator Location: Not Supplied Periodic Type: Carboniferous Geology: Tir Edmond Coal (South Wales) Commodity: Coal - Deep Positional Accuracy: Located by supplier to within 10m	A12NW (W)	727	1	271888 197732
304	**BGS Recorded Mineral Sites** Site Name: Brithdir Quarries Location: Moore Town, Skewen, Neath, West Glamorgan Source: British Geological Survey, National Geoscience Information Service Reference: 154094 Type: Opencast **Status: Ceased** Operator: Taylor J. Brooks & Co., Ltd. Operator Location: Not Supplied Periodic Type: Carboniferous Geology: Swansea Member Commodity: Sandstone Positional Accuracy: Located by supplier to within 10m	A12NW (W)	731	1	271880 197718
304	**BGS Recorded Mineral Sites** Site Name: Brithdir Quarries Location: Moore Town, Skewen, Neath, West Glamorgan Source: British Geological Survey, National Geoscience Information Service Reference: 154094 Type: Opencast **Status: Ceased** Operator: Taylor J. Brooks & Co., Ltd. Operator Location: Not Supplied Periodic Type: Carboniferous Geology: Hughes Member Commodity: Common Clay and Shale Positional Accuracy: Located by supplier to within 10m	A12NW (W)	731	1	271880 197718
305	**BGS Recorded Mineral Sites** Site Name: Brithdir Level Location: Moore Town, Skewen, Neath, West Glamorgan Source: British Geological Survey, National Geoscience Information Service Reference: 229855 Type: Underground **Status: Ceased** Operator: Unknown Operator Operator Location: Not Supplied Periodic Type: Carboniferous Geology: Tir Edmond Coal (South Wales) Commodity: Coal - Deep Positional Accuracy: Located by supplier to within 10m	A12NW (W)	756	1	271881 197800
306	**BGS Recorded Mineral Sites** Site Name: Cwm Du Brick Works Quarries Location: Moore Town, Skewen, Neath, West Glamorgan Source: British Geological Survey, National Geoscience Information Service Reference: 229851 Type: Opencast **Status: Ceased** Operator: Taylor J. Brooks & Co., Ltd. Operator Location: Not Supplied Periodic Type: Carboniferous Geology: Hughes Member Commodity: Common Clay and Shale Positional Accuracy: Located by supplier to within 10m	A12NW (W)	757	1	271827 197493

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
306	**BGS Recorded Mineral Sites** Site Name: Lower Graigola Colliery Location: Moore Town, Skewen, Neath, West Glamorgan Source: British Geological Survey, National Geoscience Information Service Reference: 154122 Type: Underground **Status: Ceased** Operator: Dynevor Main Colliery Co., Ltd. Operator Location: Not Supplied Periodic Type: Carboniferous Geology: Graigola Coal (South Wales) Commodity: Coal - Deep Positional Accuracy: Located by supplier to within 10m	A12NW (W)	763	1	271822 197518
306	**BGS Recorded Mineral Sites** Site Name: Dynevor Main Colliery, New Slant Location: Moore Town, Skewen, Neath, West Glamorgan Source: British Geological Survey, National Geoscience Information Service Reference: 229852 Type: Underground **Status: Ceased** Operator: Dynevor Main Colliery Co., Ltd. Operator Location: Not Supplied Periodic Type: Carboniferous Geology: Graigola Coal (South Wales) Commodity: Coal - Deep Positional Accuracy: Located by supplier to within 10m	A12NW (W)	788	1	271796 197495
307	**BGS Recorded Mineral Sites** Site Name: Cwmdu Level Location: Moore Town, Skewen, Neath, West Glamorgan Source: British Geological Survey, National Geoscience Information Service Reference: 229854 Type: Underground **Status: Ceased** Operator: Unknown Operator Operator Location: Not Supplied Periodic Type: Carboniferous Geology: Swansea Member Commodity: Coal - Deep Positional Accuracy: Located by supplier to within 10m	A12NW (W)	758	1	271832 197611
307	**BGS Recorded Mineral Sites** Site Name: Cwmdu Quarry Location: Moore Town, Skewen, Neath, West Glamorgan Source: British Geological Survey, National Geoscience Information Service Reference: 154095 Type: Opencast **Status: Ceased** Operator: Taylor J. Brooks & Co., Ltd. Operator Location: Not Supplied Periodic Type: Carboniferous Geology: Swansea Member Commodity: Sandstone Positional Accuracy: Located by supplier to within 10m	A12NW (W)	763	1	271825 197595
307	**BGS Recorded Mineral Sites** Site Name: Cwmdu Quarry Location: Moore Town, Skewen, Neath, West Glamorgan Source: British Geological Survey, National Geoscience Information Service Reference: 154095 Type: Opencast **Status: Ceased** Operator: Taylor J. Brooks & Co., Ltd. Operator Location: Not Supplied Periodic Type: Carboniferous Geology: Hughes Member Commodity: Common Clay and Shale Positional Accuracy: Located by supplier to within 10m	A12NW (W)	763	1	271825 197595
308	**BGS Recorded Mineral Sites** Site Name: Darran Colliery Level Location: Neath Abbey, Neath, West Glamorgan Source: British Geological Survey, National Geoscience Information Service Reference: 229833 Type: Underground **Status: Ceased** Operator: Unknown Operator Operator Location: Not Supplied Periodic Type: Carboniferous Geology: Tir Edmond Coal (South Wales) Commodity: Coal - Deep Positional Accuracy: Located by supplier to within 10m	A18NW (N)	777	1	272694 198300

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
309	**BGS Recorded Mineral Sites** Site Name: Brithdir & Cwmdu Colliery Shaft Location: Moore Town, Skewen, Neath, West Glamorgan Source: British Geological Survey, National Geoscience Information Service Reference: 229847 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	A12NW (W)	807	1	271796 197694
309	**BGS Recorded Mineral Sites** Site Name: Brithdir & Cwmdu Colliery, Old Cwmdu Slant Location: Moore Town, Skewen, Neath, West Glamorgan Source: British Geological Survey, National Geoscience Information Service Reference: 154098 Type: Underground **Status: Ceased** Operator: Unknown Operator Operator Location: Not Supplied Periodic Type: Carboniferous Geology: Swansea Member Commodity: Coal - Deep Positional Accuracy: Located by supplier to within 10m	A12NW (W)	808	1	271793 197688
310	**BGS Recorded Mineral Sites** Site Name: Darran Colliery Level Location: Neath Abbey, Neath, West Glamorgan Source: British Geological Survey, National Geoscience Information Service Reference: 229832 Type: Underground **Status: Ceased** Operator: Unknown Operator Operator Location: Not Supplied Periodic Type: Carboniferous Geology: Tir Edmond Coal (South Wales) Commodity: Coal - Deep Positional Accuracy: Located by supplier to within 10m	A18NE (N)	820	1	272728 198342
311	**BGS Recorded Mineral Sites** Site Name: Stanley Pit Drainage Level Location: Neath Abbey, Neath, West Glamorgan Source: British Geological Survey, National Geoscience Information Service Reference: 229834 Type: Underground **Status: Ceased** Operator: Unknown Operator Operator Location: Not Supplied Periodic Type: Carboniferous Geology: Swansea Four Foot Coal (South Wales) Commodity: Coal - Deep Positional Accuracy: Located by supplier to within 10m	A19NW (NE)	863	1	273136 198338
312	**BGS Recorded Mineral Sites** Site Name: Brithdir & Cwmdu Colliery, Brithdir Drift Location: Moore Town, Skewen, Neath, West Glamorgan Source: British Geological Survey, National Geoscience Information Service Reference: 229848 Type: Underground **Status: Ceased** Operator: Unknown Operator Operator Location: Not Supplied Periodic Type: Carboniferous Geology: Hughes Coal (South Wales) Commodity: Coal - Deep Positional Accuracy: Located by supplier to within 10m	A12NW (W)	873	1	271741 197748
312	**BGS Recorded Mineral Sites** Site Name: Brithdir & Cwmdu Colliery Location: Moore Town, Skewen, Neath, West Glamorgan Source: British Geological Survey, National Geoscience Information Service Reference: 154096 Type: Underground **Status: Ceased** Operator: Unknown Operator Operator Location: Not Supplied Periodic Type: Carboniferous Geology: Tir Edmond Coal (South Wales) Commodity: Coal - Deep Positional Accuracy: Located by supplier to within 10m	A12NW (W)	906	1	271710 197760

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
313	**BGS Recorded Mineral Sites** Site Name: Darran Colliery Pit Location: Neath Abbey, Neath, West Glamorgan Source: British Geological Survey, National Geoscience Information Service Reference: 154081 Type: Underground **Status: Ceased** Operator: Unknown Operator Operator Location: Not Supplied Periodic Type: Carboniferous Geology: Swansea Member Commodity: Coal - Deep Positional Accuracy: Located by supplier to within 10m	A18NE (N)	884	1	272788 198406
314	**BGS Recorded Mineral Sites** Site Name: Brithdir & Cwmdu Colliery, West Brithdir Level Location: Moore Town, Skewen, Neath, West Glamorgan Source: British Geological Survey, National Geoscience Information Service Reference: 154097 Type: Underground **Status: Ceased** Operator: Unknown Operator Operator Location: Not Supplied Periodic Type: Carboniferous Geology: Swansea Member Commodity: Coal - Deep Positional Accuracy: Located by supplier to within 10m	A11NE (W)	952	1	271638 197621
314	**BGS Recorded Mineral Sites** Site Name: Brithdir & Cwmdu Colliery Level Air Shaft Location: Moore Town, Skewen, Neath, West Glamorgan Source: British Geological Survey, National Geoscience Information Service Reference: 229845 Type: Underground **Status: Ceased** Operator: Unknown Operator Operator Location: Not Supplied Periodic Type: Carboniferous Geology: Tir Edmond Coal (South Wales) Commodity: Coal - Deep Positional Accuracy: Located by supplier to within 10m	A11NE (W)	991	1	271602 197650
315	**BGS Recorded Mineral Sites** Site Name: Bath Pit Location: Neath Abbey, Neath, West Glamorgan Source: British Geological Survey, National Geoscience Information Service Reference: 154082 Type: Underground **Status: Ceased** Operator: Unknown Operator Operator Location: Not Supplied Periodic Type: Carboniferous Geology: Swansea Four Feet Coal (South Wales) Commodity: Coal - Deep Positional Accuracy: Located by supplier to within 10m	A19NW (NE)	997	1	273193 198461
	BGS Measured Urban Soil Chemistry Source: British Geological Survey, National Geoscience Information Service Grid: 272780, 197250 Soil Sample Type: Topsoil Sample Area: Swansea Arsenic Measured Concentration: 84.90 mg/kg Cadmium Measured Concentration: 3.50 mg/kg Chromium Measured Concentration: 73.40 mg/kg Lead Measured Concentration: 618.40 mg/kg Nickel Measured Concentration: 76.10 mg/kg	A13SE (S)	183	1	272780 197250

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: 272740, 197740 Soil Sample Type: Topsoil Sample Area: Swansea Arsenic Measured Concentration: 58.30 mg/kg Cadmium Measured Concentration: 1.40 mg/kg Chromium Measured Concentration: 81.70 mg/kg Lead Measured Concentration: 240.40 mg/kg Nickel Measured Concentration: 67.30 mg/kg	A13NE (N)	218	1	272740 197740
	BGS Measured Urban Soil Chemistry Source: British Geological Survey, National Geoscience Information Service Grid: 272270, 197240 Soil Sample Type: Topsoil Sample Area: Swansea Arsenic Measured Concentration: 55.00 mg/kg Cadmium Measured Concentration: 3.00 mg/kg Chromium Measured Concentration: 76.80 mg/kg Lead Measured Concentration: 407.20 mg/kg Nickel Measured Concentration: 62.40 mg/kg	A12SE (SW)	373	1	272270 197240
	BGS Measured Urban Soil Chemistry Source: British Geological Survey, National Geoscience Information Service Grid: 272240, 197750 Soil Sample Type: Topsoil Sample Area: Swansea Arsenic Measured Concentration: 59.90 mg/kg Cadmium Measured Concentration: 2.50 mg/kg Chromium Measured Concentration: 87.40 mg/kg Lead Measured Concentration: 150.00 mg/kg Nickel Measured Concentration: 56.20 mg/kg	A12NE (NW)	412	1	272240 197750
	BGS Measured Urban Soil Chemistry Source: British Geological Survey, National Geoscience Information Service Grid: 273240, 197740 Soil Sample Type: Topsoil Sample Area: Swansea Arsenic Measured Concentration: 184.00 mg/kg Cadmium Measured Concentration: 3.70 mg/kg Chromium Measured Concentration: 63.70 mg/kg Lead Measured Concentration: 261.30 mg/kg Nickel Measured Concentration: 46.10 mg/kg	A14NW (NE)	438	1	273240 197740
	BGS Measured Urban Soil Chemistry Source: British Geological Survey, National Geoscience Information Service Grid: 273250, 197220 Soil Sample Type: Topsoil Sample Area: Swansea Arsenic Measured Concentration: 199.30 mg/kg Cadmium Measured Concentration: 0.60 mg/kg Chromium Measured Concentration: 57.80 mg/kg Lead Measured Concentration: 251.90 mg/kg Nickel Measured Concentration: 34.10 mg/kg	A14SW (SE)	442	1	273250 197220

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: 272780, 196710 Soil Sample Type: Topsoil Sample Area: Swansea Arsenic Measured Concentration: 83.60 mg/kg Cadmium Measured Concentration: 1.50 mg/kg Chromium Measured Concentration: 51.00 mg/kg Lead Measured Concentration: 157.80 mg/kg Nickel Measured Concentration: 33.70 mg/kg	A8SE (S)	722	1	272780 196710
	BGS Measured Urban Soil Chemistry Source: British Geological Survey, National Geoscience Information Service Grid: 272750, 198250 Soil Sample Type: Topsoil Sample Area: Swansea Arsenic Measured Concentration: 427.70 mg/kg Cadmium Measured Concentration: 0.40 mg/kg Chromium Measured Concentration: 61.50 mg/kg Lead Measured Concentration: 431.10 mg/kg Nickel Measured Concentration: 61.20 mg/kg	A18NE (N)	728	1	272750 198250
	BGS Measured Urban Soil Chemistry Source: British Geological Survey, National Geoscience Information Service Grid: 272250, 196750 Soil Sample Type: Topsoil Sample Area: Swansea Arsenic Measured Concentration: 150.10 mg/kg Cadmium Measured Concentration: 3.90 mg/kg Chromium Measured Concentration: 55.20 mg/kg Lead Measured Concentration: 155.50 mg/kg Nickel Measured Concentration: 29.10 mg/kg	A7SE (SW)	768	1	272250 196750
	BGS Measured Urban Soil Chemistry Source: British Geological Survey, National Geoscience Information Service Grid: 273240, 196750 Soil Sample Type: Topsoil Sample Area: Swansea Arsenic Measured Concentration: 27.50 mg/kg Cadmium Measured Concentration: 0.90 mg/kg Chromium Measured Concentration: 219.10 mg/kg Lead Measured Concentration: 119.40 mg/kg Nickel Measured Concentration: 50.10 mg/kg	A9SW (SE)	778	1	273240 196750
	BGS Measured Urban Soil Chemistry Source: British Geological Survey, National Geoscience Information Service Grid: 273230, 198260 Soil Sample Type: Topsoil Sample Area: Swansea Arsenic Measured Concentration: 29.60 mg/kg Cadmium Measured Concentration: 1.00 mg/kg Chromium Measured Concentration: 69.10 mg/kg Lead Measured Concentration: 82.70 mg/kg Nickel Measured Concentration: 30.10 mg/kg	A19NW (NE)	826	1	273230 198260

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: 271760, 197220 Soil Sample Type: Topsoil Sample Area: Swansea Arsenic Measured Concentration: 61.60 mg/kg Cadmium Measured Concentration: 2.30 mg/kg Chromium Measured Concentration: 69.90 mg/kg Lead Measured Concentration: 307.20 mg/kg Nickel Measured Concentration: 58.60 mg/kg	A12SW (W)	853	1	271760 197220
	BGS Measured Urban Soil Chemistry Source: British Geological Survey, National Geoscience Information Service Grid: 271740, 197790 Soil Sample Type: Topsoil Sample Area: Swansea Arsenic Measured Concentration: 35.90 mg/kg Cadmium Measured Concentration: 1.90 mg/kg Chromium Measured Concentration: 113.40 mg/kg Lead Measured Concentration: 213.60 mg/kg Nickel Measured Concentration: 44.70 mg/kg	A12NW (W)	885	1	271740 197790
	BGS Measured Urban Soil Chemistry Source: British Geological Survey, National Geoscience Information Service Grid: 273740, 197720 Soil Sample Type: Topsoil Sample Area: Swansea Arsenic Measured Concentration: 170.20 mg/kg Cadmium Measured Concentration: 3.60 mg/kg Chromium Measured Concentration: 86.10 mg/kg Lead Measured Concentration: 673.30 mg/kg Nickel Measured Concentration: 81.50 mg/kg	A15NW (E)	901	1	273740 197720
	BGS Measured Urban Soil Chemistry Source: British Geological Survey, National Geoscience Information Service Grid: 273760, 197240 Soil Sample Type: Topsoil Sample Area: Swansea Arsenic Measured Concentration: 109.10 mg/kg Cadmium Measured Concentration: 3.00 mg/kg Chromium Measured Concentration: 71.00 mg/kg Lead Measured Concentration: 510.30 mg/kg Nickel Measured Concentration: 60.80 mg/kg	A15SW (E)	920	1	273760 197240

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	A13NE (S)	0	1	272724 197479
	Coal Mining Affected Areas Description: In an area which may be affected by coal mining activity. It is recommended that a coal mining report is obtained from the Coal Authority. Contact details are included in the Useful Contacts section of this report.	A13NE (S)	0	7	272724 197479
	Mining Instability Mining Evidence: Inconclusive Coal Mining Source: Ove Arup & Partners Boundary Quality: As Supplied	A13NE (S)	0	-	272724 197479
	Natural Cavities Easting: 272300 Northing: 197800 Distance: 396 Quadrant Reference: A12 Quadrant Reference: NE Bearing Ref: NW Cavity Type: Unknown x 1 Solid Geology Detail: Millstone Grit Group Superficial Geology Detail: No Details	A12NE (NW)	396	8	272300 197800
	Natural Cavities Easting: 271700 Northing: 197500 Distance: 884 Quadrant Reference: A11 Quadrant Reference: NE Bearing Ref: W Cavity Type: Unknown x 1 Solid Geology Detail: Upper Coal Measures Superficial Geology Detail: No Details	A11NE (W)	884	8	271700 197500
	Non Coal Mining Areas of Great Britain No Hazard				
	Potential for Collapsible Ground Stability Hazards Hazard Potential: Very Low Source: British Geological Survey, National Geoscience Information Service	A13NE (S)	0	1	272724 197479
	Potential for Compressible Ground Stability Hazards Hazard Potential: No Hazard Source: British Geological Survey, National Geoscience Information Service	A13NE (S)	0	1	272724 197479
	Potential for Compressible Ground Stability Hazards Hazard Potential: Very Low Source: British Geological Survey, National Geoscience Information Service	A13NW (NW)	134	1	272533 197649

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
	Potential for Ground Dissolution Stability Hazards Hazard Potential: No Hazard Source: British Geological Survey, National Geoscience Information Service	A13NE (S)	0	1	272724 197479
	Potential for Landslide Ground Stability Hazards Hazard Potential: Low Source: British Geological Survey, National Geoscience Information Service	A13SW (SW)	0	1	272689 197459
	Potential for Landslide Ground Stability Hazards Hazard Potential: Very Low Source: British Geological Survey, National Geoscience Information Service	A13NE (S)	0	1	272724 197479
	Potential for Landslide Ground Stability Hazards Hazard Potential: Low Source: British Geological Survey, National Geoscience Information Service	A13NW (N)	33	1	272702 197622
	Potential for Landslide Ground Stability Hazards Hazard Potential: Very Low Source: British Geological Survey, National Geoscience Information Service	A13NW (NW)	134	1	272533 197649
	Potential for Landslide Ground Stability Hazards Hazard Potential: Moderate Source: British Geological Survey, National Geoscience Information Service	A13NE (NE)	188	1	273027 197608
	Potential for Landslide Ground Stability Hazards Hazard Potential: Low Source: British Geological Survey, National Geoscience Information Service	A12NE (W)	210	1	272374 197491
	Potential for Landslide Ground Stability Hazards Hazard Potential: Moderate Source: British Geological Survey, National Geoscience Information Service	A14NW (E)	225	1	273086 197489
	Potential for Running Sand Ground Stability Hazards Hazard Potential: Very Low Source: British Geological Survey, National Geoscience Information Service	A13NE (S)	0	1	272724 197479
	Potential for Running Sand Ground Stability Hazards Hazard Potential: No Hazard Source: British Geological Survey, National Geoscience Information Service	A13SE (S)	138	1	272790 197286
	Potential for Running Sand Ground Stability Hazards Hazard Potential: No Hazard Source: British Geological Survey, National Geoscience Information Service	A13NE (NE)	208	1	273044 197621
	Potential for Running Sand Ground Stability Hazards Hazard Potential: No Hazard Source: British Geological Survey, National Geoscience Information Service	A13NW (NW)	241	1	272604 197766
	Potential for Shrinking or Swelling Clay Ground Stability Hazards Hazard Potential: Very Low Source: British Geological Survey, National Geoscience Information Service	A13NE (S)	0	1	272724 197479
	Potential for Shrinking or Swelling Clay Ground Stability Hazards Hazard Potential: No Hazard Source: British Geological Survey, National Geoscience Information Service	A13SE (S)	138	1	272790 197286
	Potential for Shrinking or Swelling Clay Ground Stability Hazards Hazard Potential: No Hazard Source: British Geological Survey, National Geoscience Information Service	A13NE (NE)	208	1	273044 197621
	Radon Potential - Radon Affected Areas Affected Area: The property is in a Lower probability radon area (less than 1% of homes are estimated to be at or above the Action Level). Source: British Geological Survey, National Geoscience Information Service	A13NE (S)	0	1	272724 197479
	Radon Potential - Radon Protection Measures Protection Measure: No radon protective measures are necessary in the construction of new dwellings or extensions Source: British Geological Survey, National Geoscience Information Service	A13NE (S)	0	1	272724 197479

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
316	**Contemporary Trade Directory Entries** Name: Auto Electrical Services Location: Picton Road Garage, Picton Road, Skewen, Neath, West Glamorgan, SA10 6UN Classification: Mot Testing Centres **Status: Active** Positional Accuracy: Automatically positioned to the address	A13SW (W)	0	-	272589 197455
316	**Contemporary Trade Directory Entries** Name: Skewen Motor Services Ltd Location: Picton Rd, Neath, West Glamorgan, SA10 6UN Classification: Garage Services **Status: Inactive** Positional Accuracy: Manually positioned to the road within the address or location	A13NW (W)	11	-	272573 197477
316	**Contemporary Trade Directory Entries** Name: G A Hopkins Location: Picton Rd, Neath, West Glamorgan, SA10 6UN Classification: Car Dealers - Used **Status: Inactive** Positional Accuracy: Manually positioned to the road within the address or location	A13SW (W)	12	-	272572 197470
317	**Contemporary Trade Directory Entries** Name: Celtic Trailers Ltd Location: 25, New Road, Skewen, Neath, West Glamorgan, SA10 6UT Classification: Trailers & Towing Equipment **Status: Inactive** Positional Accuracy: Automatically positioned to the address	A13SE (SE)	6	-	272784 197427
318	**Contemporary Trade Directory Entries** Name: Enterprise Print Location: New Rd, Skewen, Neath, West Glamorgan, SA10 6UU Classification: Printers **Status: Inactive** Positional Accuracy: Manually positioned to the road within the address or location	A13SE (SE)	26	-	272852 197404
319	**Contemporary Trade Directory Entries** Name: West Wales Print Ltd Location: 63, New Road, Skewen, Neath, West Glamorgan, SA10 6HA Classification: T-Shirts **Status: Inactive** Positional Accuracy: Automatically positioned to the address	A13SW (W)	47	-	272538 197429
320	**Contemporary Trade Directory Entries** Name: Day View Cars Location: 33, High Street, Skewen, Neath, West Glamorgan, SA10 6NB Classification: Car Dealers - Used **Status: Inactive** Positional Accuracy: Automatically positioned to the address	A13SW (SW)	62	-	272660 197376
321	**Contemporary Trade Directory Entries** Name: South Wales Cleaners Location: 130b, Dynevor Road, Skewen, Neath, West Glamorgan, SA10 6TH Classification: Cleaning Services - Domestic **Status: Inactive** Positional Accuracy: Automatically positioned to the address	A13NW (W)	126	-	272461 197549
322	**Contemporary Trade Directory Entries** Name: Leo Optical Frames Location: 187, New Road, Skewen, Neath, West Glamorgan, SA10 6HD Classification: Optical Goods - Manufacturers **Status: Inactive** Positional Accuracy: Automatically positioned to the address	A13SW (W)	128	-	272469 197384
322	**Contemporary Trade Directory Entries** Name: Skewen Launderette Location: 79, New Road, Skewen, Neath, West Glamorgan, SA10 6HE Classification: Laundries & Launderettes **Status: Inactive** Positional Accuracy: Automatically positioned to the address	A13SW (W)	144	-	272442 197416
322	**Contemporary Trade Directory Entries** Name: Elite Blinds Location: New Rd, Skewen, Neath, West Glamorgan, SA10 6HG Classification: Blinds, Awnings & Canopies **Status: Inactive** Positional Accuracy: Manually positioned to the road within the address or location	A13SW (W)	148	-	272441 197403

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
323	**Contemporary Trade Directory Entries** Name: Skewen Press Location: New Road, Skewen, Neath, West Glamorgan, SA10 6UU Classification: Printers **Status: Inactive** Positional Accuracy: Automatically positioned to the address	A13SE (SE)	136	-	272979 197362
324	**Contemporary Trade Directory Entries** Name: Design Printers Location: Station Road, Skewen, Neath, West Glamorgan, SA10 6HF Classification: Printers **Status: Inactive** Positional Accuracy: Automatically positioned to the address	A13SW (W)	163	-	272421 197464
324	**Contemporary Trade Directory Entries** Name: Affordable Cars Location: 2, Station Road, Skewen, Neath, SA10 6HF Classification: Car Dealers - Used **Status: Active** Positional Accuracy: Automatically positioned to the address	A13SW (W)	178	-	272406 197450
324	**Contemporary Trade Directory Entries** Name: Ritz Car Sales Location: Station Rd, Skewen, Neath, West Glamorgan, SA10 6TE Classification: Car Dealers **Status: Inactive** Positional Accuracy: Manually positioned to the road within the address or location	A13NW (W)	180	-	272404 197496
325	**Contemporary Trade Directory Entries** Name: Grime Busters Location: 25, Old Road, Skewen, Neath, West Glamorgan, SA10 6AF Classification: Carpet, Curtain & Upholstery Cleaners **Status: Inactive** Positional Accuracy: Automatically positioned to the address	A13SE (SE)	191	-	272977 197279
326	**Contemporary Trade Directory Entries** Name: Ritz Car Sales Location: Station Road, Skewen, Neath, West Glamorgan, SA10 6TG Classification: Car Dealers - Used **Status: Inactive** Positional Accuracy: Automatically positioned to the address	A13NW (W)	196	-	272388 197509
326	**Contemporary Trade Directory Entries** Name: Motosave Location: Station Road, Skewen, Neath, West Glamorgan, SA10 6TG Classification: Car Dealers - Used **Status: Inactive** Positional Accuracy: Automatically positioned to the address	A13NW (W)	196	-	272388 197509
326	**Contemporary Trade Directory Entries** Name: Station Road Ironing Service Location: Station Road, Skewen, Neath, West Glamorgan, SA10 6TG Classification: Ironing & Home Laundry Services **Status: Active** Positional Accuracy: Automatically positioned to the address	A13NW (W)	196	-	272388 197509
327	**Contemporary Trade Directory Entries** Name: D K B Locks Location: 87, New Road, Skewen, Neath, West Glamorgan, SA10 6HG Classification: Safes & Vaults - Suppliers & Installers **Status: Inactive** Positional Accuracy: Automatically positioned to the address	A12SE (W)	209	-	272376 197412
327	**Contemporary Trade Directory Entries** Name: Steve Cooper Location: 165, New Road, Skewen, Neath, West Glamorgan, SA10 6HD Classification: Staircase, Balustrade & Handrail Manufacturers **Status: Active** Positional Accuracy: Automatically positioned to the address	A12SE (W)	217	-	272380 197369
328	**Contemporary Trade Directory Entries** Name: J-Tech Motors Location: 52, Old Road, Skewen, Neath, West Glamorgan, SA10 6LS Classification: Mechanical Engineers **Status: Inactive** Positional Accuracy: Automatically positioned to the address	A13SW (S)	221	-	272682 197216
328	**Contemporary Trade Directory Entries** Name: Skewen Accident Repair Centre Location: 89, Old Road, Skewen, Neath, West Glamorgan, SA10 6LR Classification: Car Body Repairs **Status: Active** Positional Accuracy: Automatically positioned to the address	A13SW (S)	248	-	272651 197190

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
328	**Contemporary Trade Directory Entries** Name: K D Motors Location: 89, Old Road, Skewen, Neath, West Glamorgan, SA10 6LR Classification: Garage Services **Status: Inactive** Positional Accuracy: Automatically positioned to the address	A13SW (S)	248	-	272651 197190
328	**Contemporary Trade Directory Entries** Name: Mister Window Co Location: Unit 2, 89, Old Road, Skewen, Neath, West Glamorgan, SA10 6LR Classification: Window Frame Manufacturers **Status: Inactive** Positional Accuracy: Automatically positioned to the address	A13SW (S)	248	-	272649 197191
329	**Contemporary Trade Directory Entries** Name: M P Gillard Location: Access Road To Wharf, Skewen, Neath, West Glamorgan, SA10 7GA Classification: Car Breakers & Dismantlers **Status: Inactive** Positional Accuracy: Manually positioned within the geographical locality	A13SE (SE)	229	-	272924 197209
330	**Contemporary Trade Directory Entries** Name: Janiserve Ltd Location: 1b, Cardonnel Road, Neath, West Glamorgan, SA10 6DE Classification: Commercial Cleaning Services **Status: Inactive** Positional Accuracy: Automatically positioned to the address	A13SE (SE)	235	-	272847 197195
331	**Contemporary Trade Directory Entries** Name: Skewen Tyre & Auto Centre Ltd Location: Flat 1, Mount Pleasant Court, Evelyn Road, Skewen, Neath, West Glamorgan, SA10 6NE Classification: Garage Services **Status: Inactive** Positional Accuracy: Automatically positioned to the address	A12SE (SW)	273	-	272354 197295
332	**Contemporary Trade Directory Entries** Name: Kyle Evans Ltd Location: Whitegates Yard, Drummau Road, Skewen, Neath, SA10 6NU Classification: Refrigeration Equipment - Commercial **Status: Active** Positional Accuracy: Automatically positioned to the address	A14SW (E)	283	-	273143 197430
332	**Contemporary Trade Directory Entries** Name: G P Auto Centre Location: GP Auto Centre, Drummau Road, Neath Abbey, SA10 6NU Classification: Car Dealers - Used **Status: Inactive** Positional Accuracy: Automatically positioned to the address	A14SW (E)	283	-	273143 197430
333	**Contemporary Trade Directory Entries** Name: Skewen Body Repairs Location: Unit 1, Old Road, Skewen, SA10 6LR Classification: Car Body Repairs **Status: Inactive** Positional Accuracy: Automatically positioned to the address	A13SW (S)	297	-	272673 197141
334	**Contemporary Trade Directory Entries** Name: Karcher (Uk) Ltd Location: 31, Goshen Park, Skewen, Neath, West Glamorgan, SA10 6PT Classification: Cleaning Materials & Equipment **Status: Inactive** Positional Accuracy: Automatically positioned to the address	A18SE (N)	344	-	272803 197865
335	**Contemporary Trade Directory Entries** Name: B & M Autocare Location: Unit 1, Brookside House, Old Road, Skewen, SA10 7LT Classification: Car Body Repairs **Status: Active** Positional Accuracy: Automatically positioned to the address	A14SW (E)	345	-	273194 197343
335	**Contemporary Trade Directory Entries** Name: Damp Guard Location: 21, St. Johns Terrace, Neath Abbey, Neath, West Glamorgan, SA10 7NA Classification: Damp & Dry Rot Control **Status: Active** Positional Accuracy: Automatically positioned to the address	A14SW (E)	360	-	273217 197385

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
335	**Contemporary Trade Directory Entries** Name: Uk Mobility Ltd Location: Brookside House, Old Road, Skewen, Neath, West Glamorgan, SA10 7LT Classification: Disability Equipment - Manufacturers & Suppliers **Status: Inactive** Positional Accuracy: Automatically positioned to the address	A14SW (E)	362	-	273213 197347
335	**Contemporary Trade Directory Entries** Name: Janela Shutters & Blinds Location: 20a St Johns Terrace, Neath Abbey, Neath, West Glamorgan, SA10 7NA Classification: Blinds, Awnings & Canopies **Status: Active** Positional Accuracy: Automatically positioned to the address	A14SW (E)	374	-	273232 197388
336	**Contemporary Trade Directory Entries** Name: P & T Autos Location: Evelyn Road, Neath, SA10 6LF Classification: Mot Testing Centres **Status: Active** Positional Accuracy: Automatically positioned to the address	A12SE (W)	358	-	272249 197315
337	**Contemporary Trade Directory Entries** Name: U Wash I Dry Launderette Service Location: 47, Burrows Road, Skewen, Neath, SA10 6AB Classification: Laundries & Launderettes **Status: Active** Positional Accuracy: Automatically positioned to the address	A8NW (S)	359	-	272720 197076
337	**Contemporary Trade Directory Entries** Name: Richards Coal Merchants Ltd Location: 1, Bosworth Road, Neath, West Glamorgan, SA10 6BU Classification: Coal & Smokeless Fuel Merchants & Distributors **Status: Active** Positional Accuracy: Automatically positioned to the address	A8NE (S)	389	-	272742 197045
338	**Contemporary Trade Directory Entries** Name: Llanelec Precision Engineering Co Ltd Location: Jenkins Road, Skewen, Neath, West Glamorgan, SA10 7GA Classification: Precision Engineers **Status: Active** Positional Accuracy: Automatically positioned to the address	A14SW (E)	373	-	273205 197287
339	**Contemporary Trade Directory Entries** Name: Dragon Autos Location: Old Rd, Skewen, Neath, West Glamorgan, SA10 7LT Classification: Garage Services **Status: Inactive** Positional Accuracy: Manually positioned to the road within the address or location	A14SW (E)	395	-	273244 197336
339	**Contemporary Trade Directory Entries** Name: Swan Fix (Uk) Ltd Location: Brookside House, Old Road, Skewen, Neath, West Glamorgan, SA10 7LT Classification: Window Frame Manufacturers **Status: Inactive** Positional Accuracy: Automatically positioned in the proximity of the address	A14SW (E)	413	-	273266 197353
339	**Contemporary Trade Directory Entries** Name: Brookside Autos Location: Old Rd, Skewen, Neath, West Glamorgan, SA10 7LT Classification: Tyre Dealers **Status: Inactive** Positional Accuracy: Manually positioned to the road within the address or location	A14SW (E)	446	-	273300 197356
339	**Contemporary Trade Directory Entries** Name: Abbey Services Location: Security House, Old Road, Skewen, Neath, West Glamorgan, SA10 7LT Classification: Mot Testing Centres **Status: Active** Positional Accuracy: Manually positioned to an adjacent address or location	A14SW (E)	456	-	273309 197345
340	**Contemporary Trade Directory Entries** Name: Mike Haller Aggregates Location: 16, Bosworth Road, Neath, West Glamorgan, SA10 6BU Classification: Quarries **Status: Inactive** Positional Accuracy: Automatically positioned to the address	A8NE (S)	396	-	272795 197036
341	**Contemporary Trade Directory Entries** Name: Melding Stone Craft Location: 41, Winifred Road, Neath, West Glamorgan, SA10 6HW Classification: Fireplaces & Mantelpieces **Status: Active** Positional Accuracy: Automatically positioned to the address	A12SE (W)	419	-	272187 197307

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
341	**Contemporary Trade Directory Entries** Name: Marble Arte & Decor Location: 1, Winifred Road, Neath, West Glamorgan, SA10 6HP Classification: Fireplaces & Mantelpieces **Status: Inactive** Positional Accuracy: Automatically positioned to the address	A12SE (W)	455	-	272154 197293
341	**Contemporary Trade Directory Entries** Name: Direct Supplies Location: 3, Winifred Road, Neath, West Glamorgan, SA10 6HP Classification: Washing Machines - Servicing & Repairs **Status: Inactive** Positional Accuracy: Automatically positioned to the address	A12SE (W)	458	-	272154 197284
341	**Contemporary Trade Directory Entries** Name: A M Osborne Location: Winifred Road, Neath, West Glamorgan, SA10 6HP Classification: Garage Services **Status: Inactive** Positional Accuracy: Automatically positioned to the address	A12SE (W)	481	-	272142 197254
341	**Contemporary Trade Directory Entries** Name: Select Accident Repair Centre Ltd Location: Unit 2, Winifred Road, Neath, SA10 6HP Classification: Car Body Repairs **Status: Active** Positional Accuracy: Automatically positioned to the address	A12SE (W)	489	-	272133 197253
342	**Contemporary Trade Directory Entries** Name: Wood Shop Location: 130, New Road, Skewen, Neath, West Glamorgan, SA10 6HL Classification: Joinery Manufacturers **Status: Active** Positional Accuracy: Automatically positioned to the address	A12SE (W)	507	-	272089 197334
343	**Contemporary Trade Directory Entries** Name: Ace Minimix Location: Croakes Yard, Neath Abbey, Neath, West Glamorgan, SA10 7DR Classification: Concrete & Mortar Ready Mixed **Status: Inactive** Positional Accuracy: Manually positioned within the geographical locality	A14SW (E)	519	-	273338 197226
344	**Contemporary Trade Directory Entries** Name: Automation Control Solutions Location: Unit 14, Neath Abbey Business Park, Neath Abbey, Neath, West Glamorgan, SA10 7DR Classification: Automation Systems & Equipment **Status: Inactive** Positional Accuracy: Automatically positioned to the address	A9NW (SE)	528	-	273209 197033
344	**Contemporary Trade Directory Entries** Name: Hilbar Autos Ltd Location: Unit 12, Neath Abbey Business Park, Neath Abbey, Neath, SA10 7DR Classification: Garage Services **Status: Active** Positional Accuracy: Automatically positioned to the address	A9NW (SE)	563	-	273261 197034
344	**Contemporary Trade Directory Entries** Name: Skewen Services Location: Neath Abbey Business Pk, Neath Abbey, Neath, West Glamorgan, SA10 7DR Classification: Petrol Filling Stations **Status: Inactive** Positional Accuracy: Manually positioned within the geographical locality	A9NW (SE)	570	-	273247 197010
344	**Contemporary Trade Directory Entries** Name: C M B Engineering Location: Unit 17-18, Neath Abbey Business Park, Neath Abbey, Neath, SA10 7DR Classification: Mechanical Engineers **Status: Inactive** Positional Accuracy: Automatically positioned to the address	A9NW (SE)	573	-	273267 197026
344	**Contemporary Trade Directory Entries** Name: R G Location: Unit 17/18, Neath Abbey Business Park, Neath Abbey, Neath, West Glamorgan, SA10 7DR Classification: Tool Design, Manufacturers & Makers **Status: Inactive** Positional Accuracy: Manually positioned to the address or location	A9NW (SE)	574	-	273267 197024

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
344	**Contemporary Trade Directory Entries** Name: Cimla Forge Location: Unit 13, Neath Abbey Business Park, Neath Abbey, Neath, SA10 7DR Classification: Wrought Ironwork **Status: Active** Positional Accuracy: Automatically positioned to the address	A9NW (SE)	588	-	273261 196999
345	**Contemporary Trade Directory Entries** Name: Att Engineering Ltd Location: Neath Abbey Business Park, Neath Abbey, Neath, West Glamorgan, SA10 7DR Classification: Tool Design, Manufacturers & Makers **Status: Inactive** Positional Accuracy: Automatically positioned to the address	A14SW (SE)	539	-	273320 197148
345	**Contemporary Trade Directory Entries** Name: Enterprise Tyres & Exhausts Location: Unit 36-37, Neath Abbey Business Park, Neath Abbey, Neath, SA10 7DR Classification: Tyre Dealers **Status: Active** Positional Accuracy: Automatically positioned to the address	A14SW (SE)	539	-	273321 197149
345	**Contemporary Trade Directory Entries** Name: Silver Seal Glass & Glazing Co Ltd Location: Unit 35, Neath Abbey Business Park, Neath Abbey, Neath, SA10 7DR Classification: Mirrors & Decorative Glass **Status: Active** Positional Accuracy: Automatically positioned to the address	A9NW (SE)	559	-	273335 197135
345	**Contemporary Trade Directory Entries** Name: Rainbow Blinds Interior Specialists Ltd Location: Unit 33, Neath Abbey Business Park, Neath Abbey, Neath, West Glamorgan, SA10 7DR Classification: Blinds, Awnings & Canopies **Status: Active** Positional Accuracy: Automatically positioned to the address	A9NW (SE)	580	-	273349 197117
346	**Contemporary Trade Directory Entries** Name: R & D Ventilation Systems Location: Unit 26, Neath Abbey Business Park, Neath Abbey, Neath, SA10 7DR Classification: Air Conditioning Equipment & Systems **Status: Inactive** Positional Accuracy: Automatically positioned to the address	A9NW (SE)	540	-	273299 197114
346	**Contemporary Trade Directory Entries** Name: Glamorgan Press Location: Unit 27, Neath Abbey Business Park, Neath Abbey, Neath, West Glamorgan, SA10 7DR Classification: Printers **Status: Inactive** Positional Accuracy: Automatically positioned to the address	A9NW (SE)	548	-	273303 197106
346	**Contemporary Trade Directory Entries** Name: Mechwind Services Ltd Location: Unit 24-25, Neath Abbey Business Park, Neath Abbey, Neath, SA10 7DR Classification: Electrical Engineers **Status: Active** Positional Accuracy: Automatically positioned to the address	A9NW (SE)	558	-	273297 197082
346	**Contemporary Trade Directory Entries** Name: Ken Thorne Location: Neath Abbey Business Park, Neath Abbey, Neath, West Glamorgan, SA10 7DR Classification: Car Dealers **Status: Inactive** Positional Accuracy: Automatically positioned in the proximity of the address	A9NW (SE)	565	-	273313 197092
346	**Contemporary Trade Directory Entries** Name: Diamond Precision Engineering Ltd Location: Unit 22/23, Neath Abbey Business Park, Neath Abbey, Neath, West Glamorgan, SA10 7DR Classification: Precision Engineers **Status: Inactive** Positional Accuracy: Automatically positioned to the address	A9NW (SE)	577	-	273312 197070
346	**Contemporary Trade Directory Entries** Name: R & R Automation Location: Unit 30, Neath Abbey Business Park, Neath Abbey, Neath, West Glamorgan, SA10 7DR Classification: Automation Systems & Equipment **Status: Inactive** Positional Accuracy: Automatically positioned to the address	A9NW (SE)	580	-	273325 197083

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
346	**Contemporary Trade Directory Entries** Name: R & R Automation Location: Unit 30, Neath Abbey Business Park, Neath Abbey, Neath, West Glamorgan, SA10 7DR Classification: Control Panel Manufacturers **Status: Inactive** Positional Accuracy: Automatically positioned to the address	A9NW (SE)	580	-	273325 197083
346	**Contemporary Trade Directory Entries** Name: G P Hydraulics Location: Unit 21, Neath Abbey Business Park, Neath Abbey, Neath, West Glamorgan, SA10 7DR Classification: Hydraulic Engineers **Status: Active** Positional Accuracy: Automatically positioned to the address	A9NW (SE)	590	-	273321 197060
346	**Contemporary Trade Directory Entries** Name: Celtic Heritage Kitchens Location: Unit 31-32, Neath Abbey Business Park, Neath Abbey, Neath, West Glamorgan, SA10 7DR Classification: Kitchen Furniture Manufacturers **Status: Inactive** Positional Accuracy: Automatically positioned to the address	A9NW (SE)	594	-	273335 197072
347	**Contemporary Trade Directory Entries** Name: P N A Joinery Location: Unit 1, Neath Abbey Business Park, Neath Abbey, Neath, West Glamorgan, SA10 7DR Classification: Staircase, Balustrade & Handrail Manufacturers **Status: Inactive** Positional Accuracy: Automatically positioned to the address	A9NW (SE)	556	-	273181 196975
347	**Contemporary Trade Directory Entries** Name: Aspen Location: Unit 10, Neath Abbey Business Park, Neath Abbey, Neath, West Glamorgan, SA10 7DR Classification: Fencing Manufacturers **Status: Inactive** Positional Accuracy: Automatically positioned to the address	A9NW (SE)	588	-	273222 196966
347	**Contemporary Trade Directory Entries** Name: Vent Shop Ltd Location: Unit 10, Neath Abbey Business Park, Neath Abbey, Neath, West Glamorgan, SA10 7DR Classification: Ventilators & Ventilation Systems **Status: Active** Positional Accuracy: Automatically positioned to the address	A9NW (SE)	588	-	273222 196966
347	**Contemporary Trade Directory Entries** Name: Blakes Supplies Location: Unit 11, Neath Abbey Business Park, Neath Abbey, NEATH, West Glamorgan, SA10 7DR Classification: Cleaning Materials & Equipment **Status: Inactive** Positional Accuracy: Automatically positioned to the address	A9NW (SE)	589	-	273230 196971
347	**Contemporary Trade Directory Entries** Name: Blakes Location: Unit 11, Neath Abbey Business Park, Neath Abbey, Neath, West Glamorgan, SA10 7DR Classification: Cleaning Materials & Equipment **Status: Inactive** Positional Accuracy: Automatically positioned to the address	A9NW (SE)	589	-	273230 196971
347	**Contemporary Trade Directory Entries** Name: Cleanlink Location: Unit 11, Neath Abbey Business Park, Neath Abbey, Neath, West Glamorgan, SA10 7DR Classification: Cleaning Materials & Equipment **Status: Inactive** Positional Accuracy: Automatically positioned to the address	A9NW (SE)	589	-	273230 196971
347	**Contemporary Trade Directory Entries** Name: Dragon Heat Transfer Location: Unit 7-8, Neath Abbey Business Park, Neath Abbey, Neath, West Glamorgan, SA10 7DR Classification: Heating Services - Industrial and Commercial **Status: Inactive** Positional Accuracy: Manually positioned to the address or location	A9NW (SE)	593	-	273202 196945

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
348	**Contemporary Trade Directory Entries** Name: Kleenbee Location: 10, Parc Andrew, Neath, West Glamorgan, SA10 6BJ Classification: Cleaning Services - Domestic **Status: Active** Positional Accuracy: Automatically positioned to the address	A8NW (S)	567	-	272576 196875
349	**Contemporary Trade Directory Entries** Name: Valley Sealants Location: A, 1, Brookville Drive, Skewen, Neath, West Glamorgan, SA10 6SR Classification: Adhesives, Glues & Sealants **Status: Inactive** Positional Accuracy: Automatically positioned to the address	A12SW (W)	575	-	272010 197406
350	**Contemporary Trade Directory Entries** Name: Swans Blinds Location: Niberian House, Neath Abbey Business Park, Neath Abbey, Neath, West Glamorgan, SA10 7DR Classification: Blinds, Awnings & Canopies **Status: Inactive** Positional Accuracy: Automatically positioned to the address	A14SE (E)	624	-	273473 197309
351	**Contemporary Trade Directory Entries** Name: S & J Industrial Solutions Ltd Location: Unit 17, Lonlas Village Workshops, Cwmdu Industrial Estate, Neath, SA10 6RP Classification: Gaskets **Status: Inactive** Positional Accuracy: Automatically positioned to the address	A12NW (W)	665	-	271920 197530
351	**Contemporary Trade Directory Entries** Name: Graphic Impressions Location: Unit 17, Lonlas Village Workshops, Cwmdu Industrial Estate, Neath, SA10 6RP Classification: T-Shirts **Status: Active** Positional Accuracy: Automatically positioned to the address	A12NW (W)	665	-	271920 197530
351	**Contemporary Trade Directory Entries** Name: Actoflex Ltd Location: Unit 17 Lonlas Village Workshops, Skewen, Neath, West Glamorgan, SA10 6RP Classification: Hose, Tubing & Fittings **Status: Inactive** Positional Accuracy: Manually positioned to the address or location	A12NW (W)	665	-	271920 197530
351	**Contemporary Trade Directory Entries** Name: Badge Palace Location: Unit 19 Lonlas Village Workshops, Skewen, Neath, West Glamorgan, SA10 6RP Classification: T-Shirts **Status: Inactive** Positional Accuracy: Manually positioned to the address or location	A12NW (W)	669	-	271916 197542
351	**Contemporary Trade Directory Entries** Name: Clothing Industrial Services Location: Unit A, Lonlas Village Workshops, Cwmdu Industrial Estate, Neath, SA10 6RP Classification: Ironing & Home Laundry Services **Status: Active** Positional Accuracy: Automatically positioned to the address	A12NW (W)	684	-	271901 197540
351	**Contemporary Trade Directory Entries** Name: Stadium Auto Repairs Location: Unit 7, Cwmdu Industrial Estate, Neath, West Glamorgan, SA10 6RP Classification: Garage Services **Status: Inactive** Positional Accuracy: Automatically positioned to the address	A12NW (W)	695	-	271889 197532
351	**Contemporary Trade Directory Entries** Name: Motor Star Garage Services Location: Unit 7, Cwmdu Industrial Estate, Neath, SA10 6RP Classification: Garage Services **Status: Inactive** Positional Accuracy: Automatically positioned to the address	A12NW (W)	696	-	271889 197530
351	**Contemporary Trade Directory Entries** Name: Motor Star Location: Unit 7, Cwmdu Industrial Estate, Neath, SA10 6RP Classification: Garage Services **Status: Inactive** Positional Accuracy: Automatically positioned to the address	A12NW (W)	696	-	271889 197530

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
351	**Contemporary Trade Directory Entries** Name: Stadium Of Skewen Location: Unit 7,Lonlas Village Workshops,Cwmdu Ind Est, Neath, West Glamorgan, SA10 6RP Classification: Car Dealers **Status: Inactive** Positional Accuracy: Manually positioned to the address or location	A12NW (W)	696	-	271889 197533
351	**Contemporary Trade Directory Entries** Name: Argent Fabrications & Coatings Ltd Location: Unit 5, Lonlas Village Workshops, Cwmdu Industrial Estate, Neath, West Glamorgan, SA10 6RP Classification: Powder Coatings **Status: Inactive** Positional Accuracy: Automatically positioned to the address	A12NW (W)	699	-	271885 197522
351	**Contemporary Trade Directory Entries** Name: Independent Packaging Services Location: Unit 5, Lonlas Village Workshops, Cwmdu Industrial Estate, Neath, West Glamorgan, SA10 6RP Classification: Pallets, Crates & Packing Cases **Status: Inactive** Positional Accuracy: Automatically positioned to the address	A12NW (W)	699	-	271885 197522
351	**Contemporary Trade Directory Entries** Name: Xtreme Sportswear Location: Lonlas Village Workshops,Cwmdu Indust Est, Neath, West Glamorgan, SA10 6RP Classification: Sportswear - Manufacturers **Status: Inactive** Positional Accuracy: Manually positioned to the address or location	A12NW (W)	700	-	271885 197522
351	**Contemporary Trade Directory Entries** Name: City Maintenance Services Location: Offices 5 & 6 Lon Las Village Workshops, Skewen, Neath, West Glamorgan, SA10 6RB Classification: Door Manufacturers - Industrial **Status: Inactive** Positional Accuracy: Manually positioned to the address or location	A12NW (W)	701	-	271884 197522
351	**Contemporary Trade Directory Entries** Name: Kiwi Sports Neath Ltd Location: Unit 6, Lonlas Village Workshops, Cwmdu Industrial Estate, Neath, West Glamorgan, SA10 6RP Classification: Sports Equipment Manufacturers & Distributors **Status: Inactive** Positional Accuracy: Automatically positioned to the address	A12NW (W)	704	-	271881 197528
351	**Contemporary Trade Directory Entries** Name: Cambrian Refrigeration Location: Lonlas Village Workshops,Cwmdu Indust Est, Neath, West Glamorgan, SA10 6RP Classification: Refrigeration Equipment - Commercial **Status: Inactive** Positional Accuracy: Manually positioned to the address or location	A12NW (W)	708	-	271876 197496
351	**Contemporary Trade Directory Entries** Name: Skewen Welding Location: Unit 30a,Lonlas Village Workshops,Cwmdu Ind Est, Neath, West Glamorgan, SA10 6RP Classification: Wrought Ironwork **Status: Inactive** Positional Accuracy: Manually positioned to the address or location	A12NW (W)	727	-	271858 197544
351	**Contemporary Trade Directory Entries** Name: Nationwide Paging Location: Office 6,Cwmdu Ind Est, Neath, West Glamorgan, SA10 6RP Classification: Telecommunications Equipment & Systems **Status: Inactive** Positional Accuracy: Manually positioned within the geographical locality	A12NW (W)	739	-	271846 197532
352	**Contemporary Trade Directory Entries** Name: Colourcare Ltd Location: Neath Abbey Business Park, Neath Abbey, Neath, West Glamorgan, SA10 7DR Classification: Photographic Processors **Status: Inactive** Positional Accuracy: Automatically positioned to the address	A14SE (E)	673	-	273529 197350

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
352	**Contemporary Trade Directory Entries** Name: Randall & Daniels (Electrical) Ltd Location: Neath Abbey Business Park, Neath Abbey, Neath, West Glamorgan, SA10 7DR Classification: Under Floor Heating **Status: Inactive** Positional Accuracy: Automatically positioned to the address	A14SE (E)	673	-	273529 197350
353	**Contemporary Trade Directory Entries** Name: Stadium Service Station Location: Lucy Road, Neath, West Glamorgan, SA10 6RS Classification: Garage Services **Status: Inactive** Positional Accuracy: Automatically positioned to the address	A12SW (W)	675	-	271909 197423
353	**Contemporary Trade Directory Entries** Name: Awteq Engineering Ltd Location: Unit 2,Cwmdu Ind Est, Neath, West Glamorgan, SA10 6RP Classification: Precision Engineers **Status: Inactive** Positional Accuracy: Manually positioned to the address or location	A12SW (W)	700	-	271884 197464
353	**Contemporary Trade Directory Entries** Name: Hi Q Motorway Tyres Ltd Location: Unit 1, Cwmdu Industrial Estate, Neath, West Glamorgan, SA10 6RP Classification: Tyre Dealers **Status: Inactive** Positional Accuracy: Automatically positioned to the address	A12SW (W)	714	-	271870 197431
354	**Contemporary Trade Directory Entries** Name: Monolithic Refractories Ltd Location: Drymau Farm, Drummau Road, Skewen, Neath, West Glamorgan, SA10 6NW Classification: Refractory Materials & Supplies **Status: Inactive** Positional Accuracy: Automatically positioned to the address	A17SW (NW)	682	-	272025 197915
354	**Contemporary Trade Directory Entries** Name: Monolithic Refactories Location: Drymau Farm, Drummau Road, Skewen, Neath, West Glamorgan, SA10 6NW Classification: Refractory Materials & Supplies **Status: Inactive** Positional Accuracy: Automatically positioned to the address	A17SW (NW)	682	-	272025 197915
355	**Contemporary Trade Directory Entries** Name: Express Belting Location: Unit 28a,Lonlas Village Workshops,Cwmdu Ind Est, Neath, West Glamorgan, SA10 6RP Classification: Conveyors & Conveyor Belts **Status: Inactive** Positional Accuracy: Manually positioned within the geographical locality	A12NW (W)	709	-	271878 197580
356	**Contemporary Trade Directory Entries** Name: Trade Centre Wales Location: Euro Centre, Neath Abbey Business Park, Neath Abbey, Neath, West Glamorgan, SA10 7DR Classification: Car Dealers - Used **Status: Inactive** Positional Accuracy: Automatically positioned to the address	A14SE (E)	714	-	273531 197184
356	**Contemporary Trade Directory Entries** Name: The Trade Centre Wales Location: Euro Centre, Neath Abbey Business Park, Neath Abbey, NEATH, West Glamorgan, SA10 7DR Classification: Car Component Manufacturers **Status: Active** Positional Accuracy: Automatically positioned to the address	A14SE (E)	714	-	273531 197184
357	**Contemporary Trade Directory Entries** Name: Furniture Medic Location: 1, Darran Park, Neath Abbey, Neath, West Glamorgan, SA10 6PX Classification: Furniture - Repairing & Restoring **Status: Inactive** Positional Accuracy: Automatically positioned to the address	A18NE (N)	724	-	272935 198241
358	**Contemporary Trade Directory Entries** Name: Old Road Garage Location: Old Road, Neath Abbey, Neath, West Glamorgan, SA10 7NF Classification: Crane Hire, Sales & Service **Status: Inactive** Positional Accuracy: Automatically positioned to the address	A14SE (E)	726	-	273587 197453

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
358	**Contemporary Trade Directory Entries** Name: J R Body Worx Location: Old Road, Neath Abbey, Neath, SA10 7NF Classification: Car Body Repairs **Status: Active** Positional Accuracy: Automatically positioned to the address	A14SE (E)	727	-	273587 197453
359	**Contemporary Trade Directory Entries** Name: Stadium Auto Repairs Ltd Location: Unit 7,Cwmdu Ind Est, Neath, West Glamorgan, SA10 6RP Classification: Garage Services **Status: Inactive** Positional Accuracy: Manually positioned to the address or location	A12NW (W)	751	-	271833 197486
359	**Contemporary Trade Directory Entries** Name: W W Powder Coating Location: Unit 8 Cwmdu Industrial Estate, Neath, West Glamorgan, SA10 6RP Classification: Powder Coatings **Status: Active** Positional Accuracy: Manually positioned to the address or location	A12NW (W)	762	-	271822 197478
359	**Contemporary Trade Directory Entries** Name: Clarkes Coatings (Uk) Ltd Location: Unit 8,Ionlas Business Park, Skewen, Neath, West Glamorgan, SA10 6RP Classification: Coating Specialists **Status: Inactive** Positional Accuracy: Manually positioned to the address or location	A12NW (W)	763	-	271821 197480
359	**Contemporary Trade Directory Entries** Name: Elite Electroplating Ltd Location: Unit 10 Lonlas Business Park,Cwmdu Indust Est, Neath, West Glamorgan, SA10 6RP Classification: Metal Finishing Services **Status: Inactive** Positional Accuracy: Manually positioned to the address or location	A12SW (W)	791	-	271793 197468
360	**Contemporary Trade Directory Entries** Name: Grove Autocare Ltd Location: Nidum House,Nidum Works, Neath Abbey, Neath, West Glamorgan, SA10 7DR Classification: Car Washing & Polishing Equipment & Supplies **Status: Inactive** Positional Accuracy: Manually positioned to the address or location	A14SE (E)	753	-	273609 197351
361	**Contemporary Trade Directory Entries** Name: Trumpet Tyres Location: 41, Pen-yr-Alley Avenue, Skewen, Neath, SA10 6DS Classification: Tyre Dealers **Status: Active** Positional Accuracy: Automatically positioned to the address	A7NE (SW)	767	-	272065 196877
362	**Contemporary Trade Directory Entries** Name: Stadium Service Garage Location: Sidings Terrace, Neath, West Glamorgan, SA10 6RF Classification: Garage Services **Status: Inactive** Positional Accuracy: Automatically positioned to the address	A12SW (W)	785	-	271809 197310
362	**Contemporary Trade Directory Entries** Name: Stadium Service Garage Location: Sidings Terrace, Neath, West Glamorgan, SA10 6RF Classification: Garage Services **Status: Inactive** Positional Accuracy: Automatically positioned to the address	A12SW (W)	785	-	271809 197310
362	**Contemporary Trade Directory Entries** Name: Stadium Cars Location: Siding Terrace, Neath, West Glamorgan, SA10 6RF Classification: Car Dealers - Used **Status: Inactive** Positional Accuracy: Automatically positioned to the address	A12SW (W)	785	-	271809 197310
362	**Contemporary Trade Directory Entries** Name: Carpoint Wales Location: Siding Ter, Neath, West Glamorgan, SA10 6RF Classification: Car Dealers - Used **Status: Inactive** Positional Accuracy: Manually positioned within the geographical locality	A12SW (W)	786	-	271809 197310

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
362	**Contemporary Trade Directory Entries** Name: Low Cost Vans Location: Main Road,Siding Ter, Neath, West Glamorgan, SA10 6RF Classification: Commercial Vehicle Dealers **Status: Inactive** Positional Accuracy: Manually positioned within the geographical locality	A12SW (W)	786	-	271809 197310
363	**Contemporary Trade Directory Entries** Name: Neath Abbey Motor Body Repairs Location: Monastery Road, Neath, West Glamorgan, SA10 7DH Classification: Car Body Repairs **Status: Inactive** Positional Accuracy: Automatically positioned to the address	A14SE (E)	794	-	273652 197379
363	**Contemporary Trade Directory Entries** Name: King David Location: Monastery Road, Neath, West Glamorgan, SA10 7DH Classification: Tyre Dealers **Status: Inactive** Positional Accuracy: Automatically positioned to the address	A14SE (E)	794	-	273652 197379
363	**Contemporary Trade Directory Entries** Name: Design Forge Location: Monastery Road, Neath, West Glamorgan, SA10 7DH Classification: Wrought Ironwork **Status: Inactive** Positional Accuracy: Automatically positioned to the address	A14SE (E)	794	-	273652 197379
364	**Contemporary Trade Directory Entries** Name: Johnson Bros Ltd Location: Neath Abbey Wharf, Skewen, Neath, West Glamorgan, SA10 6BL Classification: Coal & Smokeless Fuel Merchants & Distributors **Status: Inactive** Positional Accuracy: Automatically positioned to the address	A8SE (S)	810	-	273015 196634
365	**Contemporary Trade Directory Entries** Name: Premier Concrete Products Location: Unit 12, Lonlas Business Park, Lonlas, Neath, West Glamorgan, SA10 6SN Classification: Concrete Manufacturers & Distributors **Status: Inactive** Positional Accuracy: Automatically positioned to the address	A12SW (W)	819	-	271765 197457
365	**Contemporary Trade Directory Entries** Name: J & J Motors Location: Unit 14, Lonlas Business Park, Lonlas, Neath, West Glamorgan, SA10 6SN Classification: Garage Services **Status: Inactive** Positional Accuracy: Automatically positioned to the address	A12SW (W)	850	-	271733 197444
366	**Contemporary Trade Directory Entries** Name: J & R Aqua Designs Location: Reaf Of G M F, Neath Abbey, Neath, West Glamorgan, SA10 7NH Classification: Wheel Manufacturers **Status: Active** Positional Accuracy: Manually positioned within the geographical locality	A14NE (E)	830	-	273690 197553
367	**Contemporary Trade Directory Entries** Name: Neath Garage Transport & Haulage Co Ltd Location: Castle Garage,The Croft, Neath Abbey, Neath, West Glamorgan, SA10 7NW Classification: Garage Services **Status: Inactive** Positional Accuracy: Manually positioned to the address or location	A14NE (E)	842	-	273692 197658
367	**Contemporary Trade Directory Entries** Name: Glamorgan Services Ltd Location: Rockfield, Longford Road, Neath Abbey, Neath, West Glamorgan, SA10 7HQ Classification: Commercial Vehicle Servicing, Repairs, Parts & Accessories **Status: Inactive** Positional Accuracy: Automatically positioned to the address	A14NE (E)	872	-	273716 197695
367	**Contemporary Trade Directory Entries** Name: Herbert Crane & Truck Hydraulics Location: Rockfield, Longford Road, Neath Abbey, Neath, West Glamorgan, SA10 7HQ Classification: Hydraulic Engineers **Status: Inactive** Positional Accuracy: Automatically positioned to the address	A14NE (E)	872	-	273716 197695
368	**Contemporary Trade Directory Entries** Name: J & J Motors Location: Siding Terrace, Neath, SA10 6RF Classification: Garage Services **Status: Active** Positional Accuracy: Automatically positioned to the address	A12SW (W)	882	-	271717 197278

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
368	**Contemporary Trade Directory Entries** Name: J & J Motors Location: Siding Terrace, Neath, West Glamorgan, SA10 6RF Classification: Car Dealers **Status: Inactive** Positional Accuracy: Automatically positioned to the address	A12SW (W)	882	-	271717 197278
368	**Contemporary Trade Directory Entries** Name: Crownhawk Properties Location: Siding Terrace, Neath, West Glamorgan, SA10 6RF Classification: Commercial Vehicle Dealers **Status: Active** Positional Accuracy: Automatically positioned to the address	A12SW (W)	882	-	271717 197278
369	**Contemporary Trade Directory Entries** Name: Solar 2 Energy Savings Location: Unit 1 Lon Las Industrial Estate, Lucy Road Skewen, Neath, West Glamorgan, SA10 6RR Classification: Electricity Generating & Distributing Equipment **Status: Inactive** Positional Accuracy: Manually positioned within the geographical locality	A11SE (W)	894	-	271691 197388
370	**Contemporary Trade Directory Entries** Name: M R H Service Station Location: Neath Abbey Business Park, Neath Abbey, Neath, SA10 7DR Classification: Petrol Filling Stations **Status: Active** Positional Accuracy: Automatically positioned to the address	A8SW (S)	894	-	272710 196541
370	**Contemporary Trade Directory Entries** Name: Esso Location: A465 Trunk Road, Neath Abbey, Neath, West Glamorgan, SA10 7DR Classification: Petrol Filling Stations **Status: Active** Positional Accuracy: Manually positioned to the address or location	A8SW (S)	894	-	272710 196541
370	**Contemporary Trade Directory Entries** Name: Texaco Location: Neath Abbey Business Park, Neath Abbey, Neath, SA10 7DR Classification: Petrol Filling Stations - 24 Hour **Status: Inactive** Positional Accuracy: Automatically positioned to the address	A8SW (S)	894	-	272710 196541
371	**Contemporary Trade Directory Entries** Name: On The Move Location: New Rd, Neath Abbey, Neath, West Glamorgan, SA10 7DG Classification: Garage Services **Status: Inactive** Positional Accuracy: Manually positioned to the road within the address or location	A15NW (E)	895	-	273752 197604
372	**Contemporary Trade Directory Entries** Name: Monastery Motors Location: Monastery Road, Neath, SA10 7DH Classification: Garage Services **Status: Active** Positional Accuracy: Automatically positioned to the address	A15SW (E)	898	-	273750 197309
373	**Contemporary Trade Directory Entries** Name: G & L Staircases Location: Monastery Road, Neath, West Glamorgan, SA10 7DH Classification: Staircase, Balustrade & Handrail Manufacturers **Status: Active** Positional Accuracy: Automatically positioned to the address	A15NW (E)	924	-	273784 197493
373	**Contemporary Trade Directory Entries** Name: Sorokin Joinery & Glazing Ltd Location: Unit 9, Monastery Road, Neath, SA10 7DH Classification: Joinery Manufacturers **Status: Inactive** Positional Accuracy: Automatically positioned to the address	A15NW (E)	932	-	273793 197486
373	**Contemporary Trade Directory Entries** Name: Psp Fabrications Location: Monastery Road, Neath, SA10 7DH Classification: Sheet Metal Work **Status: Inactive** Positional Accuracy: Automatically positioned to the address	A15NW (E)	932	-	273793 197486

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
374	**Contemporary Trade Directory Entries** Name: Derwen Location: Neath Abbey Wharf, Skewen, Neath, West Glamorgan, SA10 6BL Classification: Sand, Gravel & Other Aggregates **Status: Inactive** Positional Accuracy: Automatically positioned to the address	A8SE (S)	964	-	272928 196468
374	**Contemporary Trade Directory Entries** Name: Derwen Aggregates Location: Neath Abbey Wharf, Skewen, Neath, SA10 6BL Classification: Recycling Services **Status: Active** Positional Accuracy: Automatically positioned to the address	A8SE (S)	965	-	272934 196467
375	**Contemporary Trade Directory Entries** Name: T H Williams Location: Neath Abbey, Neath, West Glamorgan, SA10 7LE Classification: Car Dealers - Used **Status: Inactive** Positional Accuracy: Automatically positioned to the address	A15NW (E)	999	-	273851 197652
375	**Contemporary Trade Directory Entries** Name: T H Williams Car Sales Location: Riverside Works, Main Road, Neath Abbey, NEATH, West Glamorgan, SA10 7DG Classification: Car Dealers **Status: Active** Positional Accuracy: Automatically positioned to the address	A15NW (E)	999	-	273851 197652
376	**Fuel Station Entries** Name: Stadium Garage Location: New Road , Skewen , Neath, Neath Port Talbot, SA10 6RF Brand: Obsolete Premises Type: Not Applicable **Status: Obsolete** Positional Accuracy: Automatically positioned to the address	A12SW (W)	786	-	271809 197310
377	**Fuel Station Entries** Name: Mfg Sgiwen Location: A465 , Skewen Neath Abbey Business Park, Neath, Neath Port Talbot, SA10 7DR Brand: Texaco Premises Type: Petrol Station **Status: Open** Positional Accuracy: Manually positioned to the address or location	A8SW (S)	891	-	272711 196544
378	**Points of Interest - Commercial Services** Name: A & A Electrics Location: 31 Cae Nant Terrace, Neath, SA10 6UP Category: Repair and Servicing Class Code: Vehicle Repair, Testing and Servicing Positional Accuracy: Positioned to address or location	A13NE (E)	0	9	272836 197504
378	**Points of Interest - Commercial Services** Name: A J Auto Electrical Location: 31 Cae Nant Terrace, Neath, SA10 6UP Category: Repair and Servicing Class Code: Vehicle Repair, Testing and Servicing Positional Accuracy: Positioned to address or location	A13NE (E)	0	9	272836 197505
378	**Points of Interest - Commercial Services** Name: A J Auto Electrical Location: 31 Cae Nant Terrace, Neath, SA10 6UP Category: Repair and Servicing Class Code: Vehicle Repair, Testing and Servicing Positional Accuracy: Positioned to address or location	A13NE (E)	0	9	272836 197505
379	**Points of Interest - Commercial Services** Name: Auto Electrical Services Location: Picton Road Garage, Picton Road, Skewen, Neath, SA10 6UN Category: Repair and Servicing Class Code: Vehicle Repair, Testing and Servicing Positional Accuracy: Positioned to address or location	A13SW (W)	0	9	272586 197455
380	**Points of Interest - Commercial Services** Name: Skewen Accident Repair Centre Location: 89 Old Road, Skewen, Neath, SA10 6LR Category: Repair and Servicing Class Code: Vehicle Repair, Testing and Servicing Positional Accuracy: Positioned to address or location	A13SW (S)	249	9	272651 197190

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
381	**Points of Interest - Commercial Services** Name: Easyfreeze Ltd Location: Whitegates Yard, Drummau Road, Skewen, Neath, SA10 6NU Category: Repair and Servicing Class Code: Vehicle Repair, Testing and Servicing Positional Accuracy: Positioned to address or location	A14SW (E)	253	9	273113 197427
381	**Points of Interest - Commercial Services** Name: G P Auto Centre Location: 1 Drummau Road, Skewen, Neath, SA10 6NU Category: Repair and Servicing Class Code: Vehicle Repair, Testing and Servicing Positional Accuracy: Positioned to address or location	A14SW (E)	254	9	273114 197438
382	**Points of Interest - Commercial Services** Name: P & T Autos Location: Evelyn Road, Neath, SA10 6LF Category: Repair and Servicing Class Code: Vehicle Repair, Testing and Servicing Positional Accuracy: Positioned to address or location	A12SE (W)	358	9	272249 197315
383	**Points of Interest - Commercial Services** Name: Dragon Autos Location: 2 Brookside Mews, Old Road, Skewen, Neath, SA10 7LT Category: Repair and Servicing Class Code: Vehicle Repair, Testing and Servicing Positional Accuracy: Positioned to address or location	A14SW (E)	369	9	273220 197346
383	**Points of Interest - Commercial Services** Name: Abbey Services Location: Security House, Old Road, Skewen, Neath, SA10 7LT Category: Repair and Servicing Class Code: Vehicle Repair, Testing and Servicing Positional Accuracy: Positioned to address or location	A14SW (E)	456	9	273308 197344
384	**Points of Interest - Commercial Services** Name: Mike Haller Aggregates Location: 16 Bosworth Road, Neath, SA10 6BU Category: Transport, Storage and Delivery Class Code: Distribution and Haulage Positional Accuracy: Positioned to address or location	A8NE (S)	396	9	272795 197036
385	**Points of Interest - Commercial Services** Name: Select Accident Repair Centre Ltd Location: Unit 2, Winifred Road, Neath, SA10 6HP Category: Repair and Servicing Class Code: Vehicle Repair, Testing and Servicing Positional Accuracy: Positioned to address or location	A12SE (W)	481	9	272141 197253
386	**Points of Interest - Commercial Services** Name: G T Motors Location: 1 Graham Terrace, Neath, SA10 6RL Category: Repair and Servicing Class Code: Vehicle Repair, Testing and Servicing Positional Accuracy: Positioned to address or location	A12NE (W)	499	9	272086 197508
387	**Points of Interest - Commercial Services** Name: A S Manson Location: Unit 34, Neath Abbey Business Park, Neath Abbey, Neath, SA10 7DR Category: Transport, Storage and Delivery Class Code: Distribution and Haulage Positional Accuracy: Positioned to address or location	A9NW (SE)	572	9	273344 197124
388	**Points of Interest - Commercial Services** Name: Cimla Forge Location: Unit 13, Neath Abbey Business Park, Neath Abbey, Neath, SA10 7DR Category: Construction Services Class Code: Metalworkers Including Blacksmiths Positional Accuracy: Positioned to address or location	A9NW (SE)	588	9	273261 196999
388	**Points of Interest - Commercial Services** Name: Hilbar Autos Ltd Location: Unit 12, Neath Abbey Business Park, Neath Abbey, Neath, SA10 7DR Category: Repair and Servicing Class Code: Vehicle Repair, Testing and Servicing Positional Accuracy: Positioned to address or location	A9NW (SE)	588	9	273237 196978
388	**Points of Interest - Commercial Services** Name: Martyn Lewis Accident Repair Centre Location: Unit 19, Neath Abbey Business Park, Neath Abbey, Neath, SA10 7DR Category: Repair and Servicing Class Code: Vehicle Repair, Testing and Servicing Positional Accuracy: Positioned to address or location	A9NW (SE)	589	9	273276 197012

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
389	**Points of Interest - Commercial Services** Name: Stadium Body Shop Location: Dynevor Place, Skewen, Neath, SA10 6RG Category: Repair and Servicing Class Code: Vehicle Repair, Testing and Servicing Positional Accuracy: Positioned to address or location	A12SW (W)	658	9	271932 197353
390	**Points of Interest - Commercial Services** Name: Monolithic Environmental Services Limted Location: Drummau Farm, Drummau Road, Skewen, Neath, West Glamorgan, SA10 6NW Category: Recycling Services Class Code: Recycling, Reclamation and Disposal Positional Accuracy: Positioned to address or location	A17SW (NW)	682	9	272025 197915
391	**Points of Interest - Commercial Services** Name: Cymru Automation Location: Unit 1 Lonlas Village Workshops, Cwmdu Industrial Estate, Neath, SA10 6RP Category: Transport, Storage and Delivery Class Code: Distribution and Haulage Positional Accuracy: Positioned to address or location	A12NW (W)	690	9	271894 197500
391	**Points of Interest - Commercial Services** Name: Stadium Auto Repairs Ltd Location: Unit 7, Cwmdu Industrial Estate, Neath, SA10 6RP Category: Repair and Servicing Class Code: Vehicle Repair, Testing and Servicing Positional Accuracy: Positioned to address or location	A12NW (W)	695	9	271889 197532
391	**Points of Interest - Commercial Services** Name: Stadium Auto Repairs Ltd Location: Unit 7, Cwmdu Industrial Estate, Neath, SA10 6RP Category: Repair and Servicing Class Code: Vehicle Repair, Testing and Servicing Positional Accuracy: Positioned to address or location	A12NW (W)	695	9	271889 197532
391	**Points of Interest - Commercial Services** Name: Motor Star Garage Services Location: Unit 7 Lonlas Village Workshops, Cwmdu Industrial Estate, Neath, SA10 6RP Category: Repair and Servicing Class Code: Vehicle Repair, Testing and Servicing Positional Accuracy: Positioned to address or location	A12NW (W)	696	9	271889 197532
391	**Points of Interest - Commercial Services** Name: Motor Star Location: Unit 7, Cwmdu Industrial Estate, Neath, SA10 6RP Category: Repair and Servicing Class Code: Vehicle Repair, Testing and Servicing Positional Accuracy: Positioned to address or location	A12NW (W)	696	9	271889 197530
391	**Points of Interest - Commercial Services** Name: Skewen Tyre & Auto Centre Ltd Location: Unit 2, Lonlas Business Park, Lonlas, Neath, SA10 6SN Category: Repair and Servicing Class Code: Vehicle Repair, Testing and Servicing Positional Accuracy: Positioned to address or location	A12SW (W)	700	9	271884 197464
391	**Points of Interest - Commercial Services** Name: Skewen Welding Location: Unit 30a, Lonlas Village Workshops, Cwmdu Ind Est, Neath, West Glamorgan, SA10 6RP Category: Construction Services Class Code: Metalworkers Including Blacksmiths Positional Accuracy: Positioned to address or location	A12NW (W)	727	9	271858 197544
391	**Points of Interest - Commercial Services** Name: Skewen Welding Location: Unit 30a Lonlas Village Workshops, Cwmdu Industrial Estate, Neath, SA10 6RP Category: Construction Services Class Code: Metalworkers Including Blacksmiths Positional Accuracy: Positioned to address or location	A12NW (W)	727	9	271858 197544
391	**Points of Interest - Commercial Services** Name: Stadium Garage Workshop Location: Unit 7, Cwmdu Ind Est, Neath, West Glamorgan, SA10 6RP Category: Repair and Servicing Class Code: Vehicle Repair, Testing and Servicing Positional Accuracy: Positioned to address or location	A12NW (W)	751	9	271833 197486

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
392	**Points of Interest - Commercial Services** Name: J R Body Worx Location: Old Road, Neath Abbey, Neath, SA10 7NF Category: Repair and Servicing Class Code: Vehicle Repair, Testing and Servicing Positional Accuracy: Positioned to address or location	A14SE (E)	726	9	273586 197453
393	**Points of Interest - Commercial Services** Name: Stadium Service Garage Location: Sidings Terrace, Neath, SA10 6RF Category: Repair and Servicing Class Code: Vehicle Repair, Testing and Servicing Positional Accuracy: Positioned to address or location	A12SW (W)	785	9	271809 197310
393	**Points of Interest - Commercial Services** Name: Stadium Service Garage Location: Siding Terrace, Neath, SA10 6RF Category: Repair and Servicing Class Code: Vehicle Repair, Testing and Servicing Positional Accuracy: Positioned to address or location	A12SW (W)	785	9	271809 197310
393	**Points of Interest - Commercial Services** Name: Stadium Body Shop Location: Sidings Terrace, Skewen, Neath, SA10 6RE Category: Repair and Servicing Class Code: Vehicle Repair, Testing and Servicing Positional Accuracy: Positioned to address or location	A12SW (W)	802	9	271793 197307
394	**Points of Interest - Commercial Services** Name: Neath Abbey Motor Body Repairs Location: Monastery Road, Neath, SA10 7DH Category: Repair and Servicing Class Code: Vehicle Repair, Testing and Servicing Positional Accuracy: Positioned to address or location	A14SE (E)	794	9	273652 197379
394	**Points of Interest - Commercial Services** Name: Neath Abbey Motor Body Repairs Location: Monastery Road, Neath, SA10 7DH Category: Repair and Servicing Class Code: Vehicle Repair, Testing and Servicing Positional Accuracy: Positioned to address or location	A14SE (E)	794	9	273652 197379
395	**Points of Interest - Commercial Services** Name: Scrap Yard Location: SA10 Category: Recycling Services Class Code: Scrap Metal Merchants Positional Accuracy: Positioned to address or location	A8SE (S)	803	9	273029 196644
395	**Points of Interest - Commercial Services** Name: Scrap Yard Location: Not Supplied Category: Recycling Services Class Code: Scrap Metal Merchants Positional Accuracy: Positioned to an adjacent address or location	A9SW (SE)	833	9	273081 196626
396	**Points of Interest - Commercial Services** Name: J & J Motors Location: Unit 14, Lonlas Business Park, Lonlas, Neath, SA10 6SN Category: Repair and Servicing Class Code: Vehicle Repair, Testing and Servicing Positional Accuracy: Positioned to address or location	A12SW (W)	850	9	271733 197444
397	**Points of Interest - Commercial Services** Name: J & J Motors Location: Siding Terrace, Main Road, Neath, SA10 6RF Category: Repair and Servicing Class Code: Vehicle Repair, Testing and Servicing Positional Accuracy: Positioned to address or location	A12SW (W)	882	9	271717 197278
398	**Points of Interest - Commercial Services** Name: Car Wash Location: A465, Skewen, Neath Abbey Business Park, Neath, West Glamorgan, SA10 7DR Category: Personal, Consumer and other Services Class Code: Vehicle Cleaning Services Positional Accuracy: Positioned to address or location	A8SW (S)	891	9	272711 196544
398	**Points of Interest - Commercial Services** Name: Mrh Sgiwen Location: A465, Skewen, Neath Abbey Business Park, Neath, SA10 7DR Category: Personal, Consumer and other Services Class Code: Vehicle Cleaning Services Positional Accuracy: Positioned to address or location	A8SW (S)	898	9	272687 196538

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
399	**Points of Interest - Commercial Services** Name: Monastery Motors Location: The Abbey Bungalow, Monastery Road, Neath, SA10 7DW Category: Repair and Servicing Class Code: Vehicle Repair, Testing and Servicing Positional Accuracy: Positioned to address or location	A15SW (E)	898	9	273750 197309
400	**Points of Interest - Commercial Services** Name: Abbey Salvage Location: Unit 9 Monastery Business Centre, Neath, SA10 7DW Category: Recycling Services Class Code: Scrap Metal Merchants Positional Accuracy: Positioned to address or location	A15NW (E)	931	9	273792 197484
400	**Points of Interest - Commercial Services** Name: Monastery Motors Location: Monastery Road, Neath, SA10 7DH Category: Repair and Servicing Class Code: Vehicle Repair, Testing and Servicing Positional Accuracy: Positioned to address or location	A15NW (E)	946	9	273807 197535
401	**Points of Interest - Commercial Services** Name: Derwen Aggregates Location: Neath Abbey Wharf, Skewen, Neath, SA10 6BL Category: Recycling Services Class Code: Recycling, Reclamation and Disposal Positional Accuracy: Positioned to address or location	A8SE (S)	965	9	272934 196467
402	**Points of Interest - Commercial Services** Name: T H Williams Car Sales Location: Riverside Works, Main Road, Neath Abbey, Neath, SA10 7DG Category: Repair and Servicing Class Code: Vehicle Repair, Testing and Servicing Positional Accuracy: Positioned to address or location	A15NW (E)	999	9	273851 197652
402	**Points of Interest - Commercial Services** Name: Heritage Garage Location: Riverside Works, Main Road, Neath Abbey, Neath, SA10 7DG Category: Repair and Servicing Class Code: Vehicle Repair, Testing and Servicing Positional Accuracy: Positioned to address or location	A15NW (E)	999	9	273851 197652
403	**Points of Interest - Manufacturing and Production** Name: G J Isaac & Son Location: 70 New Road, Skewen, Neath, SA10 6HA Category: Extractive Industries Class Code: Stone Quarrying and Preparation Positional Accuracy: Positioned to address or location	A13SW (W)	88	9	272497 197426
404	**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	A13SE (SE)	134	9	272978 197366
404	**Points of Interest - Manufacturing and Production** Name: Works Location: SA10 Category: Industrial Features Class Code: Unspecified Works Or Factories Positional Accuracy: Positioned to an adjacent address or location	A13SE (SE)	134	9	272978 197366
405	**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	A14SW (E)	271	9	273131 197422
405	**Points of Interest - Manufacturing and Production** Name: Works Location: SA10 Category: Industrial Features Class Code: Unspecified Works Or Factories Positional Accuracy: Positioned to an adjacent address or location	A14SW (E)	271	9	273131 197422
406	**Points of Interest - Manufacturing and Production** Name: Mike Haller Aggregates Location: 16 Bosworth Road, Neath, SA10 6BU Category: Extractive Industries Class Code: Unspecified Quarries Or Mines Positional Accuracy: Positioned to address or location	A8NE (S)	396	9	272795 197036

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
406	**Points of Interest - Manufacturing and Production** Name: Mike Haller Location: 16 Bosworth Road, Neath, SA10 6BU Category: Extractive Industries Class Code: Unspecified Quarries Or Mines Positional Accuracy: Positioned to address or location	A8NE (S)	396	9	272795 197036
407	**Points of Interest - Manufacturing and Production** Name: Quarry (Disused) Location: SA10 Category: Extractive Industries Class Code: Unspecified Quarries Or Mines Positional Accuracy: Positioned to address or location	A18SW (NW)	408	9	272531 197929
408	**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	A12NE (NW)	414	9	272267 197791
409	**Points of Interest - Manufacturing and Production** Name: South Wales Granite Wholesale Location: 1 Winifred Road, Neath, SA10 6HP Category: Extractive Industries Class Code: Stone Quarrying and Preparation Positional Accuracy: Positioned to address or location	A12SE (W)	455	9	272154 197293
410	**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	A14SW (E)	517	9	273356 197284
411	**Points of Interest - Manufacturing and Production** Name: Quarry (Disused) Location: SA10 Category: Extractive Industries Class Code: Unspecified Quarries Or Mines Positional Accuracy: Positioned to address or location	A18SE (N)	537	9	272753 198059
411	**Points of Interest - Manufacturing and Production** Name: Quarry (Disused) Location: SA10 Category: Extractive Industries Class Code: Unspecified Quarries Or Mines Positional Accuracy: Positioned to an adjacent address or location	A18SW (N)	557	9	272720 198080
412	**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	A12NW (W)	625	9	271959 197477
412	**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	A12NW (W)	626	9	271958 197504
412	**Points of Interest - Manufacturing and Production** Name: Workshops Location: SA10 Category: Industrial Features Class Code: Unspecified Works Or Factories Positional Accuracy: Positioned to an adjacent address or location	A12NW (W)	696	9	271888 197483
412	**Points of Interest - Manufacturing and Production** Name: Lonlas Village Workshops Location: Not Supplied Category: Industrial Features Class Code: Unspecified Works Or Factories Positional Accuracy: Positioned to an adjacent address or location	A12NW (W)	697	9	271887 197485
413	**Points of Interest - Manufacturing and Production** Name: Neath Abbey Business Park Location: SA10 Category: Industrial Features Class Code: Business Parks and Industrial Estates Positional Accuracy: Positioned to an adjacent address or location	A9NE (SE)	629	9	273416 197134

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
414	**Points of Interest - Manufacturing and Production** Name: Lonlas Village Workshops Location: SA10 Category: Industrial Features Class Code: Unspecified Works Or Factories Positional Accuracy: Positioned to address or location	A12NW (W)	681	9	271904 197548
415	**Points of Interest - Manufacturing and Production** Name: Factory Location: Not Supplied Category: Industrial Features Class Code: Unspecified Works Or Factories Positional Accuracy: Positioned to an adjacent address or location	A14SE (E)	756	9	273611 197346
415	**Points of Interest - Manufacturing and Production** Name: Factory Location: SA10 Category: Industrial Features Class Code: Unspecified Works Or Factories Positional Accuracy: Positioned to address or location	A14SE (E)	762	9	273617 197342
415	**Points of Interest - Manufacturing and Production** Name: Tanks Location: SA10 Category: Industrial Features Class Code: Tanks (Generic) Positional Accuracy: Positioned to an adjacent address or location	A14SE (E)	768	9	273616 197295
415	**Points of Interest - Manufacturing and Production** Name: Tank Location: SA10 Category: Industrial Features Class Code: Tanks (Generic) Positional Accuracy: Positioned to address or location	A14SE (E)	775	9	273624 197298
415	**Points of Interest - Manufacturing and Production** Name: Tank Location: SA10 Category: Industrial Features Class Code: Tanks (Generic) Positional Accuracy: Positioned to address or location	A14SE (E)	779	9	273628 197297
415	**Points of Interest - Manufacturing and Production** Name: Tank Location: SA10 Category: Industrial Features Class Code: Tanks (Generic) Positional Accuracy: Positioned to address or location	A14SE (E)	780	9	273629 197300
415	**Points of Interest - Manufacturing and Production** Name: Tank Location: SA10 Category: Industrial Features Class Code: Tanks (Generic) Positional Accuracy: Positioned to address or location	A14SE (E)	786	9	273635 197298
416	**Points of Interest - Manufacturing and Production** Name: G J Isaac & Son Ltd Location: Unit 9, Lonlas Business Park, Lonlas, Neath, SA10 6SN Category: Extractive Industries Class Code: Stone Quarrying and Preparation Positional Accuracy: Positioned to address or location	A12SW (W)	775	9	271809 197476
416	**Points of Interest - Manufacturing and Production** Name: George J Isaac & Son Ltd Location: Unit 9, Lonlas Business Park, Lonlas, Neath, SA10 6SN Category: Extractive Industries Class Code: Stone Quarrying and Preparation Positional Accuracy: Positioned to address or location	A12SW (W)	775	9	271809 197476
416	**Points of Interest - Manufacturing and Production** Name: Lonlas Business Park Location: SA10 Category: Industrial Features Class Code: Business Parks and Industrial Estates Positional Accuracy: Positioned to an adjacent address or location	A12SW (W)	845	9	271739 197473
417	**Points of Interest - Manufacturing and Production** Name: Quarry (Disused) Location: SA10 Category: Extractive Industries Class Code: Unspecified Quarries Or Mines Positional Accuracy: Positioned to address or location	A12NW (W)	785	9	271805 197619

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
417	**Points of Interest - Manufacturing and Production** Name: Shaft (Disused) Location: SA10 Category: Extractive Industries Class Code: Unspecified Quarries Or Mines Positional Accuracy: Positioned to an adjacent address or location	A12NW (W)	817	9	271786 197695
418	**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	A15NW (E)	893	9	273754 197534
418	**Points of Interest - Manufacturing and Production** Name: Monastry Business Centre Location: SA10 Category: Industrial Features Class Code: Business Parks and Industrial Estates Positional Accuracy: Positioned to an adjacent address or location	A15NW (E)	935	9	273796 197481
418	**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	A15SW (E)	984	9	273844 197451
419	**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	A14NE (E)	895	9	273729 197741
420	**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	A8SE (S)	966	9	272989 196472
421	**Points of Interest - Public Infrastructure** Name: Skewen Rail Station Location: Woodland Close, SA10 Category: Public Transport, Stations and Infrastructure Class Code: Railway Stations, Junctions and Halts Positional Accuracy: Positioned to address or location	A12NE (W)	215	9	272369 197478
421	**Points of Interest - Public Infrastructure** Name: Skewen Station Location: Woodland Close, SA10 Category: Public Transport, Stations and Infrastructure Class Code: Railway Stations, Junctions and Halts Positional Accuracy: Positioned to address or location	A12NE (W)	215	9	272369 197478
422	**Points of Interest - Public Infrastructure** Name: D F & A M Bevan Location: 2 Capel Terrace, Skewen, Neath, SA10 6LY Category: Road And Rail Class Code: Petrol and Fuel Stations Positional Accuracy: Positioned to address or location	A13SE (S)	236	9	272766 197197
423	**Points of Interest - Public Infrastructure** Name: Skewen Police Station Location: 152 New Road, Skewen, Neath, SA10 6HH Category: Central and Local Government Class Code: Police Stations Positional Accuracy: Positioned to address or location	A12SE (W)	357	9	272240 197346
423	**Points of Interest - Public Infrastructure** Name: Skewen Police Station Location: 152 New Road, Skewen, Neath, West Glamorgan, SA10 6HH Category: Central and Local Government Class Code: Police Stations Positional Accuracy: Positioned to address or location	A12SE (W)	357	9	272240 197346
424	**Points of Interest - Public Infrastructure** Name: Refuse Tip (Disused) Location: SA10 Category: Infrastructure and Facilities Class Code: Refuse Disposal Facilities Positional Accuracy: Positioned to an adjacent address or location	A18SE (N)	461	9	272769 197983

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
425	**Points of Interest - Public Infrastructure** Name: MRH Sgiwen Location: A465, Skewen, Neath Abbey Business Park, Neath, SA10 7DR Category: Road And Rail Class Code: Petrol and Fuel Stations Positional Accuracy: Positioned to address or location	A8SW (S)	891	9	272711 196544
425	**Points of Interest - Public Infrastructure** Name: Texaco Location: Neath Abbey Business Park, Neath Abbey, Neath, SA10 7DR Category: Road And Rail Class Code: Petrol and Fuel Stations Positional Accuracy: Positioned to address or location	A8SW (S)	893	9	272711 196542
425	**Points of Interest - Public Infrastructure** Name: M R H Service Station Location: A465 Trunk Road, Neath Abbey, Neath, SA10 7DR Category: Road And Rail Class Code: Petrol and Fuel Stations Positional Accuracy: Positioned to address or location	A8SW (S)	893	9	272712 196542
425	**Points of Interest - Public Infrastructure** Name: Sgiwen Service Station Location: Sgiwen Service Station, Neath Abbey Business Park, Neath, West Glamorgan, SA10 7DR Category: Road And Rail Class Code: Petrol and Fuel Stations Positional Accuracy: Positioned to address or location	A8SW (S)	893	9	272710 196542
426	**Points of Interest - Public Infrastructure** Name: Aggregates Location: Neath Abbey Wharf, Skewen, Neath, SA10 6BL Category: Infrastructure and Facilities Class Code: Waste Storage, Processing and Disposal Positional Accuracy: Positioned to address or location	A8SE (S)	965	9	272934 196467
427	**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	A13SE (SE)	53	9	272872 197378
427	**Points of Interest - Recreational and Environmental** Name: Playground Location: New Road, SA10 Category: Recreational Class Code: Playgrounds Positional Accuracy: Positioned to address or location	A13SE (SE)	54	9	272870 197376
428	**Points of Interest - Recreational and Environmental** Name: Playground Location: Nr Christopher Road, SA10 Category: Recreational Class Code: Playgrounds Positional Accuracy: Positioned to address or location	A8NW (SW)	440	9	272395 197045
428	**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	A8NW (SW)	441	9	272391 197045
429	**Points of Interest - Recreational and Environmental** Name: Playground Location: Penlan Road, SA10 Category: Recreational Class Code: Playgrounds Positional Accuracy: Positioned to address or location	A12NW (W)	552	9	272033 197544
429	**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	A12NW (W)	561	9	272024 197537
430	**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	A18NE (NE)	673	9	273053 198166

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
430	**Points of Interest - Recreational and Environmental** Name: Playground Location: The Highlands, SA10 Category: Recreational Class Code: Playgrounds Positional Accuracy: Positioned to address or location	A18NE (NE)	685	9	273050 198179
431	**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	A12SW (W)	688	9	271922 197255
431	**Points of Interest - Recreational and Environmental** Name: Playground Location: The Meadows (Y Waun), SA10 Category: Recreational Class Code: Playgrounds Positional Accuracy: Positioned to an adjacent address or location	A12SW (W)	688	9	271922 197255
432	**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	A19SE (NE)	740	9	273508 197881
432	**Points of Interest - Recreational and Environmental** Name: Playground Location: The Drive (Y Rhodfa), SA10 Category: Recreational Class Code: Playgrounds Positional Accuracy: Positioned to address or location	A19SE (NE)	756	9	273525 197883

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
433	**Ancient Woodland** Name: Not Supplied Reference: 21719 Area(m²): 14743.78 Type: Restored Ancient Woodland Site	A13NW (NW)	227	2	272504 197737
434	**Ancient Woodland** Name: Not Supplied Reference: 41104 Area(m²): 7341.02 Type: Plantation on Ancient Woodland	A13NE (NE)	290	2	273047 197743
435	**Ancient Woodland** Name: Not Supplied Reference: 14000 Area(m²): 2937.22 Type: Ancient and Semi-Natural Woodland	A14NW (E)	303	2	273144 197631
436	**Ancient Woodland** Name: Not Supplied Reference: 14839 Area(m²): 8349.5 Type: Ancient and Semi-Natural Woodland	A18SW (NW)	323	2	272473 197827
437	**Ancient Woodland** Name: Not Supplied Reference: 21390 Area(m²): 12115.6 Type: Restored Ancient Woodland Site	A18SW (N)	361	2	272673 197890
438	**Ancient Woodland** Name: Not Supplied Reference: 14837 Area(m²): 4050.35 Type: Ancient and Semi-Natural Woodland	A12NE (NW)	367	2	272288 197742
439	**Ancient Woodland** Name: Not Supplied Reference: 14001 Area(m²): 5713.96 Type: Ancient and Semi-Natural Woodland	A14NW (NE)	370	2	273111 197793
440	**Ancient Woodland** Name: Not Supplied Reference: 14002 Area(m²): 1158.16 Type: Ancient and Semi-Natural Woodland	A18SW (NW)	432	2	272516 197951
441	**Ancient Woodland** Name: Not Supplied Reference: 11533 Area(m²): 127585.24 Type: Restored Ancient Woodland Site	A18SW (NW)	438	2	272472 197948
442	**Ancient Woodland** Name: Not Supplied Reference: 14841 Area(m²): 8163.43 Type: Ancient and Semi-Natural Woodland	A18SW (NW)	465	2	272444 197971
443	**Ancient Woodland** Name: Not Supplied Reference: 7910 Area(m²): 5326.46 Type: Ancient and Semi-Natural Woodland	A17SE (NW)	584	2	272309 198040
444	**Ancient Woodland** Name: Not Supplied Reference: 40641 Area(m²): 2980.54 Type: Plantation on Ancient Woodland	A12NW (W)	604	2	271995 197657
445	**Ancient Woodland** Name: Not Supplied Reference: 41286 Area(m²): 4979.69 Type: Plantation on Ancient Woodland	A17SE (NW)	652	2	272113 197976
446	**Ancient Woodland** Name: Not Supplied Reference: 21391 Area(m²): 4204.13 Type: Restored Ancient Woodland Site	A18NE (N)	661	2	272838 198182

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
447	**Ancient Woodland** Name: Not Supplied Reference: 39579 Area(m²): 67574.28 Type: Plantation on Ancient Woodland	A17SE (NW)	663	2	272207 198069
448	**Ancient Woodland** Name: Not Supplied Reference: 41288 Area(m²): 1176.78 Type: Plantation on Ancient Woodland	A17SE (NW)	669	2	272199 198072
449	**Ancient Woodland** Name: Not Supplied Reference: 39865 Area(m²): 29219.97 Type: Plantation on Ancient Woodland	A17SE (NW)	672	2	272107 197998
450	**Ancient Woodland** Name: Not Supplied Reference: 10339 Area(m²): 111132.49 Type: Restored Ancient Woodland Site	A18NE (N)	719	2	272756 198241
451	**Ancient Woodland** Name: Not Supplied Reference: 41289 Area(m²): 3295.81 Type: Plantation on Ancient Woodland	A17SW (NW)	842	2	271960 198089
452	**Ancient Woodland** Name: Not Supplied Reference: 7395 Area(m²): 6004.56 Type: Ancient and Semi-Natural Woodland	A17NE (NW)	848	2	272365 198344
453	**Ancient Woodland** Name: Not Supplied Reference: 23156 Area(m²): 5135.25 Type: Restored Ancient Woodland Site	A12SW (W)	849	2	271735 197416
454	**Ancient Woodland** Name: Not Supplied Reference: 11356 Area(m²): 34083.64 Type: Restored Ancient Woodland Site	A11NE (W)	876	2	271708 197526
455	**Ancient Woodland** Name: Not Supplied Reference: 14004 Area(m²): 12337.08 Type: Ancient and Semi-Natural Woodland	A18NE (N)	939	2	273003 198448
456	**Ancient Woodland** Name: Not Supplied Reference: 41287 Area(m²): 1468.18 Type: Plantation on Ancient Woodland	A17SW (NW)	942	2	271781 198016
457	**Ancient Woodland** Name: Not Supplied Reference: 14838 Area(m²): 4579.63 Type: Ancient and Semi-Natural Woodland	A11NE (W)	959	2	271658 197773

Agency & Hydrological	Version	Update Cycle
Contaminated Land Register Entries and Notices		
City and County of Swansea - Environmental Health Department	January 2015	Annual Rolling Update
Neath Port Talbot County Borough Council - Environmental Health Department	March 2015	Annual Rolling Update
Discharge Consents		
Environment Agency - Welsh Region	August 2014	Quarterly
Natural Resources Wales	July 2019	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	April 2019	Quarterly
Environment Agency - Welsh Region	July 2019	Quarterly
Local Authority Integrated Pollution Prevention And Control		
Swansea Bay Port Health Authority	April 2014	Variable
Neath Port Talbot County Borough Council - Environmental Health Department	August 2012	Variable
City and County of Swansea - Environmental Health Department	June 2014	Variable
Local Authority Pollution Prevention and Controls		
Swansea Bay Port Health Authority	April 2014	Annually
City and County of Swansea - Environmental Health Department	June 2014	Annual Rolling Update
Neath Port Talbot County Borough Council - Environmental Health Department	March 2014	Annual Rolling Update
Local Authority Pollution Prevention and Control Enforcements		
Swansea Bay Port Health Authority	April 2014	Variable
City and County of Swansea - Environmental Health Department	June 2014	Variable
Neath Port Talbot County Borough Council - Environmental Health Department	March 2014	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	March 2013	Annual Rolling Update
Natural Resources Wales	March 2013	Annual Rolling Update
Prosecutions Relating to Controlled Waters		
Environment Agency - Welsh Region	March 2013	Annual Rolling Update
Natural Resources Wales	March 2013	Annual Rolling Update
Registered Radioactive Substances		
Scottish Environment Protection Agency - Head Office	January 1998	Not Applicable
Natural Resources Wales	January 2015	Annually
Environment Agency - Welsh Region	June 2016	
River Quality		
Environment Agency - Head Office	November 2001	Not Applicable
River Quality Chemistry Sampling Points		
Environment Agency - Head Office	July 2012	Annually
Substantiated Pollution Incident Register		
Environment Agency Wales - South West Area	July 2019	Quarterly
Natural Resources Wales	July 2019	Quarterly
Water Abstractions		
Environment Agency - Welsh Region	July 2019	Quarterly
Natural Resources Wales	July 2019	Quarterly
Water Industry Act Referrals		
Natural Resources Wales	July 2019	Quarterly
Environment Agency - Welsh Region	October 2017	Quarterly

Agency & Hydrological	Version	Update Cycle
Groundwater Vulnerability Map Natural Resources Wales	June 2018	As notified
Bedrock Aquifer Designations Natural Resources Wales	January 2018	Annually
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	July 2018	Quarterly
Natural Resources Wales	July 2018	Quarterly
Licensed Waste Management Facilities (Locations)		
Environment Agency Wales - South West Area	July 2019	Quarterly
Natural Resources Wales	July 2019	Quarterly
Local Authority Landfill Coverage		
City and County of Swansea - Environmental Health Department	May 2000	Not Applicable
Neath Port Talbot County Borough Council - Environmental Health Department	May 2000	Not Applicable
Local Authority Recorded Landfill Sites		
City and County of Swansea - Environmental Health Department	May 2000	Not Applicable
Neath Port Talbot County Borough Council - Environmental Health Department	September 2003	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	January 2016	Variable
Neath Port Talbot County Borough Council - Planning Department	October 2015	Variable
Planning Hazardous Substance Consents		
City and County of Swansea - Planning Department	January 2016	Variable
Neath Port Talbot County Borough Council - Planning Department	October 2015	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

Data Suppliers

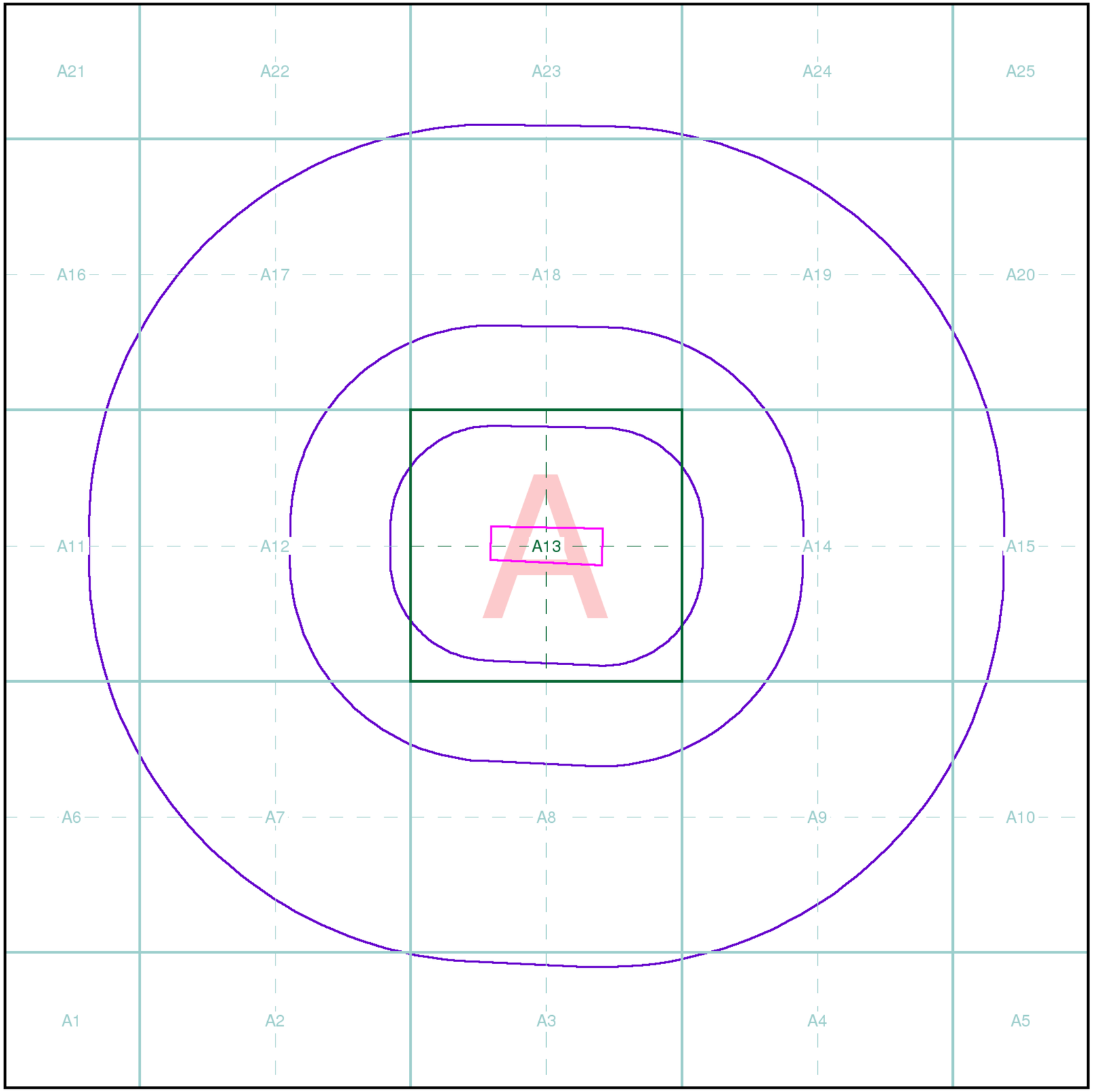
A selection of organisations who provide data within this report

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

Useful Contacts

Contact	Name and Address	Contact Details
1	**British Geological Survey - Enquiry Service** British Geological Survey, Environmental Science Centre, Keyworth, Nottingham, Nottinghamshire, NG12 5GG	Telephone: 0115 936 3143 Fax: 0115 936 3276 Email: enquiries@bgs.ac.uk Website: www.bgs.ac.uk
2	**Natural Resources Wales** Ty Cambria, 29 Newport Road, Cardiff, CF24 0TP	Telephone: 0300 065 3000 Email: enquiries@naturalresourceswales.gov.uk
3	**Neath Port Talbot County Borough Council - Environmental Health Department** Room 322, Neath Civic Centre, Neath, West Glamorgan, SA11 3QZ	Telephone: 01639 763333 Fax: 01693 763444 Website: www.neath-porttalbot.gov.uk
4	**Environment Agency - National Customer Contact Centre (NCCC)** PO Box 544, Templeborough, Rotherham, S60 1BY	Telephone: 03708 506 506 Email: enquiries@environment-agency.gov.uk
5	**Scottish Environment Protection Agency - Head Office** Erskine Court, The Castle Business Park, Stirling, Stirlingshire, FK9 4TR	Telephone: 01786 457700 Fax: 01786 446885
6	**Ordnance Survey** Adanac Drive, Southampton, Hampshire, SO16 0AS	Telephone: 03456 05 05 05 Email: customerservices@ordnancesurvey.co.uk Website: www.ordnancesurvey.gov.uk
7	**The Coal Authority - Property Searches** 200 Lichfield Lane, Mansfield, Nottinghamshire, NG18 4RG	Telephone: 0345 762 6848 Fax: 01623 637 338 Email: groundstability@coal.gov.uk Website: www2.groundstability.com
8	**Peter Brett Associates** Caversham Bridge House, Waterman Place, Reading, Berkshire, RG1 8DN	Telephone: 0118 950 0761 Fax: 0118 959 7498 Email: reading@pba.co.uk Website: www.pba.co.uk
9	**PointX** 7 Abbey Court, Eagle Way, Sowton, Exeter, Devon, EX2 7HY	Website: www.pointx.co.uk
-	**Public Health England - Radon Survey, Centre for Radiation, Chemical and Environmental Hazards** Chilton, Didcot, Oxfordshire, OX11 0RQ	Telephone: 01235 822622 Fax: 01235 833891 Email: radon@phe.gov.uk Website: www.ukradon.org
-	**Landmark Information Group Limited** Imperium, Imperial Way, Reading, Berkshire, RG2 0TD	Telephone: 0844 844 9952 Fax: 0844 844 9951 Email: customerservices@landmarkinfo.co.uk Website: www.landmarkinfo.co.uk

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



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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:

Map data

British Geological Survey
NATURAL ENVIRONMENT RESEARCH COUNCIL

Cyfoeth Naturiol Cymru
Natural Resources Wales

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

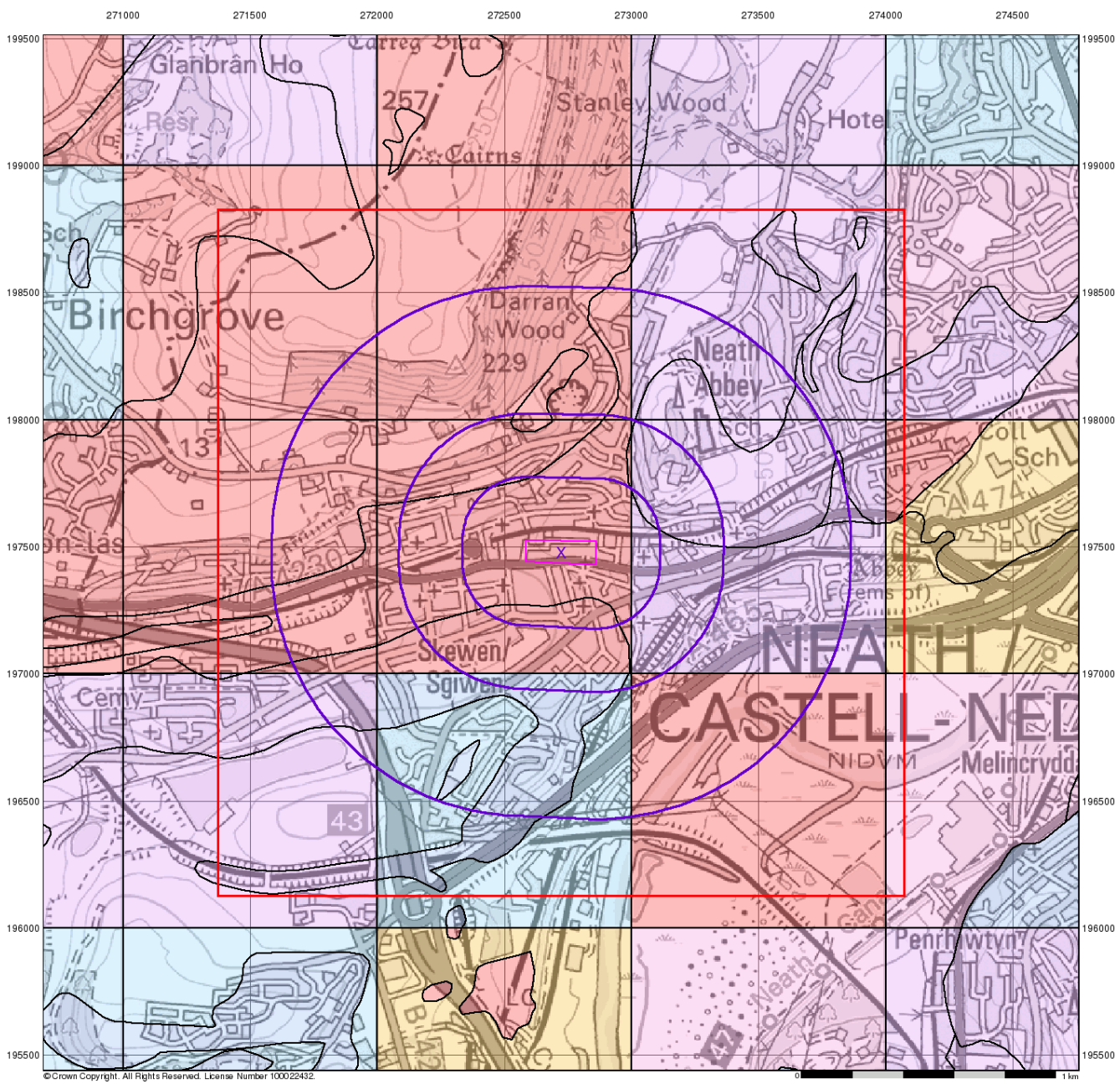
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Site Area (Ha):	2.44
Search Buffer (m):	1000

Site Details

Site at 272710, 197500

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Groundwater Vulnerability

General

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

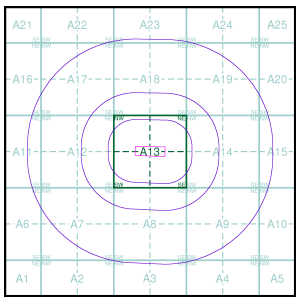
Agency and Hydrological

Bedrock Aquifers	Superficial Aquifers
High Vulnerability, Principal Aquifer	High Vulnerability, Principal Aquifer
High Vulnerability, Secondary Aquifer	High Vulnerability, Secondary Aquifer
Medium Vulnerability, Principal Aquifer	Medium Vulnerability, Principal Aquifer
Medium Vulnerability, Secondary Aquifer	Medium Vulnerability, Secondary Aquifer
Low Vulnerability, Principal Aquifer	Low Vulnerability, Principal Aquifer
Low Vulnerability, Secondary Aquifer	Low Vulnerability, Secondary Aquifer

Unproductive Aquifer

Soluble Rock

Site Sensitivity Context Map - Slice A



Order Details

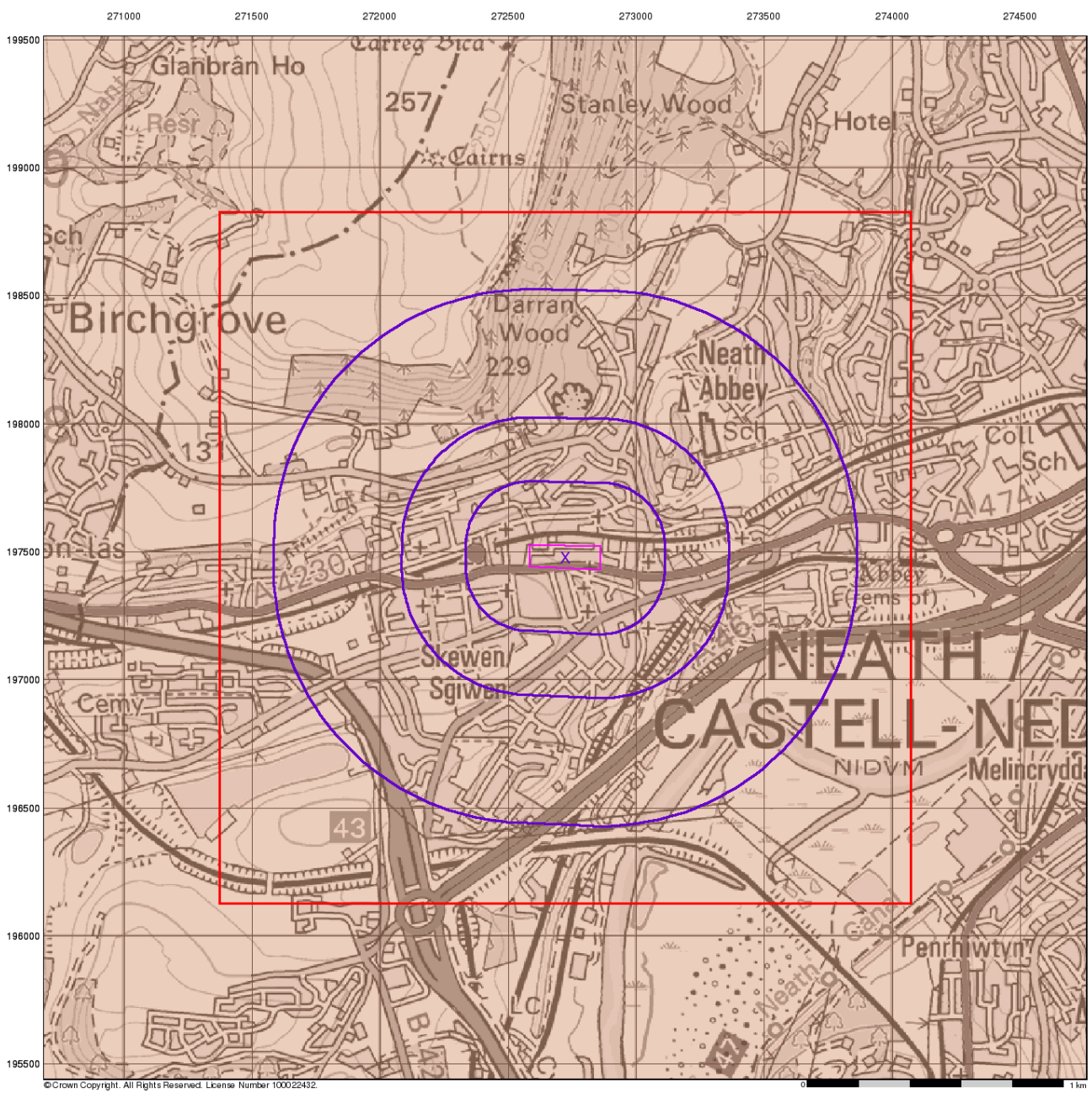
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Customer Ref:	5192784
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Bedrock Aquifer Designation

General

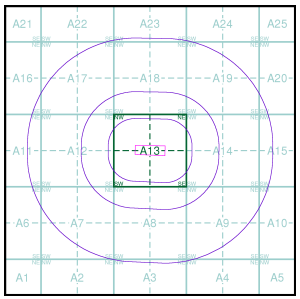
Specified Site | Specified Buffer(s) | Bearing Reference Point | Slice | Map ID

Agency and Hydrological

Geological Classes

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

Site Sensitivity Context Map - Slice A



Order Details

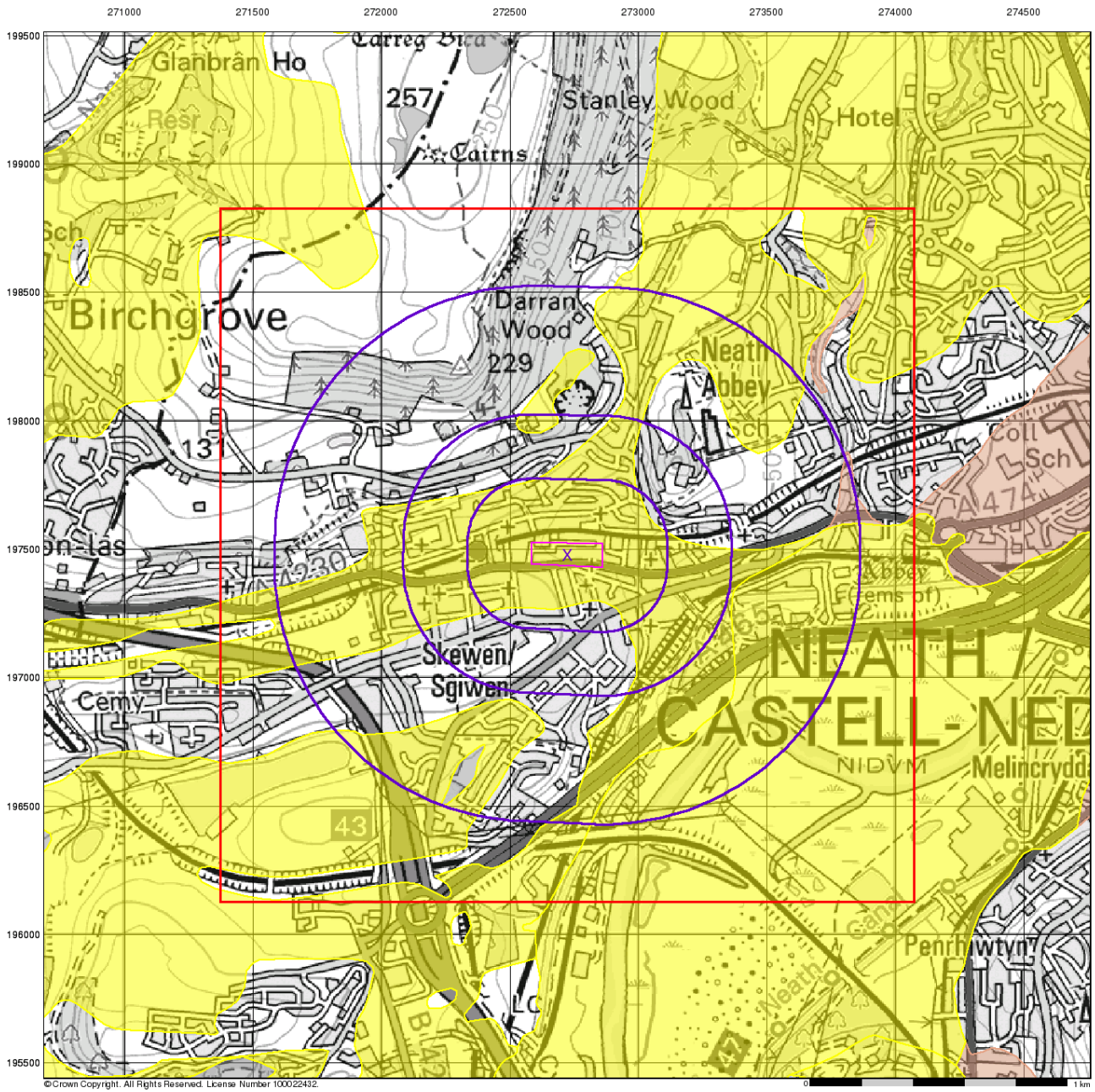
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Superficial Aquifer Designation

General

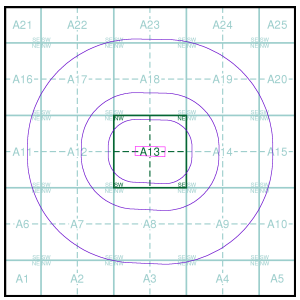
Specified Site | Specified Buffer(s) | Bearing Reference Point | Slice | Map ID

Agency and Hydrological

Geological Classes

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

Site Sensitivity Context Map - Slice A



Order Details

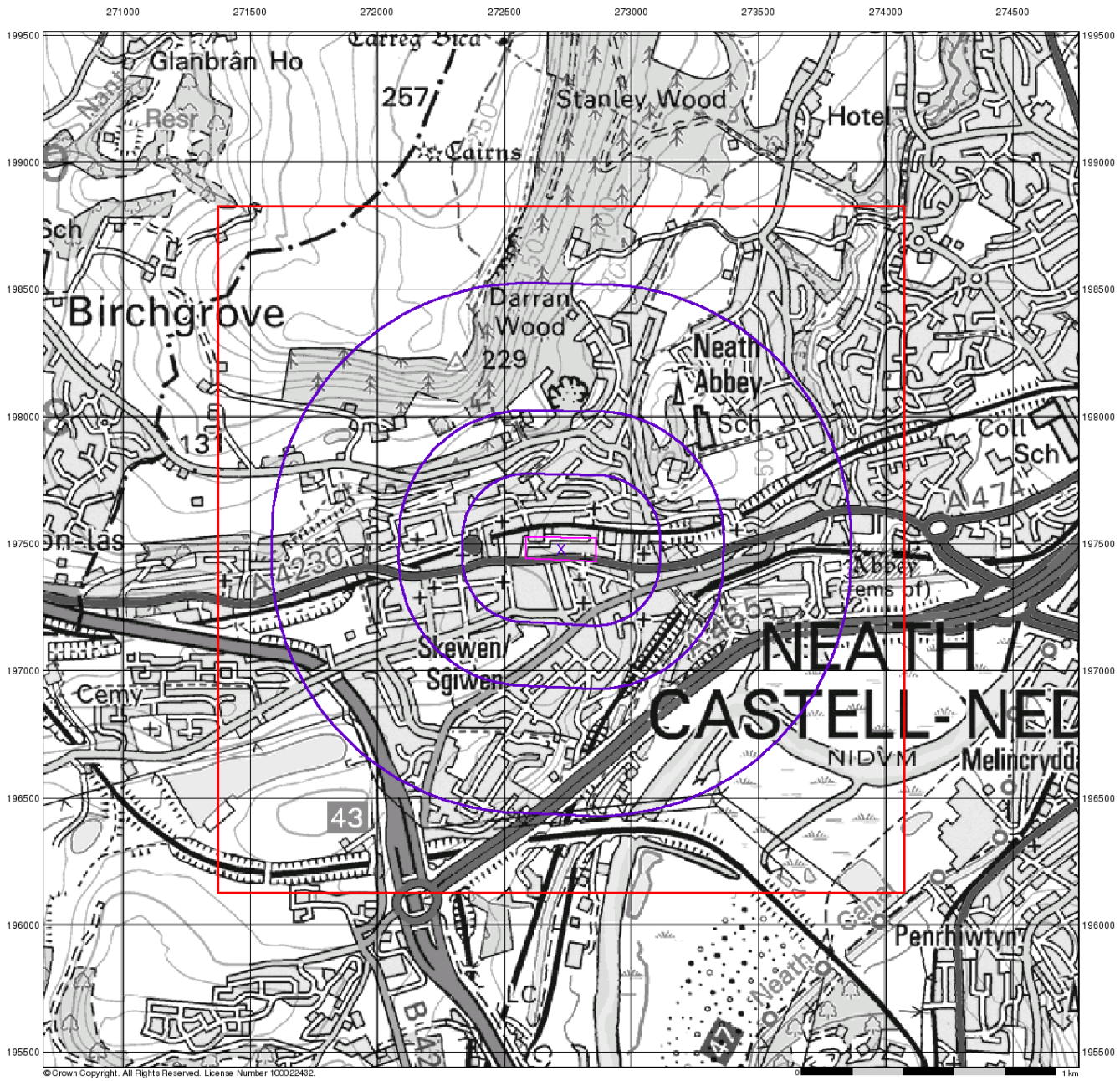
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Source Protection Zones

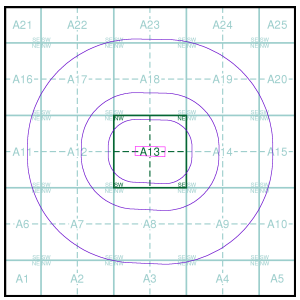
General

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

Agency and Hydrological

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

Site Sensitivity Context Map - Slice A



Order Details

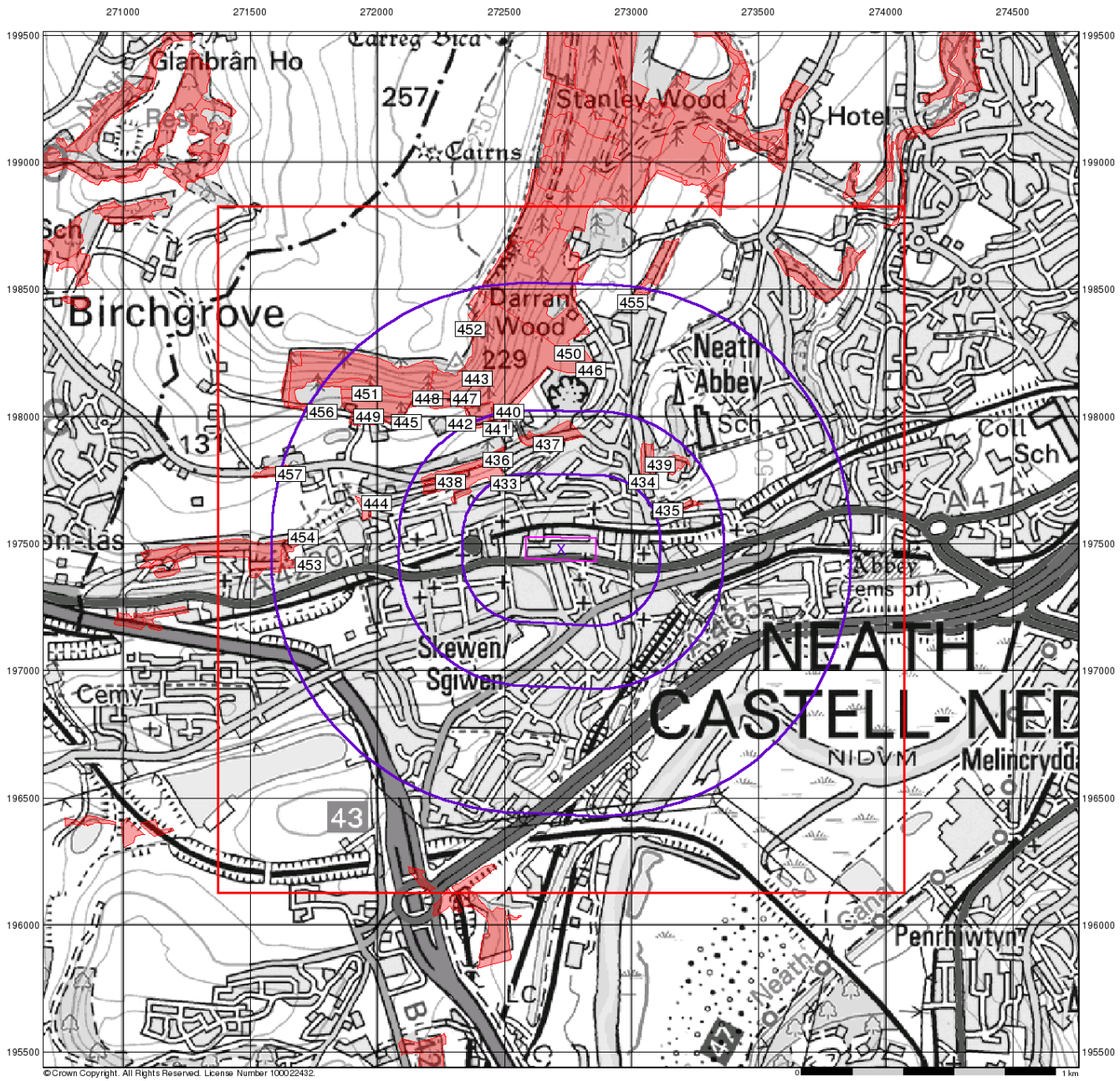
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Sensitive Land Uses

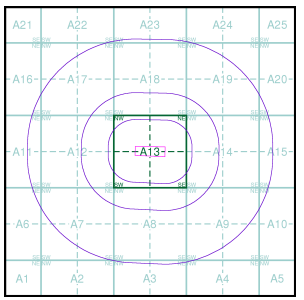
General

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



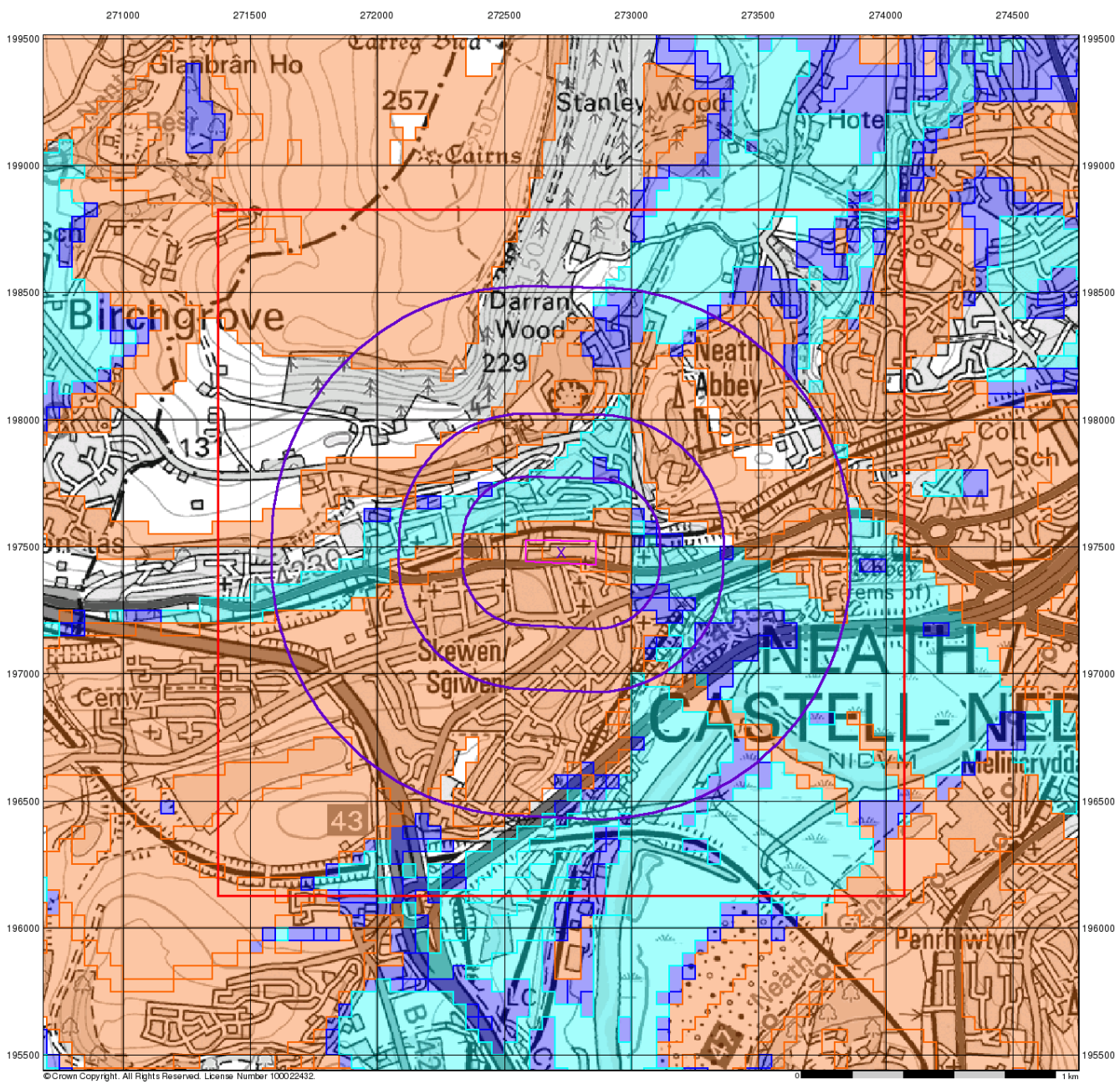
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Site Details

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BGS Flood GFS Data

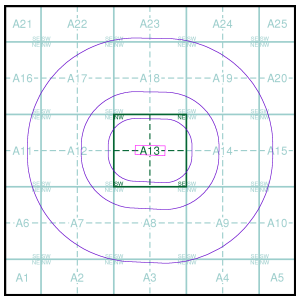
General

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

Agency and Hydrological (Flood)

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

Site Sensitivity Context Map - Slice A



Order Details

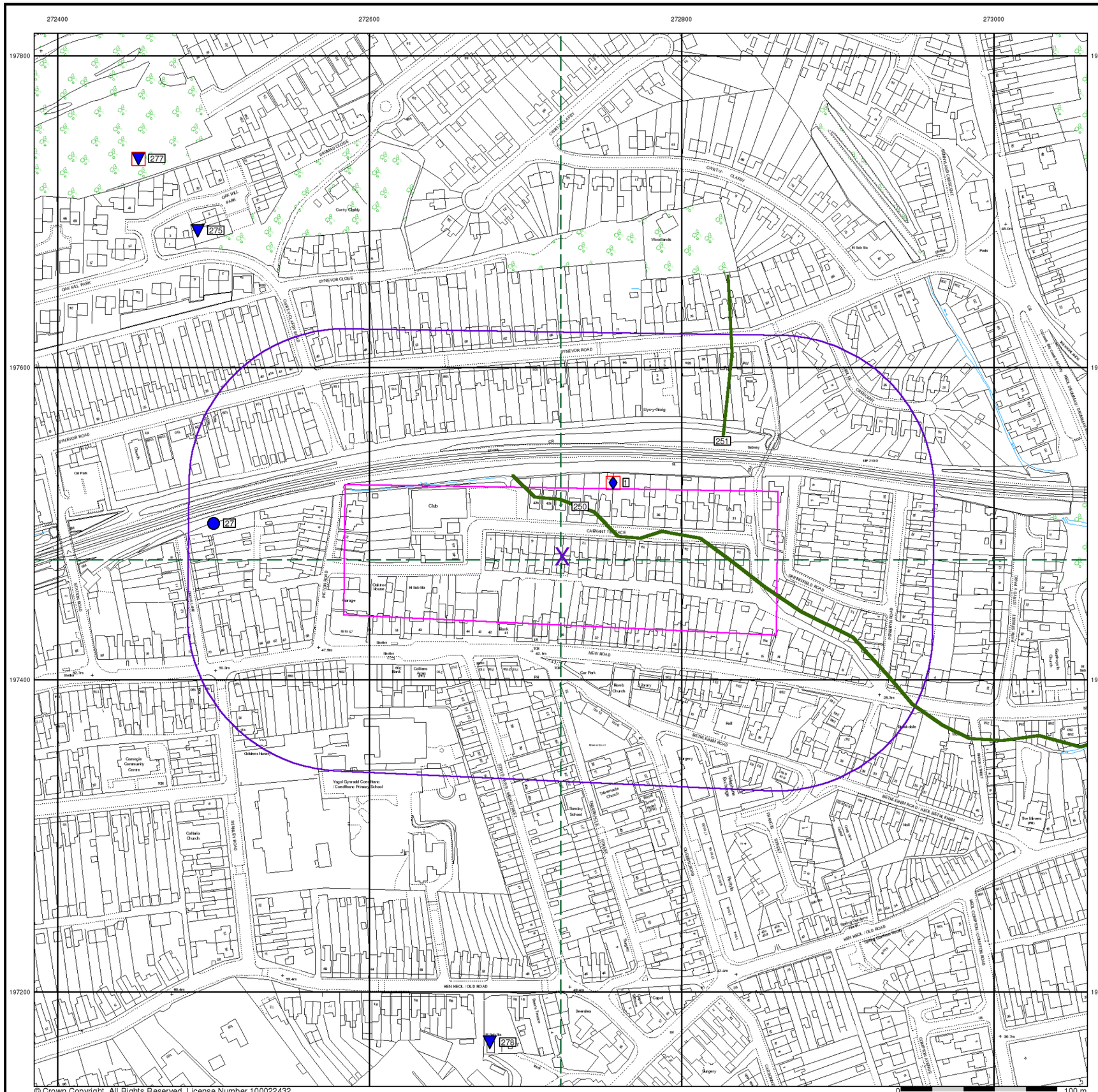
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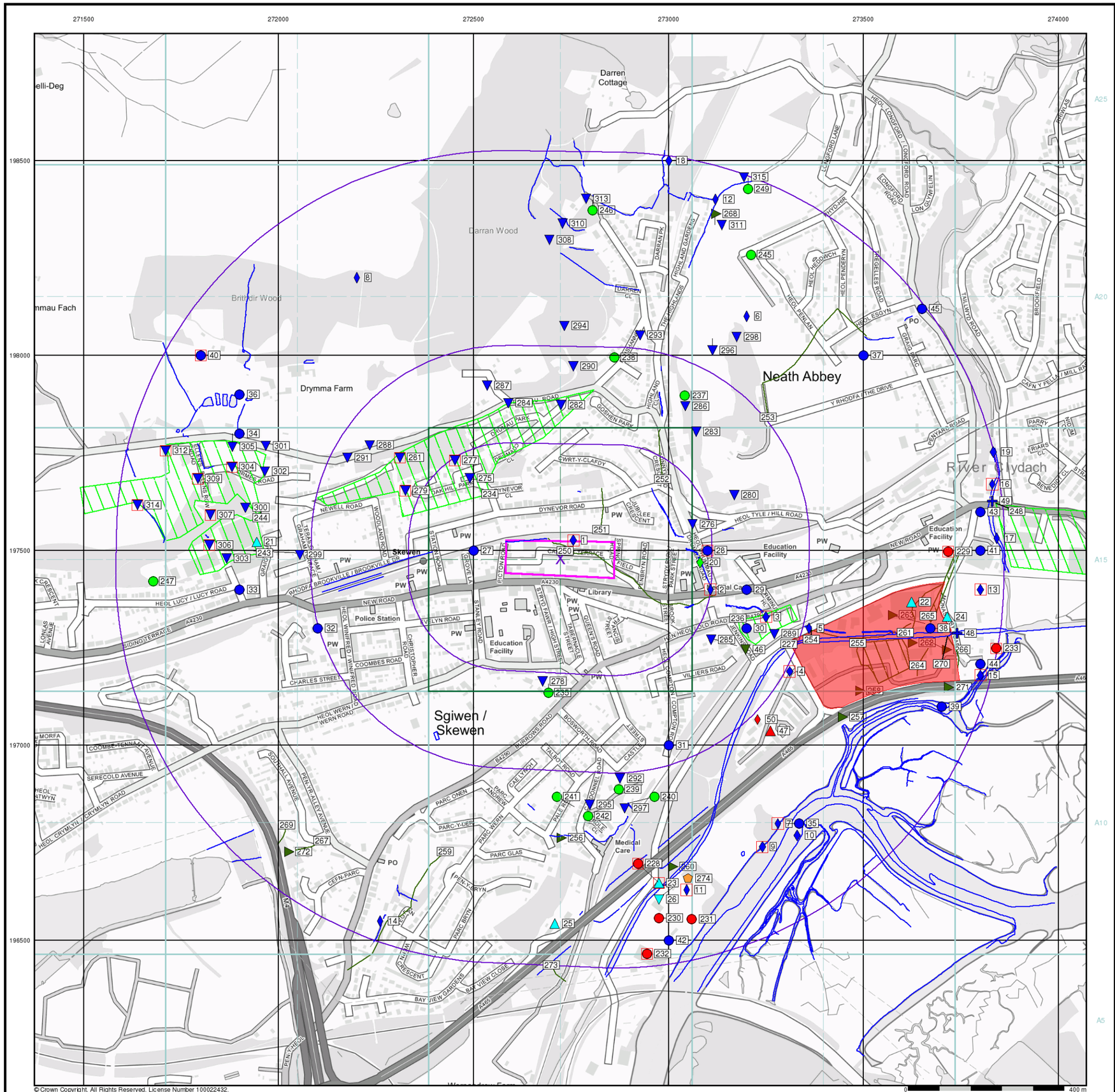
Site Details

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272400
272600
272800
273000
197800
197600
197400
197200
277
275
27
251
250
1
278
Club
Colliery House
Garage
Woodlands
Llys-y-Graig
Carmarthen Terrace
Carmarthen Terrace Cottages
Carmarthen Terrace Garages
Carmarthen Terrace Allotments
Carmarthen Terrace Recreation Ground
Carmarthen Terrace Bowling Green
Carmarthen Terrace Tennis Courts
Carmarthen Terrace Bowling Pavilion
Carmarthen Terrace Bowling Club
Carmarthen Terrace Bowling Club Car Park
Carmarthen Terrace Bowling Club Bowling Green
Carmarthen Terrace Bowling Club Pavilion
Carmarthen Terrace Bowling Club Tennis Courts
Carmarthen Terrace Bowling Club Garages
Carmarthen Terrace Bowling Club Allotments
Carmarthen Terrace Bowling Club Recreation Ground



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General

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

Agency and Hydrological

- Contaminated Land Register Entry or Notice (Location)
- Contaminated Land Register Entry or Notice
- Discharge Consent
- Enforcement or Prohibition Notice
- Integrated Pollution Control
- Integrated Pollution Prevention Control
- Local Authority Integrated Pollution Prevention and Control
- Local Authority Pollution Prevention and Control
- Local Authority Pollution Prevention and Control Enforcement
- Pollution Incident to Controlled Waters
- Prosecution Relating to Authorised Processes
- Prosecution Relating to Controlled Waters
- Registered Radioactive Substance
- River Network or Water Feature
- River Quality Sampling Point
- Substantiated Pollution Incident Register
- Water Abstraction
- Water Industry Act Referral

Hazardous Substances

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

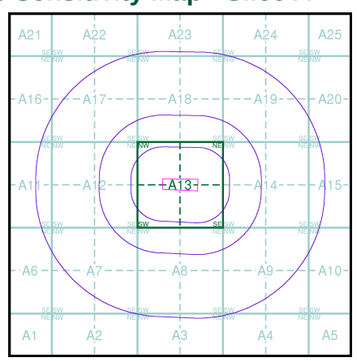
Geological

- 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 - Slice A



Order Details

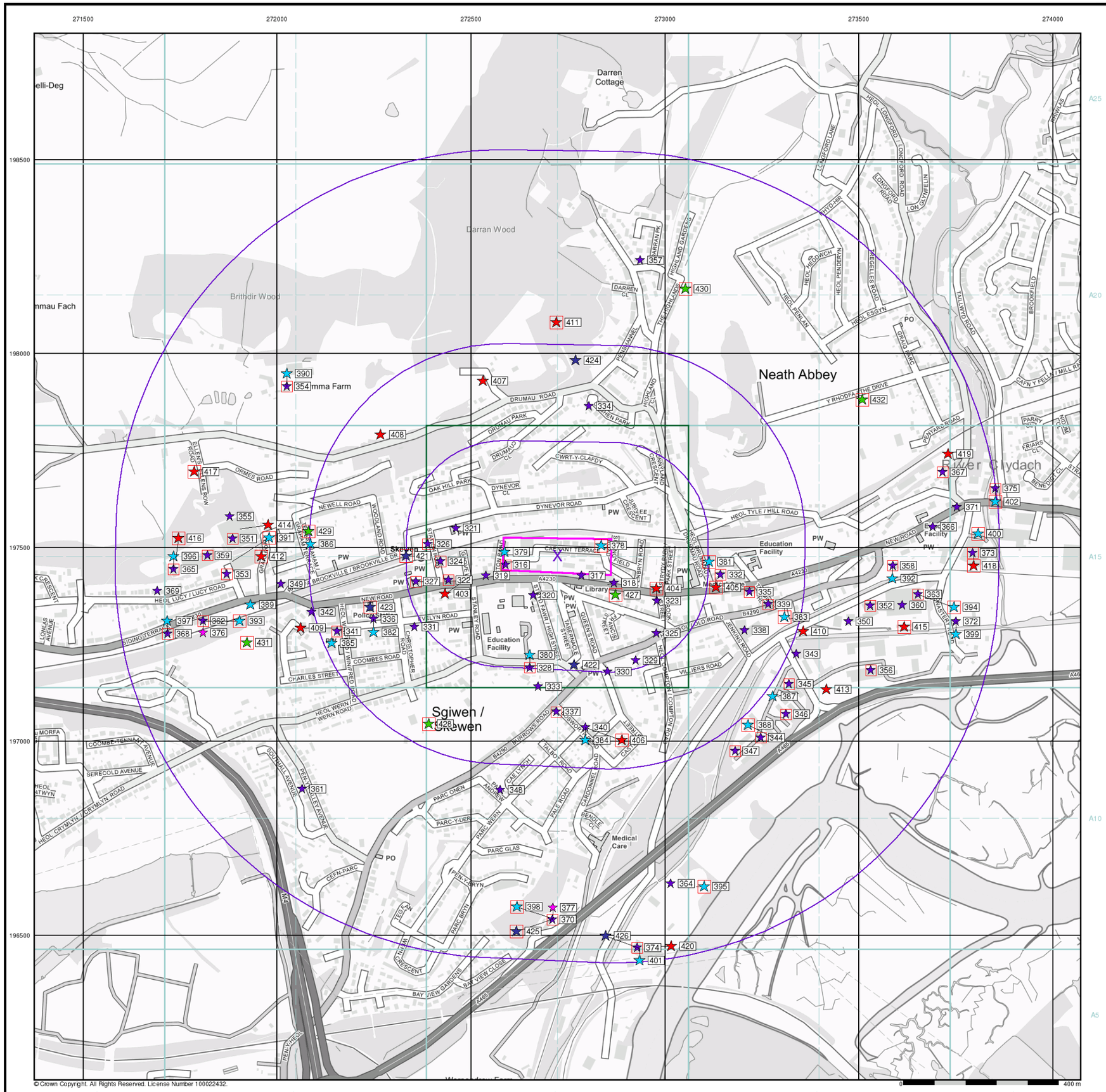
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Slice:	A
Site Area (Ha):	2.44
Search Buffer (m):	1000

Site Details

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Industrial Land Use Map

General

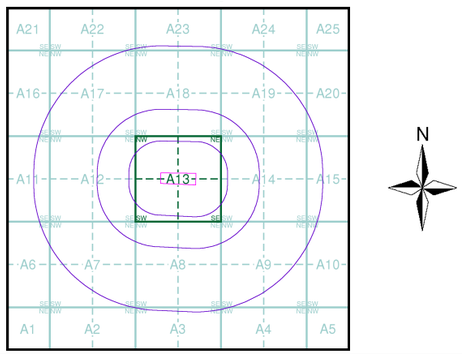
Specified Site | Specified Buffer(s) | Bearing Reference Point

Slice | Map ID

Industrial Land Use

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

Industrial Land Use Map - Slice A



Order Details

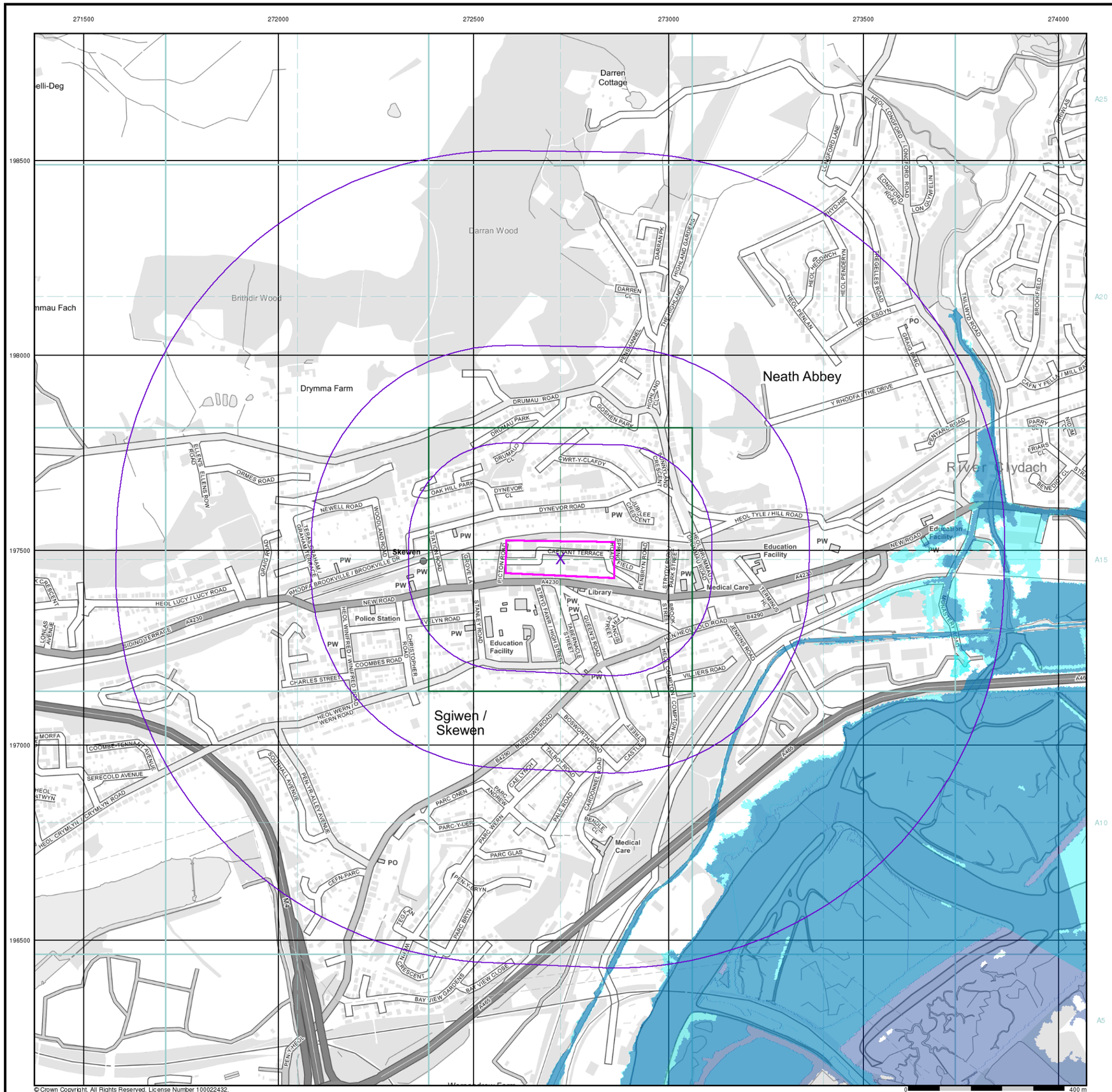
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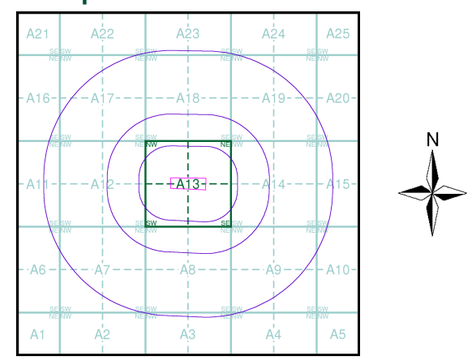
General

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

Agency and Hydrological (Flood)

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

Flood Map - Slice A



Order Details

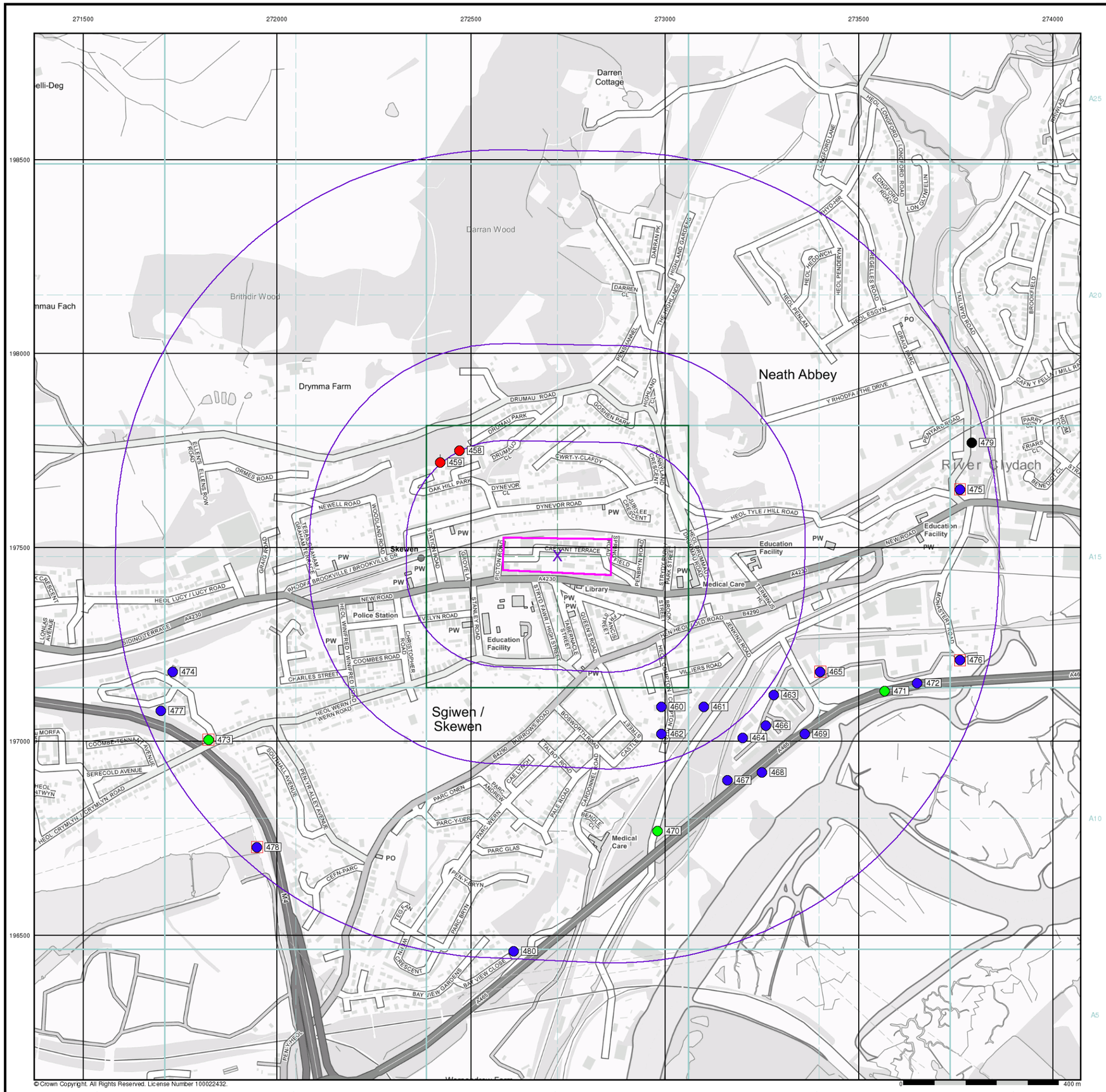
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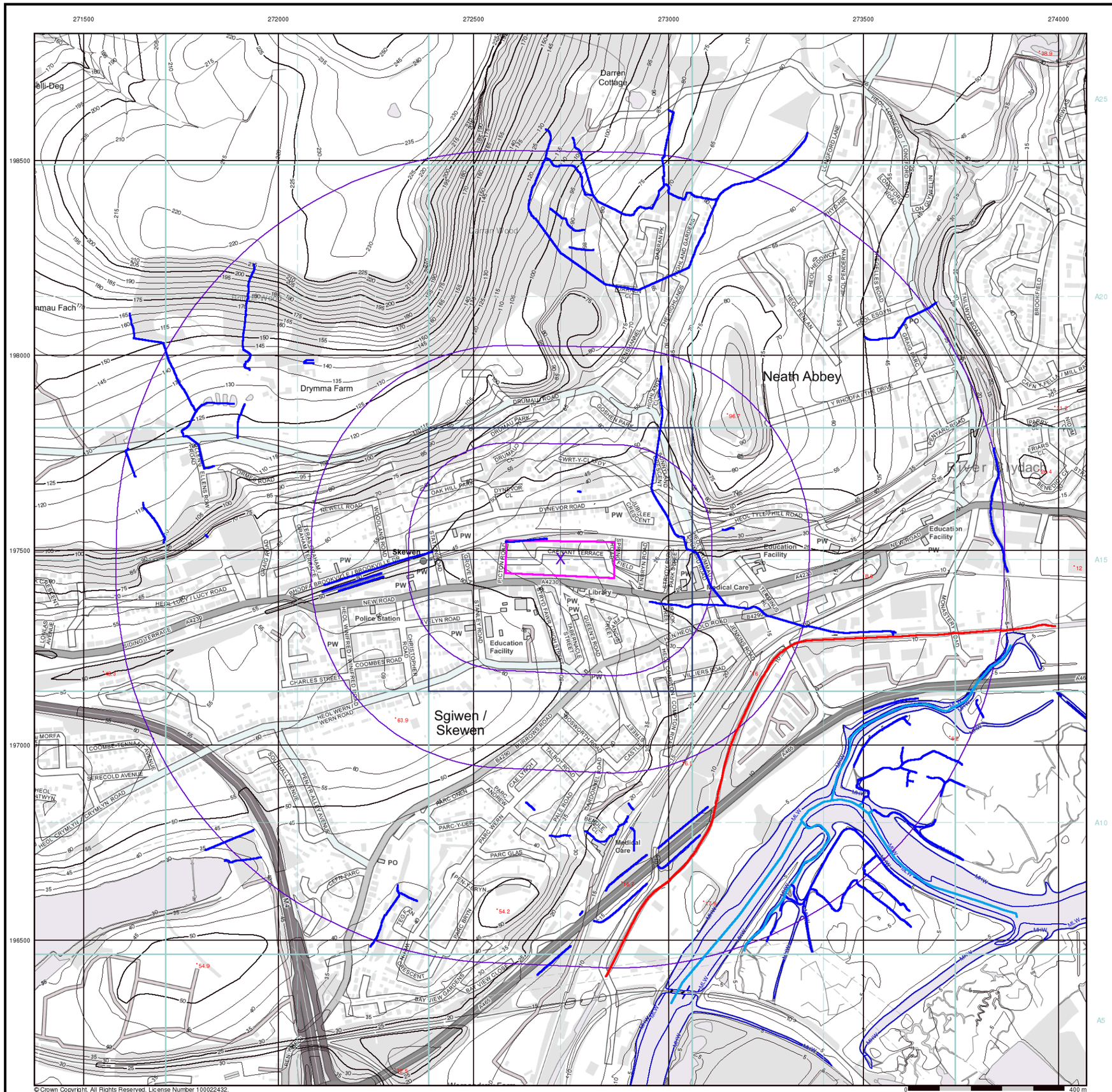
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A1
A2
A3
A4
A5
Darren Cottage
Darran Wood
Brithdir Wood
Drymma Farm
Neath Abbey
River Clydach
Skewen
Sgiwen / Skewen
Police Station
Library
Medical Care
Education Facility
Education Facility
Medical Care
PO
PO
Education Facility
458
459
479
475
474
477
473
478
480
470
476
465
471
472
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461
462
466
464
469
467
468
DRUMAU ROAD
DRUMAU PARK
DRUMAU CL
OAK HILL PARK
DYNEVOR CL
DYNEVOR ROAD
CWRT-Y-CLAFDY
ORMES ROAD
ELLENS ROAD
ELLENS ROW
NEWELL ROAD
WOODLAND ROAD
TERRACE
GRAHAM TERRACE
GRAIG RD
RHODFA BROOKVILLE / BROOKVILLE DR
HEOL LUCY / LUCY ROAD
NEW ROAD
A4230
SIDING TERRACE
LONGLAS AVENUE
CRESCENT
COOMBES ROAD
CHARLES STREET
CHRISTOPHER ROAD
EVELYN ROAD
STANLEY ROAD
GROVE LA
STATION ROAD
PICTON ROAD
CAEVANT TERRACE
PENBRYN ROAD
PARK STREET
STRYD FAIR / HIGH STREET
TABERNACLE STREET
QUEEN'S ROAD
ST FRANCIS
ROBERT STREET
HEOL CROMWELL
HEOL THOMAS CROMWELL
HEOL WERN / WERN ROAD
HEOL WINIFRED / WINIFRED ROAD
HEOL CRYMLYN / CRYMLYN ROAD
SERECOLD AVENUE
COOMBE TENNANT AVENUE
SOUTHFIELD AVENUE
FFRWD ALED AVENUE
BARRONS ROAD
BOSWORTH ROAD
TALBOT ROAD
CASTLE STREET
CAE UCHAF
PARC ONEN
PARC-Y-DERI
PARC WERN
PARC GLAS
PALE ROAD
CARDONNEL ROAD
BENDLE CL
PARC ANDREW
CEFN PARC
PEN-Y-BRYN
HEOL CEFN
PARC BRYN
NANT-Y-GRESCENT
BAY VIEW CLOSE
BAY VIEW GARDENS
PEN-CHERI
A465
M4
HEOL TYLE / HILL ROAD
HEOL LONGFORD / LONGFORD ROAD
LONGFORD LANE
LONGFORD ROAD
HEOL-HIR
HEOL-HEDWCH
HEOL PENDERYN
HEOL PEN-LAN
HEOL ESGYN
REGELLES ROAD
GLYNFELIN
PRINCES
TAILLWYD ROAD
BROOKFIELD
CAEN Y PELLM / MILL RY
Y RHODFA / THE DRIVE
PENYARD ROAD
PARRY CL
FRIARS CL
BENEVOR CL
DARREN CL
DARRAN PK
HIGHLAND GARDENS
THE HIGHLANDS
PENSIONNEL
HIGHLAND CL
GORSEN PARK
CRESCENT
JUBILEE CRESCENT
HEOL TREGRIMMAU / TREGRIMMAU ROAD
HEOL-Y-DERI
HEOL-Y-FRON
HEOL-Y-GAER
HEOL-Y-GORS
HEOL-Y-GRAIG
HEOL-Y-GROES
HEOL-Y-GWYDDFA
HEOL-Y-MYNYDD
HEOL-Y-NANT
HEOL-Y-PARC
HEOL-Y-PENTRE
HEOL-Y-PLAS
HEOL-Y-PONT
HEOL-Y-WERN
HEOL-Y-WIG
HEOL-Y-WYNT
HEOL-Y-YSGOL
HEOL-Y-YSTRAD
HEOL-Y-YSTRAD
HEOL-Y-YSTRAD



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General

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

OS Water Network Data

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

Contours (height in meters)

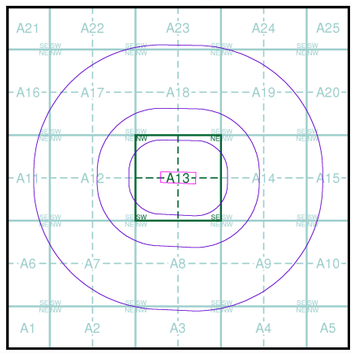
Standard Contour 105 100 95

Master Contour

Spot Height 167.3

- MLW Mean Low Water
- MHW Mean High Water

OS Water Network Map - Slice A



Order Details

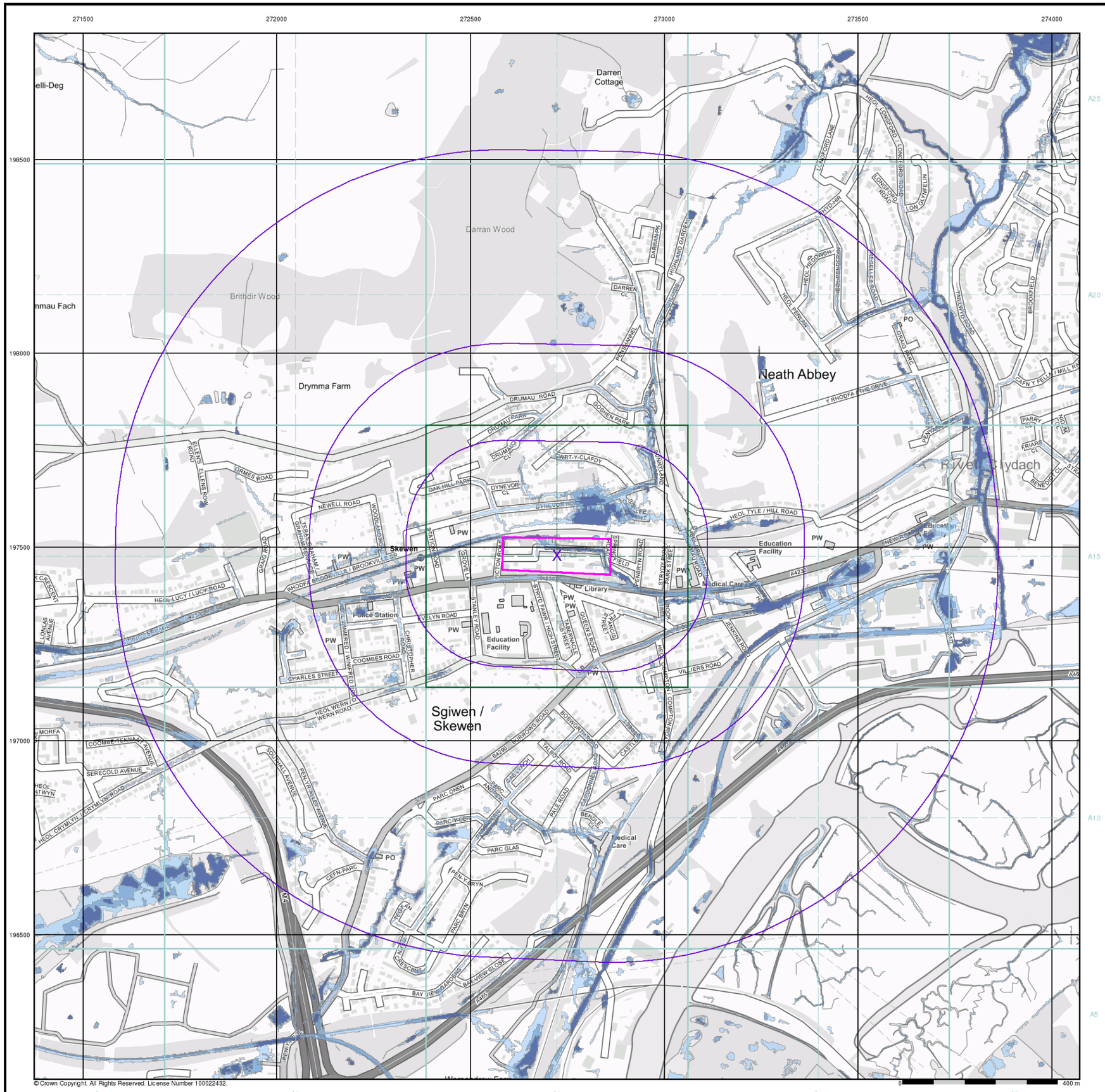
Order Number:	222279469_1_1
Customer Ref:	5192784
National Grid Reference:	272720, 197480
Slice:	A
Site Area (Ha):	2.44
Search Buffer (m):	1000

Site Details

Site at 272710, 197500

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- Specified Buffer(s)
- Bearing Reference Point

Risk of Flooding from Surface Water

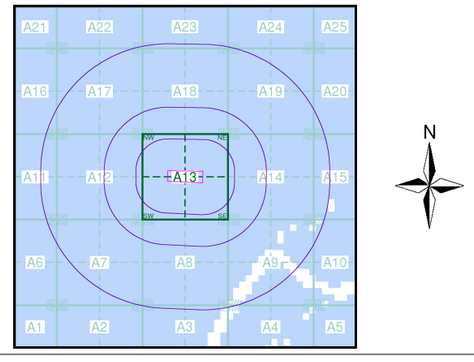
- High - 30 Year Return
- Medium - 100 Year Return
- Low - 1000 Year Return

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

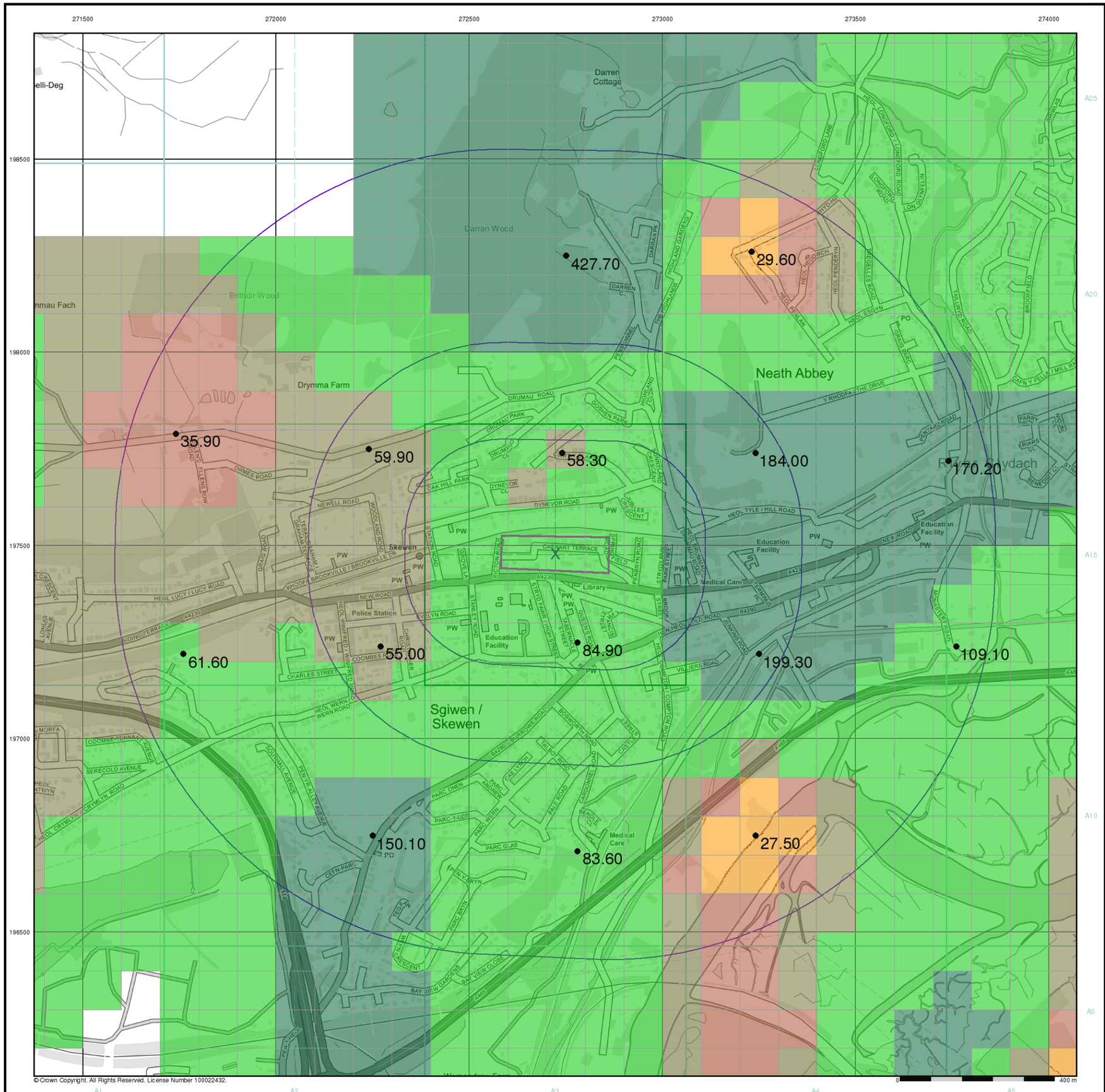
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Customer Ref:	5192784
National Grid Reference:	272720, 197480
Slice:	A
Site Area (Ha):	2.44
Search Buffer (m):	1000

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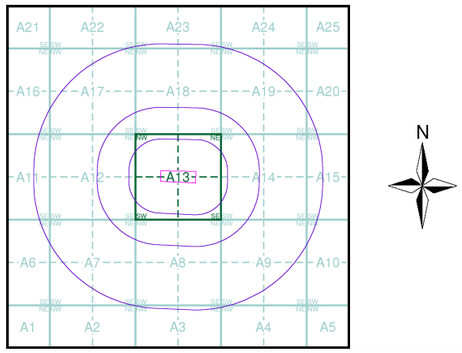
Urban Soil Chemistry Arsenic

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

Arsenic Concentrations mg/kg

- < 15
- 15 - 25
- 25 - 35
- 35 - 45
- 45 - 60
- 60 - 120
- > 120

Urban Soil Chemistry Arsenic - Slice A



Order Details

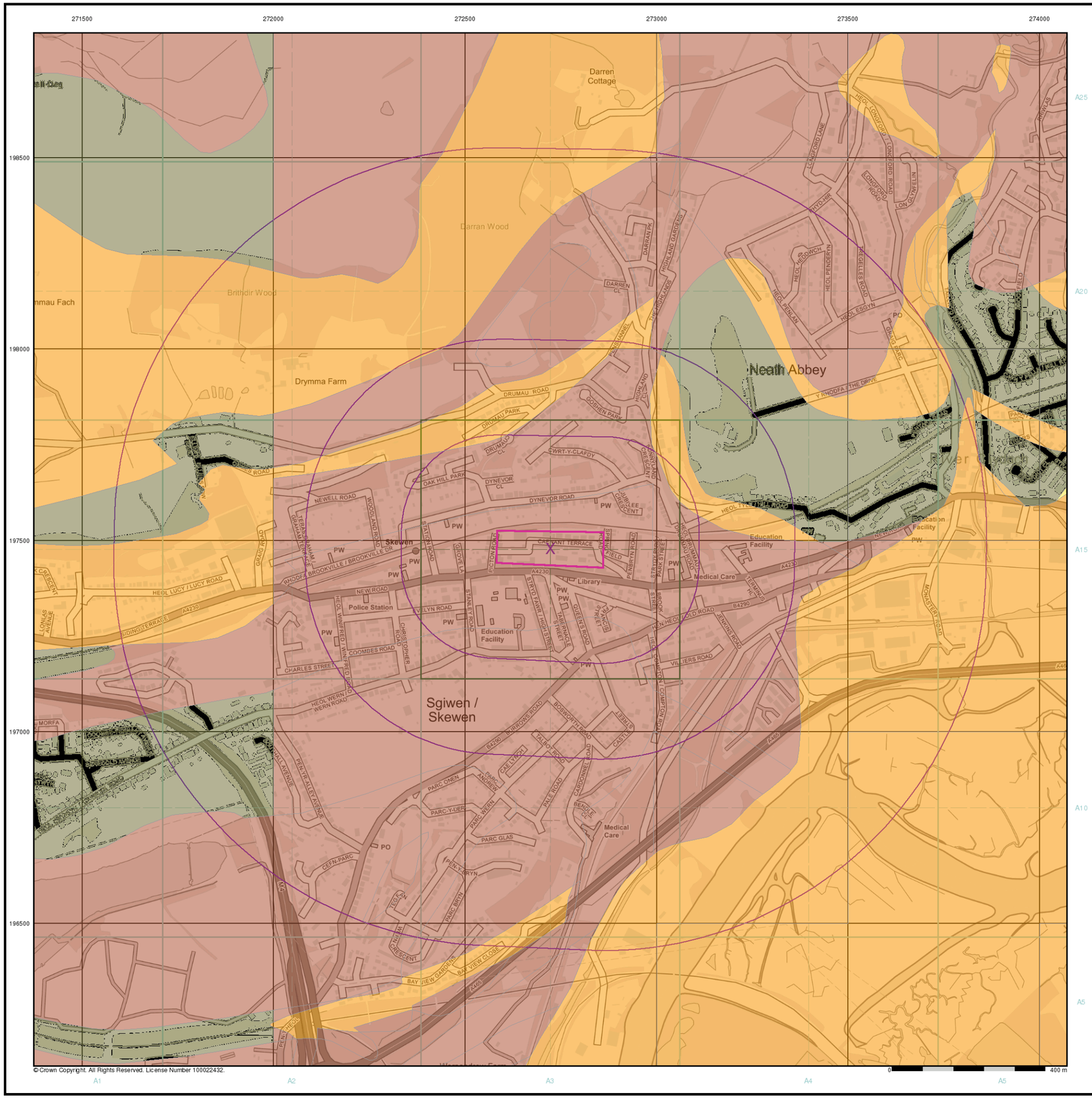
Order Details:	222279469_1_1
Customer Ref:	5192784
National Grid Reference:	272720, 197480
Slice:	A
Site Area (Ha):	2.44
Search buffer (m):	1000

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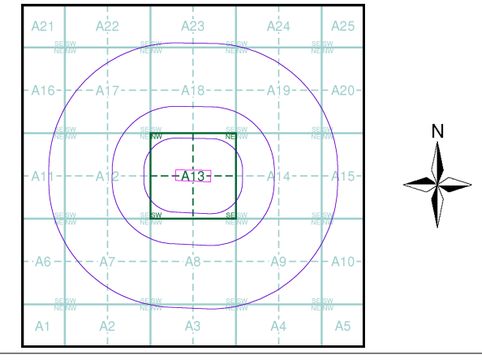
Specified Site | Specified Buffer(s) | X Bearing Reference Point

Estimated Soil Chemistry Arsenic

Arsenic Concentrations mg/kg

- < 15
- 15 - 25
- 25 - 35
- 35 - 45
- 45 - 60
- 60 - 120
- > 120

Estimated Soil Chemistry Arsenic - Slice A



Order Details

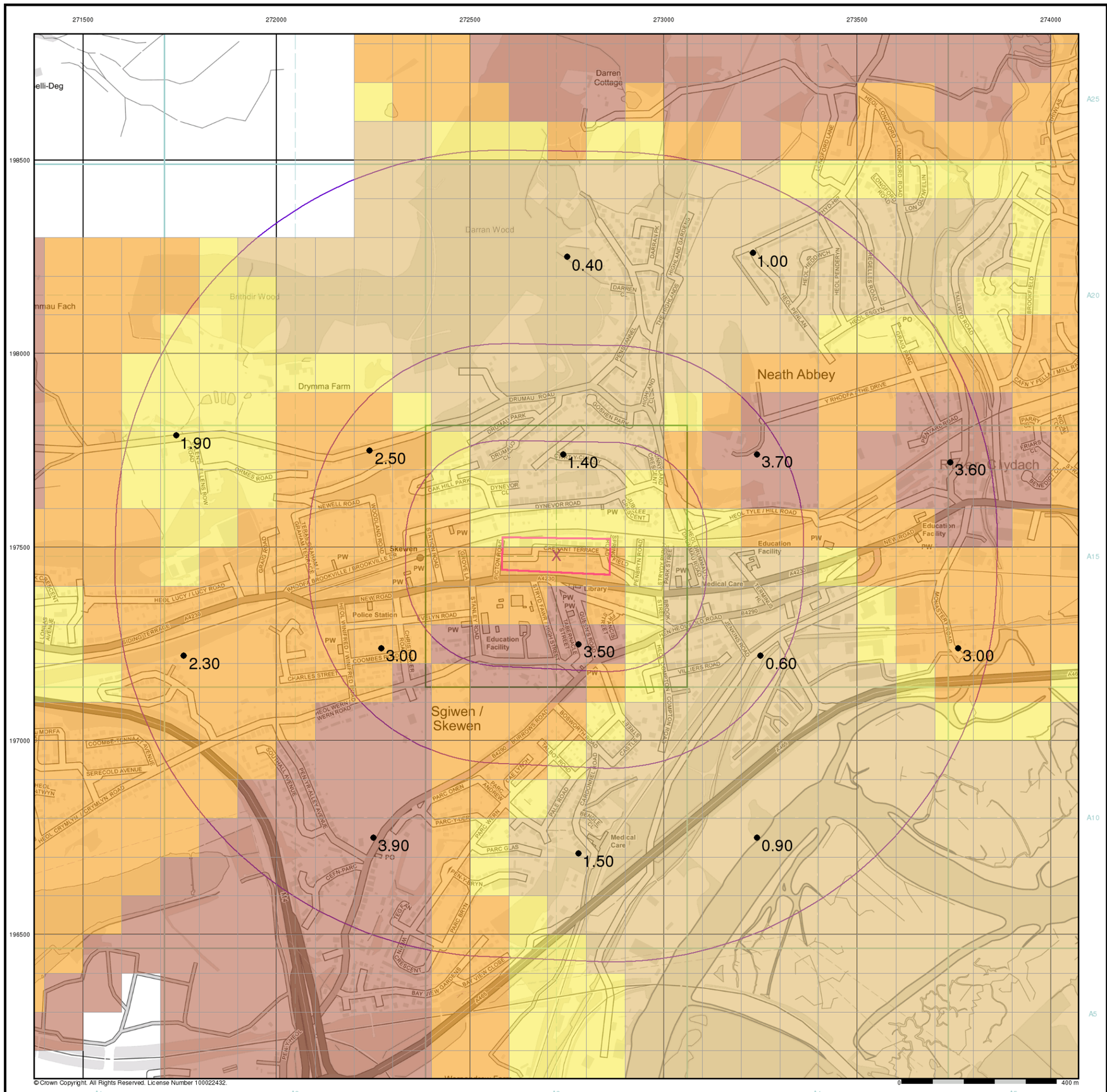
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Customer Ref:	5192784
National Grid Reference:	272720, 197480
Slice:	A
Site Area (Ha):	2.44
Search buffer (m):	1000

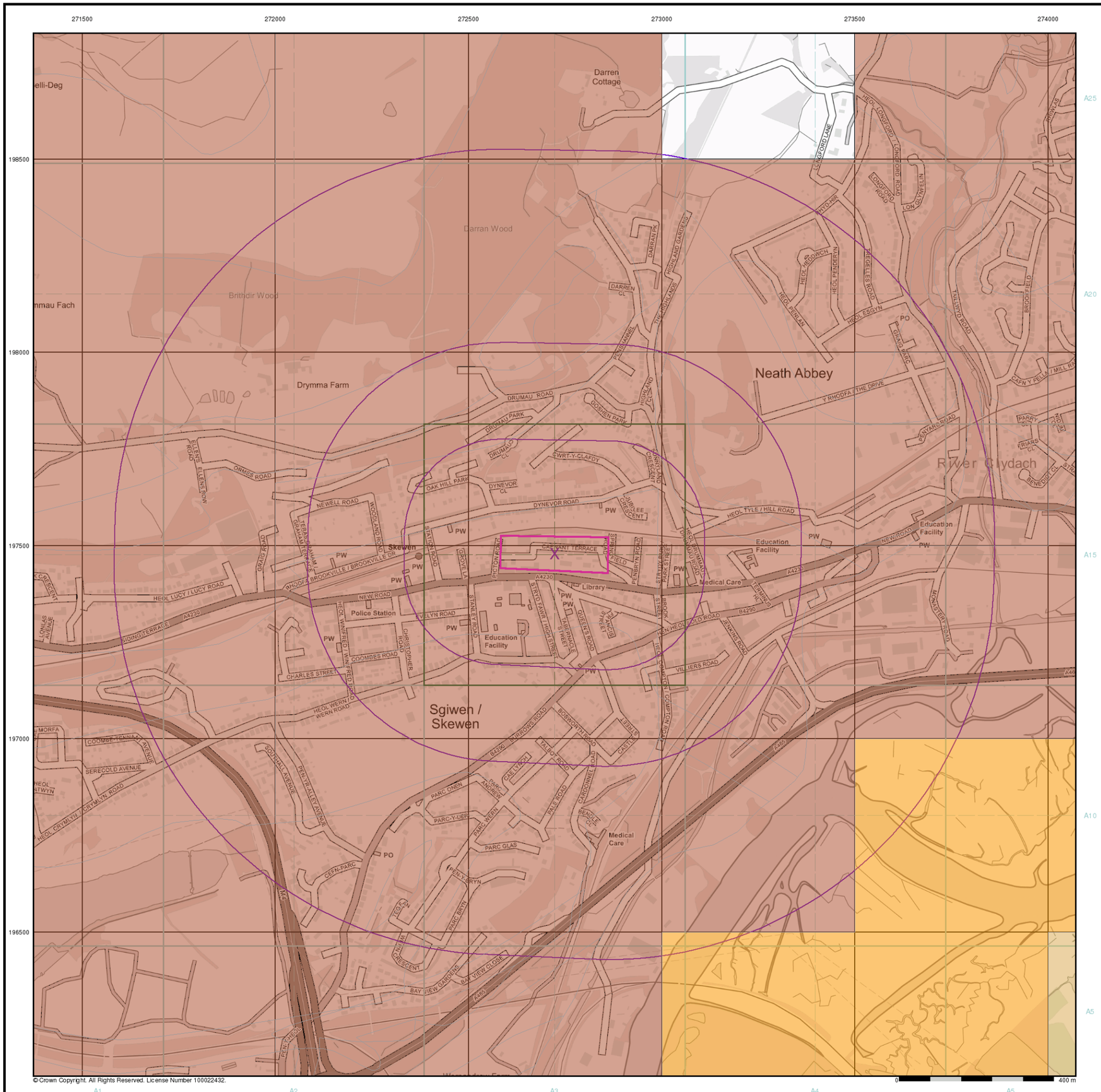
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271500
272000
272500
273000
273500
274000
198500
198000
197500
197000
196500
A25
A20
A15
A10
A5
A1
A2
A3
A4
A5
Darren Cottage
Darran Wood
Brithdir Wood
Drymma Farm
Neath Abbey
Skewen
Sgiwen / Skewen
0.40
1.00
1.90
2.50
1.40
3.70
3.60
2.30
3.00
3.50
0.60
3.00
3.90
1.50
0.90
Education Facility
Police Station
Library
Medical Care
Education Facility
Medical Care
CAERANT TERRACE
DARREN CL
DRUMAU ROAD
DYNEVOR ROAD
OAK HILL PARK
NEWELL ROAD
HEOL TYLE / HILL ROAD
NEW ROAD
EVELYN ROAD
CHARLES STREET
COOMBE TENNANT AVENUE
SERECOLD AVENUE
BRIERONS ROAD
BOSWORTH ROAD
TALBOT ROAD
PARC ONEN
PARC-Y-DERI
PARC GLAS
CEFN PARC
BAY VIEW CLOSE
A4230
A4067
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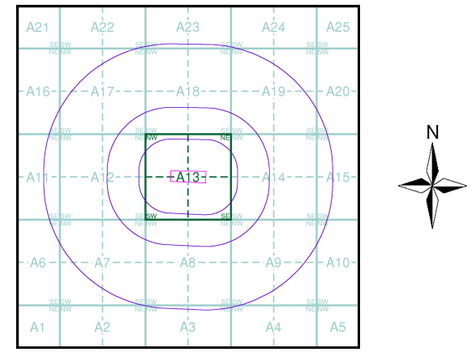
Specified Site | Specified Buffer(s) | X Bearing Reference Point

Estimated Soil Chemistry Cadmium

Cadmium Concentrations mg/kg

- < 1.8
- 1.8 - 2.2
- 2.2 - 3.0
- > 3.0

Estimated Soil Chemistry Cadmium - Slice A



Order Details

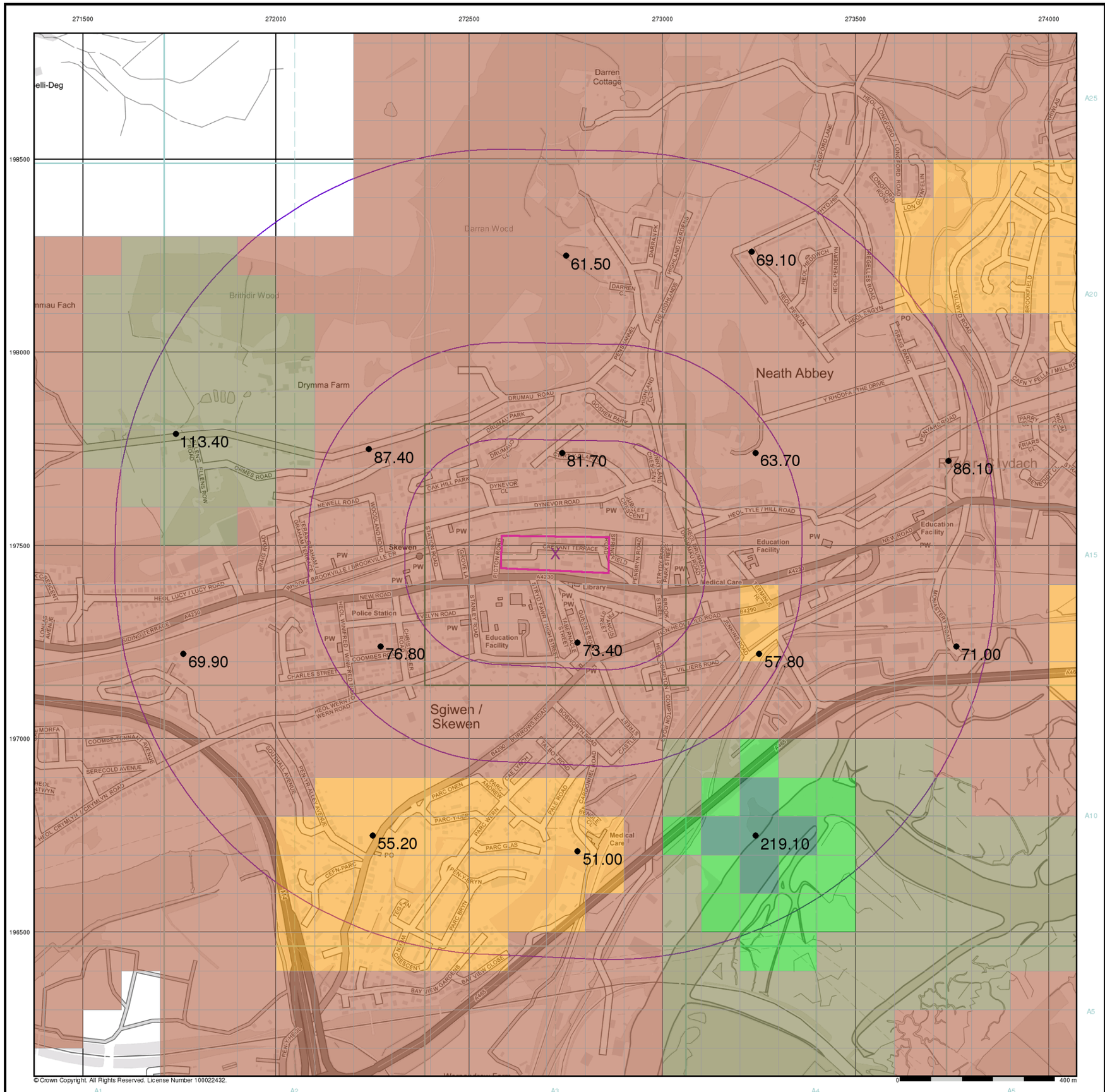
Order Details:	222279469_1_1
Customer Ref:	5192784
National Grid Reference:	272720, 197480
Slice:	A
Site Area (Ha):	2.44
Search buffer (m):	1000

Site Details

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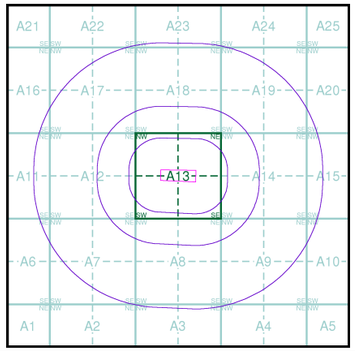
Urban Soil Chemistry Chromium

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

Chromium Concentrations mg/kg

- < 20
- 20 - 40
- 40 - 60
- 60 - 90
- 90 - 120
- 120 - 180
- > 180

Urban Soil Chemistry Chromium - Slice A



Order Details

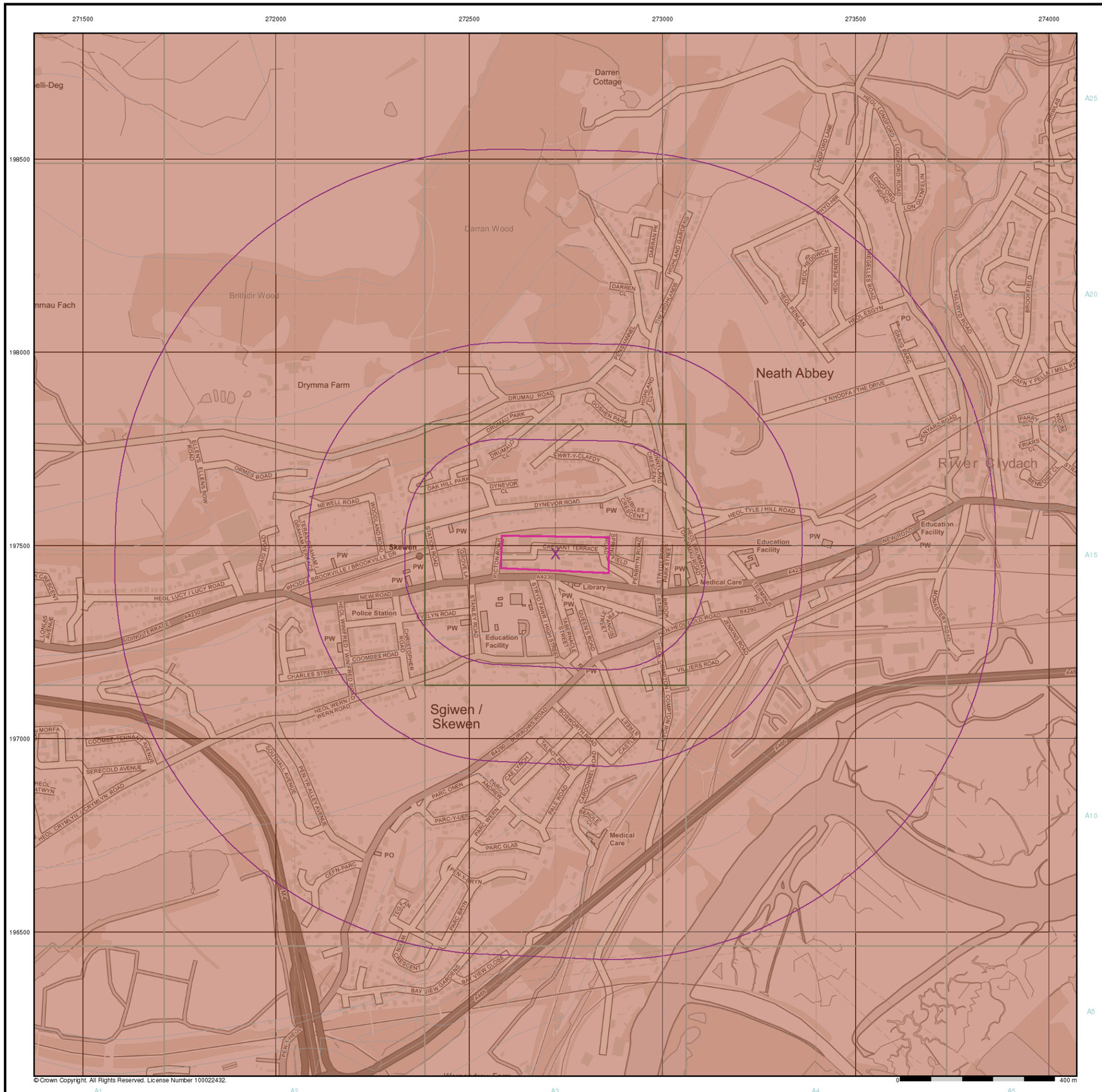
Order Details:	222279469_1_1
Customer Ref:	5192784
National Grid Reference:	272720, 197480
Slice:	A
Site Area (Ha):	2.44
Search buffer (m):	1000

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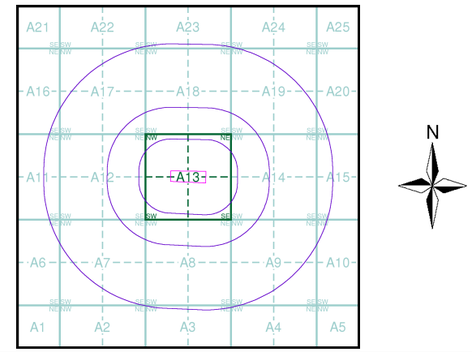
Specified Site | Specified Buffer(s) | X Bearing Reference Point

Estimated Soil Chemistry Chromium

Chromium Concentrations mg/kg

- < 20
- 20 - 40
- 40 - 60
- 60 - 90
- 90 - 120
- 120 - 180
- > 180

Estimated Soil Chemistry Chromium - Slice A



Order Details

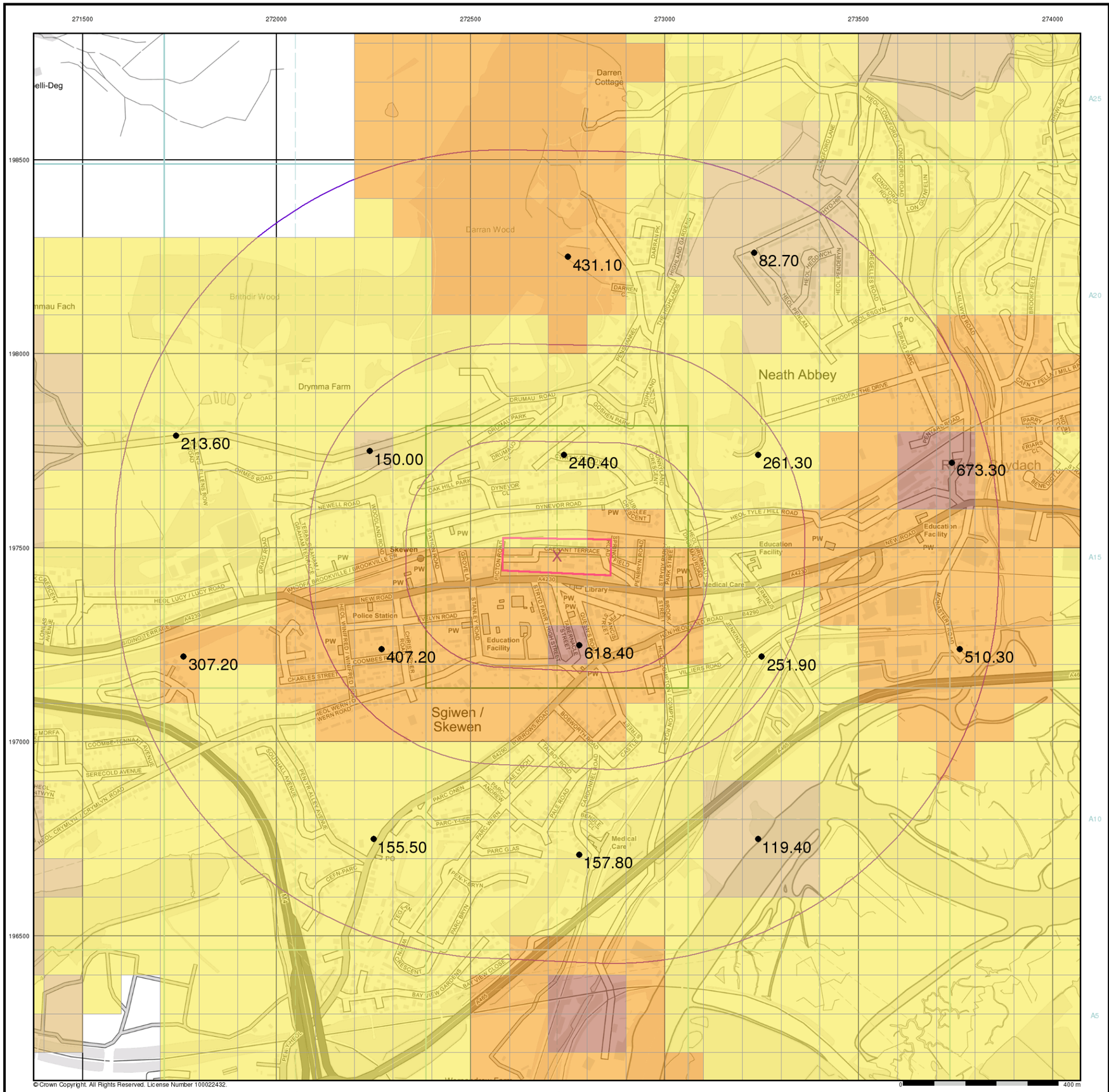
Order Details:	222279469_1_1
Customer Ref:	5192784
National Grid Reference:	272720, 197480
Slice:	A
Site Area (Ha):	2.44
Search buffer (m):	1000

Site Details

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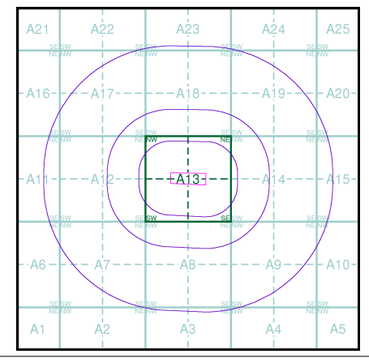
Urban Soil Chemistry Lead

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

Lead Concentrations mg/kg

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

Urban Soil Chemistry Lead - Slice A



Order Details

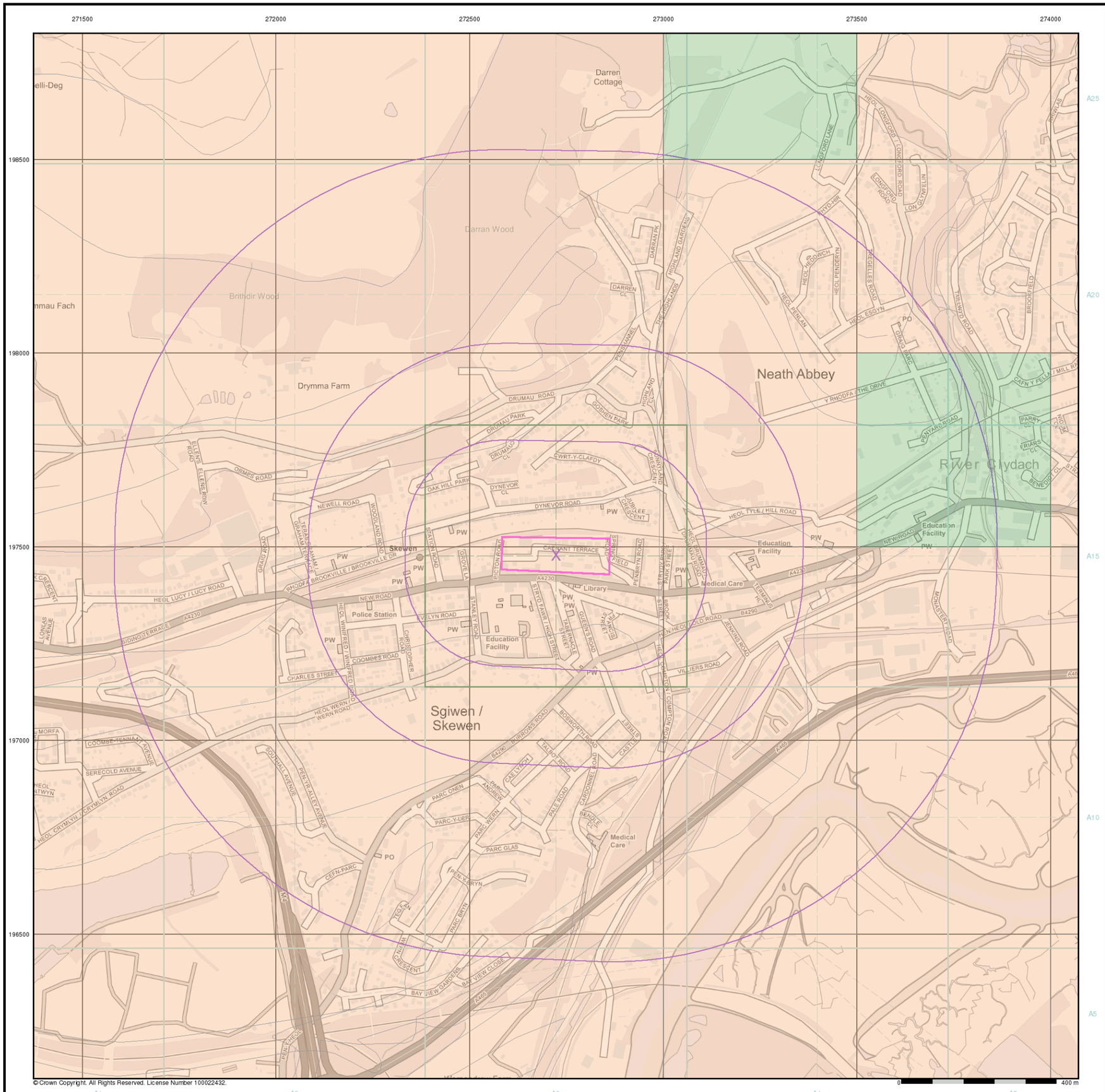
Order Details:	222279469_1_1
Customer Ref:	5192784
National Grid Reference:	272720, 197480
Slice:	A
Site Area (Ha):	2.44
Search buffer (m):	1000

Site Details

Site at 272710, 197500

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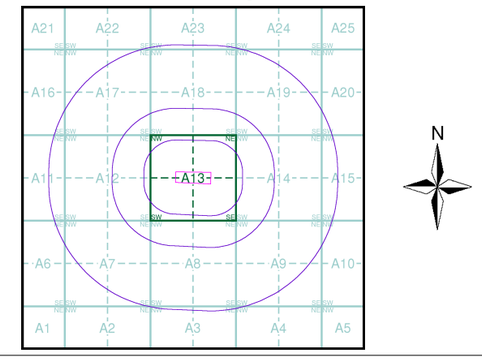
Specified Site | Specified Buffer(s) | X Bearing Reference Point

Estimated Soil Chemistry Lead

Lead Concentrations mg/kg

- <100 mg/kg
- 100 - 200
- 200 - 300
- 300 - 600
- 600 - 1200
- >1200

Estimated Soil Chemistry Lead - Slice A



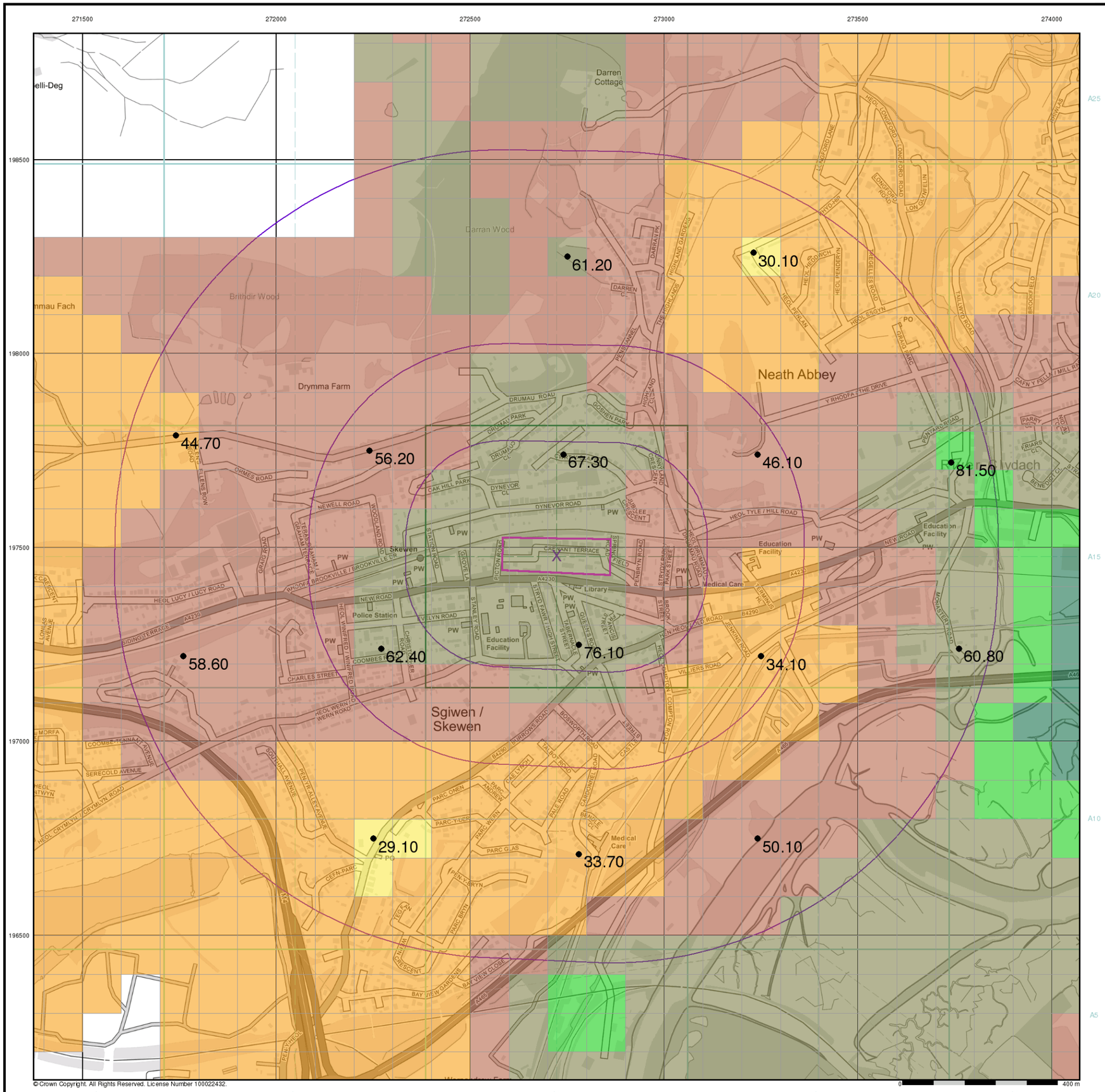
Order Details

Order Details:	222279469_1_1
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Site Area (Ha):	2.44
Search buffer (m):	1000

Site Details

Site at 272710, 197500

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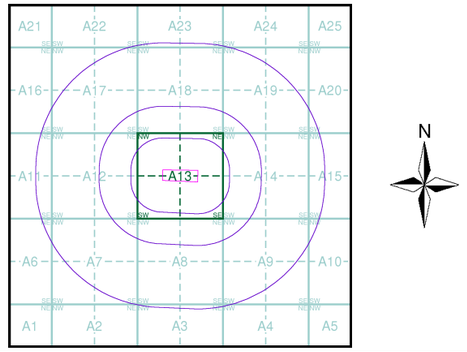
Urban Soil Chemistry Nickel

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

Nickel Concentrations mg/kg

< 15
15 - 30
30 - 45
45 - 60
60 - 80
80 - 100
> 100

Urban Soil Chemistry Nickel - Slice A



Order Details

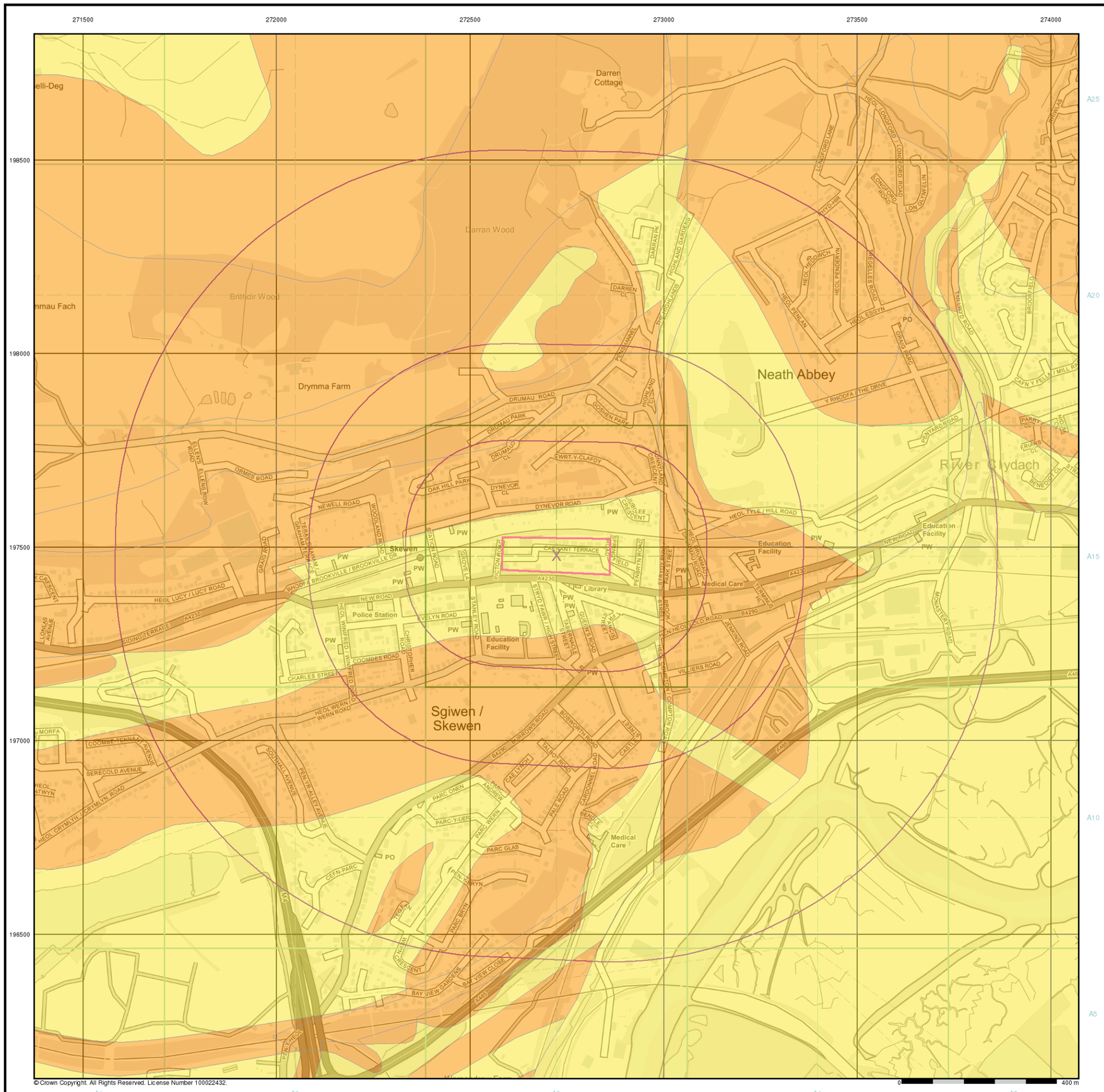
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Customer Ref:	5192784
National Grid Reference:	272720, 197480
Slice:	A
Site Area (Ha):	2.44
Search buffer (m):	1000

Site Details

Site at 272710, 197500

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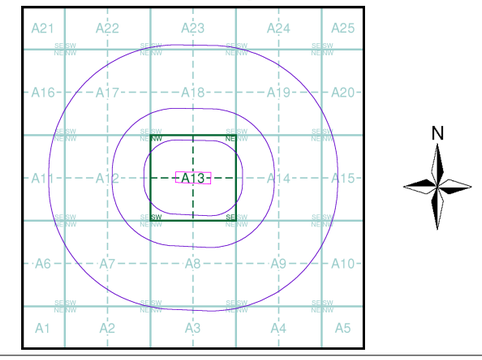
Specified Site | Specified Buffer(s) | X Bearing Reference Point

Estimated Soil Chemistry Nickel

Nickel Concentrations mg/kg

- < 15
- 15 - 30
- 30 - 45
- 45 - 60
- 60 - 80
- 80 - 100
- > 100

Estimated Soil Chemistry Nickel - Slice A



Order Details

Order Details:	222279469_1_1
Customer Ref:	5192784
National Grid Reference:	272720, 197480
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Site Area (Ha):	2.44
Search buffer (m):	1000

Site Details

Site at 272710, 197500

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Historical Mapping Legends

Ordnance Survey County Series 1:10,560

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

Ordnance Survey Plan 1:10,000

Chalk Pit, Clay Pit or Quarry
Gravel Pit
Sand Pit
Disused Pit or Quarry
Refuse or Slag Heap
Lake, Loch or Pond
Dunes
Boulders
Coniferous Trees
Non-Coniferous Trees
Orchard
Scrub
Coppice
Bracken
Heath
Rough Grassland
Marsh
Reeds
Saltings
Building
Direction of Flow of Water
Shingle
Sand
Glasshouse
Pylon
Electricity Transmission Line
Pole
Sloping Masonry
Cutting
Embankment
Standard Gauge Multiple Track
Road Under
Road Over
Level Crossing
Foot Bridge
Standard Gauge Single Track
Siding, Tramway or Mineral Line
Narrow Gauge
Geographical County
Administrative County, County Borough or County of City
Municipal Borough, Urban or Rural District, Burgh or District Council
Borough, Burgh or County Constituency
Shown only when not coincident with other boundaries
Civil Parish
Shown alternately when coincidence of boundaries occurs

BP, BS	Boundary Post or Stone	Pol Sta	Police Station
Ch	Church	PO	Post Office
CH	Club House	PC	Public Convenience
F E Sta	Fire Engine Station	PH	Public House
FB	Foot Bridge	SB	Signal Box
Fn	Fountain	Spr	Spring
GP	Guide Post	TCB	Telephone Call Box
MP	Mile Post	TCP	Telephone Call Post
MS	Mile Stone	W	Well

1:10,000 Raster Mapping

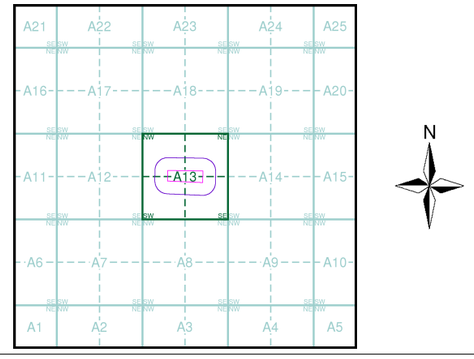
Gravel Pit
Refuse tip or slag heap
Rock
Rock (scattered)
Boulders
Boulders (scattered)
Shingle
Mud
Sand
Sand Pit
Slopes
Top of cliff
General detail
Underground detail
Overhead detail
Narrow gauge railway
Multi-track railway
Single track railway
County boundary (England only)
Civil, parish or community boundary
District, Unitary, Metropolitan, London Borough boundary
Constituency boundary
Area of wooded vegetation
Non-coniferous trees
Non-coniferous trees (scattered)
Coniferous trees
Coniferous trees (scattered)
Positioned tree
Orchard
Coppice or Osiers
Rough Grassland
Heath
Scrub
Marsh, Salt Marsh or Reeds
Water feature
Flow arrows
MHW(S) Mean high water (springs)
MLW(S) Mean low water (springs)
Telephone line (where shown)
Electricity transmission line (with poles)
BM 123.45 m Bench mark (where shown)
Triangulation station
Point feature (e.g. Guide Post or Mile Stone)
Pylon, flare stack or lighting tower
Site of (antiquity)
Glasshouse
General Building
Important Building

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Historical Mapping & Photography included:

Mapping Type	Scale	Date	Pg
Glamorganshire	1:10,560	1884	3
Glamorganshire	1:10,560	1900	4
Glamorganshire	1:10,560	1921	5
Glamorganshire	1:10,560	1921	6
Glamorganshire	1:10,560	1938 - 1940	7
Historical Aerial Photography	1:10,560	1945	8
Glamorganshire	1:10,560	1951 - 1952	9
Ordnance Survey Plan	1:10,000	1965	10
Ordnance Survey Plan	1:10,000	1970	11
Swansea	1:10,000	1976	12
Ordnance Survey Plan	1:10,000	1980	13
Ordnance Survey Plan	1:10,000	1992	14
10K Raster Mapping	1:10,000	1999	15
10K Raster Mapping	1:10,000	2006	16
VectorMap Local	1:10,000	2019	17

Historical Map - Slice A



Order Details

Order Number:	222279469_1_1
Customer Ref:	5192784
National Grid Reference:	272720, 197480
Slice:	A
Site Area (Ha):	2.44
Search Buffer (m):	1000

Site Details

Site at 272710, 197500

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Russian Military Mapping Legends

1:5,000 and 1:10,000 mapping

a. Not drawn to scale b. Drawn to scale

- Government and Administrative Buildings
- Military and Industrial Buildings
- Military and Communication Areas
- Subway Entrance
- Fireproof Building
- Prominent Fireproof Building
- Non-fireproof Building
- Non-fireproof Building (non-dwelling)
- Factory, mill, and flour mill, with chimneys
- Factory, mill, and flour mill, without chimneys
- Power Station, drawn to scale
- Hydroelectric Power Station
- Radio Station, drawn to scale
- Telephone Station, drawn to scale
- Abandoned Open-pit Mine or Quarry
- Open-pit Salt Mine
- Pit
- Oil Deposit or Well
- Oil Seepage
- Tailings Pile
- Fuel Storage Tanks
- Natural Gas Tank
- Bench Mark
- Drill Hole
- Burial Mound
- Triangulation Point on Burial Mound
- Single-track Railroad
- Double-track Railroad and Station Building
- Coniferous Forest
- Deciduous Forest
- Mixed Forest
- Lawns
- Citrus Orchard
- Wet Ground
- Scattered Vegetation

243,8 — Values for prominent elevations

186.0 — Numbers for spot elevations, depth soundings, contour lines, etc.

0,2 — Velocity of the current, width of river bed, depth of river

Fractional terms: length and capacity of bridges; depth of fords and condition of the river bottom; height of forest and the diameter of trees

Russian Alphabet (For reference and phonetic interpretation of map text)

А а (A)	З з (Z)	П п (P)	Ч ч (CH)
Б б (B)	И и (I)	Р р (R)	Ш ш (SH)
В в (V)	Й й (Y)	С с (S)	Щ щ (SHCH)
Г г (G)	К к (K)	Т т (T)	ъ (–)
Д д (D)	Л л (L)	У у (U)	ы (Y)
Е е (E)	М м (M)	Ф ф (F)	ь (')
Ё ё (YO)	Н н (N)	Х х (KH)	Э э (E)
Ж ж (ZH)	О о (O)	Ц ц (TS)	Ю ю (YU or IU)
			Я я (YA or IA)

1:25,000 mapping

a. Not drawn to scale b. Drawn to scale

- Government and Administrative Buildings
- Military and Industrial Buildings
- Military and Communication Areas
- Subway Entrance
- Partly Demolished Buildings
- Demolished Buildings
- Built-Up Area with Fireproof Buildings Predominant
- Built-Up Area with Non-Fireproof Buildings Predominant
- Individual Fireproof Building
- Prominent Industrial Building
- Individual Dwelling, Fireproof
- Ruins of an Individual Dwelling
- Factory or Mill Chimney
- Factory or Mill with Chimney
- Factory or Mill without Chimney
- Mine or Open Pit Mine
- Operating Shaft or Mine
- Non-Operating Shaft or Mine
- Salt Mine
- Tailings Pile
- Pit
- Stone Quarry
- Gas Pump or Service Station
- Fuel Storage or Natural Gas Tank
- Oil or Natural Gas Derrick
- Small Hydroelectric Power Station
- Power Station
- Transformer Station
- Cemetery
- Burial Mound (height in metres)
- Triangulation Point on Burial Mound
- Triangulation Point
- Bench Mark
- Bench Mark (monumented)
- Telegraph Office
- Telephone Station
- Radio Station
- Radio Tower
- Airfield or Seaplane Base
- Landing Strip
- Main Highway
- Highway under Construction
- Improved Dirt Road (former truck road)
- Double-track Railroad with First Class Station
- Dismantled Railroad
- Railroad Under Construction
- Shore Embankment
- River or Ditch with Embankment
- Direction and velocity of current
- Well
- Water Reservoir or Rain Water Pit
- Spring
- Isobath with value
- Heavy (Index) Contour Line
- Contour Line and Value
- Half Contour Line
- Spot Elevation Value
- Coniferous
- Deciduous
- Mixed
- Scrub

Key to Numbers on Mapping

SS79NW_Swansea

No.	Description
76	Industrial Building (Use Unknown)

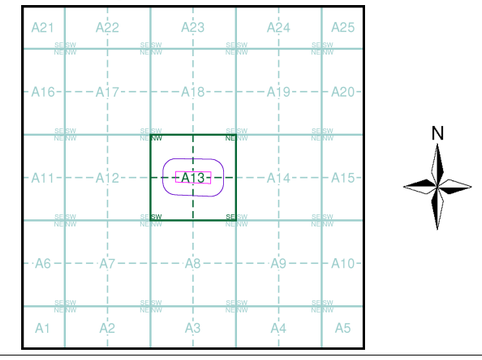
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Historical Mapping & Photography included:

Mapping Type	Scale	Date	Pg
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Glamorganshire	1:10,560	1900	4
Glamorganshire	1:10,560	1921	5
Glamorganshire	1:10,560	1921	6
Glamorganshire	1:10,560	1938 - 1940	7
Historical Aerial Photography	1:10,560	1945	8
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Ordnance Survey Plan	1:10,000	1970	11
Swansea	1:10,000	1976	12
Ordnance Survey Plan	1:10,000	1980	13
Ordnance Survey Plan	1:10,000	1992	14
10K Raster Mapping	1:10,000	1999	15
10K Raster Mapping	1:10,000	2006	16
VectorMap Local	1:10,000	2019	17

Russian Map - Slice A



Order Details

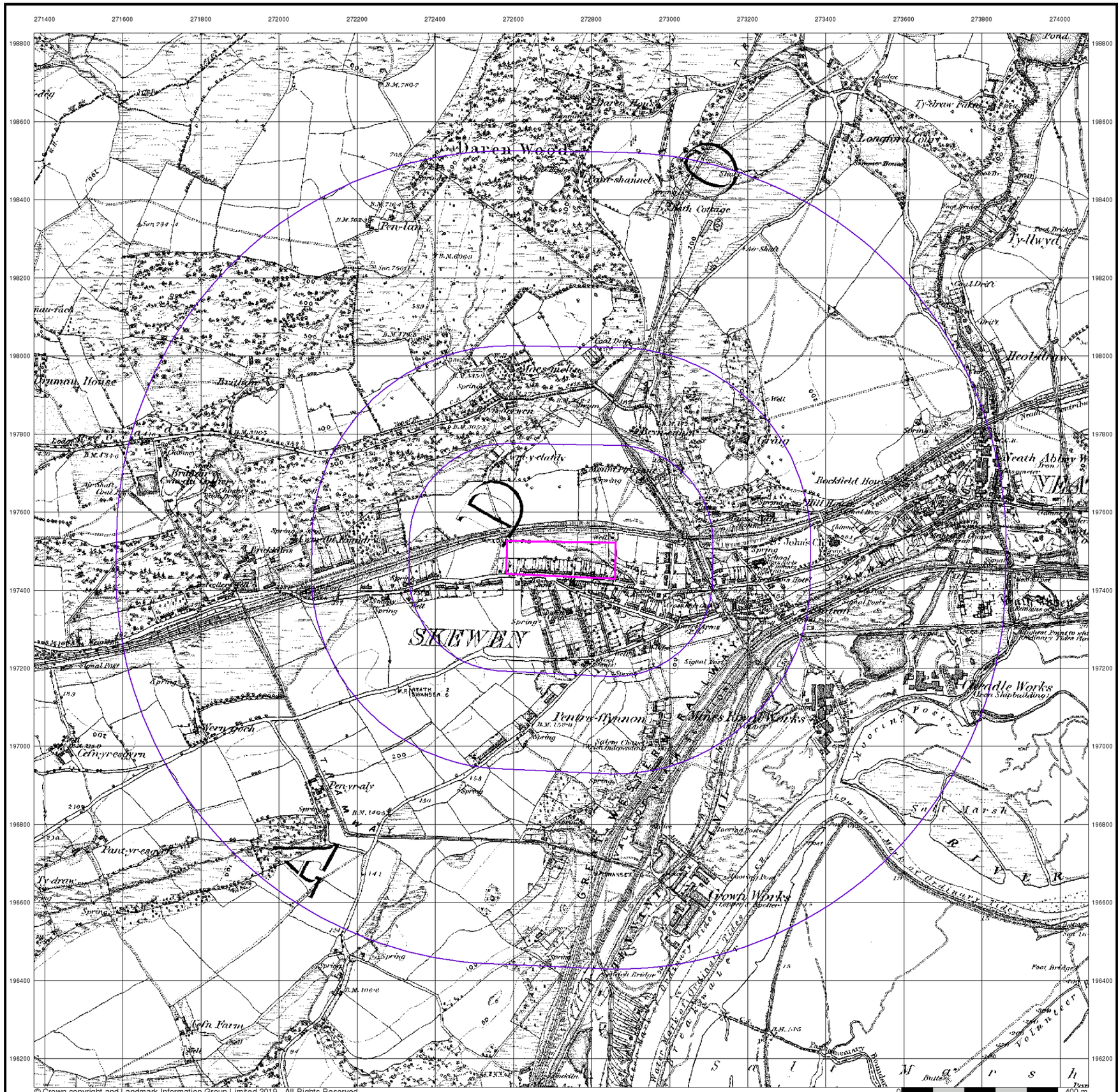
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Customer Ref: 5192784
National Grid Reference: 272720, 197480
Slice: A
Site Area (Ha): 2.44
Search Buffer (m): 1000

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Site at 272710, 197500

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Glamorganshire

Published 1884

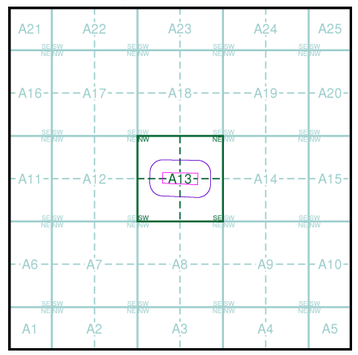
Source map scale - 1:10,560

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

Map Name(s) and Date(s)

01500
1884
1:10,560

Historical Map - Slice A



Order Details

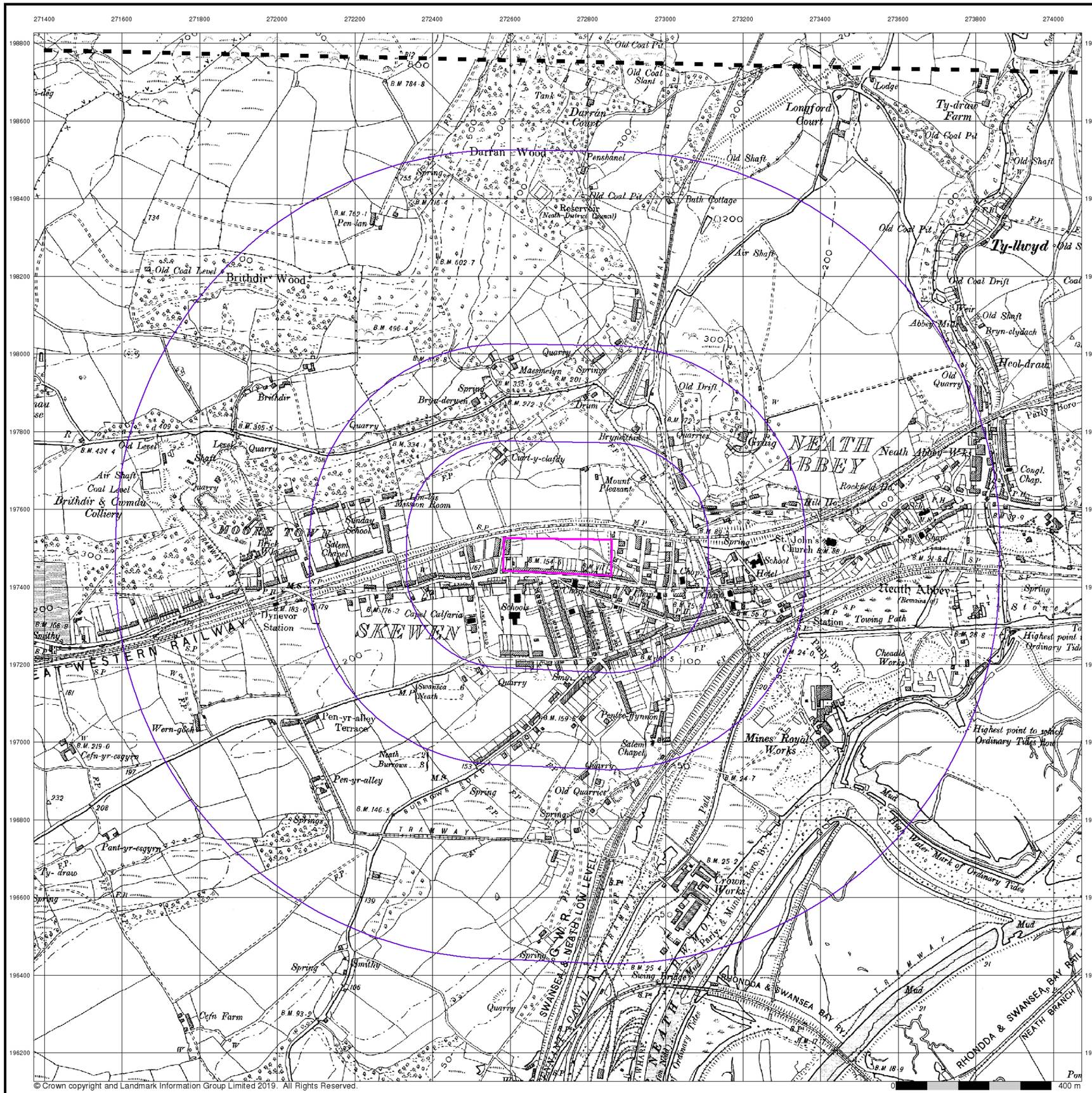
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National Grid Reference:	272720, 197480
Slice:	A
Site Area (Ha):	2.44
Search Buffer (m):	1000

Site Details

Site at 272710, 197500

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Glamorganshire

Published 1900

Source map scale - 1:10,560

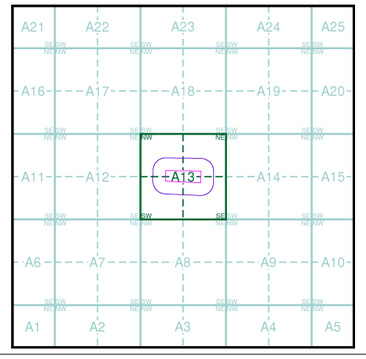
The historical maps shown were reproduced from maps predominantly held at the scale adopted for England, Wales and Scotland in the 1840`s. In 1854 the 1:2,500 scale was adopted for mapping urban areas; these maps were used to update the 1:10,560 maps. The published date given therefore is often some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

Map Name(s) and Date(s)

015NE
1900
1:10,560

015SE
1900
1:10,560

Historical Map - Slice A



N

Order Details

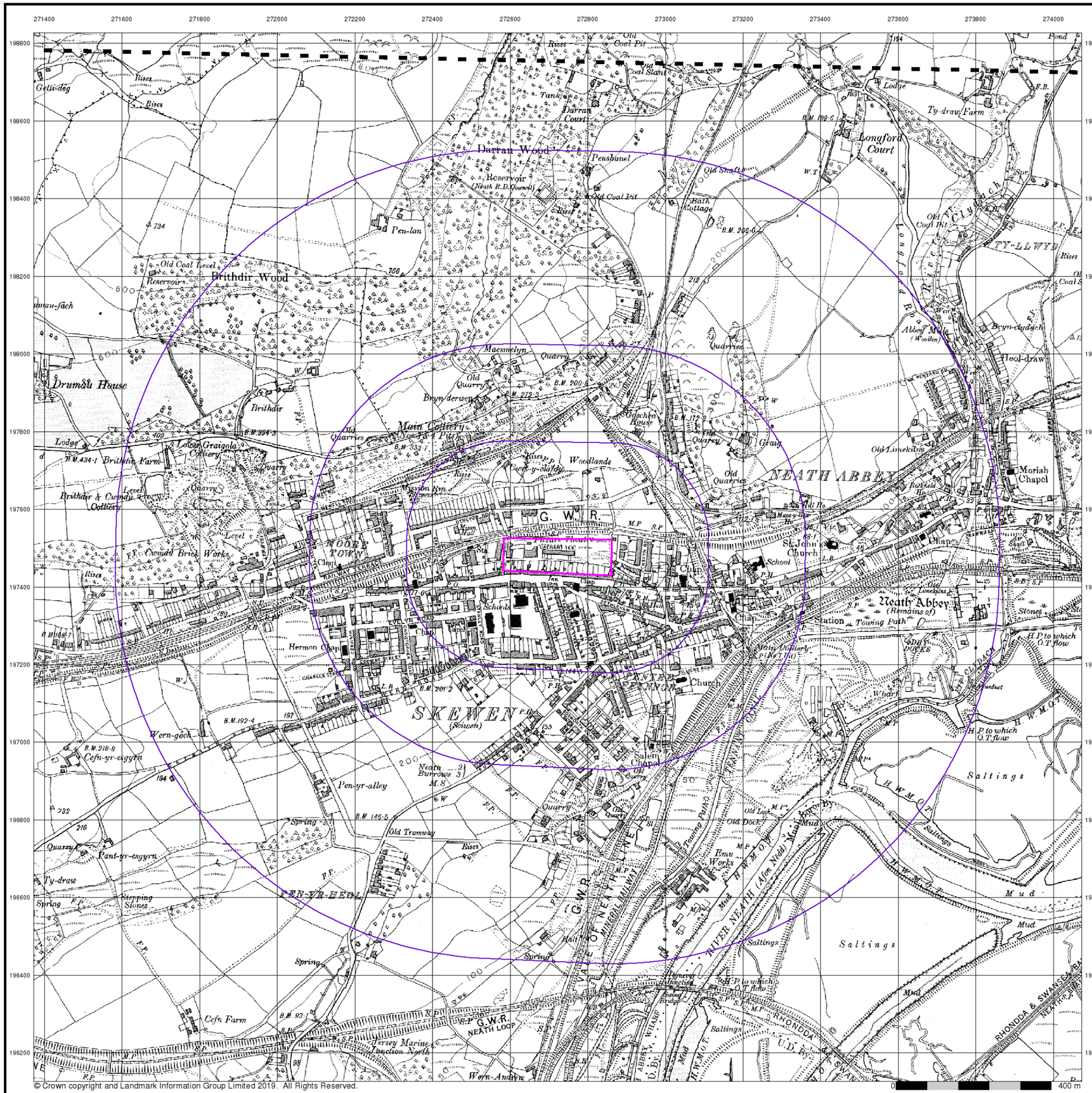
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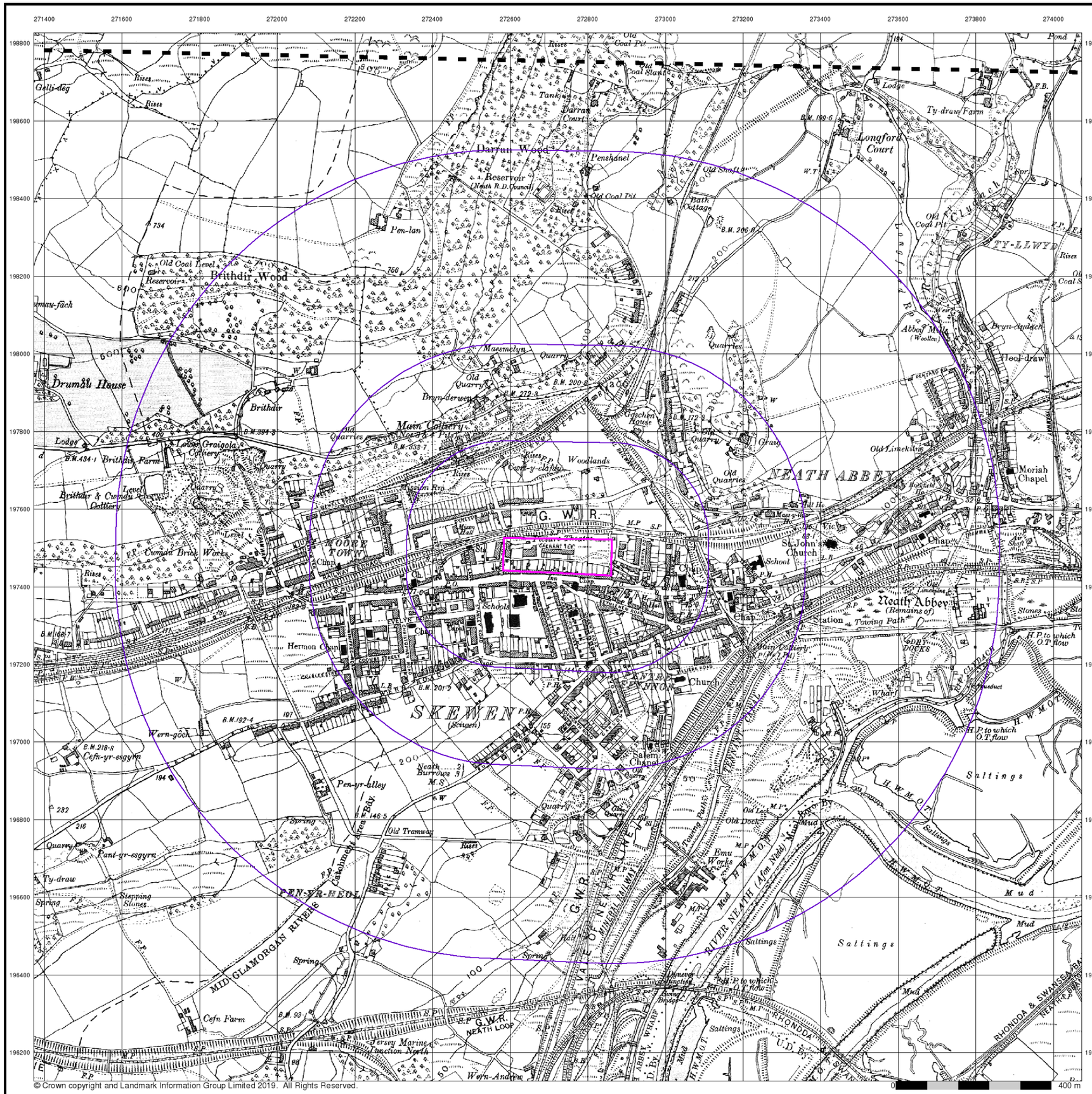
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271400
271600
271800
272000
272200
272400
272600
272800
273000
273200
273400
273600
273800
274000
198800
198600
198400
198200
198000
197800
197600
197400
197200
197000
196800
196600
196400
196200
Brithdir Wood
Darran Wood
Darran Court
Penshunel
Reservoir
Old Coal Pit
Old Coal Level
Pen-lan
Drumau House
Brithdir
Brithdir Farm
Maesmelyn
Quarry
Old Quarry
Brynderwen
Main Colliery
Old Pit
Lower Graigola Colliery
Brithdir & Cwmdu Colliery
Woodlands
Penrhiw-clafdy
Mission Rm.
G. W. R.
Hermon Chap.
Schools
Cwmdu Brick Works
Longford Court
Ty-draw Farm
Old Shaft
Bath Cottage
Ty-draw
Old Coal Pit
Quarries
Abbey Mills (Woollen)
Heol-draw
Brynderwen
Gadchen House
Old Limekilns
NEATH ABBEY
Moriah Chapel
St. John's Church
School
Neath Abbey (Remains of)
Station
Towing Path
Old Works
Tennis Courts
Chap.
Ch.
SKEWEN
(Skewen)
Salem Chapel
Old Quarry
Wern-goch
Cefn-yr-eggyrn
Pen-yr-alley
Neath Burrows (3) M.S.
Old Tramway
Pant-yr-esgyrn
Ty-draw
Spring
Stepping Stones
PEN-YR-HEOL
Cefn Farm
Jersey Marine Junction North
Worn-Andrew
VALE OF NEATH (MINERAL) RLWAY.
G.W.R.
NEATH LOOP
RIVER NEATH (Afon Nedd)
Mud
Saltings
H.W.M.O.T.
H.P. to which O.T. flow
Old Dock
Tidal Basin
Tidal Ho.
Tramway Bridge
Aberdyberthi
Penrhiw
Ty-llwyd
Brynclydach
Whart
Aqueduct
RHONDDA & SWANSEA BAY RLWAY.
NEATH & BRECON RLWAY.
Pond
Lodge
Rises
Tank
Level
Quarry
Old Coal Slant
Old Coal Pit
Reservoir (Neath R.D. Council)
Old Coal Level
Reservoirs
Old Quarries
Old Coal Pit
Old Quarry
Old Coal Pit
Old Quarry
Old Quarry
Old Quarry



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Glamorganshire

Published 1921

Source map scale - 1:10,560

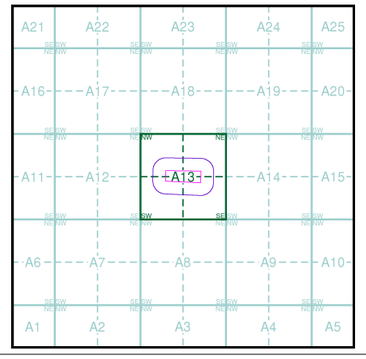
The historical maps shown were reproduced from maps predominantly held at the scale adopted for England, Wales and Scotland in the 1840`s. In 1854 the 1:2,500 scale was adopted for mapping urban areas; these maps were used to update the 1:10,560 maps. The published date given therefore is often some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

Map Name(s) and Date(s)

015NE
1921
1:10,560

015SE
1921
1:10,560

Historical Map - Slice A



Order Details

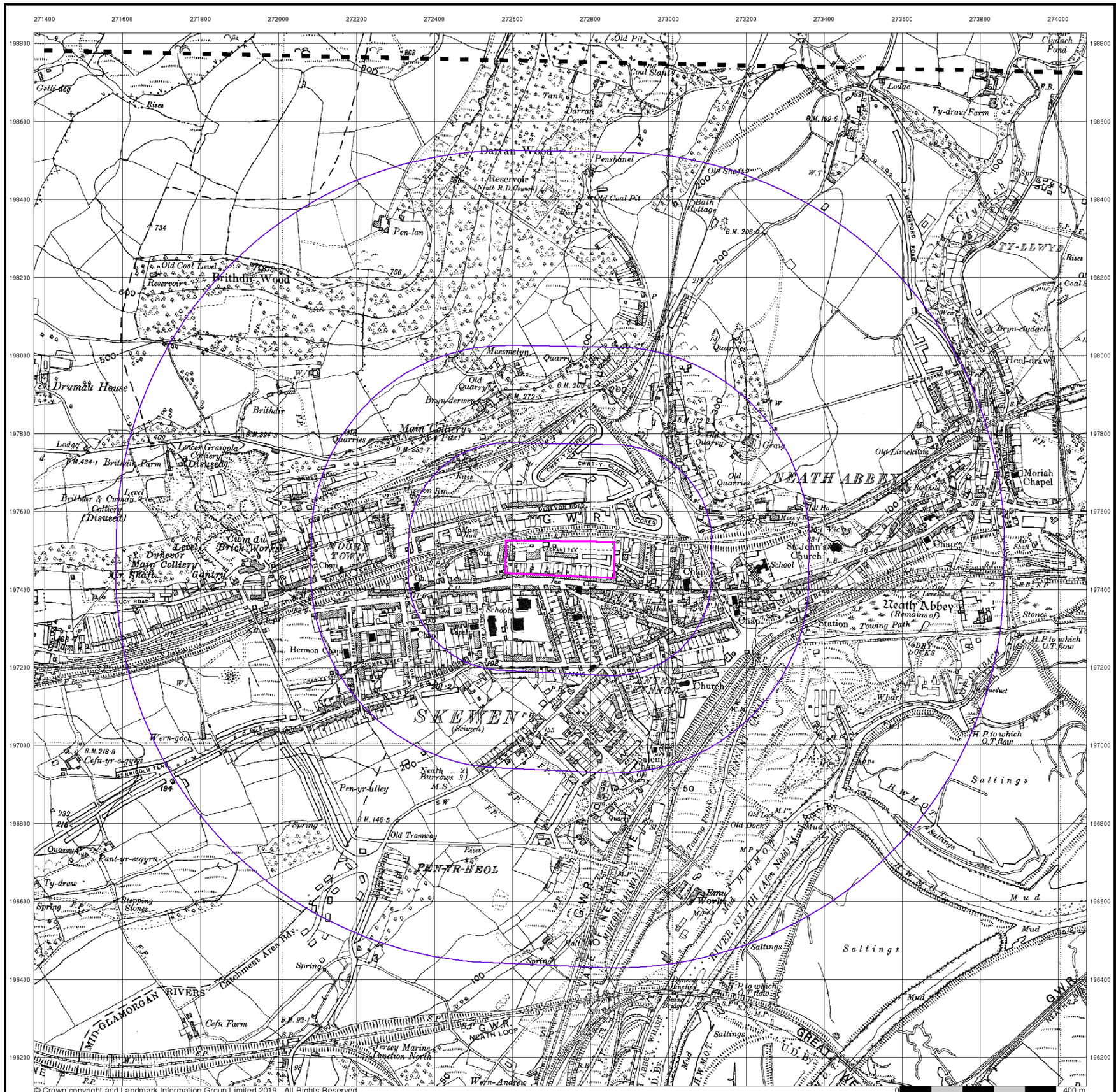
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Customer Ref:	5192784
National Grid Reference:	272720, 197480
Slice:	A
Site Area (Ha):	2.44
Search Buffer (m):	1000

Site Details

Site at 272710, 197500

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Glamorganshire

Published 1938 - 1940

Source map scale - 1:10,560

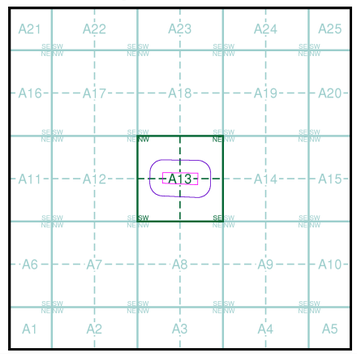
The historical maps shown were reproduced from maps predominantly held at the scale adopted for England, Wales and Scotland in the 1840`s. In 1854 the 1:2,500 scale was adopted for mapping urban areas; these maps were used to update the 1:10,560 maps. The published date given therefore is often some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

Map Name(s) and Date(s)

015NE
1938
1:10,560

015SE
1940
1:10,560

Historical Map - Slice A



Order Details

Order Number:	222279469_1_1
Customer Ref:	5192784
National Grid Reference:	272720, 197480
Slice:	A
Site Area (Ha):	2.44
Search Buffer (m):	1000

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Historical Aerial Photography

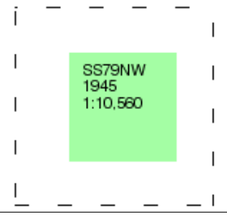
Published 1945

Source map scale - 1:10,560

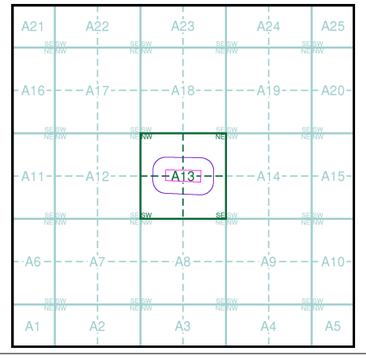
The Historical Aerial Photos were produced by the Ordnance Survey at a scale of 1:1,250 and 1:10,560 from Air Force photography. They were produced between 1944 and 1951 as an interim measure, pending preparation of conventional mapping, due to post war resource shortages. New security measures in the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

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Map Name(s) and Date(s)



Historical Aerial Photography - Slice A



Order Details

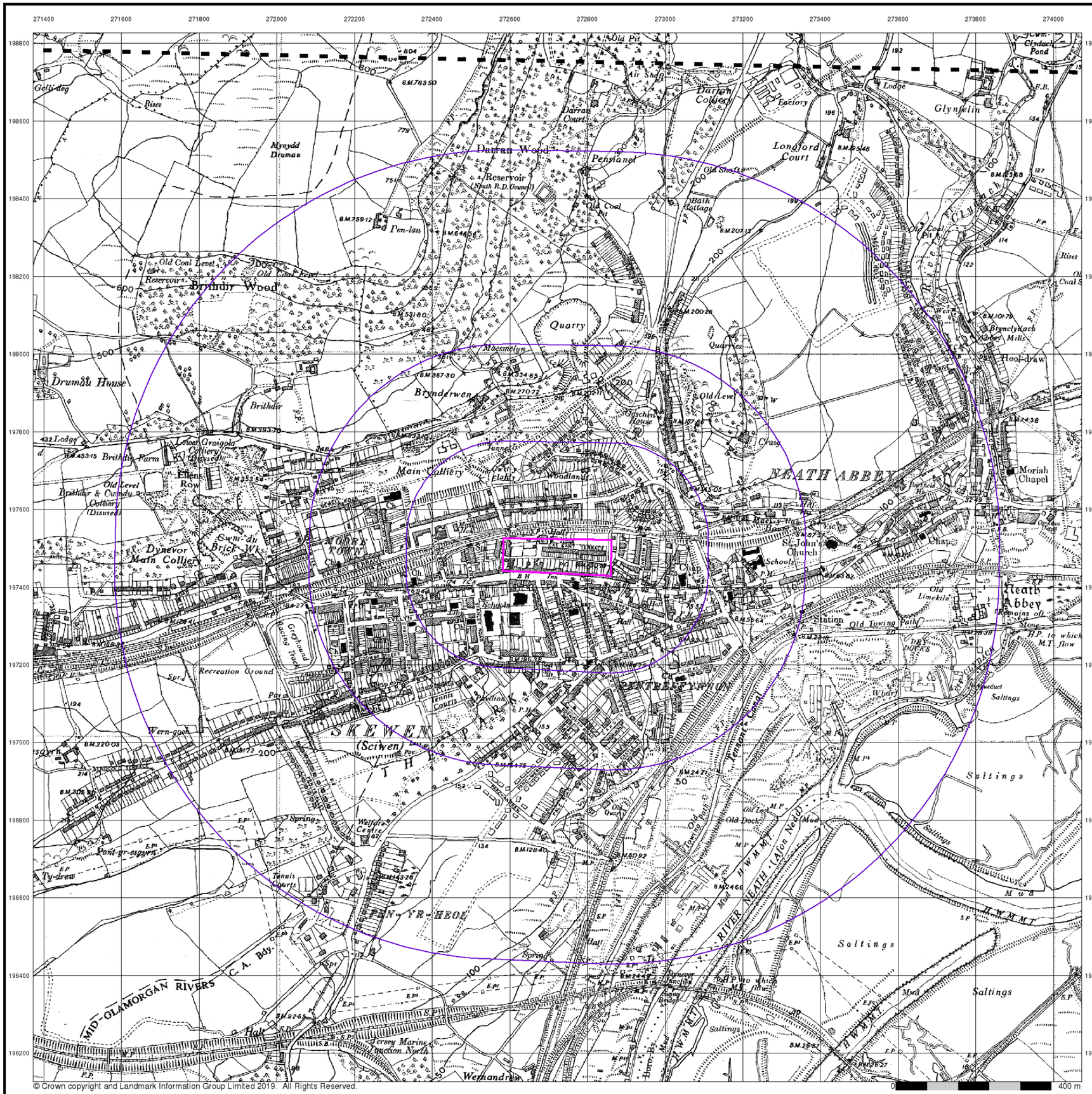
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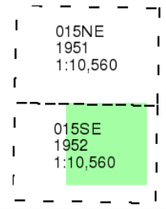
Glamorganshire

Published 1951 - 1952

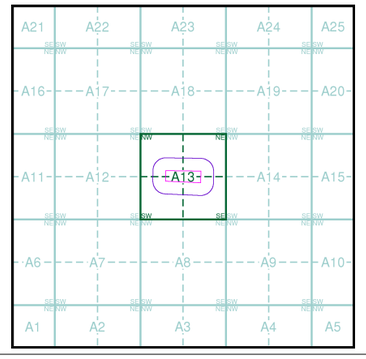
Source map scale - 1:10,560

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Map Name(s) and Date(s)



Historical Map - Slice A



Order Details

Order Number:	222279469_1_1
Customer Ref:	5192784
National Grid Reference:	272720, 197480
Slice:	A
Site Area (Ha):	2.44
Search Buffer (m):	1000

Site Details

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Ordnance Survey Plan

Published 1965

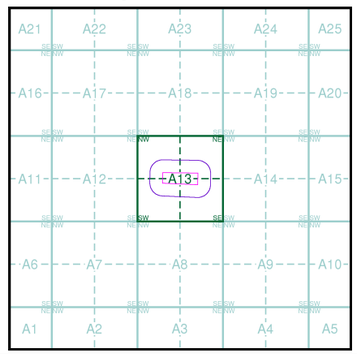
Source map scale - 1:10,000

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

Map Name(s) and Date(s)

SS79NW
1965
1:10,560

Historical Map - Slice A



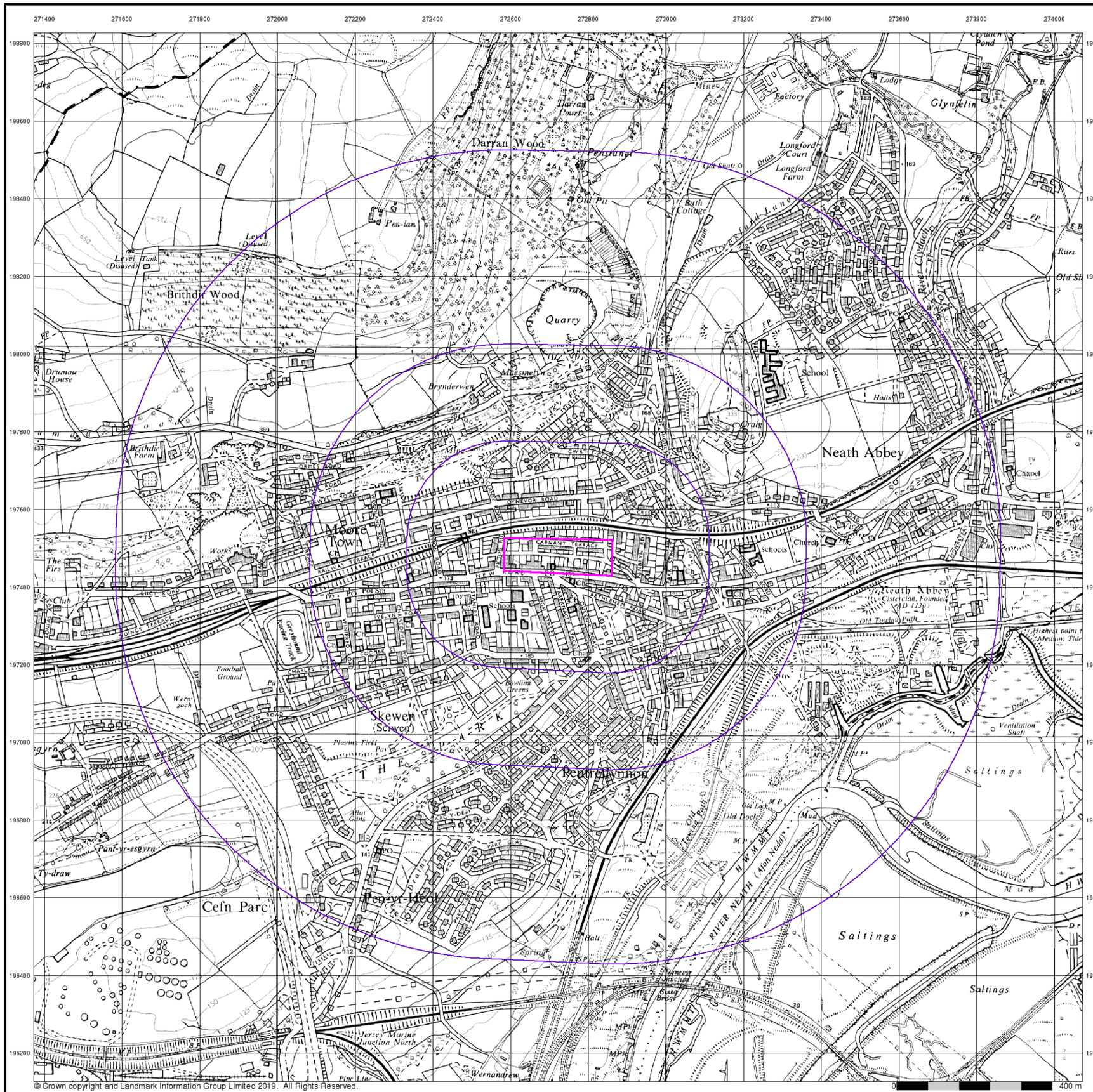
Order Details

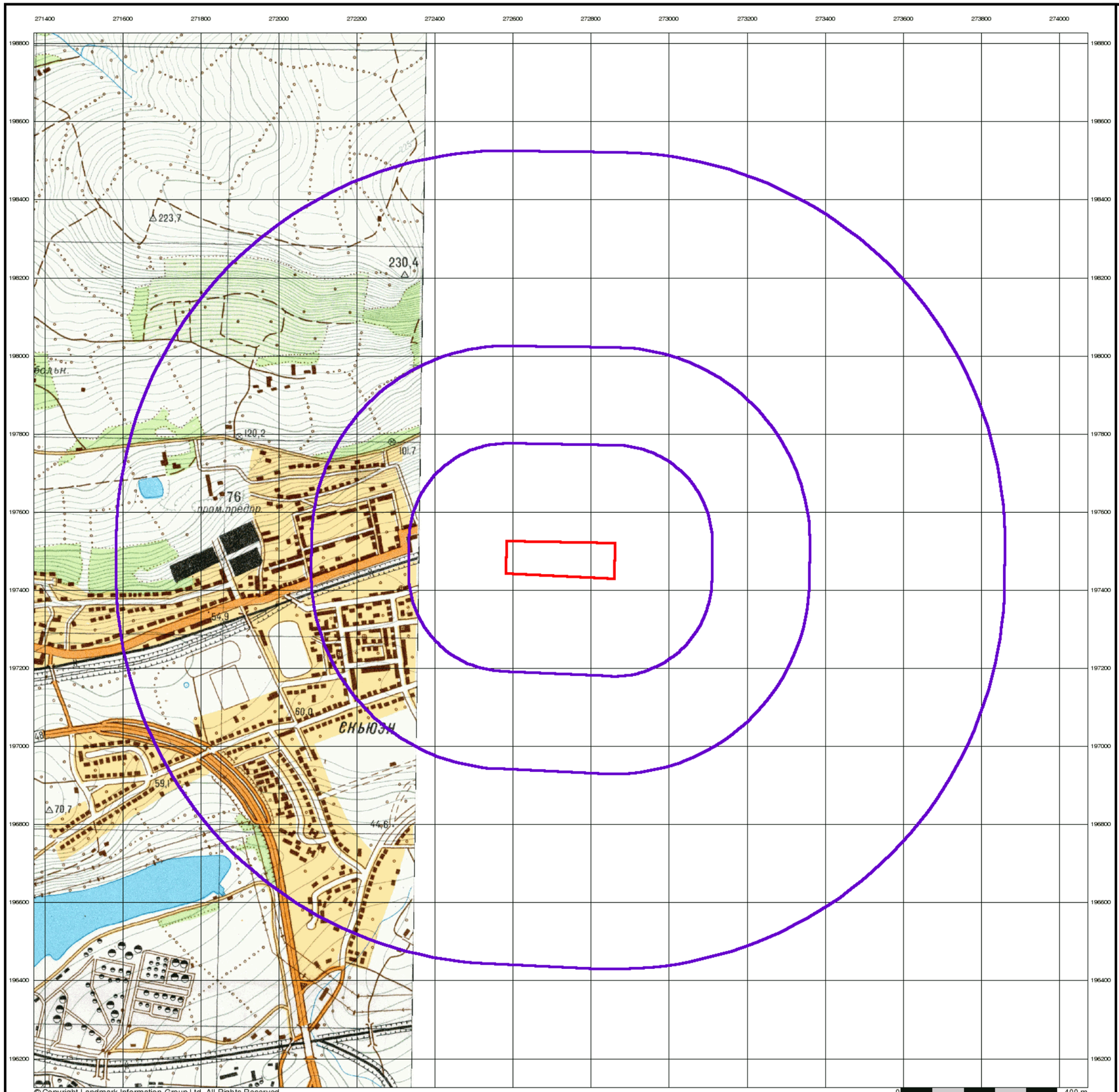
Order Number:	222279469_1_1
Customer Ref:	5192784
National Grid Reference:	272720, 197480
Slice:	A
Site Area (Ha):	2.44
Search Buffer (m):	1000

Site Details

Site at 272710, 197500

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271400
271600
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272800
273000
273200
273400
273600
273800
274000
198800
198600
198400
198200
198000
197800
197600
197400
197200
197000
196800
196600
196400
196200
Darran Wood
Darran Court
Pelistanel
Old Pit
Pen-lan
Level (Disused)
Brithdir Wood
Quarry
Drumau House
Brithdir Farm
Brynderwen
Maesmelyn
Longford Court
Longford Farm
Bath Cottage
Glynfelin
Factory
Lodge
Mines
Air Shaft
Old Shaft
Glyndwr Lane
River Clyddach
Neath Abbey
School
Halls
Chapel
Craig
Moore Town
Cabanant Terrace
Schools
Church
Neath Abbey
Cistercian, Founded AD 1130
Old Towing Path
Highest point reached by Medium Tide
Ventilation Shaft
Saltings
Old Dock
Mud
RIVER NEATH (Afon Nedd)
H.W.M.M.
Skewen
(Scewen)
Playing Fields
Pav
Allot Gdns
Penrhyn Heol
Cefn Parc
Pant-yr-esgyrn
Ty-draw
Halt
Spring
Jersey Marine Junction North
Pine Line
Wernandrew
The Firs
Football Ground
Bowling Greens
Greyhound Outside Track
Works
Club
Old Mill
Tk
Ch
Sch
Pol Sta
Drain
Mill
Rues
Old Sl
Dr
Ch
Ch
Ch



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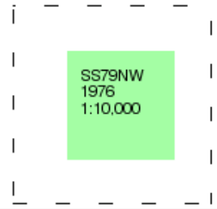
Swansea

Published 1976

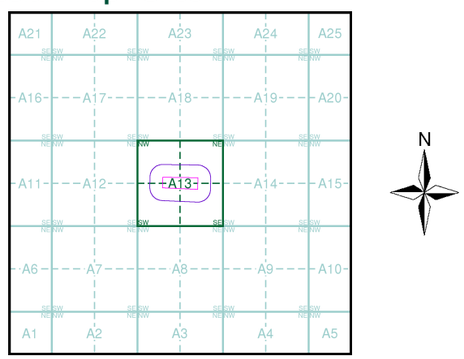
Source map scale - 1:10,000

These maps were produced by the Russian military during the Cold War between 1950 and 1997, and cover 103 towns and cities throughout the U.K. The maps are produced at 1:25,000, 1:10,000 and 1:5,000 scale, and show detailed land use, with colour-coded areas for development, green areas, and non-developed areas. Buildings are coloured black and important building uses (such as hospitals, post offices, factories etc.) are numbered, with a numbered key describing their use.
They were produced by the Russians for the benefit of navigation, as well as strategic military sites and transport hubs, for use if they were to have invaded the U.K. The detailed information provided indicates that the areas were surveyed using land-based personnel, on the ground, in the cities that are mapped.

Map Name(s) and Date(s)



Russian Map - Slice A



Order Details

Order Number:	222279469_1_1
Customer Ref:	5192784
National Grid Reference:	272720, 197480
Slice:	A
Site Area (Ha):	2.44
Search Buffer (m):	1000

Site Details

Site at 272710, 197500

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Ordnance Survey Plan

Published 1980

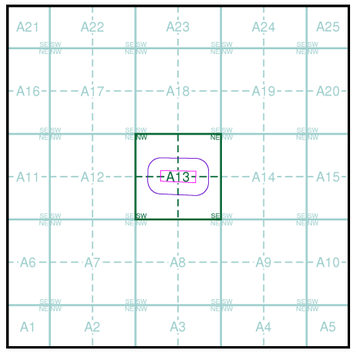
Source map scale - 1:10,000

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

Map Name(s) and Date(s)

SS79NW
1980
1:10,000

Historical Map - Slice A



Order Details

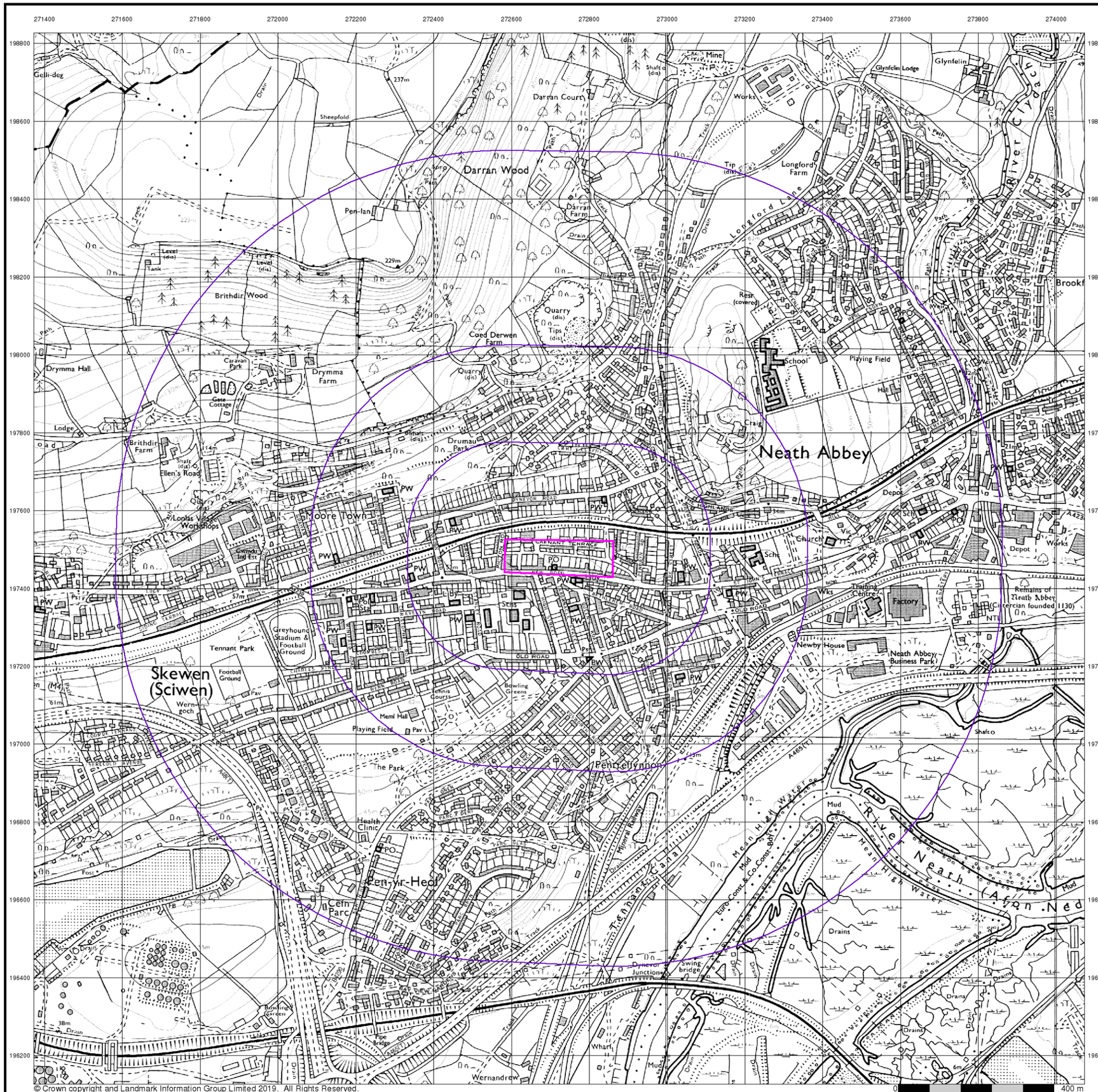
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National Grid Reference:	272720, 197480
Slice:	A
Site Area (Ha):	2.44
Search Buffer (m):	1000

Site Details

Site at 272710, 197500

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Ordnance Survey Plan

Published 1992

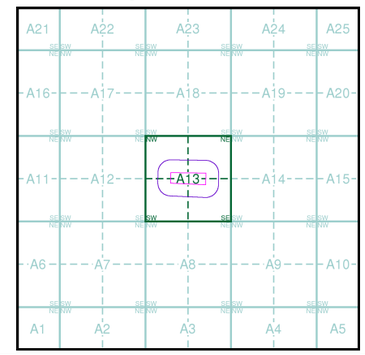
Source map scale - 1:10,000

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

Map Name(s) and Date(s)

SS79NW
1992
1:10,000

Historical Map - Slice A



Order Details

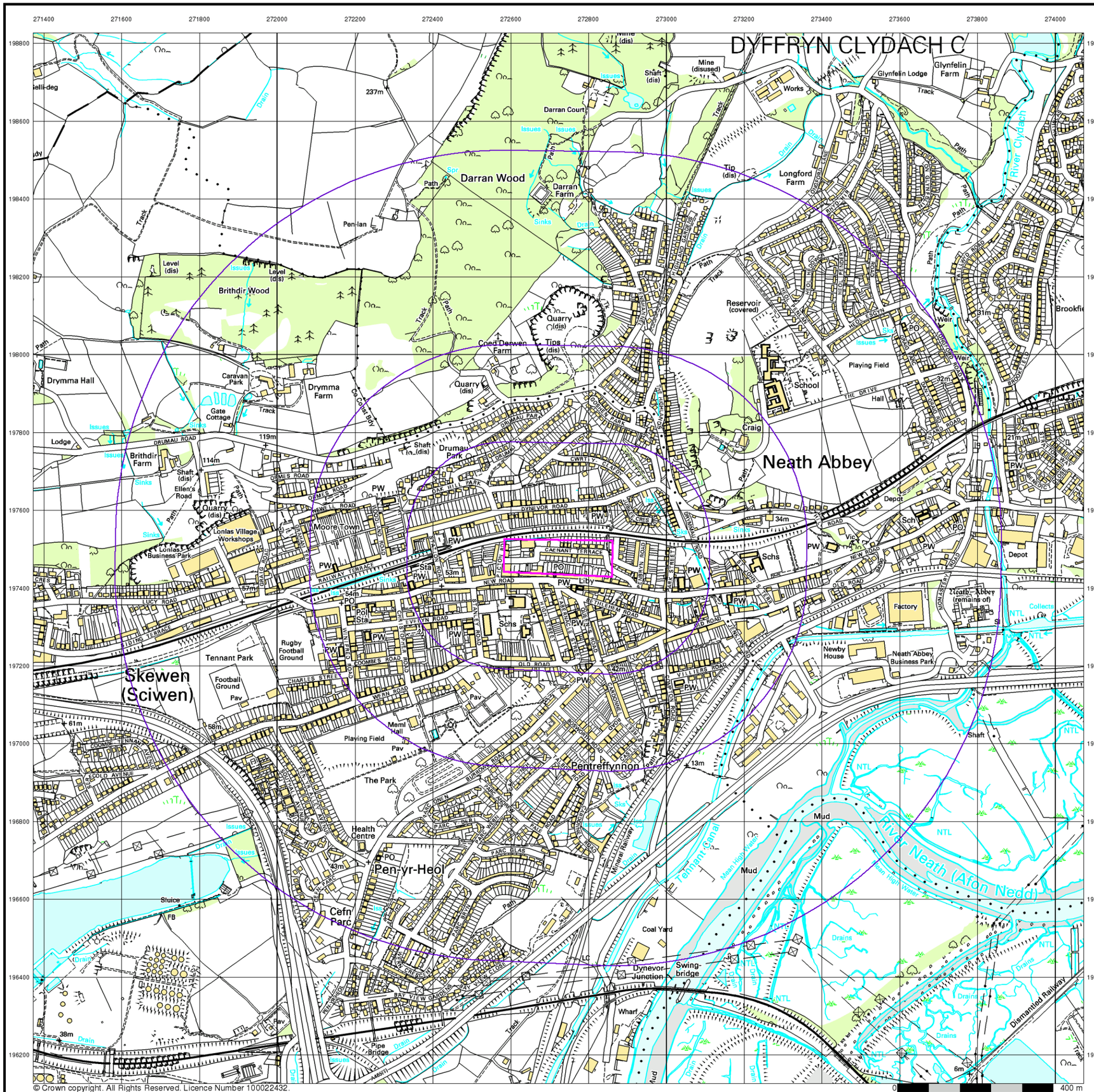
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National Grid Reference:	272720, 197480
Slice:	A
Site Area (Ha):	2.44
Search Buffer (m):	1000

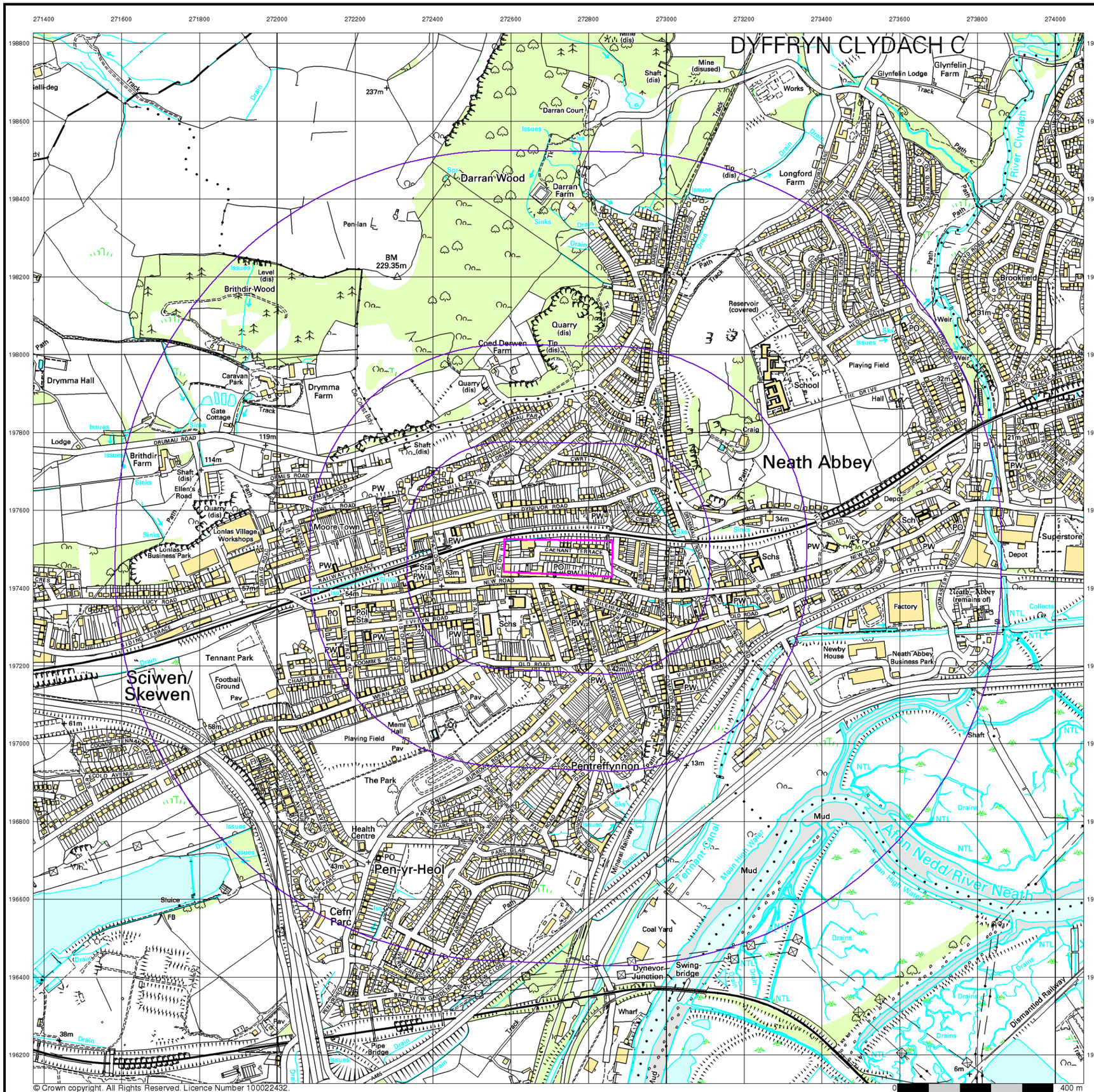
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DYFFRYN CLYDACH C
Darran Wood
Darran Court
Darran Farm
Longford Farm
Glynfelin Lodge
Glynfelin Farm
River Clydach
Brithdir Wood
Drymma Hall
Drymma Farm
Caravan Park
Gate Cottage
Brithdir Farm
Ellen's Road
Coed Derwen Farm
Quarry (dis)
Tips (dis)
Reservoir (covered)
Playing Field
School
Neath Abbey
Craig
Moors Town
Lonlas Village Workshops
Lonlas Business Park
Tennant Park
Rugby Football Ground
Football Ground
Skewen (Sciwen)
Memi Hall
The Park
Pentreffynnon
Health Centre
Pen-yr-Heol
Cefn Parc
Sluice
Coal Yard
Dynevor Junction
Swing-bridge
Wharf
Pipe Bridge
Depot
Factory
Newby House
Neath Abbey Business Park
Tennant Canal
River Neath (Afon Nedd)
Mean High Water
Mud
Drains
Dismantled Railway
Mineral Railway
Shaft
Tip (dis)
Mine (disused)
Works
Weir
Hall
Pav
Sch
Schs
Liby
Pol Sta
Sta
PO
PW
NTL
Collects
Issues
Sinks
Spr
Path
Track
Drain
Level (dis)
Level (d/s)
Shaft (dis)
Quarry (dis)
Tip (dis)
Ruin (dis)
Lodge
Meadow
Allotments
Bowling Terrace
Cwrt Y Carn
Caenant Terrace
Railway Terrace
Lucy Road
Drumau Road
Ormes Road
Dynevor Road
Old Road
New Road
Burrows Road
Burton Road
Parc Bras
Parc Y Pebi
Parc Y Bryn
Parc Y Llan
Parc Y Nant
Parc Y Coed
Parc Y Dderwen
Parc Y Delyn
Parc Y Deri
Parc Y Dre
Parc Y Felin
Parc Y Gors
Parc Y Grug
Parc Y Llyn
Parc Y Maes
Parc Y Nant
Parc Y Pebi
Parc Y Rhos
Parc Y Wern
Parc Y Ynys
Parc Y Ysgol
Parc Y Ty
Parc Y Ty Gwyn
Parc Y Ty Mawr
Parc Y Ty Newydd
Parc Y Ty Ucha
Parc Y Ty Uchaf
Parc Y Ty Ucha
Parc Y Ty Ucha
Parc Y Ty Ucha



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10k Raster Mapping

Published 2006

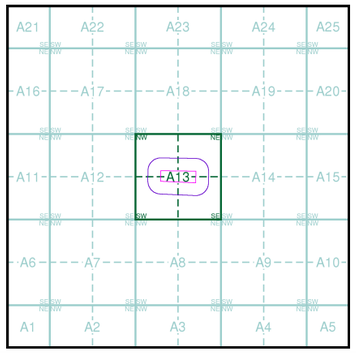
Source map scale - 1:10,000

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

Map Name(s) and Date(s)

SS79NW
2006
1:10,000

Historical Map - Slice A



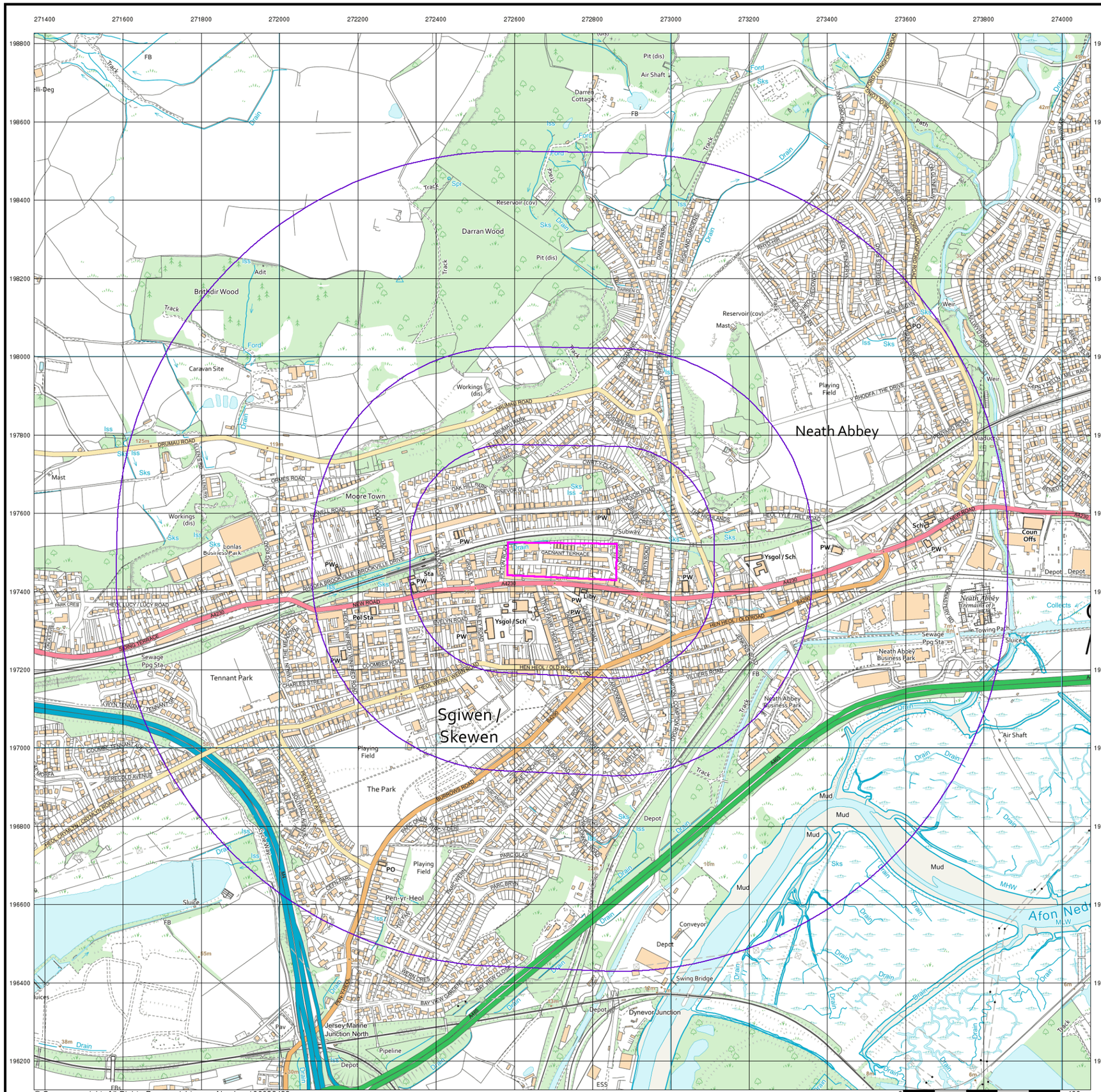
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Order Number:	222279469_1_1
Customer Ref:	5192784
National Grid Reference:	272720, 197480
Slice:	A
Site Area (Ha):	2.44
Search Buffer (m):	1000

Site Details

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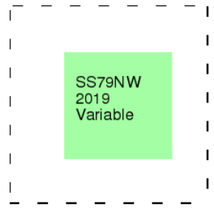
VectorMap Local

Published 2019

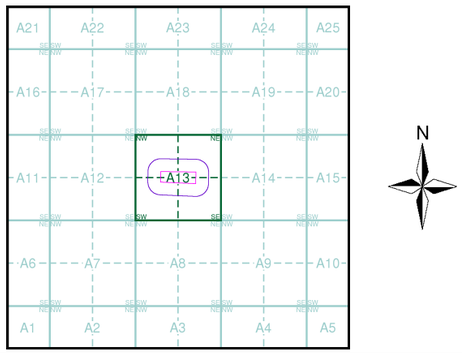
Source map scale - 1:10,000

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

Map Name(s) and Date(s)



Historical Map - Slice A



Order Details

Order Number:	222279469_1_1
Customer Ref:	5192784
National Grid Reference:	272720, 197480
Slice:	A
Site Area (Ha):	2.44
Search Buffer (m):	1000

Site Details

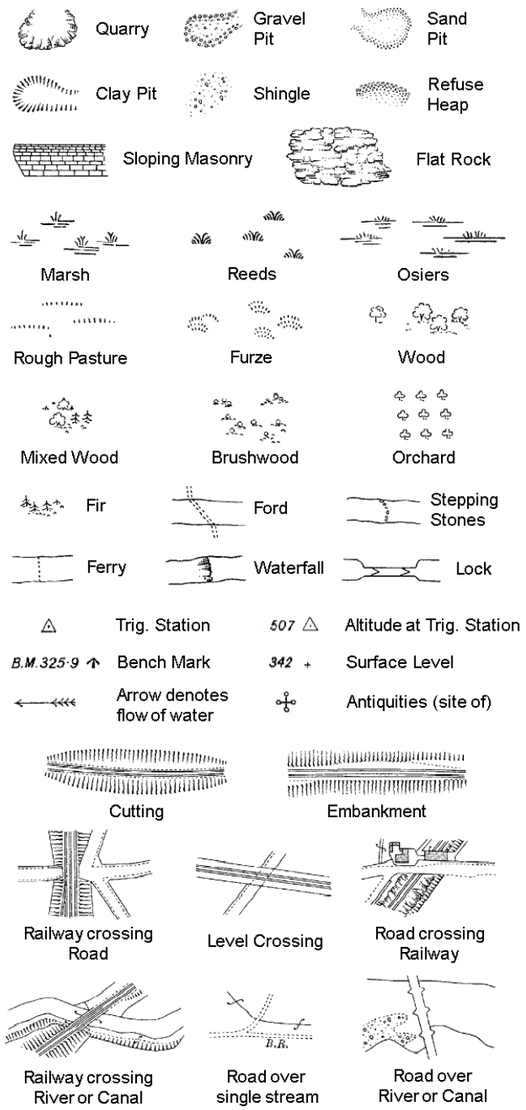
Site at 272710, 197500

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Historical Mapping Legends

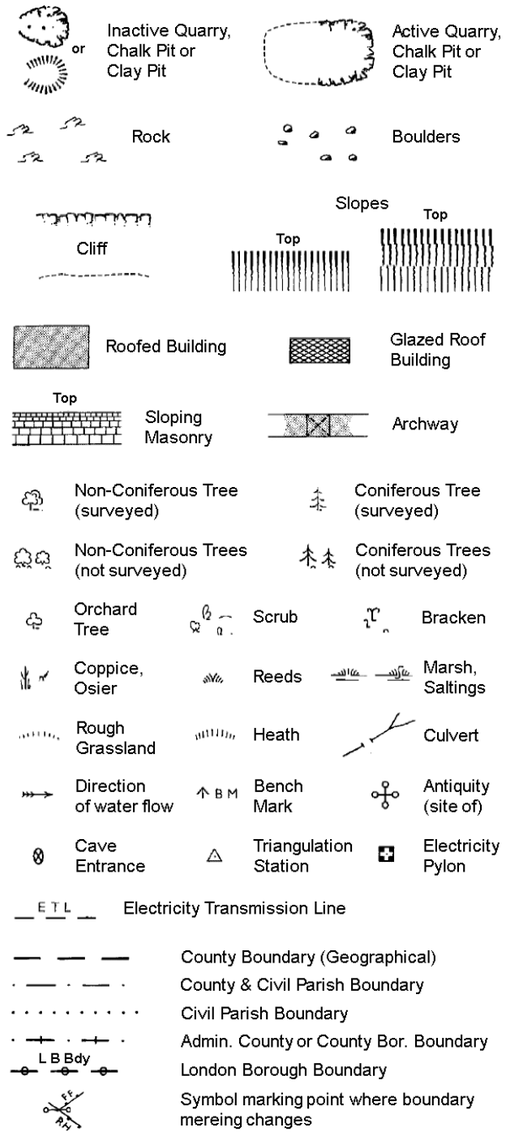
Ordnance Survey County Series and Ordnance Survey Plan 1:2,500



County Boundary (Geographical)
County & Civil Parish Boundary
Administrative County & Civil Parish Boundary
Co. Boro. Bdy.
County Borough Boundary (England)
Co. Burgh Bdy.
County Burgh Boundary (Scotland)

B P B S	Boundary Post or Stone	P.C.B	Police Call Box
B.R.	Bridle Road	P	Pump
E.P	Electricity Pylon	S.P	Signal Post
F.B.	Foot Bridge	St.	Sluice
F.P.	Foot Path	Sp.	Spring
G.P	Guide Post or Board	T.C.B	Telephone Call Box
M.S	Mile Stone	Tr.	Trough
M.P M.R	Mooring Post or Ring	W	Well

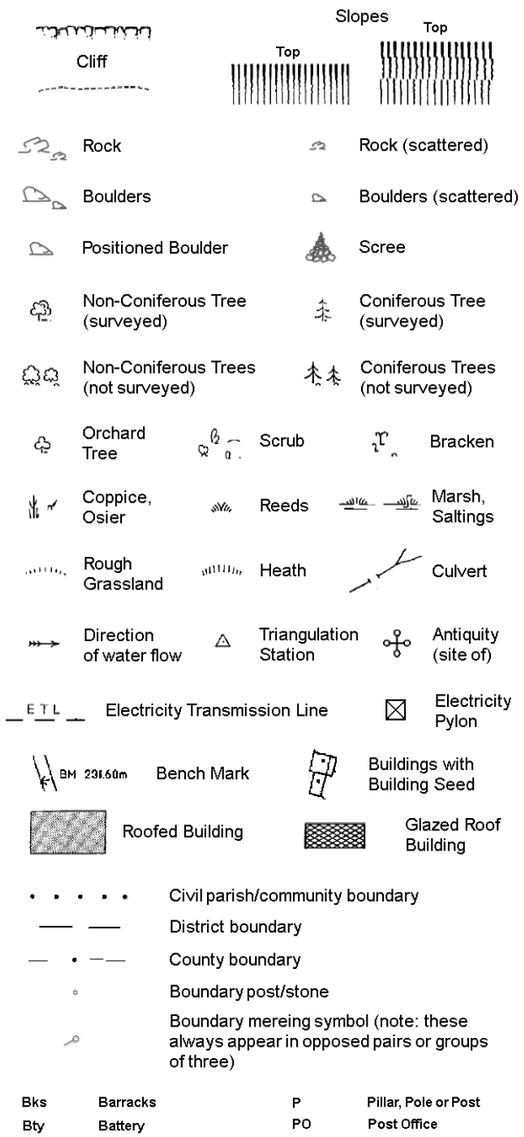
Ordnance Survey Plan, Additional SIMs and Supply of Unpublished Survey Information 1:2,500 and 1:1,250



County Boundary (Geographical)
County & Civil Parish Boundary
Civil Parish Boundary
Admin. County or County Bor. Boundary
L B Bdy
London Borough Boundary
Symbol marking point where boundary mereing changes

BH	Beer House	P	Pillar, Pole or Post
BP, BS	Boundary Post or Stone	PO	Post Office
Cn, C	Capstan, Crane	PC	Public Convenience
Chy	Chimney	PH	Public House
D Fn	Drinking Fountain	Pp	Pump
El P	Electricity Pillar or Post	SB, S Br	Signal Box or Bridge
FAP	Fire Alarm Pillar	SP, SL	Signal Post or Light
FB	Foot Bridge	Spr	Spring
GP	Guide Post	Tk	Tank or Track
H	Hydrant or Hydraulic	TCB	Telephone Call Box
LC	Level Crossing	TCP	Telephone Call Post
MH	Manhole	Tr	Trough
MP	Mile Post or Mooring Post	Wr Pt, Wr T	Water Point, Water Tap
MS	Mile Stone	W	Well
NTL	Normal Tidal Limit	Wd Pp	Wind Pump

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



Civil parish/community boundary
District boundary
County boundary
Boundary post/stone
Boundary mereing symbol (note: these always appear in opposed pairs or groups of three)

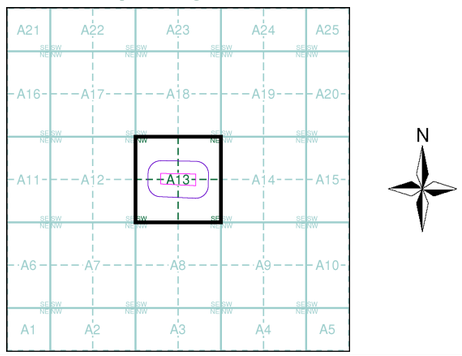
Bks	Barracks	P	Pillar, Pole or Post
Bty	Battery	PO	Post Office
Cemy	Cemetery	PC	Public Convenience
Chy	Chimney	Pp	Pump
Cis	Cistern	Ppg Sta	Pumping Station
Dismtd Rly	Dismantled Railway	PW	Place of Worship
El Gen Sta	Electricity Generating Station	Sewage Ppg Sta	Sewage Pumping Station
El P	Electricity Pole, Pillar	SB, S Br	Signal Box or Bridge
El Sub Sta	Electricity Sub Station	SP, SL	Signal Post or Light
FB	Filter Bed	Spr	Spring
Fn / D Fn	Fountain / Drinking Ftn.	Tk	Tank or Track
Gas Gov	Gas Valve Compound	Tr	Trough
GVC	Gas Governer	Wd Pp	Wind Pump
GP	Guide Post	Wr Pt, Wr T	Water Point, Water Tap
MH	Manhole	Wks	Works (building or area)
MP, MS	Mile Post or Mile Stone	W	Well

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Historical Mapping & Photography included:

Mapping Type	Scale	Date	Pg
Glamorganshire	1:2,500	1876 - 1881	2
Glamorganshire	1:2,500	1899	3
Glamorganshire	1:2,500	1918	4
Glamorganshire	1:2,500	1940	5
Ordnance Survey Plan	1:1,250	1951 - 1952	6
Ordnance Survey Plan	1:2,500	1952	7
Ordnance Survey Plan	1:1,250	1962 - 1970	8
Additional SIMs	1:1,250	1962 - 1989	9
Ordnance Survey Plan	1:2,500	1964	10
Ordnance Survey Plan	1:1,250	1970 - 1974	11
Additional SIMs	1:1,250	1986 - 1989	12
Additional SIMs	1:1,250	1989	13
Large-Scale National Grid Data	1:1,250	1993	14
Large-Scale National Grid Data	1:1,250	1994 - 1995	15
Large-Scale National Grid Data	1:1,250	1996	16
Historical Aerial Photography	1:2,500	2000	17

Historical Map - Segment A13



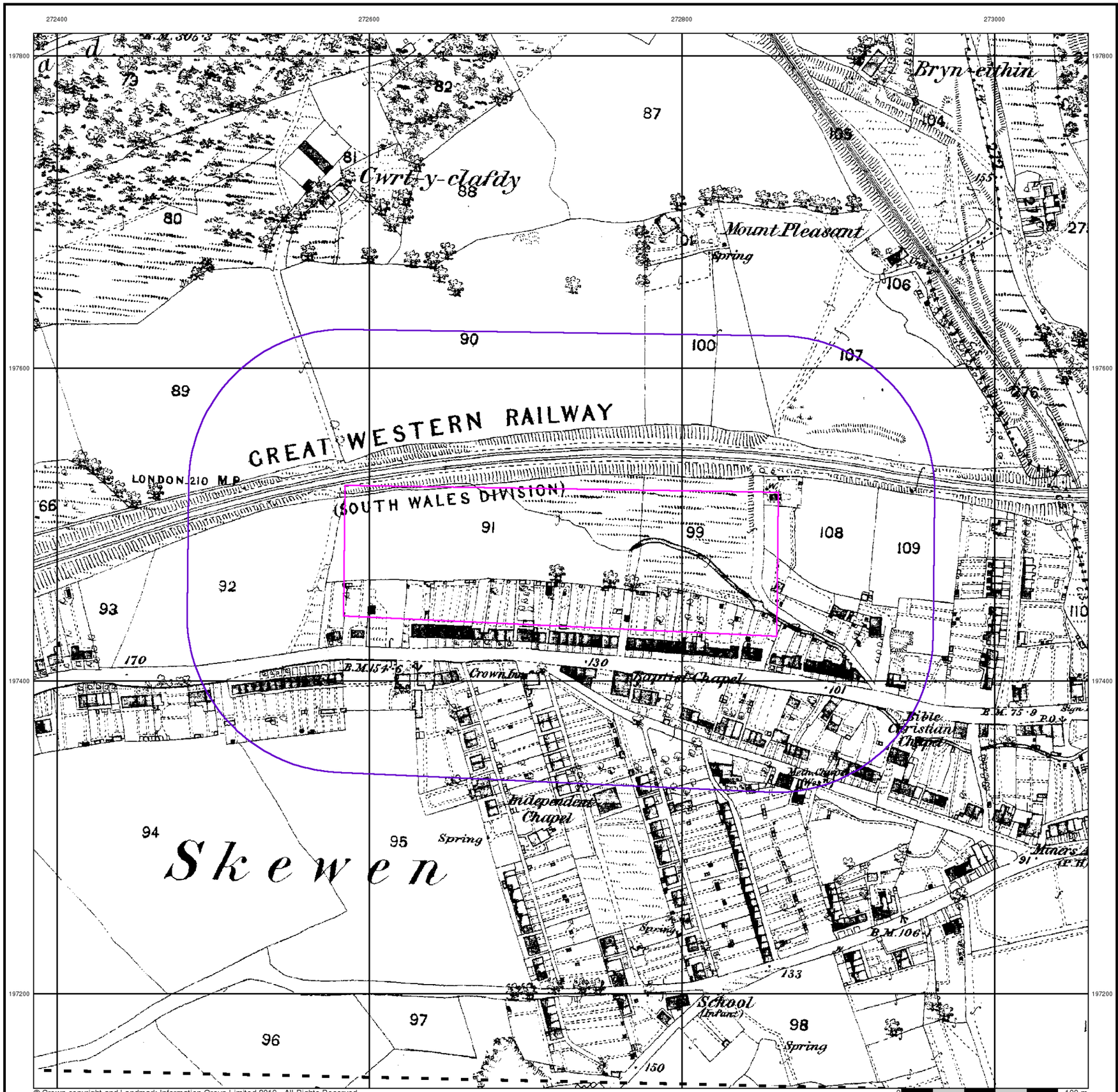
Order Details

Order Number:	222279469_1_1
Customer Ref:	5192784
National Grid Reference:	272720, 197480
Slice:	A
Site Area (Ha):	2.44
Search Buffer (m):	100

Site Details

Site at 272710, 197500

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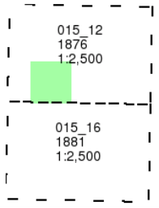
Glamorganshire

Published 1876 - 1881

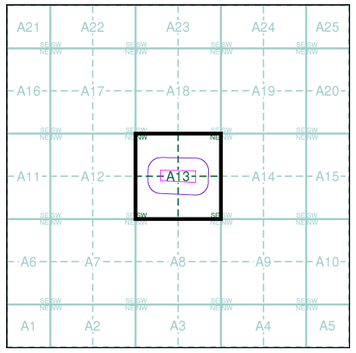
Source map scale - 1:2,500

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

Map Name(s) and Date(s)



Historical Map - Segment A13



Order Details

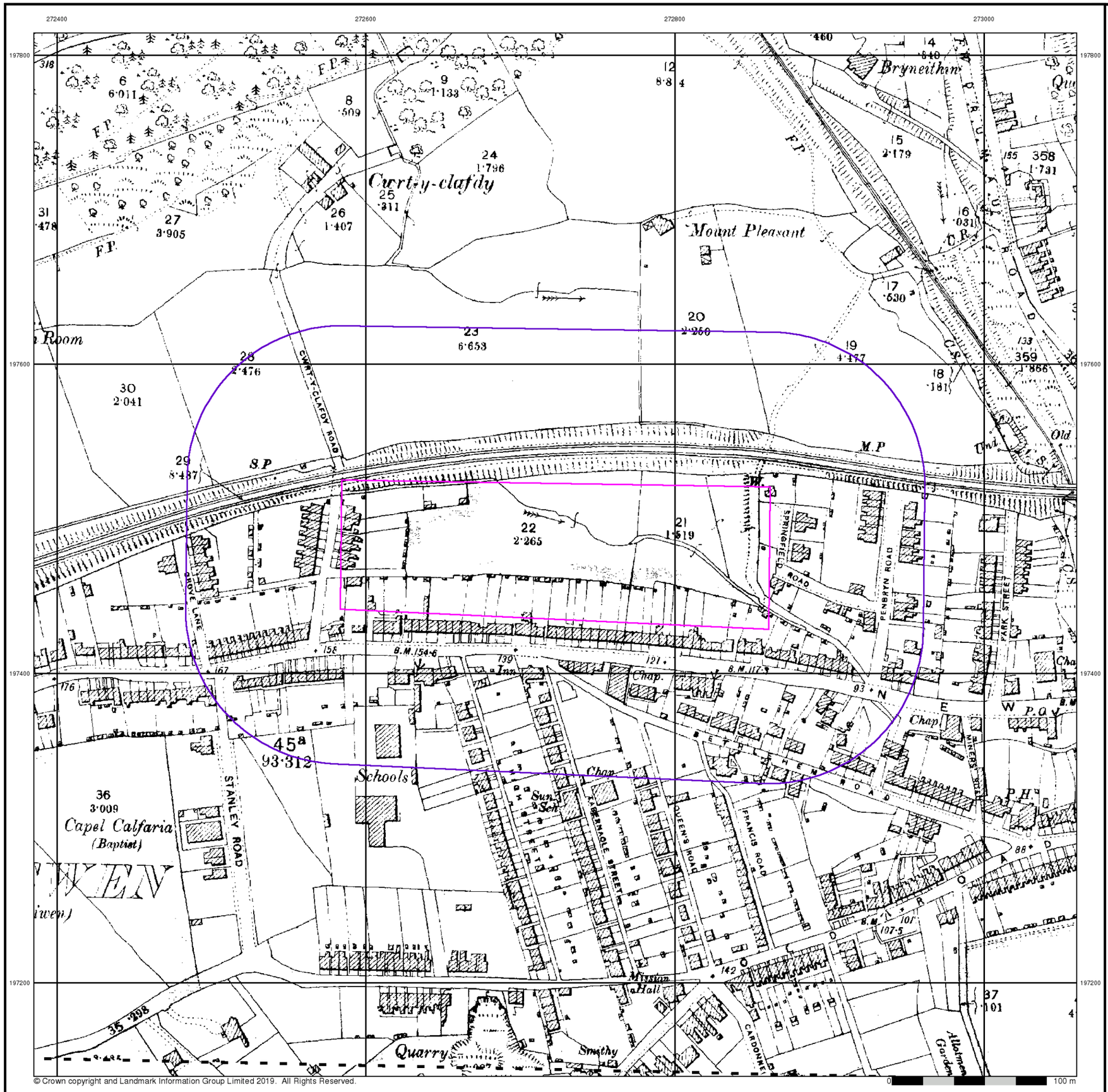
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Slice:	A
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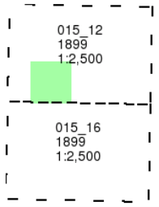
Glamorganshire

Published 1899

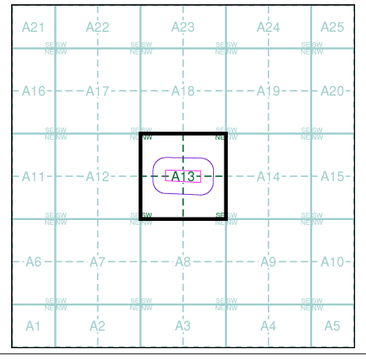
Source map scale - 1:2,500

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

Map Name(s) and Date(s)



Historical Map - Segment A13



Order Details

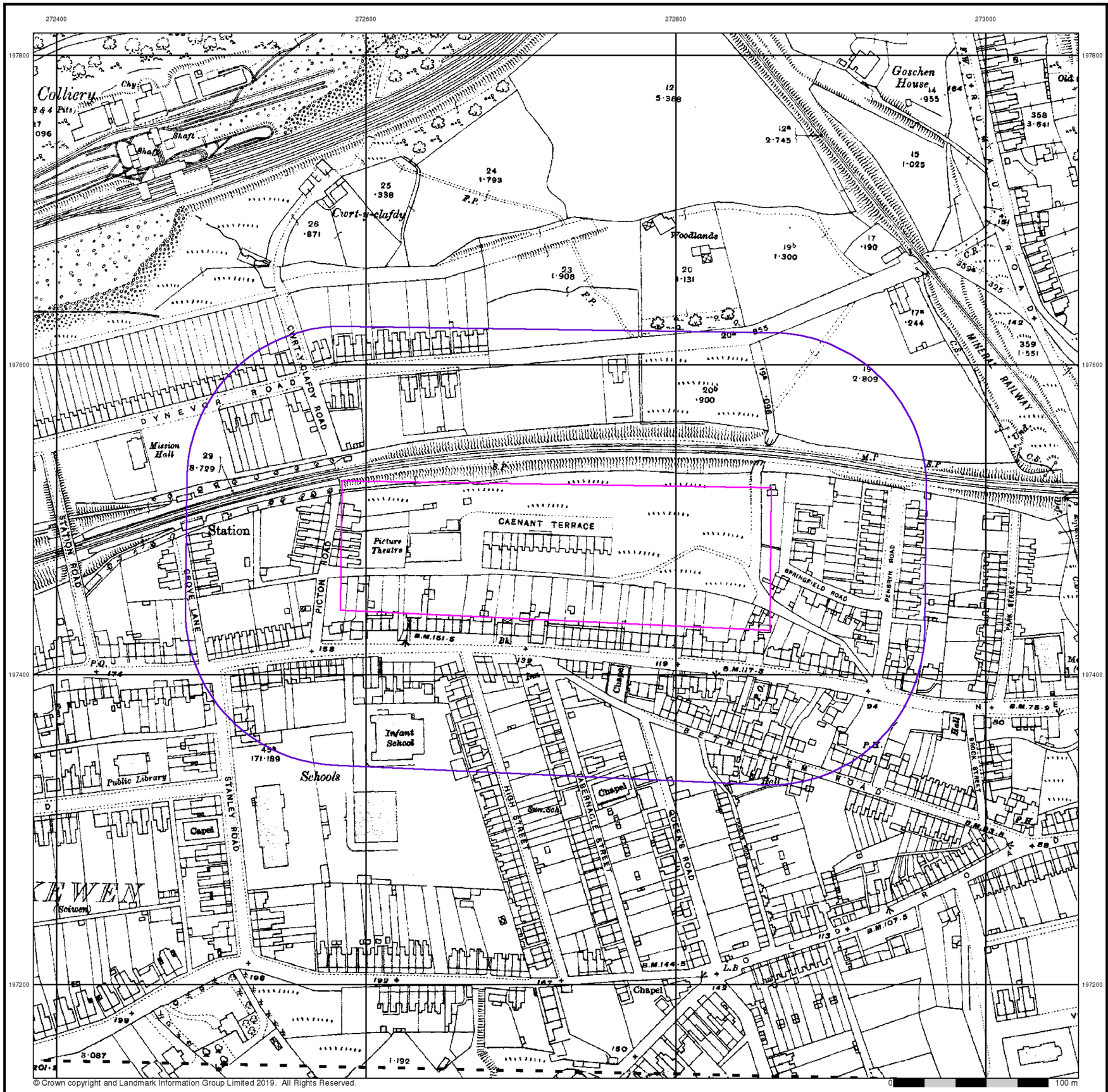
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Customer Ref:	5192784
National Grid Reference:	272720, 197480
Slice:	A
Site Area (Ha):	2.44
Search Buffer (m):	100

Site Details

Site at 272710, 197500

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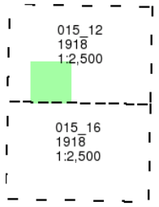
Glamorganshire

Published 1918

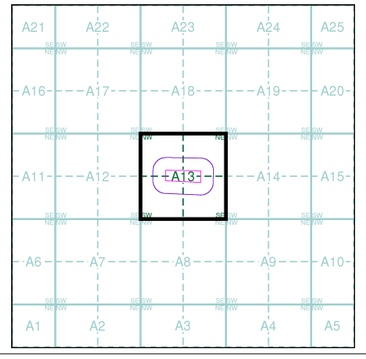
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Map Name(s) and Date(s)



Historical Map - Segment A13



Order Details

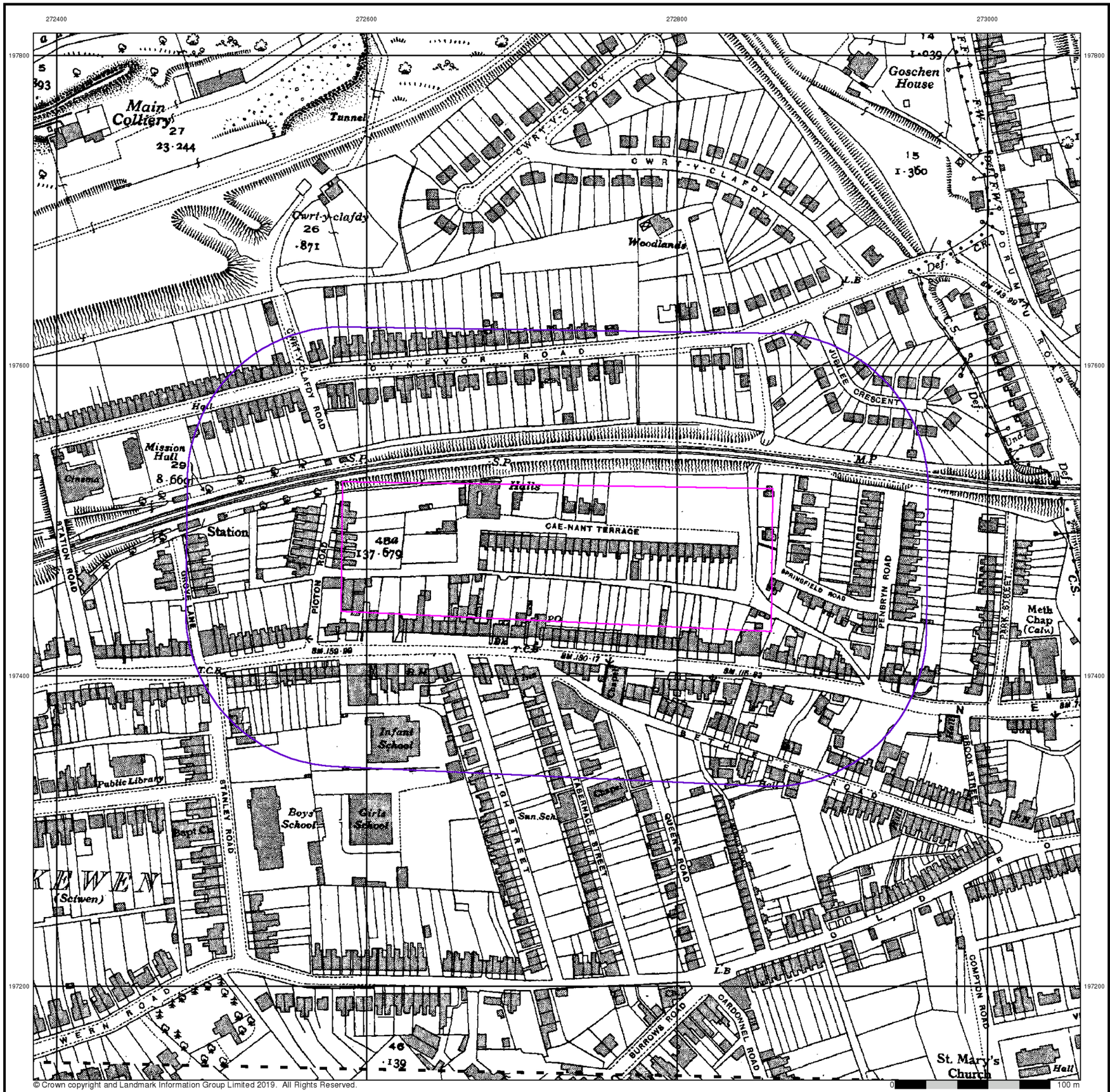
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Site Details

Site at 272710, 197500

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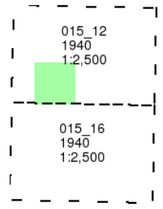
Glamorganshire

Published 1940

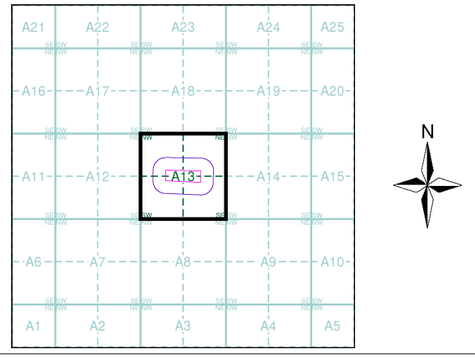
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Map Name(s) and Date(s)



Historical Map - Segment A13



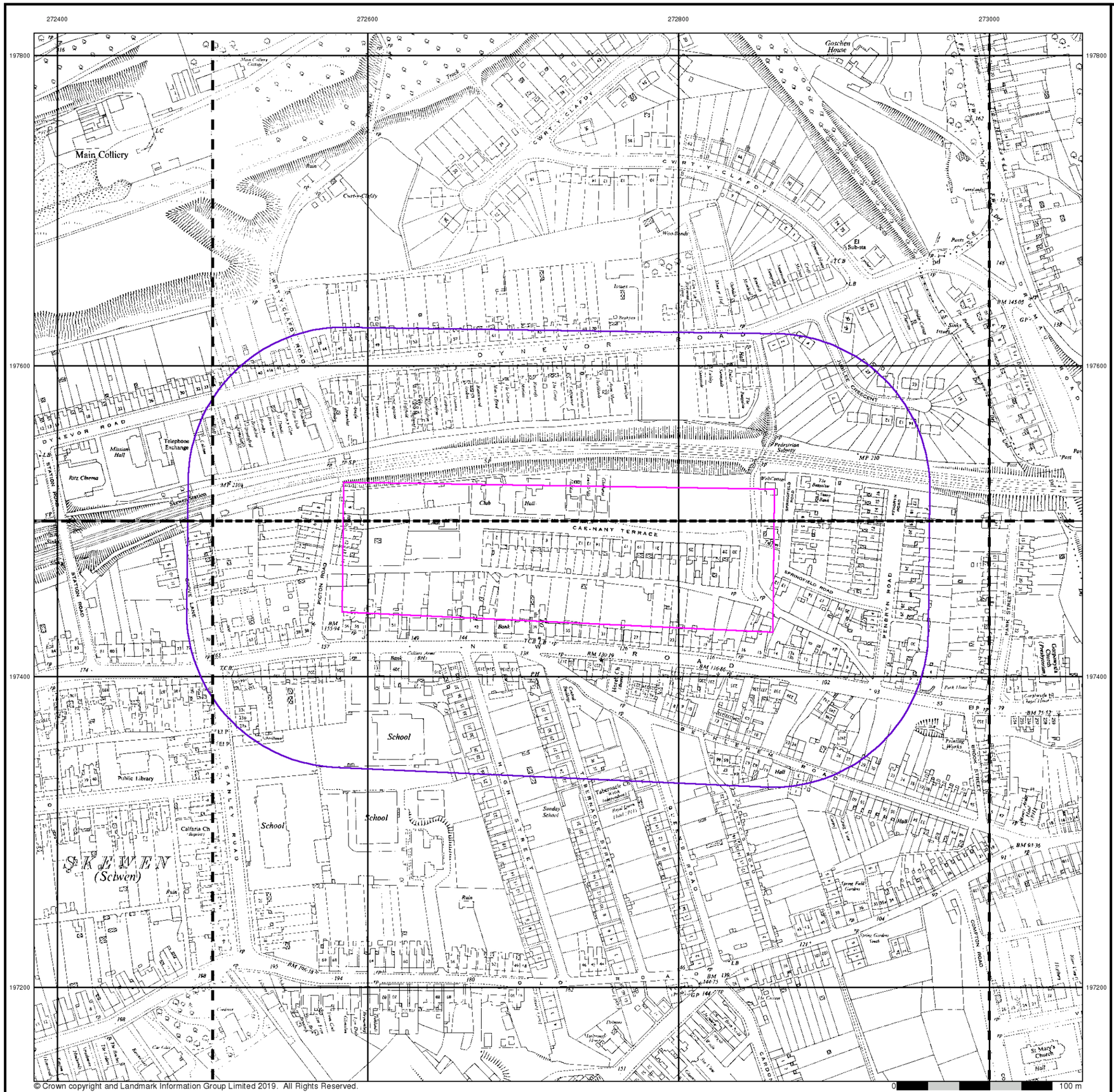
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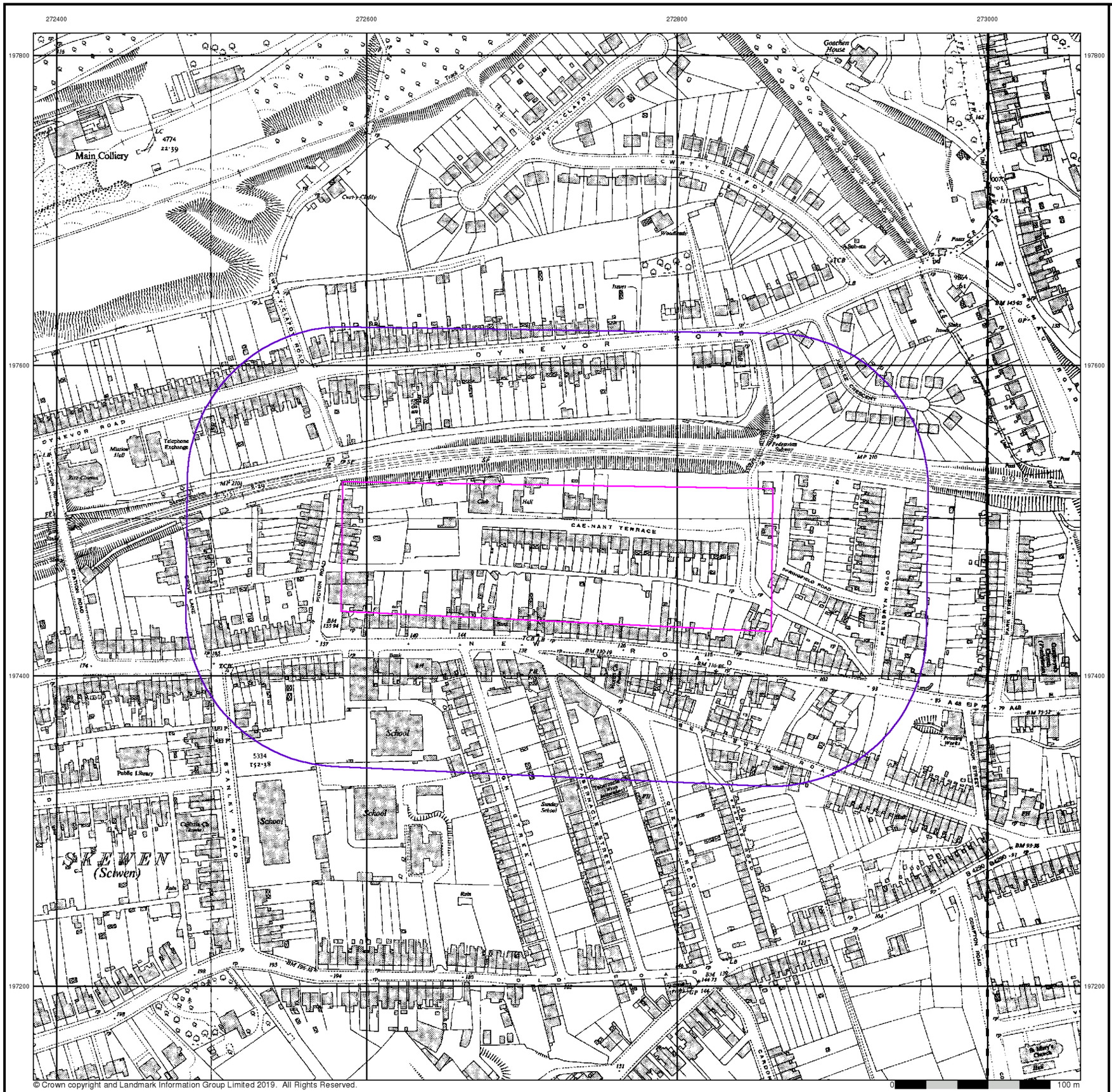
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Site Details

Site at 272710, 197500

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272400
272600
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197800
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197400
197200
Main Colliery
Mon Colliery Canteen
Ruin
Curtain Cladfy
CWRT-Y-CLADDY
Goschen House
Track
Weir
Weir Bonds
El Sub-sta
TCB
LB
Pumps
Pond
Issues
Reservoir
BM 145.05
GP
Sluice
Sluice Tower
Sluice Chamber
Sluice Gear
Sluice Gear Chamber
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Sluice Gear Cabin
Sluice Gear Cabin



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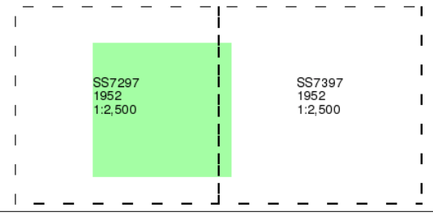
Ordnance Survey Plan

Published 1952

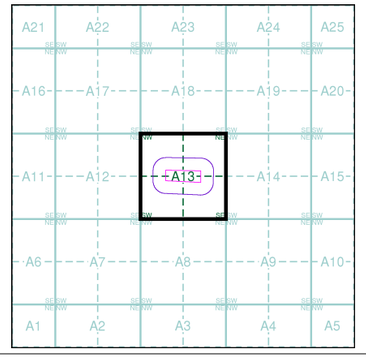
Source map scale - 1:2,500

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Map Name(s) and Date(s)



Historical Map - Segment A13



Order Details

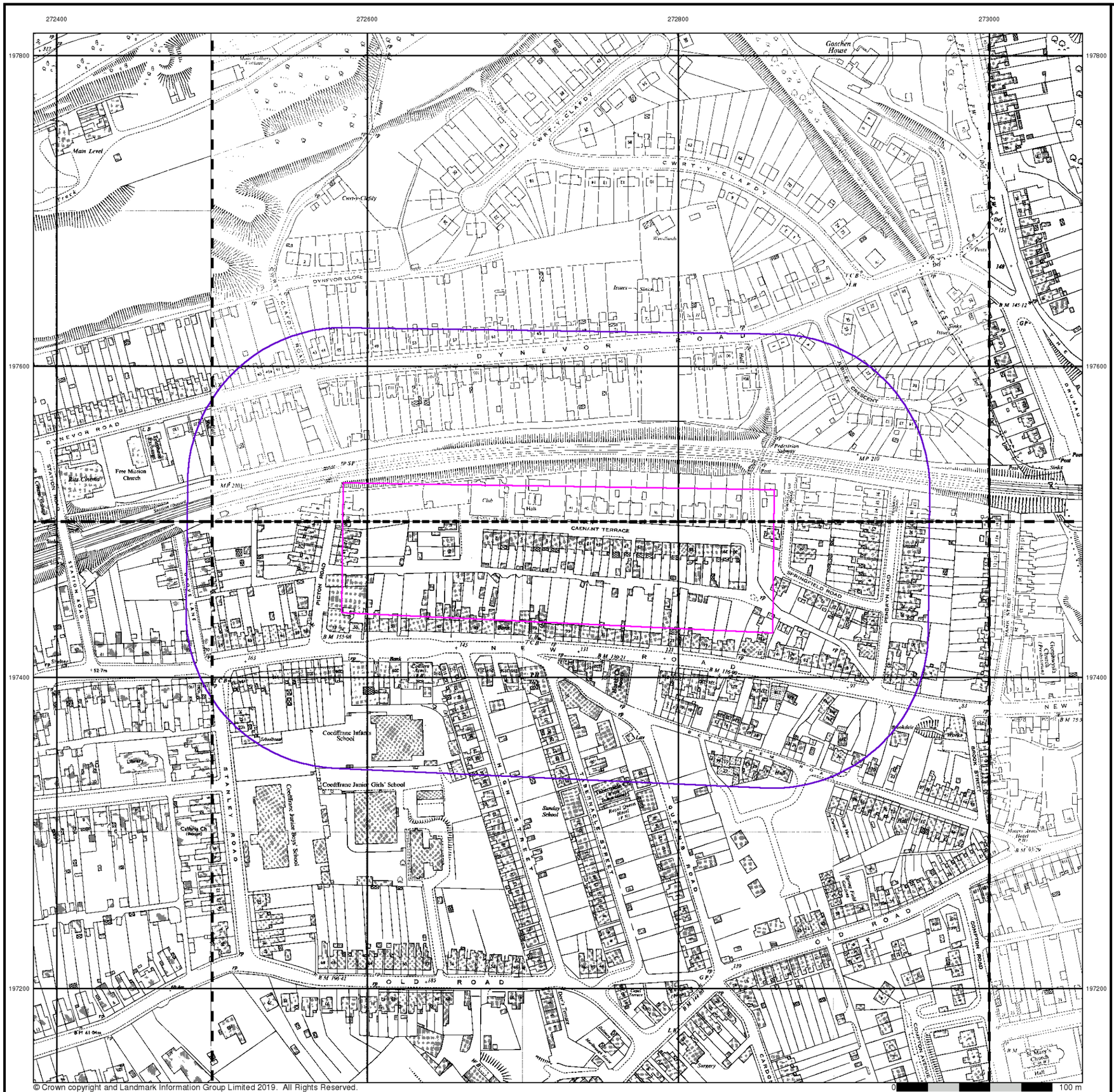
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Search Buffer (m):	100

Site Details

Site at 272710, 197500

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Ordnance Survey Plan

Published 1962 - 1970

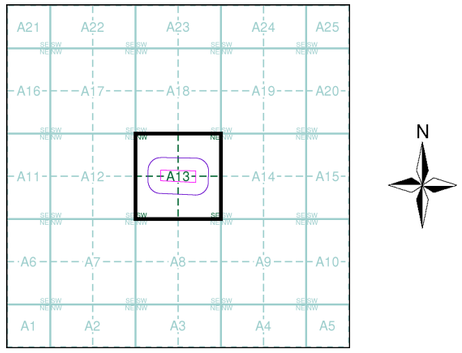
Source map scale - 1:1,250

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)

SS7297NW 1968 1:1,250	SS7297NE 1963 1:1,250	SS7397NW 1962 1:1,250
SS7297SW 1970 1:1,250	SS7297SE 1963 1:1,250	SS7397SW 1964 1:1,250

Historical Map - Segment A13



Order Details

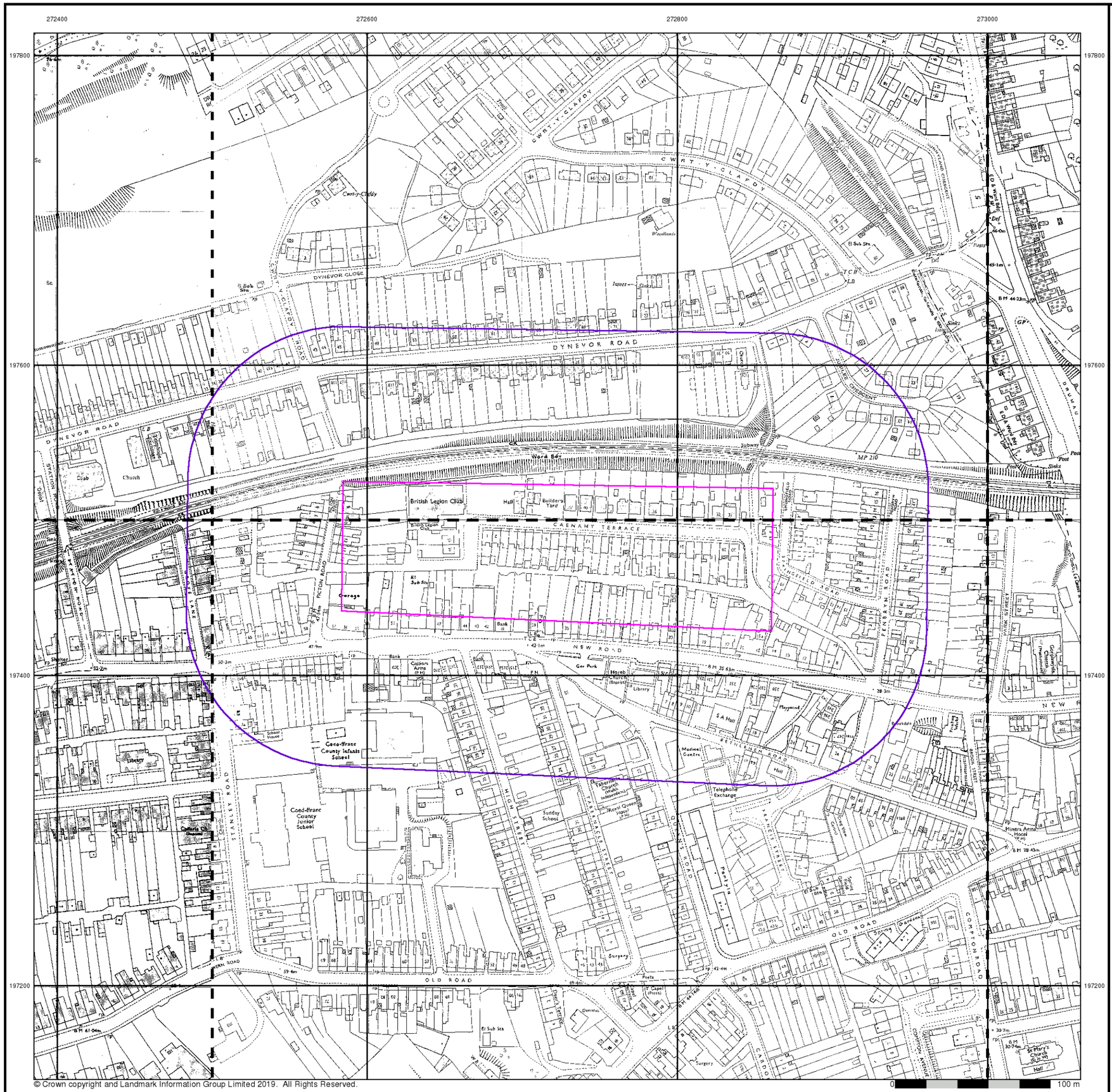
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Site Details

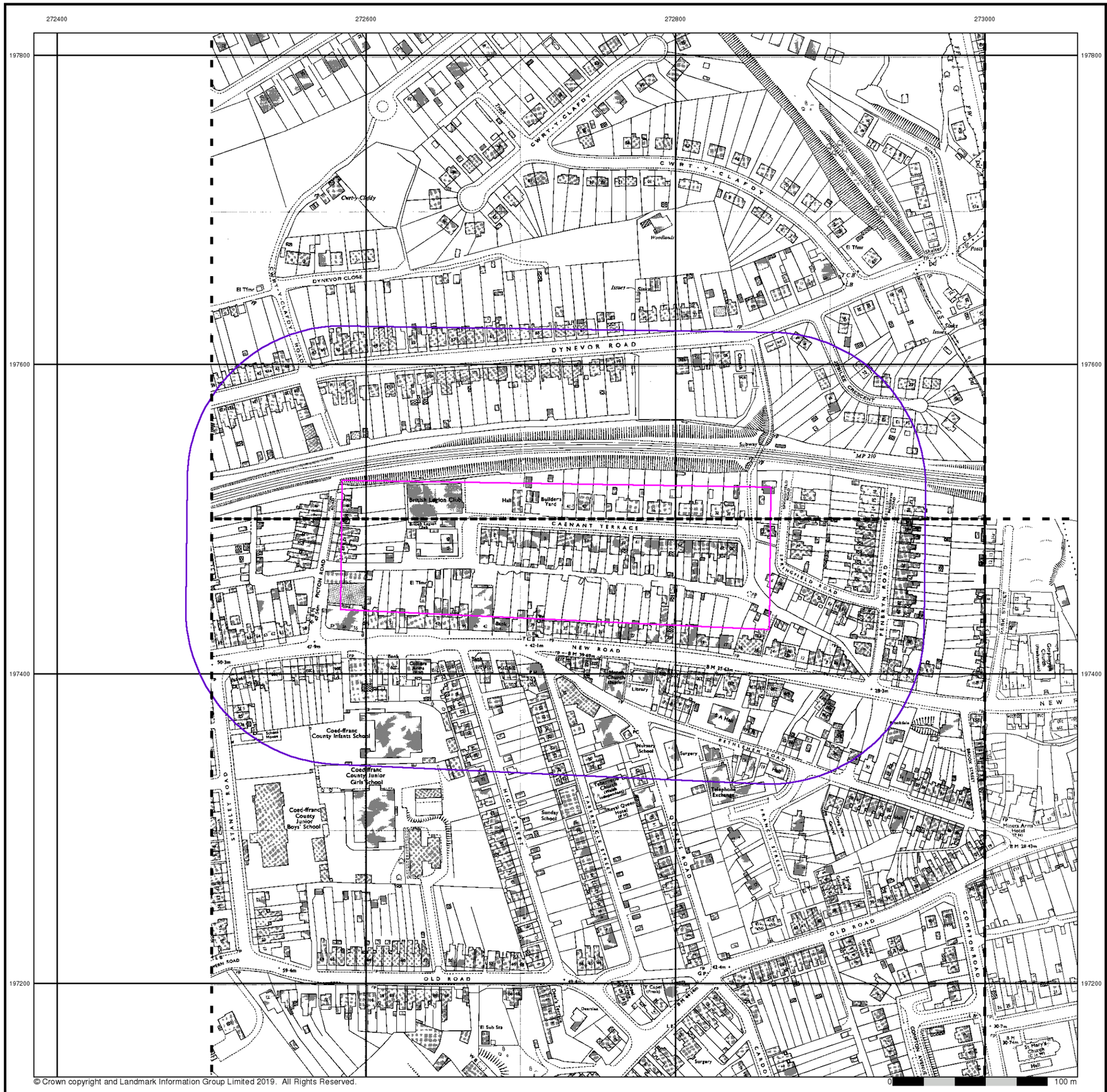
Site at 272710, 197500

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197800
197600
197400
197200
DYNEVOR ROAD
DYNEVOR CLOSE
CWRT-Y-CLAFDY
CWRT-Y-CLAFDY ROAD
CAENANT TERRACE
NEW ROAD
OLD ROAD
STANLEY ROAD
HIGH STREET
PICTON ROAD
BRUNEL CRESCENT
British Legion Club
Coed-ffranc County Infants School
Coed-ffranc County Junior School
Telephone Exchange
Subway
Bank
Library
Surgery
Sunday School
Caers Arms (PH)
Tabernacle Church (Independent)
Road Queens Head (PH)
Builders Yard
Garage
Club
Church
Hall
Shelter
Post
Sinks
Trough
Def
Pond
Cwrt-y-Clafdy
Woodlands
Caenant
Pentyla
Madrasa Centre
Playground
Tennis Courts
Bowling Green
Cricket Pitch
Allotments
Sports Ground
Cemetery
Chapel (Presb)
St Mary's Church (Ch in Ru)
Chapel (Unitarian)
Chapel (Methodist)
Chapel (Baptist)
Chapel (Presb)
Chapel (Ind)
Chapel (Ch in W)
Chapel (Ch in Ru)
Chapel (Ch in W)
Chapel (Ch in Ru)
Chapel (Ch in W)
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197600
197400
197200
DYNEVOR ROAD
CWRT-Y-CLAPDY
DYNEVOR CLOSE
CLAPDY ROAD
STATION ROAD
Telephone Exchange
Mission Hall
Blitz Cinema
Club
Hall
CAENARFI TERRACE
PICTON ROAD
Goschen House
Mount Cilfrew Cottage
Mine 4774
24·16
Cwrt-y-Clapdy
Woodlands
Issues
Sinks
Pedestrian Subway
POLICE CRESCENT
SPRINGFIELD ROAD
PARK STREET
Bank
Cilfrew Arms (L.B.)
Caerfarchell Works
Coedffranc Infants School
Coedffranc Junior Girls' School
Coedffranc Junior Boys' School
Public Library
Sunday School
Tabernacle Chapel (Welsh Independent)
Baptistry
Caldaria Ch
Ruins
Cwm Celyn
Cwm Celyn Farm
Cwm Celyn Cottage
Cwm Celyn Terrace
Cwm Celyn Chapel
Cwm Celyn Cemetery
Cwm Celyn Chapel
Cwm Celyn Cemetery
Cwm Celyn Chapel
Cwm Celyn Cemetery



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Ordnance Survey Plan

Published 1970 - 1974

Source map scale - 1:1,250

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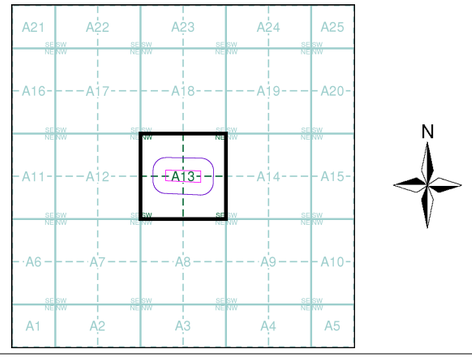
Map Name(s) and Date(s)

SS7297NE
1970
1:1,250

SS7297SE
1974
1:1,250

SS7397SW
1971
1:1,250

Historical Map - Segment A13



Order Details

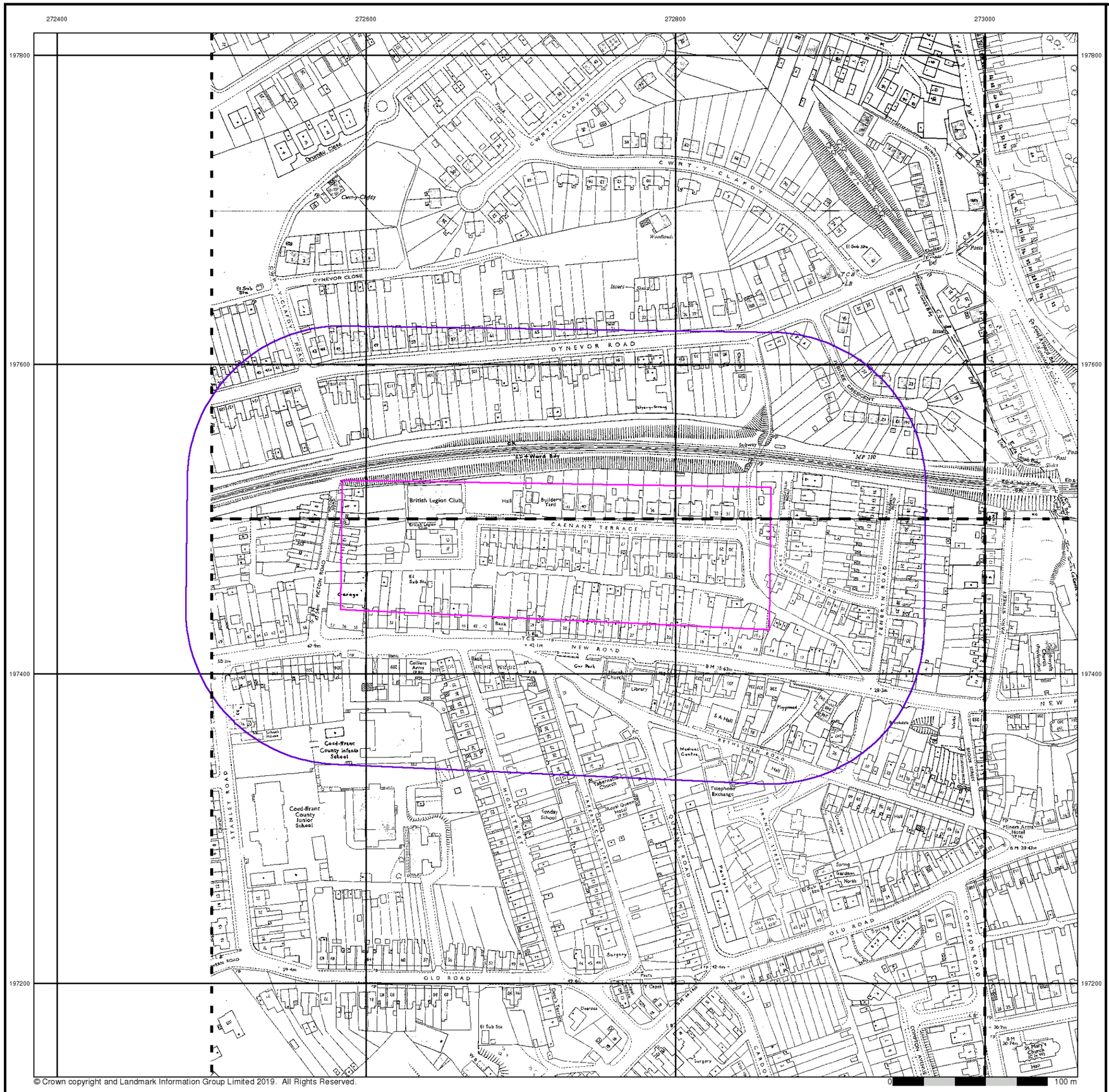
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Customer Ref:	5192784
National Grid Reference:	272720, 197480
Slice:	A
Site Area (Ha):	2.44
Search Buffer (m):	100

Site Details

Site at 272710, 197500

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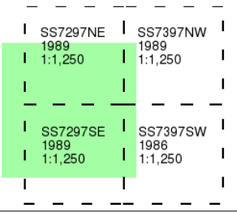
Additional SIMs

Published 1986 - 1989

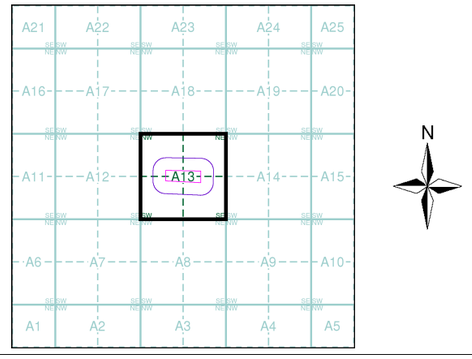
Source map scale - 1:1,250

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

Map Name(s) and Date(s)



Historical Map - Segment A13



Order Details

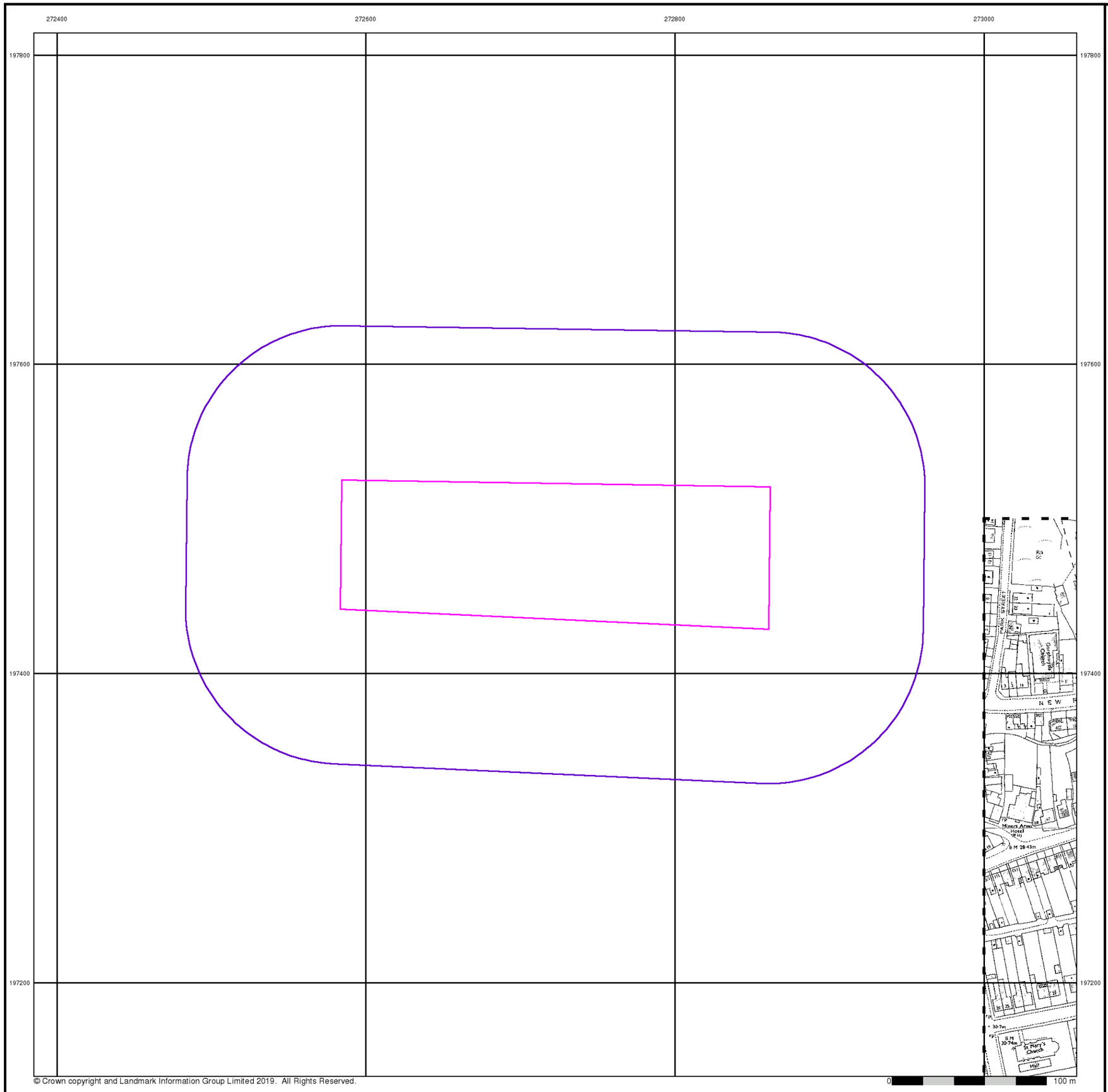
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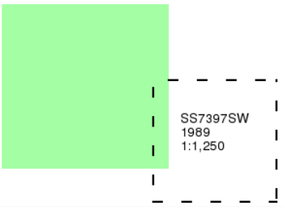
Additional SIMs

Published 1989

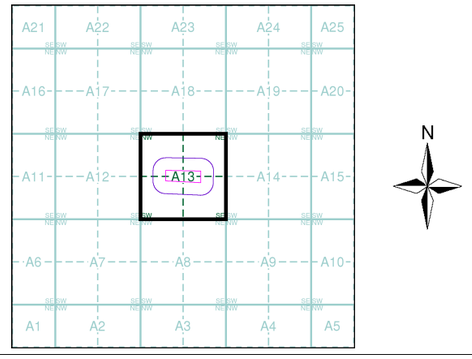
Source map scale - 1:1,250

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Map Name(s) and Date(s)



Historical Map - Segment A13



Order Details

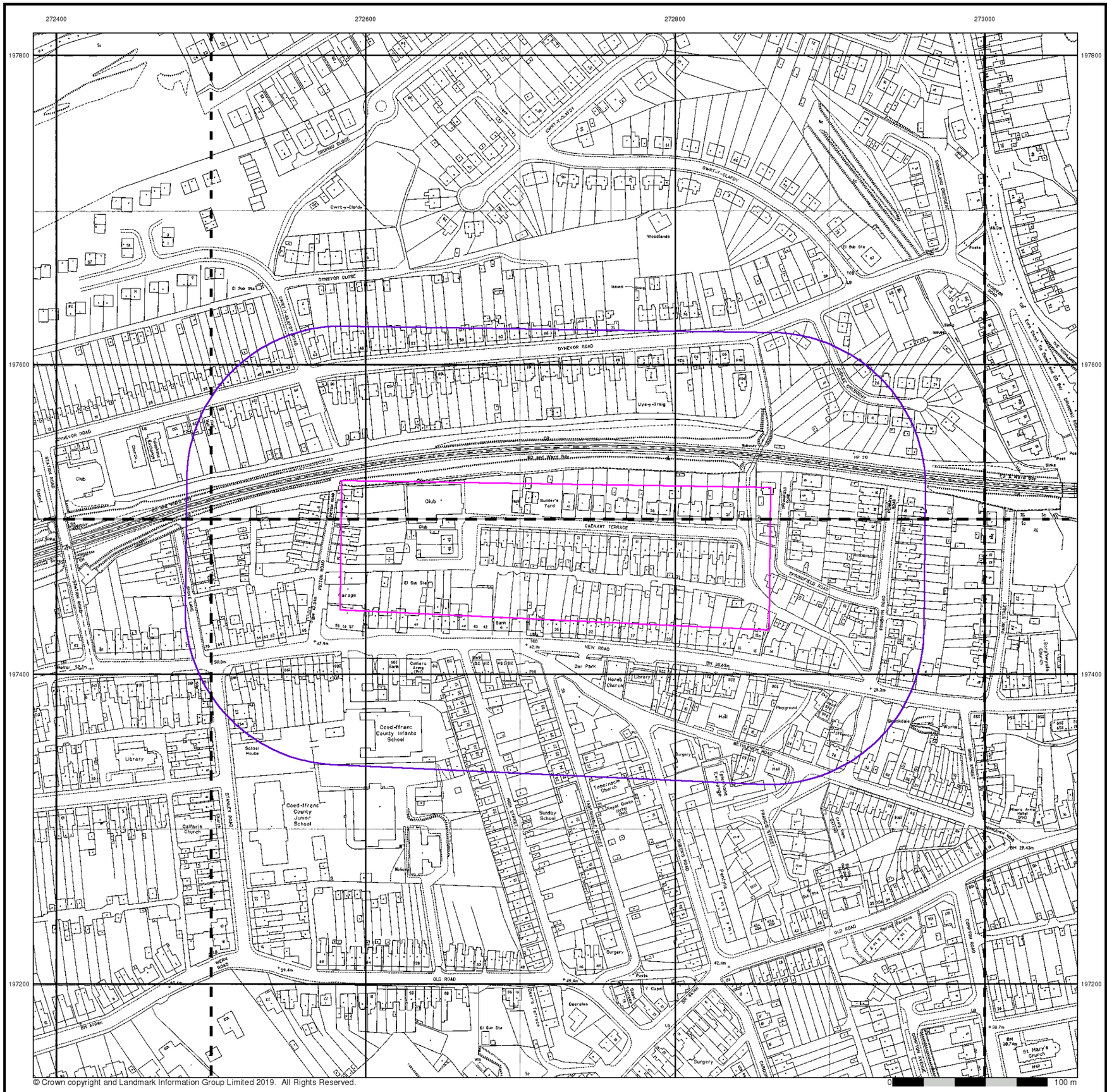
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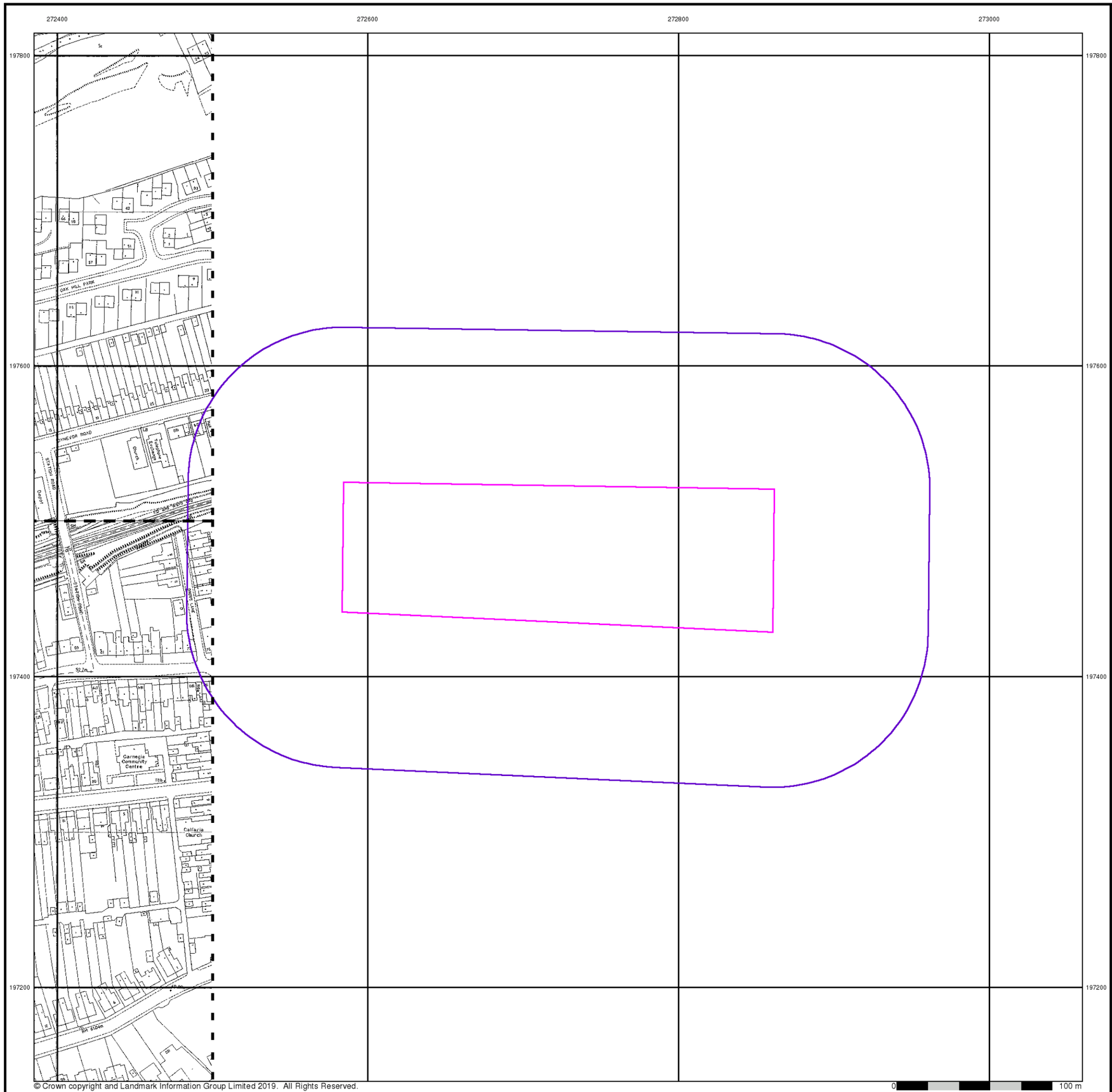
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Site at 272710, 197500

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272400
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197400
197200
DYNEVOR CLOSE
DYNEVOR ROAD
Gwrt-y-Glafdy
Woodlands
Llys-y-Graig
Club
Builder's Yard
GLEANT TERRACE
NEW ROAD
Coed-ffranc County Infants School
Coed-ffranc County Junior School
Library
Calfaria Church
Horeb Church
Tabernacle Church
Sunday School
Surgery
Hall
Playground
Bethesda Chapel
Working Men's Institute
Rhos Queen Hotel (PH)
Miners Arms Hotel (PH)
Pentyrch
Penlan
Y Capel
Georgian
Garage
School House
OLD ROAD
BETHESDA ROAD
STANLEY ROAD
WERN ROAD
PICTON ROAD
FRANCIS STREET
CHURCH STREET
CWMTON ROAD
SPRINGFIELD ROAD
ST MARY'S CHURCH
El Sub Sta
Bench Mk
Pond
Pump
Sch
Pres
Ch
Cemetery
Allotments
Bowling Green
Tennis Courts
Bus Station
Telephone Exchange
Public Conveniences
Refuse Tip
Sewage Works
Sewage Pumping Station
Cattle Grid
Tank
Tce
Ho
Ind Est
Ret Pk
Sta
Pol Sta
Fd
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Tennis Crts
Bus Sta
Tel Box
Tel Pole
Tel Mast
Tel Kiosk
Post
Pillar Box
Water Tank
Water Trough
Fuel Tank
Fuel Pump
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Well
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Milestone
Milepost
Cattle Grid
Sluice
Lock
Weir
Pier
Slipway
Boat Yard
Dock
Dry Dock
Graving Dock
Shipbuilding Yard
Boat Repair Yard
Boat Hoist
Boat Lift
Boat Ramp
Boat Slip
Boat Shed
Boat House
Boat Store
Boat Club
Boat Club House
Boat Club Boat House
Boat Club Boat Store
Boat Club Boat Shed
Boat Club Boat Ramp
Boat Club Boat Slip
Boat Club Boat Lift
Boat Club Boat Hoist
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Boat Club Dock
Boat Club Dry Dock
Boat Club Graving Dock
Boat Club Shipbuilding Yard



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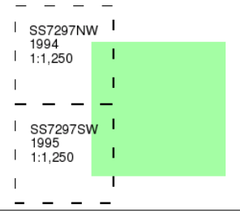
Large-Scale National Grid Data

Published 1994 - 1995

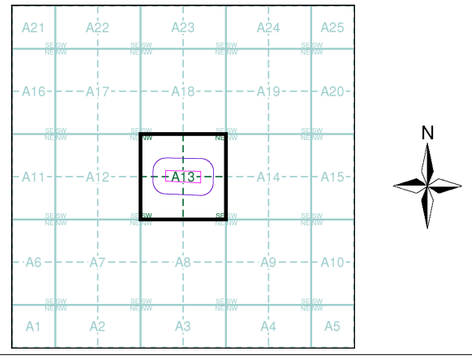
Source map scale - 1:1,250

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

Map Name(s) and Date(s)



Historical Map - Segment A13



Order Details

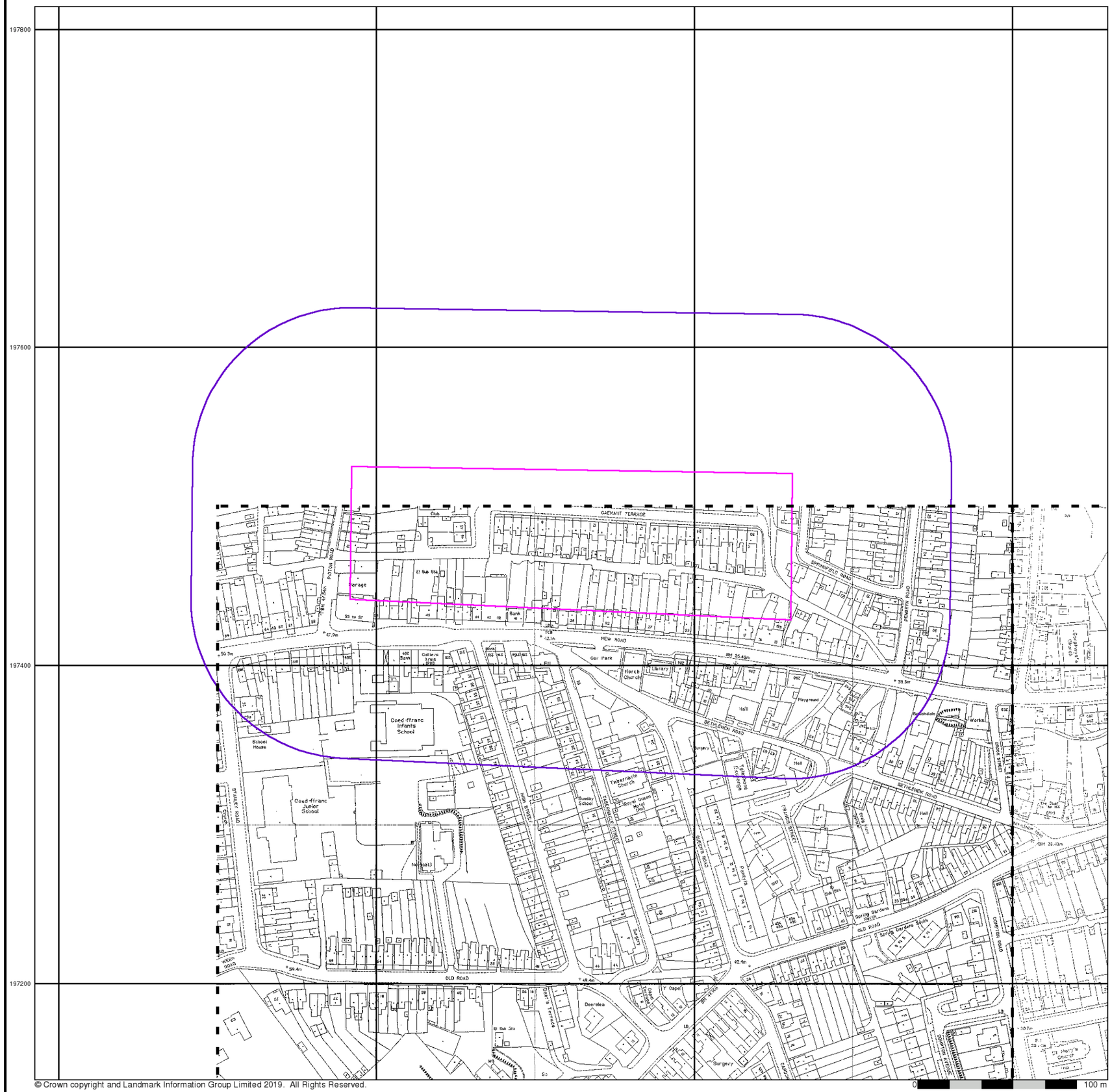
Order Number:	222279469_1_1
Customer Ref:	5192784
National Grid Reference:	272720, 197480
Slice:	A
Site Area (Ha):	2.44
Search Buffer (m):	100

Site Details

Site at 272710, 197500

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



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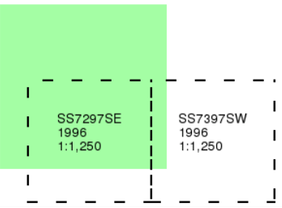
Large-Scale National Grid Data

Published 1996

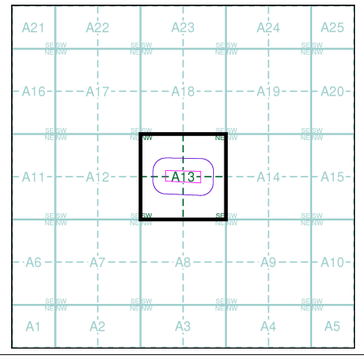
Source map scale - 1:1,250

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

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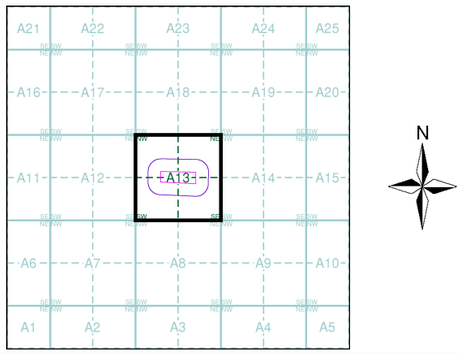
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Historical Aerial Photography

Published 2000

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

Historical Aerial Photography - Segment A13



Order Details

Order Number:	222279469_1_1
Customer Ref:	5192784
National Grid Reference:	272720, 197480
Slice:	A
Site Area (Ha):	2.44
Search Buffer (m):	100

Site Details

Site at 272710, 197500

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

Pre-Desk Study Assessment

Site:	Caenant Terrace, Skewen, Neath, Wales
Client:	Atkins Global
Contact:	Ed Lupton
Date:	23rd October 2019
Pre-WWI Military Activity on or Affecting the Site	None identified.
WWI Military Activity on or Affecting the Site	None identified.
WWI Strategic Targets (within 5km of Site)	The following strategic targets were located in the vicinity of the Site: ■ Docks, wharves, and port facilities. ■ Industries important to the war effort, including metal works. ■ Transport infrastructure and public utilities.
WWI Bombing	None identified on the Site.
Interwar Military Activity on or Affecting the Site	None identified.
WWII Military Activity on or Affecting the Site	None identified.
WWII Strategic Targets (within 5km of Site)	The following strategic targets were located in the vicinity of the Site: ■ Docks, wharves, and port facilities. ■ Industries important to the war effort, including munitions, chemical, and metal works. ■ Military camps, depots, and training areas. ■ Transport infrastructure and public utilities. ■ Anti-Aircraft (AA) and anti-invasion defences.
WWII Bombing Decoys (within 5km of Site)	2No. The closest was located approximately 2.8km north-northwest of the Site.
WWII Bombing	During WWII the Site was located in the Rural District (RD) of Neath, which officially recorded 205No. High Explosive (HE) bombs with a bombing density of 3.9 bombs per 405 hectares (ha). Readily available records indicate that several HE bombs fell in close proximity to the Site.
Post-WWII Military Activity on or Affecting the Site	None identified.
Recommendation	It is recommended that a detailed desk study is commissioned to assess, and potentially zone, the Unexploded Ordnance (UXO) hazard level on the Site.

This summary is based on a cursory review of readily available records. Caution is advised if you plan to action work based on this summary.

It should be noted that where a potentially significant source of UXO hazard has been identified on the Site, the requirement for a detailed desk study and risk assessment has been confirmed and no further research will be undertaken at this stage. It is possible that further in-depth research as part of a detailed UXO desk study and risk assessment may identify other potential sources of UXO hazard on the Site.

Appendix E. Unexploded Ordnance

SITE LOCATION

Map Centre: 272748,197482



LEGEND

- **High:** Areas indicated as having a bombing density of 50 bombs per 1000acre or higher.
- **Moderate:** Areas indicated as having a bombing density of 15 to 49 bombs per 1000acre.
- **Low:** Areas indicated as having 15 bombs per 1000acre or less.

miltary | **industry** | **UXO find**
transport | **dock** | **Luftwaffe targets**
utilities | **Bombing decoy** | **other**

Appendix F. CON29M Coal Mining Report

The Coal Authority

CON29M
coal mining report

SITE AT 272710, 197500, PEMBROKESHIRE

Known or potential coal mining risks

Past underground coal mining	Page 3
Future underground coal mining	Page 3

Further action

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

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

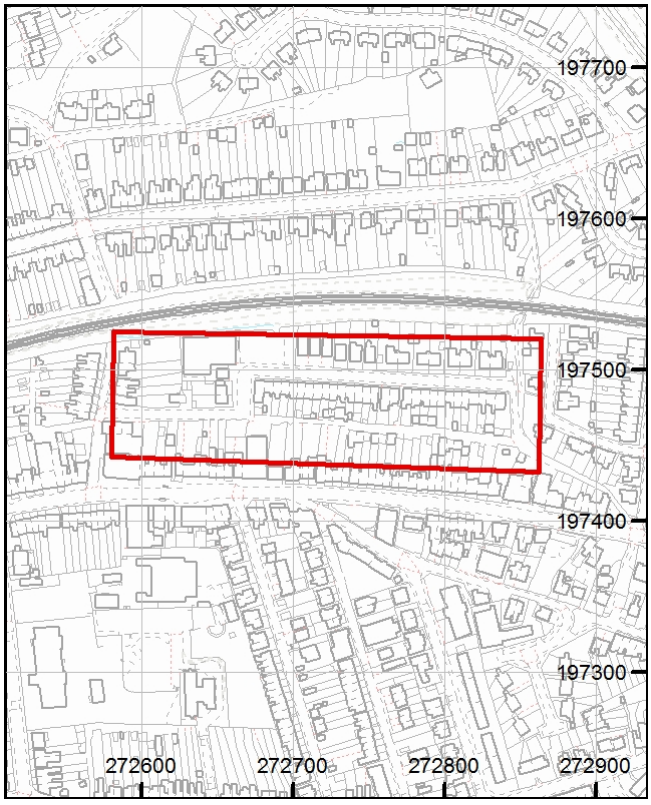
Professional opinion

According to the official mining information records held by the Coal Authority at the time of this search, evidence of, or the potential for, coal mining related features have been identified. It is unlikely that these features will impact on the stability of the enquiry boundary.

Enquiry boundary

Key

Approximate position of enquiry boundary shown



We can confirm that the location is **on the coalfield**

Map data

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

Accessibility

If you would like this information in an alternative format, please contact our communications team on 0345 762 6848 or email communications@coal.gov.uk.

Detailed findings

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

The Coal Authority owns the copyright in this report and the information used to produce this report is protected by our database rights. All rights are reserved and unauthorised use is prohibited. If we provide a report for you, this does not mean that copyright and any other rights will pass to you. However, you can use the report for your own purposes.

1 Past underground coal mining

The property is in a surface area that could be affected by underground mining in 1 seam of coal at 100m to 110m depth, and last worked in 1912.

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

2 Present underground coal mining

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

3 Future underground coal mining

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

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

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

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

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

4 Mine entries

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

5 Coal mining geology

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

6 Past opencast coal mining

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

7 Present opencast coal mining

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

8 Future opencast coal mining

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

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

9 Coal mining subsidence

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

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

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

10 Mine gas

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

11 Hazards related to coal mining

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

12 Withdrawal of support

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

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

13 Working facilities order

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

14 Payments to owners of former copyhold land

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

Statutory cover



Coal mining subsidence

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

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

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



Coal mining hazards

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

Glossary

Key terms

adit - horizontal or sloped entrance to a mine

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

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

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

coal seams - bed of coal of varying thickness

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

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

mine entries - collective name for shafts and adits

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

shaft - vertical entry into a mine

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

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

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

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

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

Appendix G. Factual Report

CAENTANT TERRACE, SKEWEN,

FLOOD ALEVIATION SCHEME

GROUND INVESTIGATION FACTUAL REPORT

Report No. Q0330/FR.01 October 2020

DOCUMENT CONTROL

Contract Name:	**Caenant Terrace, Skewen, Flood Aleviation Scheme**
Contract Reference:	**Q0330**
Report Type:	**Ground Investigation Factual Report**
Report Reference:	**Q0330/FR.01**
Date of Report Production:	**October 2020**
Client:	**Atkins**

Version:	Date:	Prepared by:	Checked by:	Approved by:
FINAL	21/10/20	S. Picton	P. Darby	R. McDermott
				
		Engineering Geologist *B.Sc. (Hons.),*	Senior Engineering Geologist *B.Sc.(Hons).,M.Sc., C.Geol., F.G.S.*	*Company Manager B.Sc.(Hons.),M.Sc., C.Geol., F.G.S.*

Disclaimer: Quantum Geotechnic Limited has prepared this report in accordance with the instructions of the above named Client for their sole and specific use. Any third parties who may use the information contained herein do so at their own risk.

Quantum Geotechnic Ltd, Plas Newydd, Llanedi, Swansea, SA4 0FQ. T: 01554 744880 E: enquiries@quantumgeotech.co.uk
Website: http://www.quantumgeotech.co.uk/

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0.0 FOREWORD

The following Conditions and Notes on Site Investigation Procedures should be read in conjunction with this report.

0.1 General

Recommendations made and opinions expressed in the report are based on the strata observed in the excavations, together with the results of site and laboratory tests. No responsibility can be held for conditions which have not been revealed by the Exploratory Holes or which occur between Exploratory Holes. Whilst the report may suggest the likely configuration of strata, both between Exploratory Holes and below the maximum depth of investigation, this is only indicative and liability cannot be accepted for its accuracy.

Unless specifically stated, no account has been taken of possible subsidence due to mineral extraction below or close to the site.

0.2 Investigation Procedures

Windowless sampled boreholes, Hand Pit and Machine excavated pitting techniques for ground investigation have been employed within the project. All Exploratory Hole operations, sampling and logging of soils, rocks and in-situ testing complies with the recommendations of the British Code of Practice BS 5930: 2015 'Site Investigations', British Code of Practice BS 10175: A2:2017 'Investigation of Potentially Contaminated Sites' and BS 1377: 1990, 'Methods of Test for Soils for Engineering Purposes'. A Ground Penetrating Radar has been undertaken to locate buried services across the site.

0.3 Routine Sampling

Representative bulk disturbed and environmental samples of the different strata are taken following completion of logging. These samples are sealed and labelled in clear plastic bags and 2kg plastic tubs. Soil samples obtained for environmental testing are sampled and sealed in borosilicate amber jars or in specialist vessels where required. All samples are returned from site to QGL's laboratory for controlled storage within 24 hours of sampling to await test scheduling/requirements.

0.4 In-Situ Testing, Surveying & Instrumentation

In-situ testing comprised:

- Standard Penetration Testing within Window sample holes (SPT)
- Groundwater and gas monitoring installations
- All exploratory hole locations to be surveyed for location and elevation.
- Ground Penetrating Radar Survey

0.5 Groundwater

Where possible, the depth of entry of any influx of groundwater is recorded during the course of excavation or boring operations. The rate of inflow into the excavation or borehole is monitored during the course of the excavation or during boring procedures. Upon encountering any water strikes, work is temporarily halted and the water levels monitored for a standard twenty-minute period recording the change in water level at the end of the twenty minutes.

Groundwater conditions observed in the excavations are those appertaining to the period of investigation. 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.

0.6 Retention of Samples

After satisfactory completion of all the scheduled laboratory tests on any sample, the remaining material is discarded. Further to notifying the Engineer/ Client with one week's notice all soil and/or rock samples not tested will be discarded 28 days after submission of the approved final report.

1.0 INTRODUCTION

1.1 General

Upon the instructions of Atkins, the scheme Engineer / Investigation Supervisor / Client, Quantum Geotechnic Limited (QGL) was commissioned to undertake a ground investigation for the proposed flood alleviation scheme at Caenant Terrace, Skewen, Neath Port Talbot.

The site extends from the existing culvert entrance at the western end of the site, along Caenant Terrace and accompanying side roads. The site is located at National Grid reference SS272974.

The siteworks were carried out between the 1st and 10th September 2020.

Where necessary trial trenches, window sample holes and Ground Penetrating Radar (GPR) survey were carried out under traffic management supplied by Amberon, as QGLs approved traffic management provider. Exploratory holes within the highway were re-instated to NRSWA standard.

QGL were the appointed sub-contractor for the works, under order number 5192784-001, issued on 11th August 2020. The works were commissioned in order to establish general ground conditions and locate live services along the route of a proposed culvert.

This report presents a factual account of the fieldwork carried out, includes descriptions of the strata encountered, available groundwater observations, details of in-situ testing undertaken, location of services encountered and provides results of subsequent laboratory testing of samples obtained from the investigation.

General notes on the techniques employed by QGL are described in the Foreword together with the limitations inherent in carrying out site investigation work.

1.2 Purpose of Ground Investigation

The purpose of the ground investigation is to determine the nature and thickness of any Made Ground, determine the nature and thickness of any superficial deposits, determine the depth to bedrock and thickness of any weathered horizon, recover suitable samples for geotechnical and geoenvironmental laboratory testing and to locate the presence, size and depth of services across the site to allow appropriate design of the proposed works at the site.

The preferred option is to construct a new culvert, significantly larger than the existing structure, and associated inlet structure. These main works will comprise a trench excavation within the highway at Caenant Terrace, in which a new 1050mm culvert will be laid. A new culvert inlet and headwall will be

constructed at the same location as the existing inlet. The existing 450mm diameter culvert will be retained to permit existing property drainage. The purpose of the main works is to improve the hydraulic capacity of the culverted section of the watercourse beneath Caenant Terrace.

1.3 Initial Scope of Work

The initial scope of works entails the following:

- 2 no. Windowless Sampled boreholes
- 7 no. Hand Excavated Pits / Trenches
- 2 no. surface water samples
- In-Situ Testing
- Ground Penetrating Radar Survey to identify underground services.
- Topographical Survey

General

- Geotechnical and Geo-environmental Laboratory Testing.
- Provide a factual report detailing the investigation.

General notes on the techniques employed by Quantum are described in the Foreword together with the limitations inherent in carrying out ground investigation work.

2.0 SITE DETAIL

2.1 Site Description

The site is located along and adjacent to Caenant Terrace, Skewen. The site is an elongated stretch of land running from a flat rough parcel of land approximately 10m by 20m in size, east along the two carriageway tarmaced residential street with foot paths and residential housing on either side. At its eastern end, the road turns south onto a single, concreted surfaced carriageway. The water coarse enters the existing culvert at the northern boundary of the rough parcel of land at the western end of Caenant Terrace.

The existing Great Western main railway line runs along the northern boundary of Caenant Terrace which the surrounding area is a mix of residential and commercial use.

The site gently slopes down from west to east.

The site has been categorised as "yellow" based on the nature of the site and its historical uses, the category of the site has been defined in accordance with the Guidelines for the Safe Investigation by Drilling of Landfills and Contaminated Land (SISG, 1993).

The general extent of the site is shown in Figure 1 in Appendix I.

2.2 Statutory Service Information

All service information was held by the client with the relevant plans and information made available to QGL prior to commencement of the intrusive works.

A permit to excavate was issued by QGL for all exploratory holes. Standard QGL procedures for breaking ground were followed and all areas were scanned using a cable avoidance tool. A hand dug trial pit was excavated to 1.2m prior to commencement of drilling where services may be at risk. All hand excavation was undertaken using insulated digging tools.

A GPR survey was undertaken across the site to help locate services for exposure. The Survey was undertaken by Malcom Hughes Surveys.

2.3 Published Geology

Details of the geology of the site are provided by British Geological Survey (BGS) Sheet 247 'Swansea', Solid and Drift edition at 1:50,000 scale, and BGS's online tool Geology of Britain Viewer.

Superficial Deposits

The superficial deposits are mapped as Glacial Till.

Bedrock Geology

The site is mapped to be underlain by the Hughes Member Sandstone of the Carboniferous age.

3.0 FIELDWORK

3.1 General

A summary of the works completed and covered by this report are given below:

- 2 No. Window Sampled holes. (BH01 and BH02)
- 4 No. Hand Excavated Trial Trenches (HP02, HP04, HP05 & HP06)
- 3 No. combined Machine and Hand Excavated Trial Pits (HP01, HP03 & HP07)
- In-situ testing and sampling.
- Ground Penetrating Radar survey across the site to locate buried services
- Topographical survey across the site

Full time site supervision and attendance from QGL was undertaken on all aspects of the site works and subsequent reinstatement works of all exploratory hole locations. All service plans were held onsite, with all site personnel inducted by QGL and briefed of the pertinent Risk Assessments and Method Statements relating to the tasks to be undertaken.

The window sample hole locations were subject to a 1.2m deep service/ utility inspection pit prior to any drilling. Also, each area of investigation was fully eCAT4+ ('Cable Avoidance Tool') scanned prior to breaking ground.

3.2 Exploratory Hole Locations

The exploratory hole locations were specified by Atkins and set out on site by QGL following identification of the relevant known underground services identified on the available service plans and by the GPR survey.

Exploratory Hole Location Plans are presented as Figure 2 in Appendix I and the Exploratory Hole co-ordinates and levels are detailed within Table 1.

Table 1: *Exploratory Hole Co-Ordinates & Levels*

Exploratory Hole	Easting	Northing	Height (mAOD)
HP01	272690.813	197519.565	37.734
HP02	272709.233	197498.412	36.594
HP03	272765.96	197496.868	34.484
HP04	272793.724	197493.42	33.884
HP05	272828.893	197491.222	33.433
HP06	272843.668	197488.45	33.396
HP07	272846.777	197461.264	32.458
WS01	272686.424	197505.3	37.728
WS02	272840.804	197491.983	33.441

3.3 Window Sample holes

2 No. Windowless Sampling Boreholes were undertaken using a Dart Competitor Rig. This rig utilises dynamically driven 1m length sampling tubes, nominally 116mm in diameter to begin with then reduced diameters as depth increases. This technique allows a relatively undisturbed sample of soil to be taken in a plastic liner, or alternatively sub sampled as a disturbed jar sample. Within competent granular-cohesive soils the portable equipment used for Windowless Sampling is limited by the nature of the ground and robustness of the driving tool. The Windowless Sample Boreholes were backfilled as per Investigation Supervisor instructions with bentonite pellets upon completion.

The windowless samples were progressed to scheduled depth or until refusal. Table 3 details the final depths achieved by each windowless sample borehole.

Table 3: *Windowless Sample Borehole Detail*

Exploratory Hole ID	Exploratory Hole Type	Final Depth (mbgl)	Notes/Reason for Termination
WS01	Windowless Sample Borehole	3.30	Refusal
WS02	Windowless Sample Borehole	3.45	Refusal

A complete set of Engineering Geologist's logs for the Windowless Sample Boreholes are presented within Appendix II.

3.4 Trial Trenches

3 No. trial pits were excavated using a combination of a 2 tonne tracked 360º excavator and hand digging methods with 4 No. trial pits excavated by hand using insulated hand digging tools. The exploratory hole positions are shown on the exploratory hole location plan in Appendix I.

This method of investigation allows direct sampling of the near surface deposits for identification purposes,

locating of buried services, as well as assessment of any salient features and Made Ground or disturbed ground. The trial trenches were logged in accordance with BS5930:2015; BS EN ISO 14688-1:2002 and BS EN ISO 14688-2:2004, and supervised at all times by an Engineering Geologist from QGL.

All trial trenches were backfilled with compacted layers of arisings upon completion. Surface reinstatement was undertaken in accordance with NRSWA where required.

Geotechnical and Environmental samples were taken within the superficial deposits for laboratory testing purposes.

Details of the Trial Trenches, including final depths in metres below ground level (mbgl) are provided in Table 4.

Table 4: *Trial Pit Detail*

Exploratory Hole ID	Exploratory Hole Type	Final Length (mbgl)	Reason for termination
HP01	Machine Excavated Trial Pit	2.30	Specified depth, excavator at maximum reach
HP02	Hand Excavated Trial Pit	0.75	Specified depth – services located
HP03	Hand Excavated Trial Pit	2.00	Specified depth
HP04	Hand Excavated Trial Pit	1.20	Specified depth – services located
HP05	Hand Excavated Trial Pit	1.20	Specified depth – services located
HP06	Hand Excavated Trial Pit	1.20	Specified depth – services located
HP07	Hand Excavated Trial Pit	1.60	Unstable, sides collapsing and encountering services

A complete set of Engineering Geologist's Test Hole logs are presented within Appendix III.

3.5 In-Situ Testing

3.5.1 Standard Penetration Testing

Standard penetration tests (SPTs) were undertaken within all window sample holes, at intervals specified by Atkins.

This is a dynamic test as described in BS EN ISO 22476-3:2005 + A1:2011. Within fine grained or cohesive soils, the test incorporates a small diameter tube (650mm length, 50mm external diameter and 35mm internal diameter) with a cutting shoe known as the 'split barrel sampler'. The sampler is forced into the soil dynamically using blows from a 63.5kg hammer dropped through 760mm. The sampler is initially advanced 150mm into the soil with seating blows, then the number of blows required to advance the sampler each

75mm increment up to a depth of 300mm is recorded. This cumulative total number of blows over the 300mm test is referred to as the "N" value. For coarse gravels and bedrock the split barrel is replaced by a 60° cone (SPT(C) - Standard Penetration Test (Cone)). SPT/SPT(C) results are detailed within the relevant borehole Logs.

3.5.2 Ground Penetrating Radar Survey / Topographical Survey

A Ground Penetrating Radar survey was undertaken by Malcom Hughes Surveying to locate the underground services across the site.

During the survey, utilities were detected by Ground Penetrating Radar (GPR) to get a horizontal and vertical (depth) position. In addition, a RD8000 CAT and Genny survey was also undertaken. Once the buried services were located, their positions were surveyed and plotted on the GPR survey drawing presented in Appendix I as Figure 3.

The survey was completed to Level M3 by a suitably trained operative with Level 3 NVQ.

A topographical survey of the site was undertaken by Malcom Hughes Surveying which is presented in Appendix I as Figure 4.

3.6 Soil Sampling

Disturbed samples of soil were taken in clear sealed plastic bags and white plastic tubs.

Environmental samples were taken at various depths as noted on the relevant logs.

The environmental samples were dispatched to Chemtest, Coventry using a daily courier service for storage awaiting testing instructions from the Engineer. Environmental soil samples were taken in amber glass jars, vials and plastic tubs provided by the laboratory to suit the anticipated testing.

Geotechnical samples were returned from site to QGL's laboratory for controlled storage to await test scheduling/requirements. For specific details of laboratory testing see Section 4.0.

4.0 LABORATORY TESTING

4.1 General

The laboratory testing was scheduled by Atkins and comprised a number of geotechnical classification and performance tests as well as chemical testing on selected soil samples recovered from the investigation.

4.2 Geotechnical Testing

Geotechnical classification and performance testing was undertaken at QGL's approved UKAS accredited laboratory at GSTL, Llanelli.

Geotechnical tests undertaken on selected soil samples are listed below. All the geotechnical soil testing work was carried out in accordance with the procedures stipulated in the various sections of BS 1377:1990 "Methods of test for soils for civil engineering purposes" and to UKAS accreditation where applicable and chemical testing carried out in accordance with BRE Special Digest 1:2005 "Concrete in aggressive ground".

Geotechnical soil testing undertaken:

- 3 No. Moisture content
- 3 No. Liquid limit, plastic limit and plasticity index
- 2 No. Sedimentation by pipette
- 2 No. Sedimentation by hydrometer

Geotechnical Laboratory Test results are presented in Appendix IV.

4.3 Geo-Environmental Testing

Geo-Environmental chemical testing was undertaken at Eurofins Chemtest ltd, Coventry. All testing was scheduled by Redstart. The following suites of testing were scheduled:

- 12 No. Suite E (Soil samples Schedule S1.20.3)
- 3 No. Suite D (Brownfield site pyrite present)
- 12 No. Suite F (Leachate samples Schedule S1.20.3)
- 2 No. Suite H (Water samples Schedule S1.20.3)

Chemical Laboratory Test results are presented in Appendix V.

5.0 REFERENCES

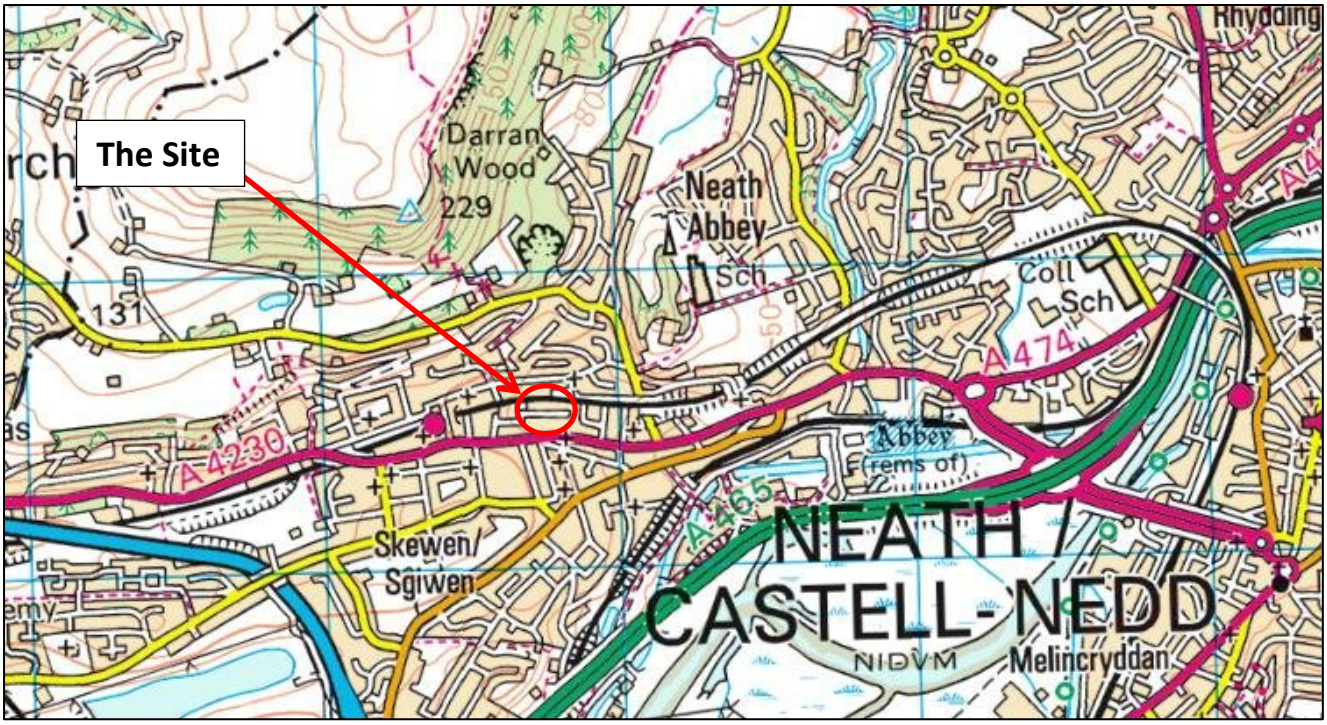
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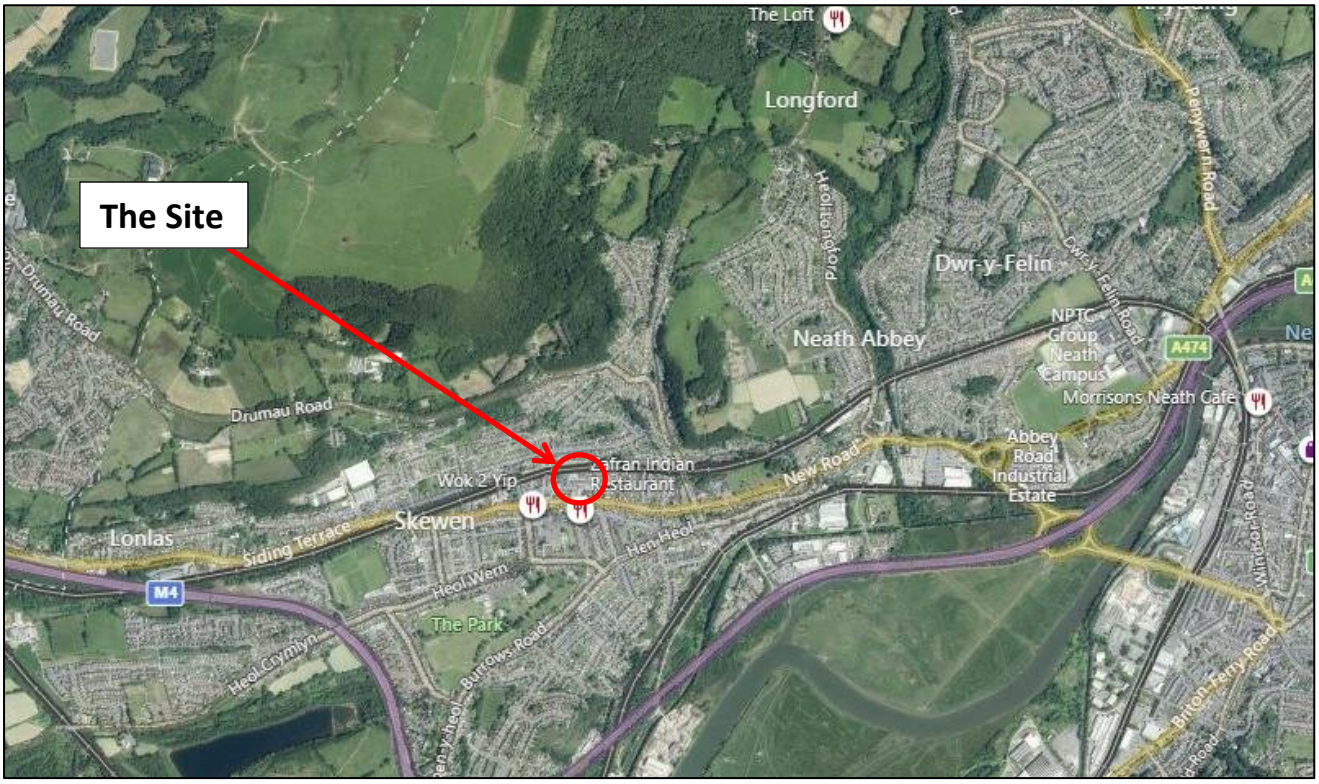
- BGS Sheet 247 '*Swansea'* Solid and Drift edition at 1:50,000 scale
- BGS Lexicon of Named Rock Units (www.bgs.ac.uk/lexicon)
- BGS Geology of Britain Viewer (www.bgs.ac.uk)

Specialist Publications:-

- British Code of Practice BS 5930:2015 *'Code of Practice for Site Investigations'*
- British Code of Practice BS 1377:1990 *'Methods of test for soils for civil engineering purposes'.*
- British Code of Practice BS EN ISO 14688-1:2002+A2:2013 investigation and testing. Identification and classification of soil. Identification and description
- British Code of Practice BS EN ISO 14688-2:2004+A2:2013 Geotechnical investigation and testing. Identification and classification of soil. Principles for a classification.
- British Code of Practice BS EN ISO 14689-1:2003 Ground Investigation and Testing – Identification and classification of rock
- Health and Safety Executive Guidance Note EH40/90
- *CIRIA Report 143* 'The Standard Penetration Test (SPT): Methods and Use', 1995.
- BRE (2005) Special Digest 1:2005, 3rd Edition, Concrete in aggressive ground. BRE, Garston.
- BS 6031: 2009 Code of Practice for Earthworks.
- Workmanship for excavation shall comply with BS 8000: 1989 Part 1, Sections 3.1, 3.2 and 3.3.
- Specification for Highway Works (MCHW 1), Volume 1, Series 600 & Series 800, 2006 with Amendment 2016
- ICE UK Specification for Ground Investigation Second Edition.
- Design Manual for Roads and Bridges: Volume 7 Pavement Design and Maintenance
- Specification for Highways Works Series 600 Earthworks
- Highways Agency Interim Advice Note 73/06, Rev 1 2009, Clause 7.7

APPENDIX I – **SITE PLANS AND FIGURES**



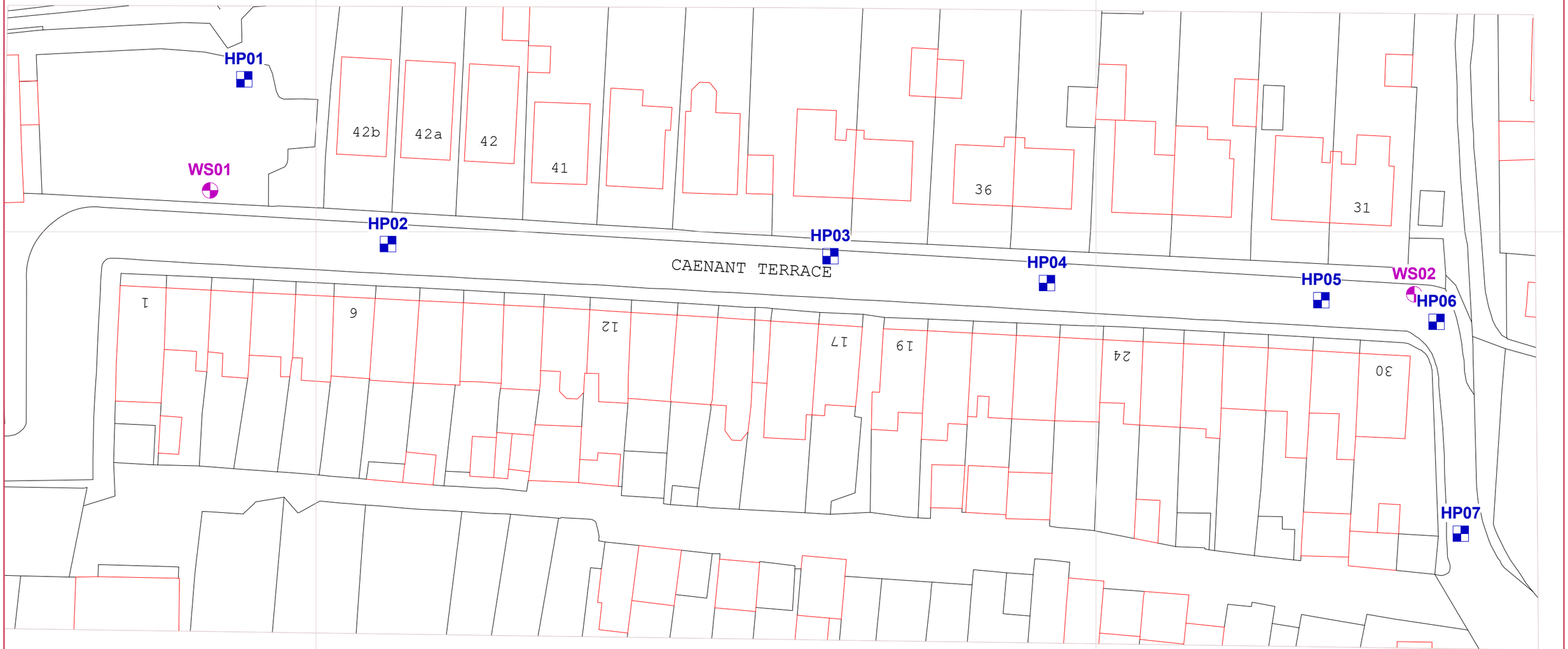


Mapping sourced from www.bing.com

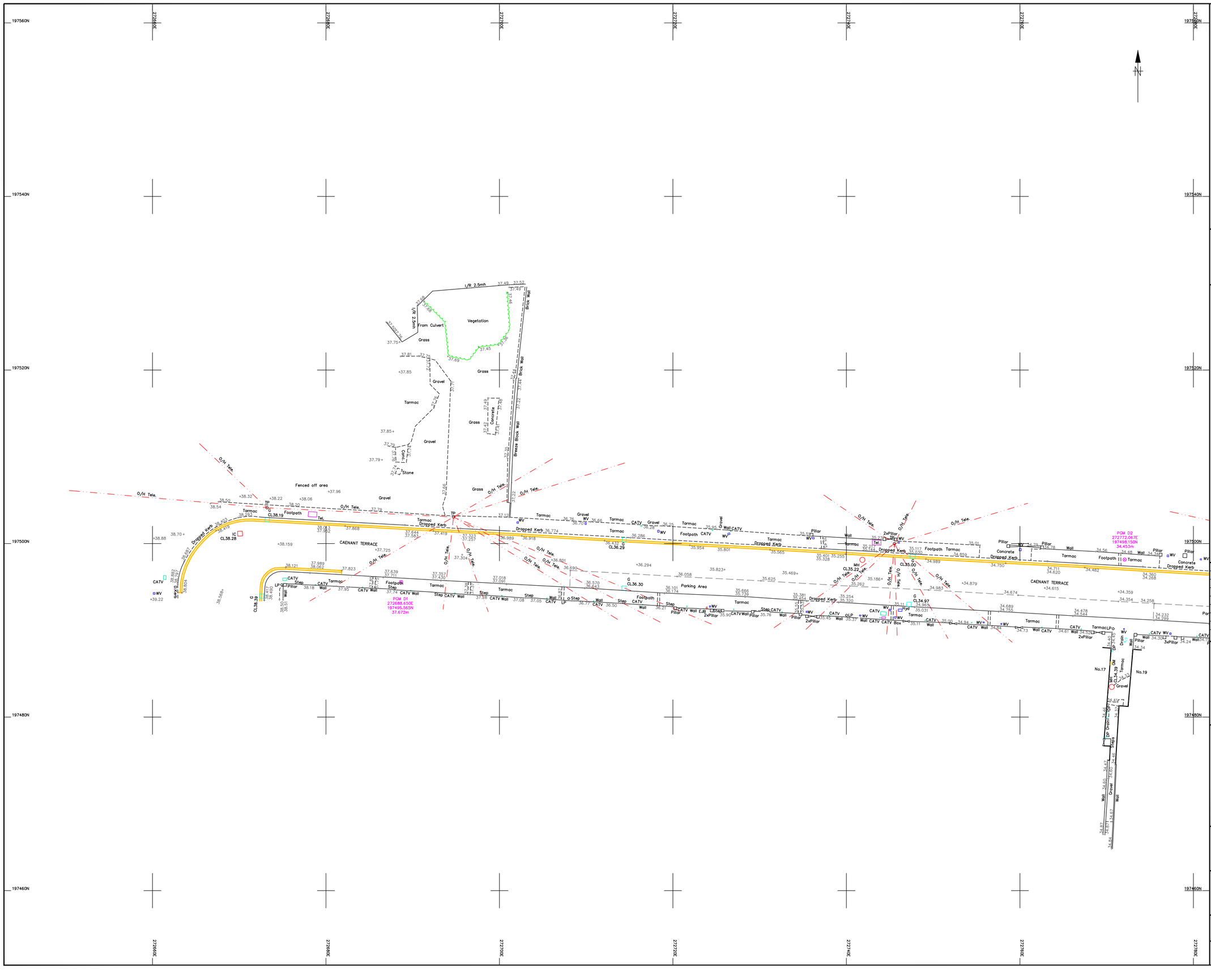
Quantum Geotech

FIGURE 1

Project:	**Caenant Terrace**
Job No:	**Q0330**
Drawing Title:	**Site Location Plan**



Quantum Plas Newydd Swansea Tel: 01554744880 Fax: Email: enquiries@quantumgeotechnic.co.uk	**KEY** Borehole, Trial Pit, Dynamic Probe, In-situ Test Window Sample, Sampling Point, Historical Borehole	**PROJECT** CAENANT TERRACE, SKEWEN	**DRAWING TITLE:** EXPLORATORY HOLE LOCATION PLAN	JOB NO. Q0330 DATE 16/10/20 FIGURE NO. 2 SCALE 1:500



Legend :

AP	Anchor Point	LB	Letter Box
B/W	Barbed Wire	MH	Manhole
BB	Belisha Beacon	Mkr	Marker
B	Bollard	MS	Mile Stone
CP	Catch Pit	Pal	Paling
C/P	Chestnut Paling	PM	Parking Meter
CE	Cleaning Eye	P	Post
C/B	Close Boarded	P/C	Post and Chain
C/I	Corrugated Iron	P/R	Post and Rail
Cul	Culvert	P/W	Post and Wire
DP	Drain Pipe	RWP	Rain Water Pipe
DL	Detector Loop	RP	Reflector Post
EJB	Electricity Junction Box	R/W	Retaining Wall
EP	Electricity Pole	RG	Road Gully
ELIC	Electricity Service Cover	RS	Road Sign
FIG	Feeds Into Ground	SB	Sign Board
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GV	Gas Valve	TCB	Telephone Call Box
GP	Gate Post	TP	Telephone Pole
G	Gully	TS	Traffic Signal
Hyd	Hydrant	VP	Vent Pipe
I/R	Iron Railing	WM	Water Meter
IC	Inspection Cover	Tr	Water Trough
I/W	Interwoven	W/M	Wire Mesh Fence
KO	Kerb Outlet	WV	Water Valve
LP	Lamp Post		

Permanent Ground Marker ⊗

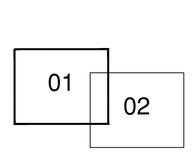
O.S. Bench Mark

Borehole

Notes :

1. Do not scale from this drawing. Please refer to source CAD file for dimensions.

Sheet Layout :



Rev	Description	Date	Initial
1	Original Issue	10/08/20	JPD

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Project

Caenant Terrace, Skewen, Neath
Borehole Clearance

Title

Topographical Survey
Sheet 1 of 2

Scale @A1:	Date:	Drawn:	Checked:
1:200	Sep 2020	JPD	AT

Cad File Name:

56126-MH-VUT-Caenant_Terrace-M2-G-0001

UNDERGROUND SERVICES KEY

- Abandoned
- Acid drain
- British telecom
- Cable TV
- Communication cables
- Sewer combined
- Sewer surface water
- Sewer foul
- Ducting
- Electric cables
- Effluent pipes
- Fuel line
- Fuel gauge line
- Fuel vent line
- Gas pipes
- Heating pipes
- Traffic light cables
- Vapour recovery pipes
- Water pipes
- Unidentified GPR or electro location trace
- Rising main
- Scar trace
- Alarm cables
- CCTV cables
- Chemical pipes
- Compressed air pipes
- Culvert
- Sewer combined overflow
- Electric HV cables
- Electric pilot cables
- Earth cables
- Fibre optic cables
- LPG pipes
- Oil pipes
- Sludge main
- Telemetry cables
- Vehicle detection pad
- Wash water pipes
- End of trace
- Group of services representation
- Taken from records (Not proven on site)
- Assumed route
- Services survey boundary

AR	Assumed Route	GPR	Ground Penetrating Radar
BD	Backdrop	TFR	Taken From Records
CR	Cable Riser	PE	Polyethylene Pipe
d	Depth	UTS	Unable To Survey
PR	Pipe Riser	UR	Unable To Rod
OF	Offset Fill	UT	Unable To Trace
T	Tank	NVP	No Visible Pipes
VR	Vapour Recovery Point		
UTL	Unable To Lift		

DISCLAIMER

Electromagnetic and ground penetrating radar techniques have been used in the location of underground services shown on this survey plan. These are interpretive procedures and we recommend that trial excavations should be undertaken to to confirm identification, location and depth of services where these are critical.

Please note that not all buried pipes, cable and ducts can be detected and mapped in consideration of their depth, location, material type, geology and proximity to other utilities.

All reasonable effort and care has been made in searching available record drawings. The completeness of the underground service information supplied to and by us cannot be guaranteed.

NOTES

Where services are non-metallic or not proven on site, positions are taken from records, trench scars & surface detail.

Where stated, depth estimations are typically to the centre or top of the service. Depths to gravity sewers and drains are typically to invert levels, unless otherwise stated.

Where Ground Penetrating Radar (GPR) is quoted the depth is recorded to the assumed external crown of the feature.

The diagram below describes the depth information in more detail.

Where the precise position or depths of these features are critical to the design or siteworks they must be verified by the use of trial excavations.

Pipe sizes which cannot be obtained by visual survey are taken from utilities record drawings or marker plates where available.

Services shown as TFR (Taken From Records) have not been proven on site.

The CAD layering may contain further information.

TYPICAL FEATURE DEPTH ANNOTATION

ELECTRO-MAGNETIC DETECTION

APPROX. DEPTH TO CENTRE

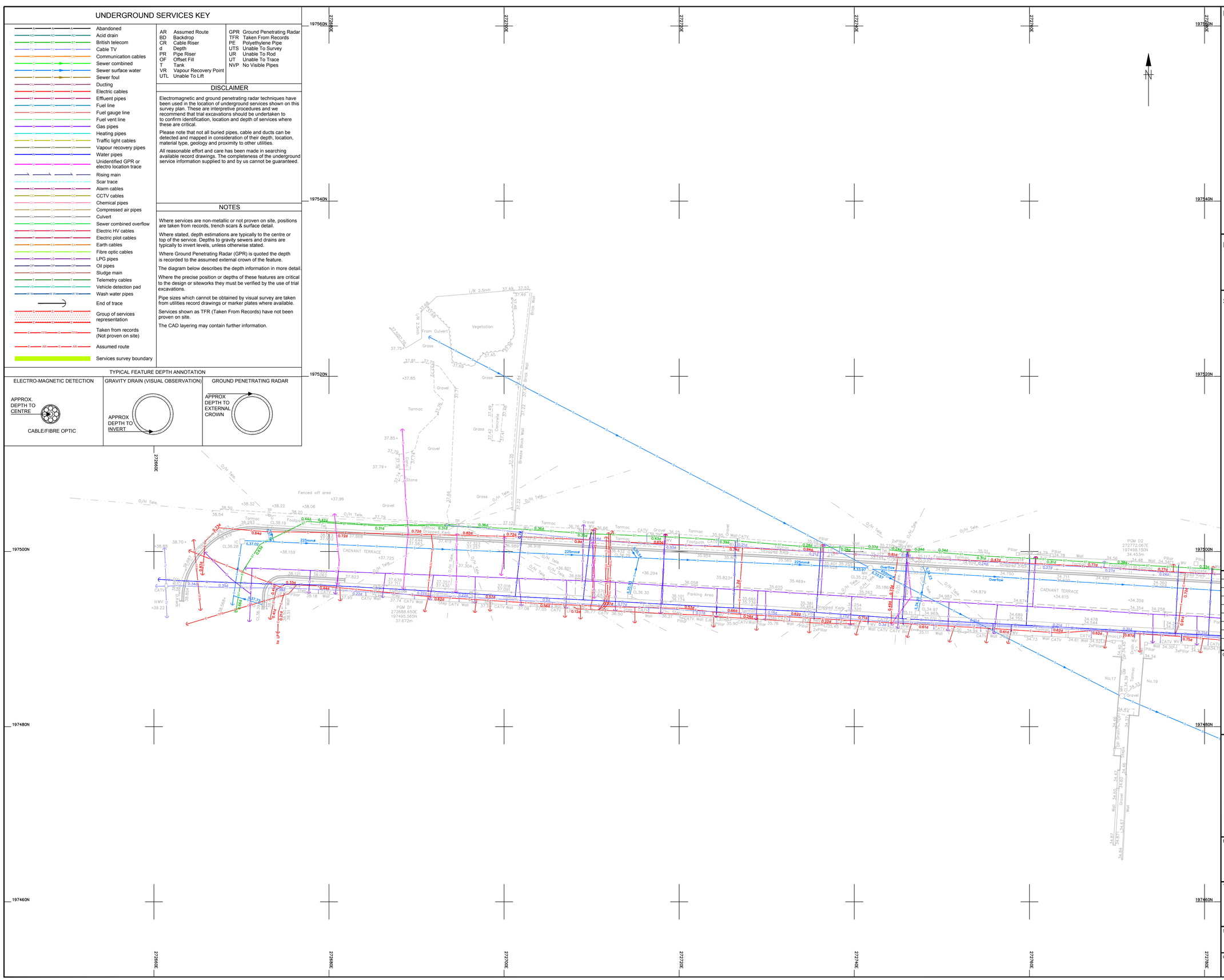
CABLE/FIBRE OPTIC

GRAVITY DRAIN (VISUAL OBSERVATION)

APPROX. DEPTH TO INVERT

GROUND PENETRATING RADAR

APPROX DEPTH TO EXTERNAL CROWN



Legend :

AP	Anchor Point	LB	Letter Box
B/W	Barbed Wire	MH	Manhole
BB	Belisha Beacon	Mkr	Marker
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EP	Electricity Pole	RG	Road Gully
ELIC	Electricity Service Cover	RS	Road Sign
FIG	Feeds Into Ground	SB	Sign Board
FS	Flag Staff	SP	Sign Post
GM	Gas Meter	SC	Stop Cock
GV	Gas Valve	TCB	Telephone Call Box
GP	Gate Post	TP	Telephone Pole
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IC	Inspection Cover	Tr	Water Trough
I/W	Interwoven	W/M	Wire Mesh Fence
KO	Kerb Outlet	WV	Water Valve
LP	Lamp Post		

Permanent Ground Marker

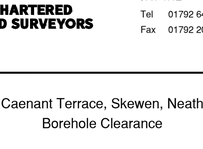
O.S. Bench Mark

Borehole

Notes :

1. Do not scale from this drawing. Please refer to source CAD file for dimensions.

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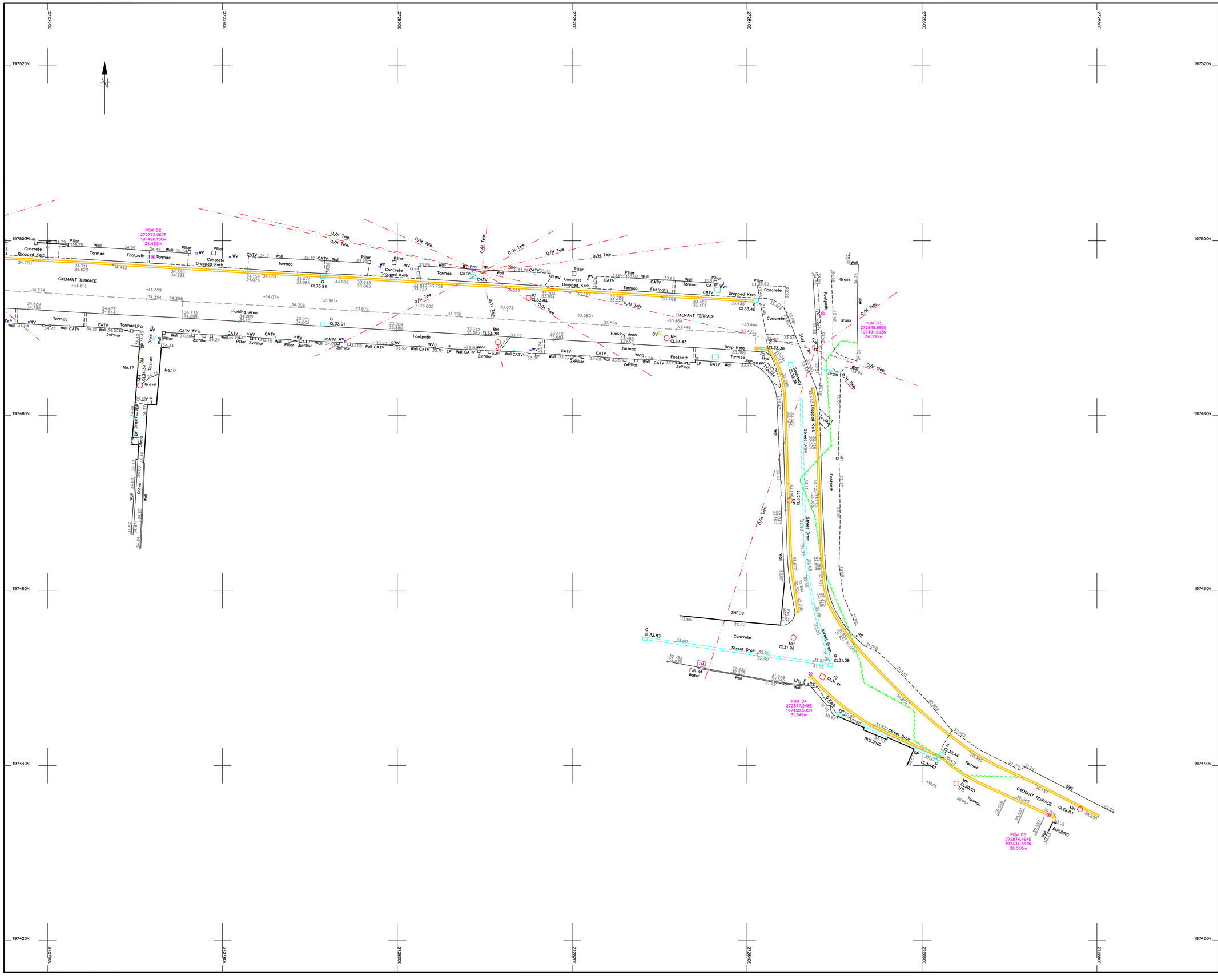
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Sheet 1 of 2

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Legend :

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Permanent Ground Marker ⊗

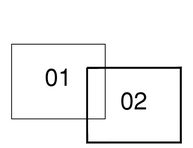
O.S. Bench Mark ▲

Borehole ◆

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Sheet Layout :



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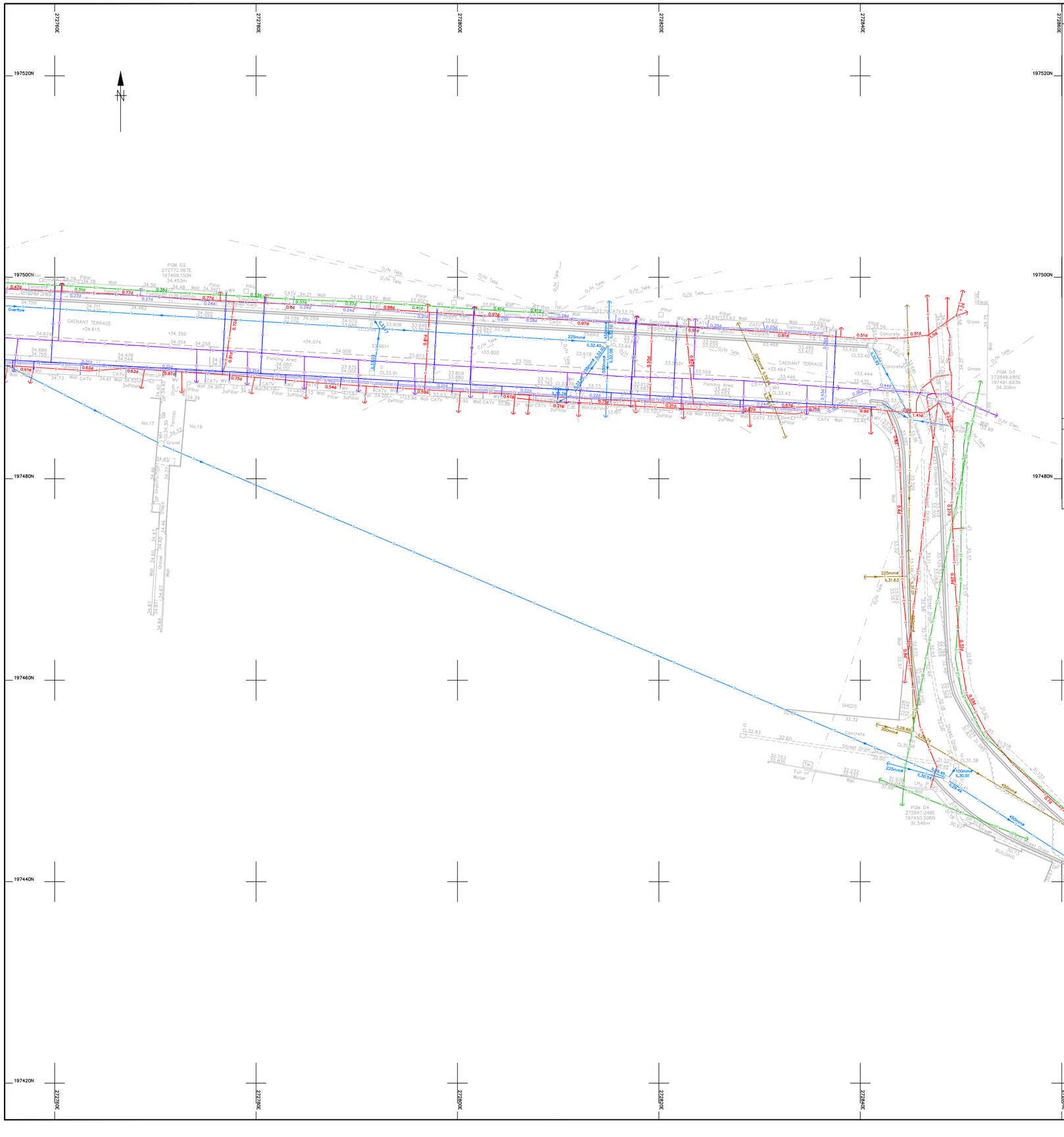
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Sheet 2 of 2

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272800E
272820E
272840E
272860E
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197500N
197480N
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197440N
197420N
PGM D2
272772.067E
197498.150N
34.453m
PGM D3
272848.685E
197491.693N
34.306m
PGM D4
272847.248E
197450.506N
31.546m
PGM D5
272874.494E
197434.367N
30.050m
CAENANT TERRACE
Parking Area
Tarmac
Concrete
Gravel
Grass
Wall
Fence
Hedge
CATV
O/H Tele.
O/H Elec.
Overflow
Street Drgn
Top Drain
Full of Water
SHEDS
BUILDING
No.17
No.19
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300mmø
450mmø
100mmø
LPG Tank
Drop Kerb
Pillar
Post
Gully
MH
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APPENDIX II – **WINDOWLESS SAMPLE LOGS**

Contract : Caenant Terrace, Skewen

Client : Atkins

Window Sample No. WS01

Dates : 8/9/20 - 8/9/20

Location : Land adjacent to Caenant Terrace

Job Number : Q0330

Engineer : Atkins

Ground Level : 37.73 m A.O.D. *Level to Ordnance Datum*

Coordinates: 272686.42 E 197505.30 N *Co-ordinates to National Grid*

	Samples		Sample Run		Tests		STRATA				
	Depth	Type No.	Diam. (mm)	Recovery (%)	Depth	SPT & Hand Vane Results	Depth (Thick-ness)	DESCRIPTION	Legend	Red. Level . A.O.D.	Water
								MADE GROUND - Grey, brown and black slightly sandy gravelly silty CLAY. Gravel is fine to coarse angular to sub-rounded brick, clinker and sandstone.			
	0.50	ES 1									
							(1.70)				
1	1.00 - 1.20	ES 2			1.00	SPT (C) 20 (3-4-**5-3-6-6**)					
	1.70 - 1.90	ES 3					1.70	MADE GROUND - Black organic SILT with frequent rootlets.		36.03	
	1.80	D 1					(0.20)				
							1.90	Grey very sandy SILT with frequent wood fragments. Sand is fine. (ALLUVIUM)		35.83	
2	2.00 - 2.20	ES 4			2.00	SPT (C) 17 (2-4-**4-5-4-4**)					
	2.20 - 2.30	D 2									
							(1.20)				
	2.80 - 3.00	D 3									
3					3.00	SPT (C) 27 (1-1-**2-1-12-12**)					
	3.10 - 3.30	D 4					3.10	Stiff grey very gravelly CLAY. Gravel is fine to coarse sub-rounded sandstone.		34.63	
							(0.20)				
					3.30	SPT (C) 50/175mm (9-16/45mm-**17-18-15/25mm**-)	3.30	Terminated upon refusal		34.43	

Remarks: Archway Dart No groundwater strike observed. Refusal at 3.3mbgl, unable to achieve target depth. Hand excavated service clearance pit undertaken to 1.2mbgl. Set out in liaison with the Client / Investigation Supervisor.

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Operator:	Logged By.	Sheet No.	m Per Page	All measurements in metres unless otherwise stated
Samson Drilling	P Darby	1 Of 1	4	

AGS

Contract : Caenant Terrace, Skewen

Client : Atkins

Borehole No.
WS01

Dates : 8/9/20 - 8/9/20

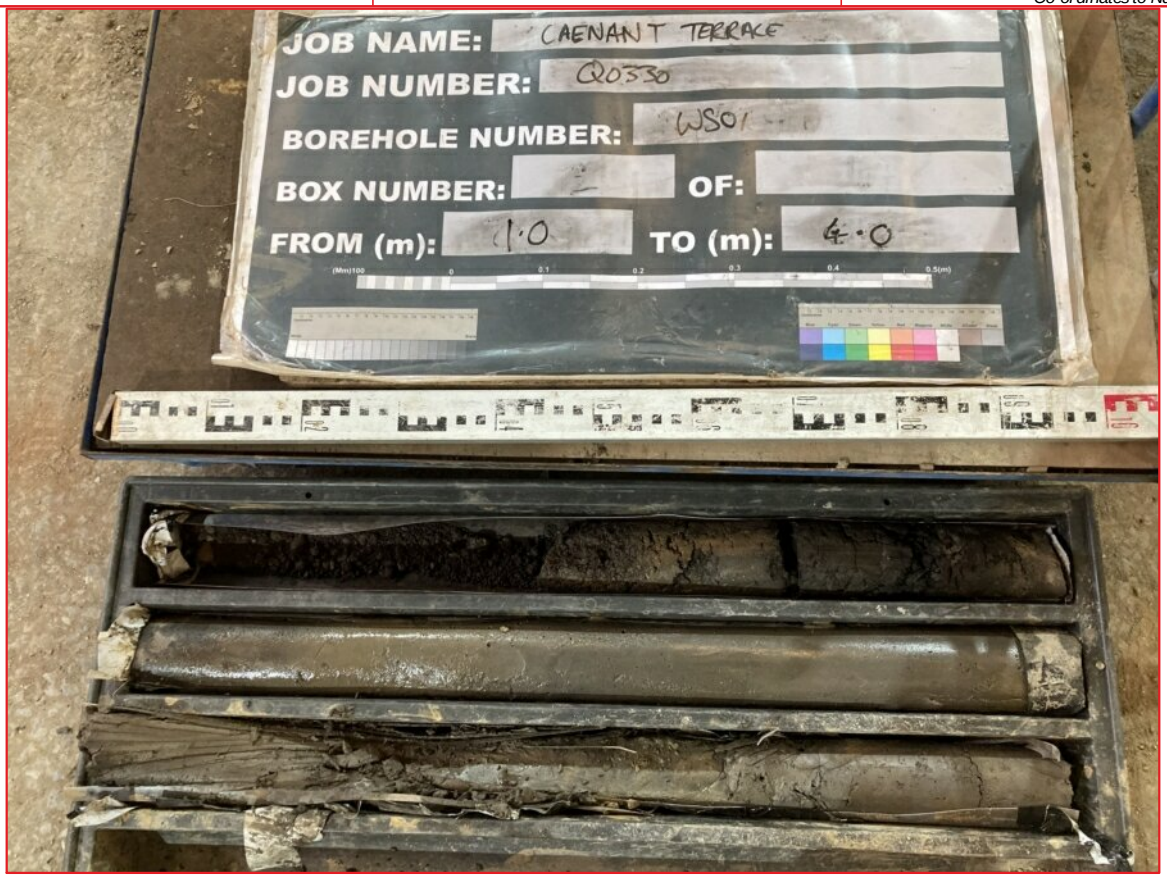
Location : Adjacent to Caenant Terrace

Job Number : Q0330

Engineer : Atkins

Ground Level : 37.73 m A.O.D.
Level to Ordnance Datum

Coordinates: 272686.42 E
197505.30 N
Co-ordinates to National Grid



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Operator:	Logged By.	Sheet No.	m Per Page	
Samson Drilling	P Darby	1 Of 1	2	All measurements in metres unless otherwise stated

AGS

Contract : Caenant Terrace, Skewen

Client : Atkins

Window Sample No. WS02

Dates : 8/9/20 - 8/9/20

Location : Caenant Terrace

Job Number : Q0330

Engineer : Atkins

Ground Level : 33.44 m A.O.D. *Level to Ordnance Datum*

Coordinates: 272840.80 E 197491.98 N *Co-ordinates to National Grid*

Samples		Sample Run		Tests		STRATA				
	Depth	Type No.	Diam. (mm)	Recovery (%)	Depth	SPT & Hand Vane Results	Depth (Thick-ness)	DESCRIPTION	Legend	Red. Level . A.O.D.	Water
							(0.07)	Asphalt - Wearing Coarse			
							0.07 (0.19)	MADE GROUND - Grey slightly sandy GRAVEL. Gravel is fine to coarse angular limestone. (SUB-BASE)		33.37	
							0.26	MADE GROUND - Black locally light brown slightly sandy slightly gravelly silty CLAY. Gravel is fine to coarse angular to sub-rounded sandstone, clinker and brick.		33.18	
							(0.64)				▽1
1	1.10 - 1.30	D 1			1.20	SPT (C) 12 (1-4-**4-2-3-3**)	0.90	Grey very sandy slightly silty CLAY.		32.54	▽1
	1.60 - 1.70	D 2					(1.10)	..... below 1.5mbgl gravelly sandy silty CLAY. Gravel is fine to coarse sub-rounded to rounded sandstone.			
2					2.00	SPT (C) 17 (2-3-**4-4-4-5**)	2.00	No Recovery		31.44	
							(1.45)				
3					3.00	SPT (C) 28 (5-5-**6-6-7-9**)					
					3.45	SPT (C) 50/245mm (10-12-**12-15-15-8/20mm**)	3.45	Terminated at 3.45mbgl upon refusal		29.99	

Remarks: Archway Dart Refusal at 3.45mbgl, unable to achieve target depth. Hand excavated service clearance pit undertaken to 1.2mbgl. Set out in liaison with the Client / Investigation Supervisor.

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Operator:	Logged By.	Sheet No.	m Per Page	All measurements in metres unless otherwise stated	AGS
Samson Drilling	P Darby	1 Of 1	4		

Contract : Caenant Terrace, Skewen

Client : Atkins

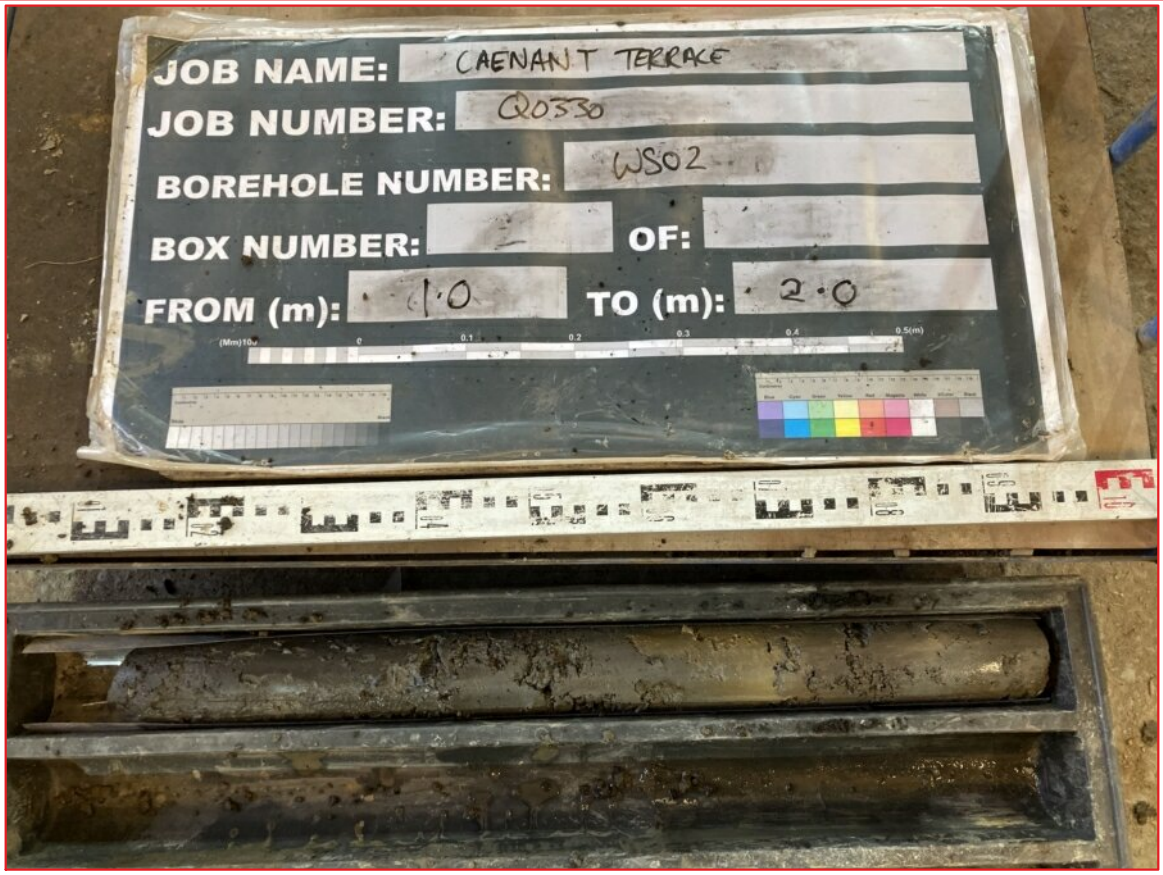
Borehole No.
WS02

Dates : 8/9/20 - 8/9/20
Location : Caenant Terrace

Job Number : Q0330
Engineer : Atkins

Ground Level : 33.44 m A.O.D.
Level to Ordnance Datum

Coordinates: 272840.80 E
197491.98 N
Co-ordinates to National Grid



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Operator:	Logged By.	Sheet No.	m Per Page	
Samson Drilling	P Darby	1 Of 1	2	All measurements in metres unless otherwise stated

AGS

KEY TO BOREHOLE AND TRIAL PIT LOGS

m.A.O.D. metres Above Ordnance Datum.

SAMPLE AND TEST TYPES

U	Undisturbed driven tube sample - 102mm diameter, 450mm long.
P	Undisturbed pushed piston sample - 102mm diameter, 1000mm long.
TW	Undisturbed thin walled push in sample - 100mm diameter, 750mm long.
B	Bulk disturbed sample.
BLK	Block Sample
CBR	Heavy duty undisturbed sample - 154 mm diameter (CBR mould).
D	Small disturbed sample.
LB	Large Bulk disturbed sample (for earthworks testing)
C	Core sample
W	Water sample
G	Gas sample
ES	Environmental sample (soil)
j	Jar sample
t	Tub sample
p	Pot sample
s	Small sample
v	Vial sample
S	Standard Penetration Test using split spoon sampler. (See Note).
C	Standard Penetration Test using a solid 60 degree cone. (See Note).

NOTE: Where a single value is quoted this is the N value for 300 mm penetration following a seating drive of 150 mm. Where this full penetration is not achieved the number of blows is quoted for the penetration below the seating drive eg. 63/160 mm.
Where total penetration is less than the seating drive this is indicated by a + and the number of blows for total penetration is quoted eg. +50/75 mm.

HV	Hand Vane Test. Vane undrained shear strength, c_u, quoted in kPa.
V	Borehole Vane Test. Vane undrained shear strength, c_u, quoted in kPa.
FHT/RHT	Falling / Rising Head Permeability Test.

CORE RUN DETAILS

TCR	Total Core Recovery, %
SCR	Solid Core Recovery, %
RQD	Rock Quality Designation, %
FI	Fracture Index. NI - Non intact where > 25 No. per metre length.

WATER COLUMN SYMBOLS

	First water strike, second water strike etc.
	Standing water level after first strike, second strike etc.
	Seepage.

NOTE:
Legend symbols in accordance with BS 5930 (2015)

KEY TO BOREHOLE AND TRIAL PIT LOGS

MATERIAL LEGENDS

 Made Ground	 Topsoil	 Clay
 Gravel	 Sand	 Silt
 Peat	 Boulders	 Cobbles
 Chalk	 Conglomerate	 Volcaniclastic
 Asphalt	 Void	 Mudstone
 Siltstone	 Sandstone	 Limestone
 Ironstone	 Mudstone / Siltstone	 Breccia
 Coal	 Coral	 Bedrock
 Shale	 Gypsum	 Igneous (Coarse Grained)
 Igneous (Fine Grained)	 Igneous (Medium Grained)	 Metamorphic (Coarse Grained)
 Metamorphic (Fine Grained)	 Metamorphic (Medium Grained)	

INSTALLATION / BACKFILL DETAILS

 Arisings	 Concrete	 Bentonite cement grout
 Bentonite seal	 Filter	 Pea Gravel
 Plain pipe	 Slotted pipe	 Piezometer / Standpipe tip

NOTE:
Legend symbols in accordance with BS 5930 (2015)

APPENDIX III – **TRIAL TRENCH LOGS**

Contract : Caenant Terrace, Skewen

Client : Atkins

Trial Pit No. HP01

Dates : 1/9/20 - 1/9/20

Location : Land adjacent to Caenant Terrace

Job Number : Q0330

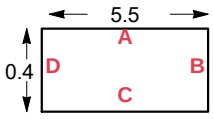
Engineer : Atkins

Ground Level : 37.73 m A.O.D. *Level to Ordnance Datum*

Coordinates: 272690.81 E 197519.57 N *Co-ordinates to National Grid*

m B.G.L.	Samples Depth	Samples Type No.	Tests Depth	Tests Test Results	Strata Depth (Thick-ness)	Strata Description	Strata Legend	Strata Red. Level A.O.D.	WATER
	0.30 - 0.50	B1				MADE GROUND - Black very silty gravelly SAND with low cobble cobble content. Gravel is fine to coarse angular slag, sandstone, glass, brick and concrete. Cobbles are angular brick and concrete.			
	0.30 -	ES1							
	0.50 -	ES2							
1	1.00 - 1.20	B2							
	1.00 -	ES3			2.30				
						..... Below 1.8mbgl at southern end of pit firm grey CLAY			▼
2									
					2.30	Terminated at 2.3mbgl, full reach of excavator		35.43	

PLAN



Groundwater: Moderate groundwater inflow below 1.9mbgl

Stability: Stable

Shoring: N/A

Remarks : No services encountered. Hand excavator to 1.2mbgl. Machine excavated below 1.2mbgl. Set out in liaison with the Client / Investigation Supervisor.

Equipment Used: Hand digging tools and 2 tonne tracked excavator

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QGL	P Darby	1 Of 3	4		

Contract : Caenant Terrace, Skewen **Client : Atkins**		**Trial Pit No.** **HP01**
Dates : 1/9/20 - 1/9/20 Location : Land adjacent to Caenant Terrace	Job Number : Q0330 Engineer : Atkins	Ground Level : 37.73 m A.O.D. *Level to Ordnance Datum* Coordinates: 272690.81 E 197519.57 N *Co-ordinates to National Grid*





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QGL	P Darby	2 Of 3		All measurements in metres unless otherwise stated

AGS

Contract : Caenant Terrace, Skewen Client : Atkins		Trial Pit No. HP01
Dates : 1/9/20 - 1/9/20 Location : Land adjacent to Caenant Terrace	Job Number : Q0330 Engineer : Atkins	Ground Level : 37.73 m A.O.D. *Level to Ordnance Datum* Coordinates: 272690.81 E 197519.57 N *Co-ordinates to National Grid*





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AGS

Contract : Caenant Terrace, Skewen

Client : Atkins

Trial Pit No. HP02

Dates : 2/9/20 - 2/9/20

Location : Caenant Terrace

Job Number : Q0330

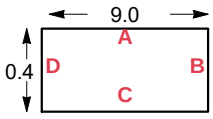
Engineer : Atkins

Ground Level : 36.59 m A.O.D. *Level to Ordnance Datum*

Coordinates: 272709.23 E 197498.41 N *Co-ordinates to National Grid*

m B.G.L.	Samples		Tests		Strata				WATER
	Depth	Type No.	Depth	Test Results	Depth (Thick-ness)	Description	Legend	Red. Level A.O.D.	
	0.15 -	ES1 ES1W			0.05	Asphalt - Wearing Coarse		36.55	
	0.30 - 0.50	B1 B1W			0.05	Asphalt - Base Coarse		36.49	
	0.50 -	ES2 ES2W			0.06	MADE GROUND - Grey slightly sandy GRAVEL. Gravel is fine to coarse angular limestone. (SUB-BASE)		36.39	
					0.10	..... between 0.1 and 0.46mbgl concrete below western carriageway from southern curb line to 1.5m from curb line			
					0.10	..... at 0.17mbgl top of 4" orange plastic ducting (suspected street light) running east to west below southern footpath. Top of service - E272710.162, N197493.396, 36.493mAOD			
					0.20	..... at 0.2mbgl yellow warning tap running north to south across trench			
					0.55	Located at E272708.723, N197496.818, 36.398mAOD			
						MADE GROUND - Greyish brown sandy GRAVEL with occasional pockets (<100mm diamater) of gravelly Silt / Clay. Gravel is fine to coarse sub-angular to angular sandstone, limestone and occasional brick.			
						..... at 0.27mbgl top of 4" green plastic ducting (suspected fibre optics) running east to west below southern footpath. Top of service - E272710.155, N197493.813, 36.365mAOD			
						..... at 0.35mbgl top of 2-3" grey plastic ducting (suspected electric) running east to west below northern footpath. Top of service - E272709.439, N197501.971, 36.253mAOD			
						..... at 0.35mbgl top of 3" green plastic ducting running east to west below northern footpath. Top of service - E272709.349, N197501.474, 36.214mAOD			
						..... at 0.38mbgl top of 4" grey plastic ducting (suspected water) running east to west below northern footpath. Top of service - E272709.431, N197502.202, 36.239mAOD			
						..... at 0.6 to 0.62mbgl top of yellow plastic pipe (suspected gas) running south to north from east to west running suspected gas main.			
					0.75	..... at 0.73mbgl top of yellow plastic pipe (suspected gas main) running east to west below western carriageway. Top of service - E272708.723, N197496.818, 35.868mAOD		35.84	
						Terminated at depths between 0.2 and 0.75mbgl upon encountering yellow plastic pipe running from north to south along base of pit or proving mapped / detected utilities			

PLAN



Groundwater:

Stability: Stable

Shoring: N/A

Remarks : No groundwater encountered. Set out in liaison with the Client / Investigation Supervisor.

Equipment Used: Hand digging tools

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AGS

Contract : Caenant Terrace, Skewen Client : Atkins			Trial Pit No. HP02
Dates : 2/9/20 - 2/9/20 Location : Caenant Terrace	Job Number : Q0330 Engineer : Atkins	Ground Level : 36.59 m A.O.D. *Level to Ordnance Datum*	
		Coordinates: 272709.23 E 197498.41 N *Co-ordinates to National Grid*	





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AGS

Contract : Caenant Terrace, Skewen Client : Atkins		Trial Pit No. HP02
Dates : 2/9/20 - 2/9/20 Location : Caenant Terrace	Job Number : Q0330 Engineer : Atkins	Ground Level : 36.59 m A.O.D. *Level to Ordnance Datum* Coordinates: 272709.23 E 197498.41 N *Co-ordinates to National Grid*

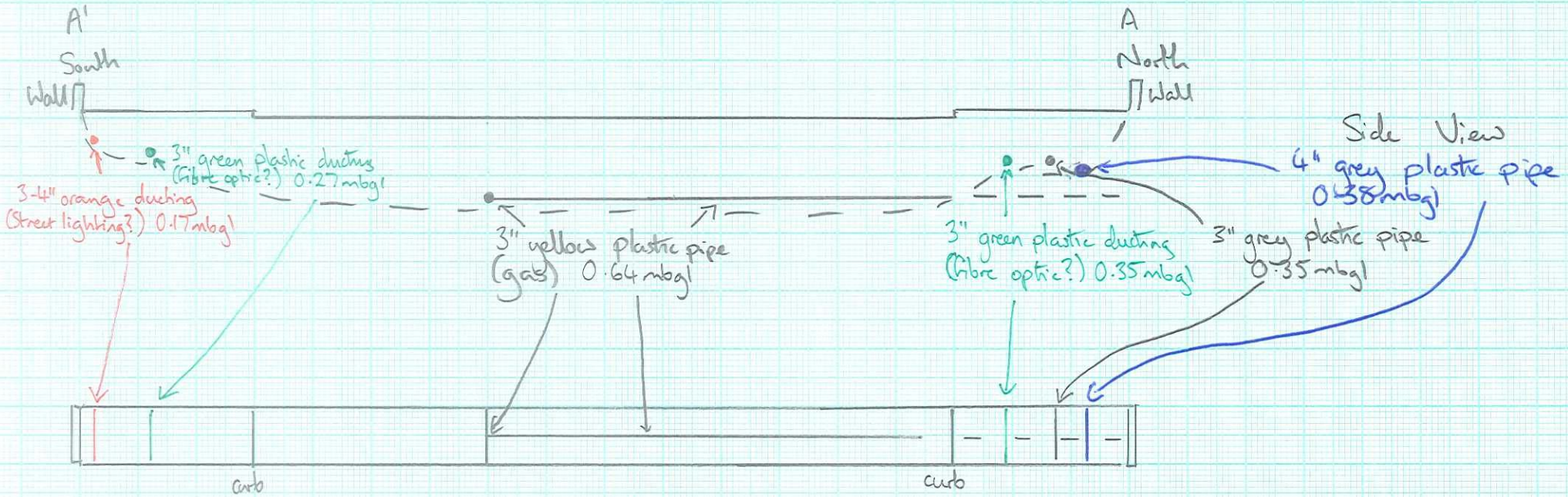


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AGS

HP02


A'
South Wall
A
North Wall
Side View
3" green plastic ducting (fibre optic?) 0.27mbgl
3-4" orange ducting (Street lighting?) 0.17mbgl
3" yellow plastic pipe (gas) 0.64mbgl
3" green plastic ducting (fibre optic?) 0.35mbgl
3" grey plastic pipe 0.35mbgl
4" grey plastic pipe 0.38mbgl
curb
curb

Contract : Caenant Terrace, Skewen

Client : Atkins

Trial Pit No. HP03

Dates : 2/9/20 - 4/9/20

Location : Caenant Terrace

Job Number : Q0330

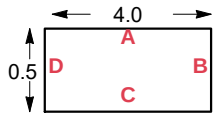
Engineer : Atkins

Ground Level : 34.48 m A.O.D. *Level to Ordnance Datum*

Coordinates: 272765.96 E 197496.87 N *Co-ordinates to National Grid*

m B.G.L.	Samples Depth	Samples Type No.	Tests Depth	Tests Test Results	Strata Depth (Thick-ness)	Strata Description	Strata Legend	Strata Red. Level A.O.D.	WATER
					0.08	Asphalt - Wearing Coarse			
	0.15 -	ES1			0.08	MADE GROUND - Grey sandy GRAVEL. Gravel is fine to coarse angular sandstone. (Sub-base)		34.40	
					0.32				
	0.50 -	ES2			0.40	MADE GROUND - Firm grey gravelly Clay with pockets of black silty gravelly ashy sand. Gravel is fine to coarse sub-rounded sandstone and clinker.		34.08	
	0.60 - 0.80	B1							
					0.70				
1	1.00 -	ES3			1.10	Soft dark brown organic SILT / CLAY.		33.38	
					0.10				
	1.30 -	D1			1.20	Soft grey CLAY with occasional rootlets. (ALLUVIUM)		33.28	
	1.30 - 1.50	B2							
			1.5	Vane - P=16 - R=8kN/m2 Vane - P=19 - R=11kN/m2 Vane - P=22 - R=11kN/m2	0.60				
					1.80	Grey clayey GRAVEL with high cobble content. Gravel is fine to coarse sub-rounded sandstone. Cobbles are sub-rounded sandstone.		32.68	
2					0.20				
					2.00	Terminated at 2.0mbgl		32.48	

PLAN



Groundwater:

Stability: Stable

Shoring: N/A

Remarks : No groundwater encountered. Set out in liaison with the Client / Investigation Supervisor.

Equipment Used: Hand digging tools and 2t tracked excavator

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QGL	P Darby	1 Of 2	4		

Contract : Caenant Terrace, Skewen Client : Atkins			Trial Pit No. HP03
Dates : 2/9/20 - 4/9/20 Location : Caenant Terrace	Job Number : Q0330 Engineer : Atkins	Ground Level : 34.48 m A.O.D. *Level to Ordnance Datum*	
		Coordinates: 272765.96 E 197496.87 N *Co-ordinates to National Grid*	





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AGS

Contract : Caenant Terrace, Skewen

Client : Atkins

Trial Pit No. HP04

Dates : 3/9/20 - 4/9/20

Location : Caenant Terrace

Job Number : Q0330

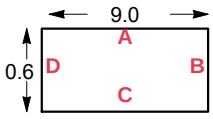
Engineer : Atkins

Ground Level : 33.88 m A.O.D. *Level to Ordnance Datum*

Coordinates: 272793.72 E 197493.42 N *Co-ordinates to National Grid*

m B.G.L.	Samples Depth	Samples Type No.	Tests Depth	Tests Test Results	Strata Depth (Thick-ness)	Strata Description	Strata Legend	Strata Red. Level A.O.D.	WATER
					0.06	Asphalt - Wearing Coarse		33.82	
	0.10 - 0.30	B1			0.06	MADE GROUND - Grey slightly sandy GRAVEL. Gravel is fine to coarse angular limestone. (SUB-BASE)			
	0.10 -	ES2							
	0.15 -	ES1			0.34	..... at 0.17mbgl top of 4" green plastic ducting (suspected fibre) below 0.1m of concrete running east to west below northern footpath.			
	0.20 - 0.40	B1W							
	0.30 -	ES1W							
	0.40 - 0.60	B2W			0.40	Top of service - E272794.022, N197496.582, 33.775mAOD		33.48	
	0.50 - 0.60	ES3				..... at 0.25mbgl top of 4" green plastic ducting (suspected fibre optics) running east to west below southern footpath.			
	0.60 -	D1				Top of service - E272793.149, N197489.458, 33.692mAOD			
	0.60 - 0.80	B2				..... at 0.32mbgl top of 10mm black rubber coated cable running east to west below northern footpath.			
	0.80 -	ES2W			0.70	Top of service - E272794.073, N197496.745, 33.63mAOD			
						..... at 0.3mbgl top of 4" grey plastic pipe (suspected water) running east to west below northern footpath.			
1	1.00 - 1.10	ES4				Top of service - E272794.121, N197497.26, 33.68mAOD			1
	1.15 -	ES3W			1.10	MADE GROUND - Stiff brown and black slightly gravelly silty CLAY with low cobble content and pockets of black silty slightly gravelly Sand. Gravel is fine to coarse sub-rounded sandstone and clinker. Cobbles are sub-rounded sandsone.		32.78	
					0.10	..... at 0.5mbgl electric warning tile running east to west below southern footpath.		32.68	
					1.20	Top of tile - E272793.17, N197488.912, 33.467mAOD			
						..... at 0.6 top of yellow plastic pipe (suspected gas) running from east to west below road.			
						Top of service - E272793.344, N197461.479, 33.285mAOD			
						MADE GROUND - Black ashy sandy GRAVEL with high cobble content. Gravel is fine to medium sub-rounded to rounded sandstone and clinker. Cobbles are sub-rounded sandstone.			
						Terminated at depths of between 0.17 and 1.2mbgl upon either encountering services or reaching 1.2mbgl			

PLAN



Groundwater:

Stability: Stable

Shoring: N/A

Remarks : Set out in liaison with the Client / Investigation Supervisor.

Equipment Used: Hand digging tools

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AGS

Contract : Caenant Terrace, Skewen Client : Atkins			Trial Pit No. HP04
Dates : 3/9/20 - 4/9/20 Location : Caenant Terrace	Job Number : Q0330 Engineer : Atkins	Ground Level : 33.88 m A.O.D. *Level to Ordnance Datum*	
		Coordinates: 272793.72 E 197493.42 N *Co-ordinates to National Grid*	



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QGL	P Darby	2 Of 3			

Contract : Caenant Terrace, Skewen Client : Atkins			Trial Pit No. HP04
Dates : 3/9/20 - 4/9/20 Location : Caenant Terrace	Job Number : Q0330 Engineer : Atkins	Ground Level : 33.88 m A.O.D. *Level to Ordnance Datum*	
		Coordinates: 272793.72 E 197493.42 N *Co-ordinates to National Grid*	

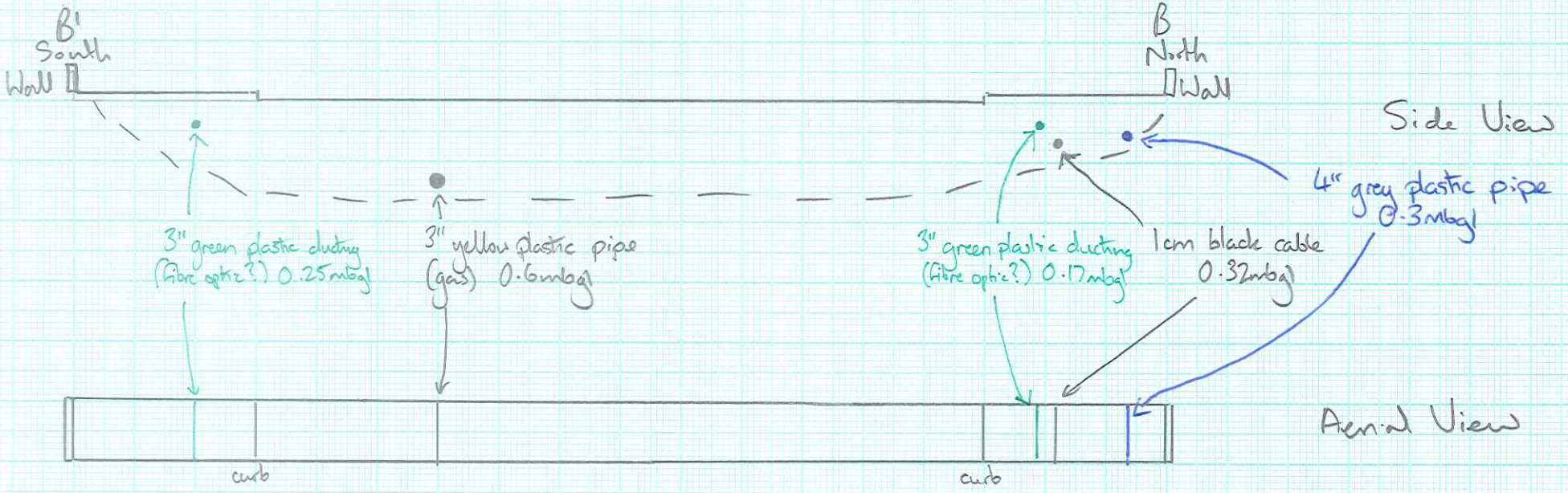


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QGL	P Darby	3 Of 3		All measurements in metres unless otherwise stated

AGS

HP04


B'
South
Wall
B
North
Wall
Side View
3" green plastic ducting
(fibre optic?) 0.25mbgl
3" yellow plastic pipe
(gas) 0.6mbgl
3" green plastic ducting
(fibre optic?) 0.17mbgl
1cm black cable
0.32mbgl
4" grey plastic pipe
@ 3mbgl
curb
curb
Aerial View

Contract : Caenant Terrace, Skewen

Client : Atkins

Trial Pit No. HP05

Dates : 2/9/20 - 3/9/20

Location : Caenant Terrace

Job Number : Q0330

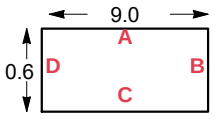
Engineer : Atkins

Ground Level : 33.43 m A.O.D. *Level to Ordnance Datum*

Coordinates: 272828.89 E 197491.22 N *Co-ordinates to National Grid*

m B.G.L.	Samples Depth	Samples Type No.	Tests Depth	Tests Test Results	Strata Depth (Thick-ness)	Strata Description	Legend	Red. Level A.O.D.	WATER
					0.07	Asphalt - Wearing Coarse			
					0.07	MADE GROUND - Grey slightly sandy GRAVEL. Gravel is fine to coarse angular limestone. (SUB-BASE)		33.36	
	0.25 -	ES1			0.19	..... Below the northern footpath below 0.1mbgl MADE GROUND - grey slight sandy gravelly SILT. Gravel is fine to coarse sub-rounded to sub-angular sandstone and brick.			
					0.26	..... at 0.18mbgl top of 3" orange plastic ducting (suspected street light) running east to west below southern footpath. Top of service - E272828.429, N197486.533, 33.321mAOD		33.17	
	0.50 - 0.70	B1				..... at 0.2mbgl yellow warning tap running east to west across trench. Located at 272828.764, N197489.684, 32.63mAOD			
	0.50 -	ES2			0.94	..... at 0.23mbgl top of 3" green plastic ducting (suspected fibre optics) running east to west below souththern footpath. Top of service - E272828.424, N197487.027, 33.254mAOD			
1	1.00 - 1.20	B2				..... at 0.26mbgl top of 4" green plastic ducting encased below concrete (suspected BT) running east to west below northern footpath. Top of service - E272829.306, N197494.998, 33.293mAOD			
	1.00 -	ES3			1.20	MADE GROUND - Stiff brown and black slightly gravelly silty CLAY with low cobble content and pockets of black silty slightly gravelly Sand. Gravel is fine to coarse sub-rounded sandstone and clinker. Cobbles are sub-rounded sandsone. ..... between 0.5 and 1.15 concrete with 200mm void containing water at centre running from east to west. Top coners of concrete - E272829.079, N197492.312, 32.978mAOD and E272829.145, N197492.865, 32.973mAOD ..... at 0.6mbgl top of yellow plastic pipe (suspected gas main) running east to west below western carriageway. Top of service - E272828.764, N197489.684, 32.83mAOD ..... at 0.7mbgl top of 3/4" yellow plastic pipe (suspected redundant gas) running north to south from road to a tap below southern footpath. Top of service located at E272828.469, N197487.567, 32.777mOAD		32.23	
						Terminated at depths between 0.18 and 1.2mbgl upon proving mapped / detected utilities or reaching 1.2mbgl			

PLAN



Groundwater: Medium groundwater inflow below 1.0mbgl

Stability: Stable

Shoring: N/A

Remarks : Set out in liaison with the Client / Investigation Supervisor.

Equipment Used: Hand digging tools

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AGS

Contract : Caenant Terrace, Skewen Client : Atkins			Trial Pit No. HP05
Dates : 2/9/20 - 3/9/20 Location : Caenant Terrace	Job Number : Q0330 Engineer : Atkins	Ground Level : 33.43 m A.O.D. *Level to Ordnance Datum*	
		Coordinates: 272828.89 E 197491.22 N *Co-ordinates to National Grid*	



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AGS

Contract : Caenant Terrace, Skewen Client : Atkins		Trial Pit No. HP05
Dates : 2/9/20 - 3/9/20 Location : Caenant Terrace	Job Number : Q0330 Engineer : Atkins	Ground Level : 33.43 m A.O.D. *Level to Ordnance Datum* Coordinates: 272828.89 E 197491.22 N *Co-ordinates to National Grid*



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AGS

HP05

C'
South
Wall

C
North
Wall

Side View

3" orange plastic ducting
(Street lighting?) 0.18mbgl

3" green plastic ducting
(fibre optic?) 0.23mbgl

3" yellow plastic
pipe (gas) 0.6mbgl

Disconnected 3/4" yellow
plastic pipe. Surface to
0.7mbgl

Concrete with 200mm void
containing water in centre
0.45-1.15mbgl

3" green plastic ducting
(fibre optic?) 0.26mbgl



Aerial View

Contract : Caenant Terrace, Skewen

Client : Atkins

Trial Pit No.
HP06

Dates : 8/9/20 - 9/9/20
Location : Caenant Terrace

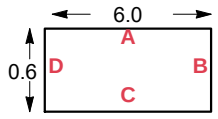
Job Number : Q0330
Engineer : Atkins

Ground Level : 33.40 m A.O.D.
Level to Ordnance Datum

Coordinates: 272843.67 E
197488.45 N
Co-ordinates to National Grid

m B.G.L.	Samples Depth	Samples Type No.	Tests Depth	Tests Test Results	Depth (Thick-ness)	Description	Legend	Red. Level A.O.D.	WATER
					0.12	Strong grey Concrete			
					0.12 0.18	MADE GROUND - Grey sandy GRAVEL. Gravel is fine to coarse angular limestone. (SUB-BASE)		33.28	
					0.30	..... at 0.26mbgl top of 2 x 3" green ducting (fibre optic?) running east to west. Top of services - E272843.927, N197488.957, 33.191mAOD and E272844.019, N197489.01, 33.196mAOD		33.10	
	0.50 - 0.70 0.50 -	B1 ES1			0.70	MADE GROUND - Firm black, locally brown, slightly silty slightly sandy gravelly CLAY with occasional claye pipe fragments. Gravel is fine to coarse sub-rounded to sub-angular sandstone and clinker. ..... at 0.35mbgl top of 4" clay pipe running approxiamtely north to south between gas and fibre optics. Top of pipe broken previously and was found to contain slightly smaller plastic pipe inside clay pipe to maintain flow. Top of service - E272842.51, N197487.079, 32.976mAOD			
1					1.00 0.20	..... Below curb at south western end of pit 4" clay pipe running east to west . Top of service - E272842.902, N197486.742, 32.646mAOD		32.40	
	1.10 -	D1			1.20	..... at 0.57mbgl top of 3" yellow plastic pipe (gas) running east to west Top of service - E272844.143, N197489.145, 32.891mAOD ..... At 0.73mbgl below south western footpath large (possible 8") clay pipe potentially emitting both power and radio signal. Top of service - E272842.902, N197486.742, 32.646mAOD		32.20	
						Soft to firm grey CLAY. Terminated at depths of between 0.6 and 1.2mbgl upon proving mapped / detected utilities or reaching 1.2mbgl			

PLAN



Groundwater: Moderate groundwater inflow at 0.73mbgl

Stability: Stable

Shoring: N/A

Remarks : Set out in liaison with the Client / Investigation Supervisor.

Equipment Used: Hand digging tools

Quantum
Plas Newydd
Swansea
Tel: 01554744880
Fax:
email: enquiries@quantumgeotechnic.co.uk

Operator:	Logged By.	Sheet No.	m Per Page	
QGL	P Darby	1 Of 3	4	All measurements in metres unless otherwise stated

AGS

Contract : Caenant Terrace, Skewen Client : Atkins			Trial Pit No. HP06
Dates : 8/9/20 - 9/9/20 Location : Caenant Terrace	Job Number : Q0330 Engineer : Atkins	Ground Level : 33.40 m A.O.D. *Level to Ordnance Datum* Coordinates: 272843.67 E 197488.45 N *Co-ordinates to National Grid*	





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Operator:	Logged By.	Sheet No.	m Per Page	
QGL	P Darby	2 Of 3		All measurements in metres unless otherwise stated

AGS

Contract : Caenant Terrace, Skewen Client : Atkins		Trial Pit No. HP06
Dates : 8/9/20 - 9/9/20 Location : Caenant Terrace	Job Number : Q0330 Engineer : Atkins	Ground Level : 33.40 m A.O.D. *Level to Ordnance Datum* Coordinates: 272843.67 E 197488.45 N *Co-ordinates to National Grid*



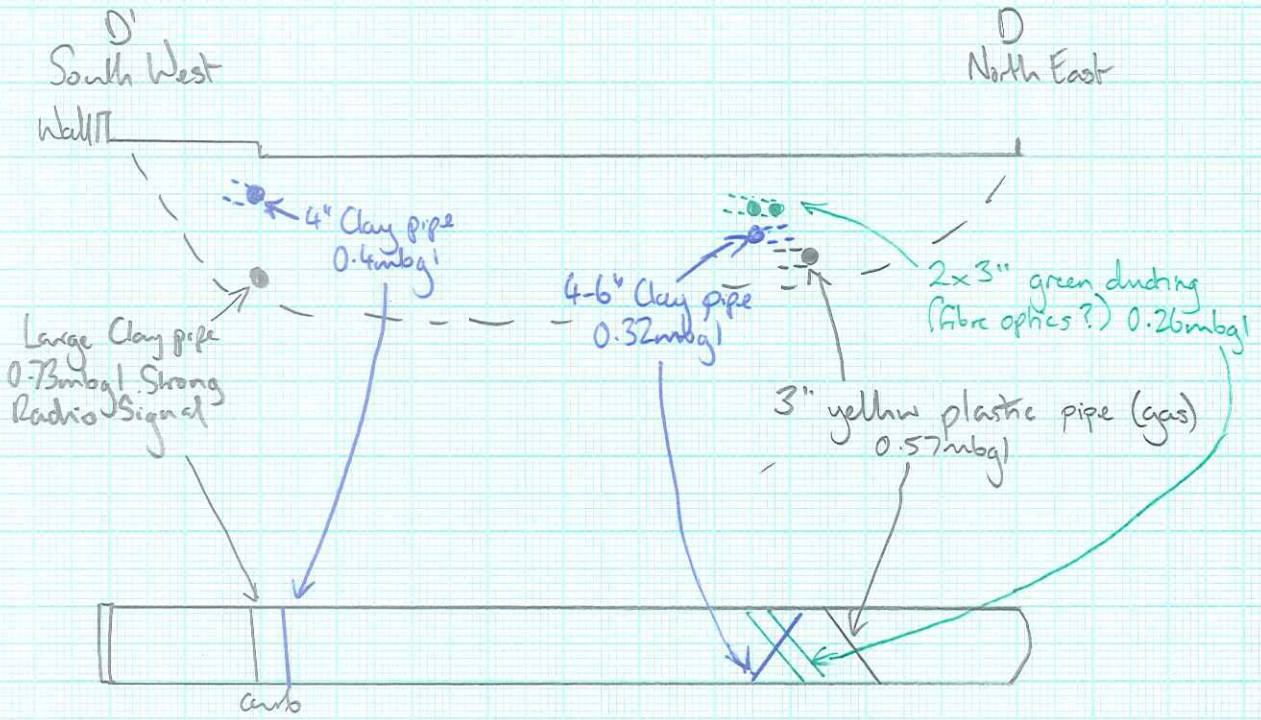


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Operator:	Logged By.	Sheet No.	m Per Page	
QGL	P Darby	3 Of 3		All measurements in metres unless otherwise stated

AGS

HP06


D'
South West
D
North East
Side View
Wall
4" Clay pipe
0.4mbgl
4-6" Clay pipe
0.32mbgl
2x3" green ducting
(Fibre optics?) 0.26mbgl
Large Clay pipe
0.73mbgl Strong
Radio Signal
3" yellow plastic pipe (gas)
0.57mbgl
Aerial View
curb

Contract : Caenant Terrace, Skewen

Client : Atkins

Trial Pit No. HP07

Dates : 8/9/20 - 8/9/20

Location : Caenant Terrace

Job Number : Q0330

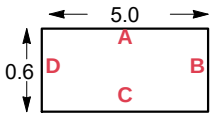
Engineer : Atkins

Ground Level : 32.46 m A.O.D. *Level to Ordnance Datum*

Coordinates: 272846.78 E 197461.26 N *Co-ordinates to National Grid*

m B.G.L.	Samples Depth	Samples Type No.	Tests Depth	Tests Test Results	Strata Depth (Thick-ness)	Strata Description	Strata Legend	Strata Red. Level A.O.D.	WATER
					0.20	Strong grey Concrete.			
	0.30 -	ES1N			0.20 0.10 0.30	MADE GROUND - Cream sandy GRAVEL. Gravel is fine to coarse angular limestone. ..... Concrete between 0.2 and 0.4mbgl and 0.3 and 0.4m from curb ..... At 0.25mbgl below eastern footpath 3" orange / red pastic ducting (street lighting) Top of service - E272849.912, N197461.476, 32.32mAOD		32.26 32.16	
	0.50 - 0.70 0.50 - 0.50 - 0.70 0.50 -	B1 ES1 B1N ES2N							
1	1.00 -	ES3N			1.30	Below eastern half of pit: MADE GROUND - Dark grey and black silty slightly sandy GRAVEL with high cobble content. Gravel is fine to coarse angular to sub-rounded brick, sandstone and occasional pipe fragments. Cobbles are sub-rounded sandstone and angular brick. Below western half of pit: MADE GROUND - Black slightly sandy gravelly SILT with medium cobble content. Gravel is fine to coarse angular to rounded sandstone, brck and occasional clinker. Cobbles are sub-rounded sandstone and angular brick. ..... At 0.63mbgl below western curb 2" metal pipe Top of service - E272844.928, N197461.057, 31.903mAOD ..... At 0.68mbgl below eastern footpath buried asphalt ..... At 1.0mbgl large (possible 12") clay pipe running north to south. Top of service - E272847.471, N197461.27, 31.473mAOD ..... Eastern end of pit terminated at 1.0mbgl upon encountering pipe ..... Western end of pit terminated at 1.6mbgl due to instability.			
					1.60			30.86	

PLAN



Groundwater: Moderate groundwater inflow below 1.5mbgl

Stability: Instability below 1.1mbgl

Shoring: N/A

Remarks : Set out in liaison with the Client / Investigation Supervisor.

Equipment Used: Hand digging tools and 2t tracked excavator

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email: enquiries@quantumgeotechnic.co.uk

Operator:	Logged By.	Sheet No.	m Per Page	
QGL	P Darby	1 Of 3	4	All measurements in metres unless otherwise stated

AGS

Contract : Caenant Terrace, Skewen Client : Atkins		Trial Pit No. HP07
Dates : 8/9/20 - 8/9/20 Location : Caenant Terrace	Job Number : Q0330 Engineer : Atkins	Ground Level : 32.46 m A.O.D. *Level to Ordnance Datum* Coordinates: 272846.78 E 197461.26 N *Co-ordinates to National Grid*



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Operator:	Logged By.	Sheet No.	m Per Page	
QGL	P Darby	2 Of 3		All measurements in metres unless otherwise stated

AGS

Contract : Caenant Terrace, Skewen Client : Atkins			Trial Pit No. HP07
Dates : 8/9/20 - 8/9/20 Location : Caenant Terrace	Job Number : Q0330 Engineer : Atkins	Ground Level : 32.46 m A.O.D. *Level to Ordnance Datum*	
		Coordinates: 272846.78 E 197461.26 N *Co-ordinates to National Grid*	



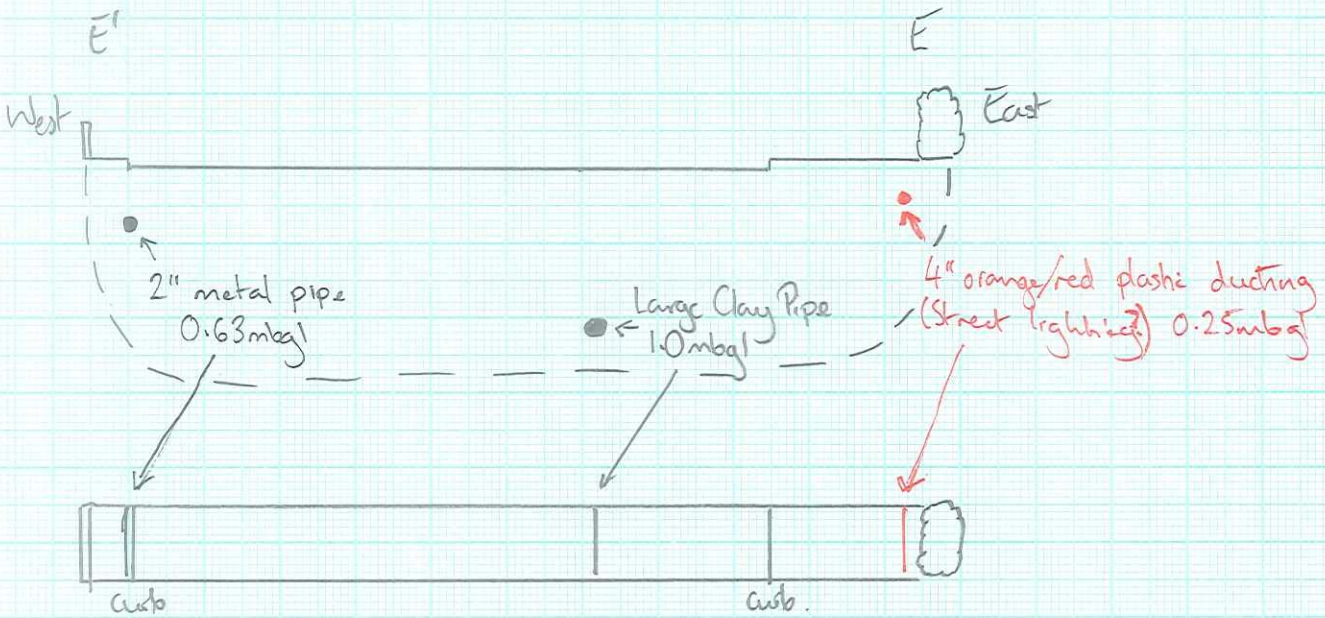


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Operator:	Logged By.	Sheet No.	m Per Page	
QGL	P Darby	3 Of 3		All measurements in metres unless otherwise stated

AGS

HP07


E'
E
West
East
Side View
2" metal pipe
0.63mbgl
Large Clay Pipe
1.0mbgl
4" orange/red plastic ducting
(Street lighting) 0.25mbgl
Aerial View
curb
curb.

KEY TO BOREHOLE AND TRIAL PIT LOGS

MATERIAL LEGENDS

 Made Ground	 Topsoil	 Clay
 Gravel	 Sand	 Silt
 Peat	 Boulders	 Cobbles
 Chalk	 Conglomerate	 Volcaniclastic
 Asphalt	 Void	 Mudstone
 Siltstone	 Sandstone	 Limestone
 Ironstone	 Mudstone / Siltstone	 Breccia
 Coal	 Coral	 Bedrock
 Shale	 Gypsum	 Igneous (Coarse Grained)
 Igneous (Fine Grained)	 Igneous (Medium Grained)	 Metamorphic (Coarse Grained)
 Metamorphic (Fine Grained)	 Metamorphic (Medium Grained)	

INSTALLATION / BACKFILL DETAILS

 Arisings	 Concrete	 Bentonite cement grout
 Bentonite seal	 Filter	 Pea Gravel
 Plain pipe	 Slotted pipe	 Piezometer / Standpipe tip

NOTE:
Legend symbols in accordance with BS 5930 (2015)

KEY TO BOREHOLE AND TRIAL PIT LOGS

m.A.O.D. metres Above Ordnance Datum.

SAMPLE AND TEST TYPES

U	Undisturbed driven tube sample - 102mm diameter, 450mm long.
P	Undisturbed pushed piston sample - 102mm diameter, 1000mm long.
TW	Undisturbed thin walled push in sample - 100mm diameter, 750mm long.
B	Bulk disturbed sample.
BLK	Block Sample
CBR	Heavy duty undisturbed sample - 154 mm diameter (CBR mould).
D	Small disturbed sample.
LB	Large Bulk disturbed sample (for earthworks testing)
C	Core sample
W	Water sample
G	Gas sample
ES	Environmental sample (soil)
j	Jar sample
t	Tub sample
p	Pot sample
s	Small sample
v	Vial sample
S	Standard Penetration Test using split spoon sampler. (See Note).
C	Standard Penetration Test using a solid 60 degree cone. (See Note).

NOTE: Where a single value is quoted this is the N value for 300 mm penetration following a seating drive of 150 mm. Where this full penetration is not achieved the number of blows is quoted for the penetration below the seating drive eg. 63/160 mm.
Where total penetration is less than the seating drive this is indicated by a + and the number of blows for total penetration is quoted eg. +50/75 mm.

HV	Hand Vane Test. Vane undrained shear strength, c_u, quoted in kPa.
V	Borehole Vane Test. Vane undrained shear strength, c_u, quoted in kPa.
FHT/RHT	Falling / Rising Head Permeability Test.

CORE RUN DETAILS

TCR	Total Core Recovery, %
SCR	Solid Core Recovery, %
RQD	Rock Quality Designation, %
FI	Fracture Index. NI - Non intact where > 25 No. per metre length.

WATER COLUMN SYMBOLS

	First water strike, second water strike etc.
	Standing water level after first strike, second strike etc.
	Seepage.

NOTE:
Legend symbols in accordance with BS 5930 (2015)

APPENDIX IV – **GEOTECHNICAL LABORATORY TEST RESULTS**

Laboratory Report

2788

GEO Site & Testing Services Ltd

Contract Number: 50340

Client Ref: **Q0330**
Client PO:

Report Date: **14-10-2020**

Client **Quantum Geotechnic Ltd**
Ty Berwig
Bynea
Llanelli.
Carmarthenshire.
SA14 9ST

Contract Title: **Caenant Terrace**
For the attention of: **Phil Darby**

Date Received: **21-09-2020**
Date Completed: **14-10-2020**

Test Description	Qty
Moisture Content BS 1377:1990 - Part 2 : 3.2 - * UKAS	3
4 Point Liquid & Plastic Limit BS 1377:1990 - Part 2 : 4.3 & 5.3 - * UKAS	3
PSD: Sedimentation by pipette carried out separately BS 1377:1990 - Part 2 : 9.4 - * UKAS	2
BRE Suite D Brownfield Site (pyrite present) **includes pH, water & acid soluble sulphate, total sulphur, magnesium, chloride and nitrate** BRE - BR279 - @ Non Accredited Test	3
Organic Matter Content-dichromate method BS 1377:1990 - Part 3 : 3 - @ Non Accredited Test	1
Disposal of samples for job	1

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

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

Approved Signatories:
Emma Sharp (Office Manager/Director) - Paul Evans (Quality/Technical Manager) - Richard John (Advanced Testing Manager)
Sean Penn (Administrative/Accounts Assistant) - Shaun Jones (Laboratory manager) - Wayne Honey (Administrative/Quality Assistant)

GEO Site & Testing Services Ltd
Unit 3-4, Heol Aur, Dafen Ind Estate, Dafen, Llanelli, Carmarthenshire SA14 8QN
Tel: 01554 784040 Fax: 01554 784041 info@gstl.co.uk gstl.co.uk

GSTL	NATURAL MOISTURE, LIQUID LIMIT, PLASTIC LIMIT AND PLASTICITY INDEX (BS 1377 : Part 2 : 1990 Method 5)	
Contract Number	50340	
Site Name	Caenant Terrace	
Date Tested	07/10/2020	
	DESCRIPTIONS	

Sample/Hole Reference	Sample Number	Sample Type	Depth (m)			Descriptions
WS01	2	D	2.20	-	2.30	Grey fine to medium gravelly silty sandy CLAY
WS01	4	D	3.80	-	4.00	Brown clayey fine to medium gravelly silty fine to coarse SAND
WS02	2	D	1.60	-	1.70	Greyish brown clayey fine gravelly silty SAND
				-		
				-		
				-		
				-		
				-		
				-		
				-		
				-		
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Operators	Checked	14/10/2020	Wayne Honey (Administrative/Quality Assistant)
Daniel Bassett	Approved	14/10/2020	Paul Evans (Quality/Technical Manager)

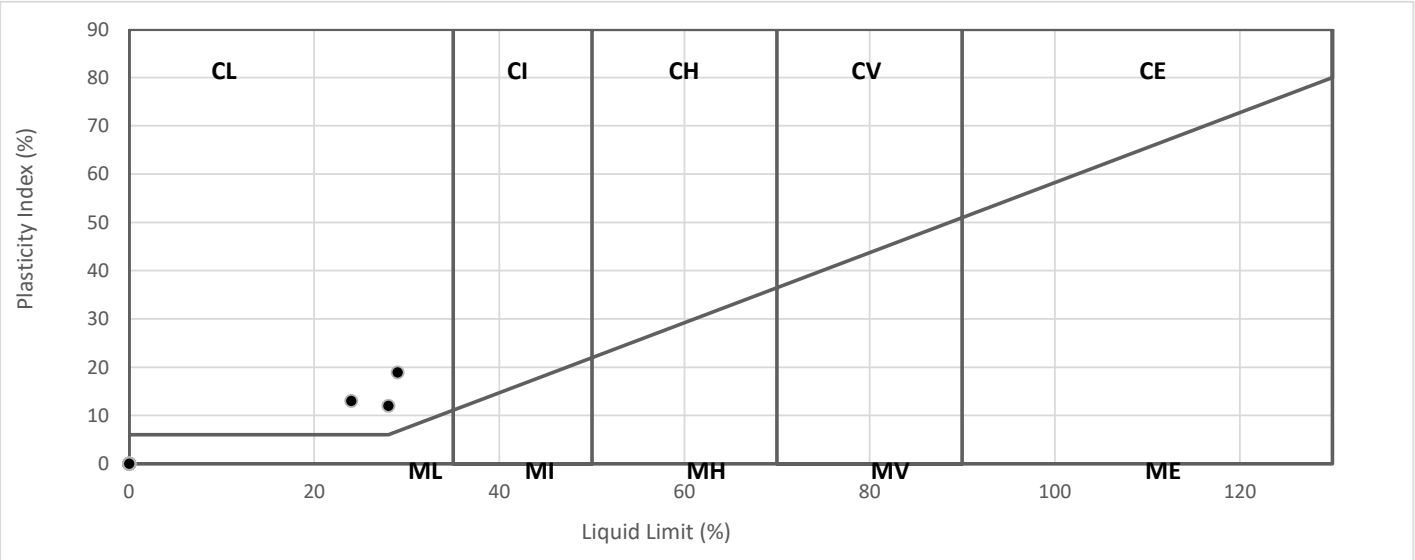
UKAS TESTING
2788

GSTL	NATURAL MOISTURE, LIQUID LIMIT, PLASTIC LIMIT AND PLASTICITY INDEX (BS 1377 : Part 2 : 1990 Method 5)	
Contract Number	**50340**	
Project Location	**Caenant Terrace**	
Date Tested	**07/10/2020**	

Sample/Hole Reference	Sample Number	Sample Type	Depth (m)			Moisture Content %	Liquid Limit %	Plastic Limit %	Plasticity index %	Passing 0.425mm %	Remarks
WS01	2	D	2.20	-	2.30	24	28	16	12	80	CL Low Plasticity
WS01	4	D	3.80	-	4.00	6.0	29	10	19	68	CL Low Plasticity
WS02	2	D	1.60	-	1.70	9.0	24	11	13	70	CL Low Plasticity
				-							
				-							
				-							
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Symbols: NP : Non Plastic # : Liquid Limit and Plastic Limit Wet Sieved

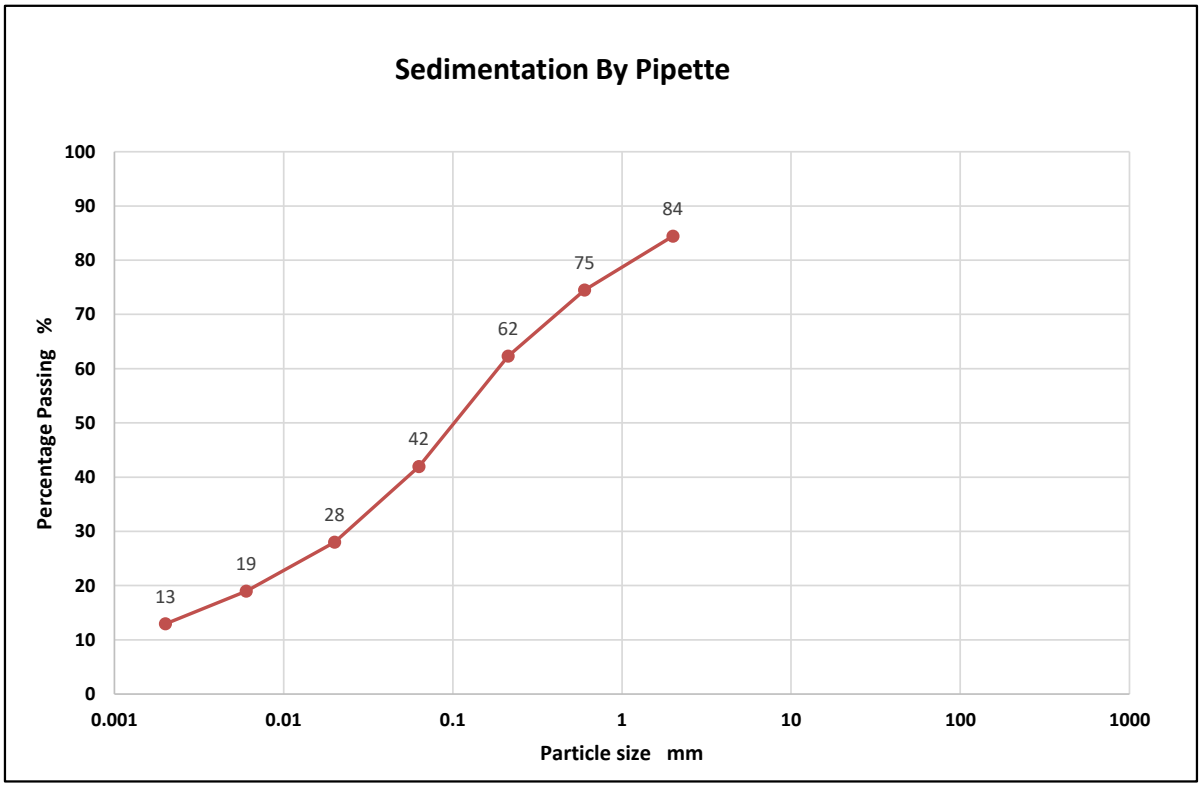
PLASTICITY CHART FOR CASAGRANDE CLASSIFICATION
BS 5930:1999+A2:2010



Operators	Checked	14/10/2020	Wayne Honey (Administrative/Quality Assistant)
Daniel Bassett	Approved	14/10/2020	Paul Evans (Quality/Technical Manager)

UKAS TESTING
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GSTL	Sedimentation By Pipette Analysis BS 1377 Part 2:1990 Clause 9.4	Contract Number	50340
		Borehole/Pit No.	WS01
Site Name	Caenant Terrace	Sample No.	4
Soil Description	Brown clayey fine to medium gravelly silty fine to coarse SAND	Depth Top	3.80
		Depth Base	4.00
		Sample Type	D



Top Sieve Analysis

BS Test Sieve	Percentage Passing
2.00	84
0.60	75
0.212	62
0.063	42

Sedimentation Analysis

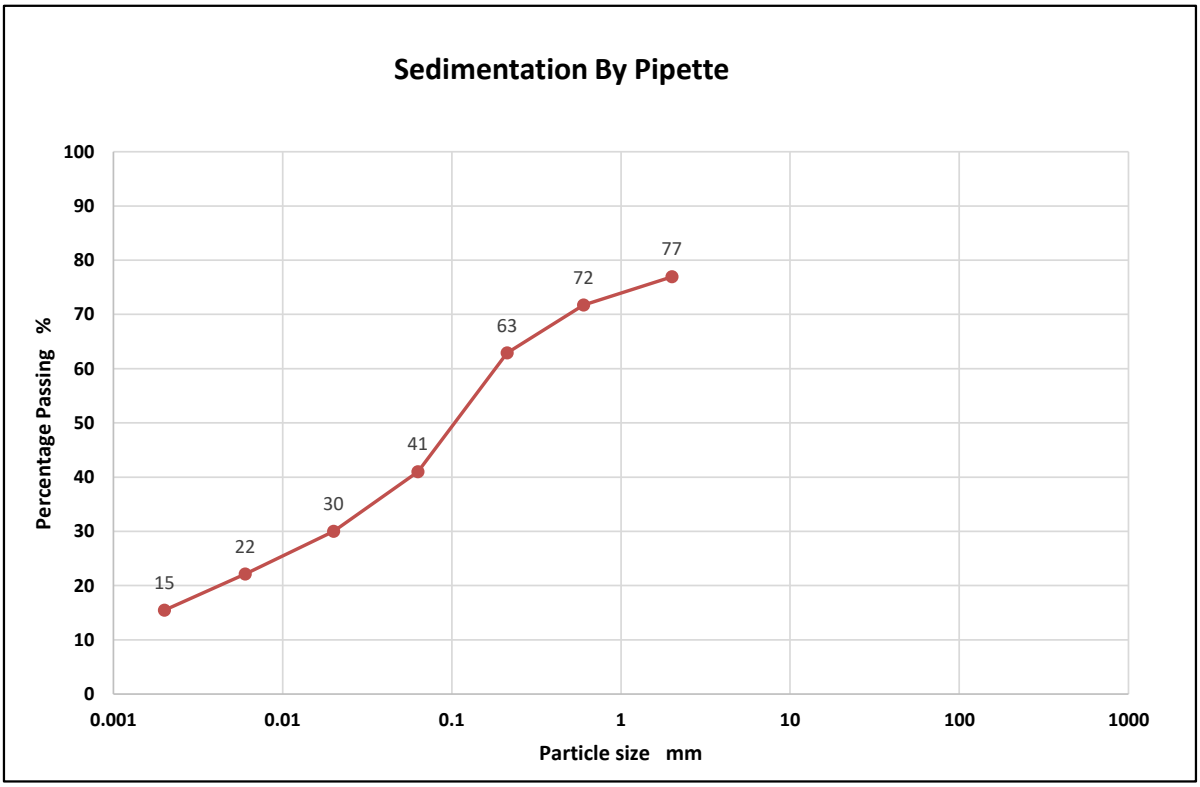
Particle Diameter	Percentage Passing
0.02	28
0.006	19
0.002	13

Soil Fraction	Total Percentage
Gravel	16
Sand	42
Silt	29
Clay	13

Operators	Checked	13/10/2020	Wayne Honey	W. Honey
RO	Approved	14/10/2020	Paul Evans	P Evans

UKAS TESTING 2788

GSTL	Sedimentation By Pipette Analysis BS 1377 Part 2:1990 Clause 9.4	Contract Number	50340
		Borehole/Pit No.	WS02
Site Name	Caenant Terrace	Sample No.	2
Soil Description	Greyish brown clayey fine gravelly silty SAND	Depth Top	1.60
		Depth Base	1.70
		Sample Type	D



Top Sieve Analysis

BS Test Sieve	Percentage Passing
2.00	77
0.60	72
0.212	63
0.063	41

Sedimentation Analysis

Particle Diameter	Percentage Passing
0.02	30
0.006	22
0.002	15

Soil Fraction	Total Percentage
Gravel	23
Sand	36
Silt	26
Clay	15

Operators	Checked	13/10/2020	Wayne Honey	W. Honey
RO	Approved	14/10/2020	Paul Evans	P Evans

UKAS TESTING 2788

GSTL	Certificate of Chemical Analysis (BRE BR 279)	Contract Number	50340
		Client Reference	Q0330
Client	Quantum	Date Received	
Site Name	Caenant Terrace	Date Started	09/10/2020
		Date Completed	14/10/2020
		No. of Samples	3

Hole Number	Sample Number	Sample Type	Depth (m)			Acid Soluble Sulphate	Aqueous Extract Sulphate	Chloride Content	Ph Value	Total Sulphur	Magnesium	Nitrate
WS01	1	D	1.80	-		0.31	0.04		7.39	0.13		
WS01	2	D	2.20	-	2.30	0.33	0.05		7.44	0.14		
WS02	1	D	1.10	-	1.30	0.31	0.05		7.28	0.13		
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Key	Reported As
Acid Soluble Sulphate	% SO_4
Aqueous Extract Sulphate	g/l SO_4
Chloride Content (Semi)	mg Cl/l
PH Value	@ 25°
Total Sulphur	% S
Magnesium	g/l SO_4
Nitrate	NO_3 mg/l

Remarks

NCP = No Chloride Present

Test Operator	Checked and Authorised by		Paul Evans	D P Evans
Darren Bourne	Date	14/10/2020		

GSTL	Certificate of Chemical Analysis BS1377 Part 3 1990	Contract Number	50340
		Client Reference	Q0330
Client	Quantum	Date Received	
Site Name	Caenant Terrace	Date Started	09/10/2020
		Date Completed	14/10/2020
		No. of Samples	1

Hole Number	Sample Number	Sample Type	Depth (m)			Acid Soluble Sulphate	Aqueous Extract Sulphate	Water Soluble Chloride	pH Value	Organic Matter Content	Acid Soluble Chloride	Loss On Ignition
WS01	1	D	1.80	-						4.5		
				-								
				-								
				-								
				-								
				-								
				-								
				-								
				-								
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Key	Reported As	Clause
Acid Soluble Sulphate	% SO_3	Clause 5.2 & 5.5
Aqueous Extract Sulphate	g/l SO_3	Clause 5.3 & 5.5
Water Soluble Chloride	%	Clause 7.2
pH Value	@ 25°	Clause 9.5
Organic	%	Clause 3
Acid Soluble Chloride	%	Clause 7.3
LOI	%	Clause 4

Remarks

NCP = No Chloride Present

Test Operator	Checked and Authorised by		Paul Evans	
Darren Bourne	Date	14/10/2020		

APPENDIX V – **CHEMICAL LABORATORY TEST RESULTS**

Eurofins Chemtest Ltd
Depot Road
Newmarket
CB8 0AL
Tel: 01638 606070
Email: info@chemtest.com

Final Report

Report No.:	20-24026-1		
Initial Date of Issue:	29-Sep-2020		
Client	Quantum Geotechnic Ltd		
Client Address:	Plas Newydd Llanedi Pontarddulais Swansea SA4 0FQ		
Contact(s):	Phil Darby		
Project	Q0330 Caenant Terrace		
Quotation No.:	Q20-19535	**Date Received:**	09-Sep-2020
Order No.:		**Date Instructed:**	21-Sep-2020
No. of Samples:	2		
Turnaround (Wkdays):	5	**Results Due:**	25-Sep-2020
Date Approved:	29-Sep-2020		

Approved By:



Details: Glynn Harvey, Technical Manager

Results - Leachate

Project: Q0330 Caenant Terrace

Client: Quantum Geotechnic Ltd				**Chemtest Job No.:**		20-24026	20-24026
Quotation No.: Q20-19535				**Chemtest Sample ID.:**		1061271	1061273
Order No.:				Client Sample Ref.:		ES2	ES3
				Client Sample ID.:		ES2	ES3
				Sample Location:		HP05	HP05
				Sample Type:		SOIL	SOIL
				Top Depth (m):		0.50	1.00
				Date Sampled:		03-Sep-2020	03-Sep-2020
Determinand	**Accred.**	**SOP**	**Type**	**Units**	**LOD**		
pH	U	1010	2:1		N/A	8.5	8.2
Chemical Oxygen Demand	U	1100	2:1	mg O2/l	10	33	34
Ammoniacal Nitrogen	U	1220	2:1	mg/l	0.050	1.3	1.6
Nitrite	U	1220	2:1	mg/l	0.020	0.31	1.7
Nitrate	U	1220	2:1	mg/l	0.50	2.3	2.5
Sulphate	U	1220	2:1	mg/l	1.0	110	44
Cyanide (Total)	U	1300	2:1	mg/l	0.050	< 0.050	< 0.050
Cyanide (Free)	U	1300	2:1	mg/l	0.050	< 0.050	< 0.050
Cyanide (Complex)	U	1300	2:1	mg/l	0.050	< 0.050	< 0.050
Sulphide	U	1325	2:1	mg/l	0.050	< 0.050	< 0.050
Magnesium	U	1415	2:1	mg/l	0.50	15	5.6
Aluminium (Dissolved)	N	1450	2:1	µg/l	10	< 10	< 10
Arsenic (Dissolved)	U	1450	2:1	µg/l	1.0	4.7	< 1.0
Boron (Dissolved)	U	1450	2:1	µg/l	20	87	39
Barium (Dissolved)	U	1450	2:1	µg/l	5.0	91	31
Beryllium (Dissolved)	U	1450	2:1	µg/l	1.0	< 1.0	< 1.0
Cadmium (Dissolved)	U	1450	2:1	µg/l	0.080	0.13	< 0.080
Chromium (Dissolved)	U	1450	2:1	µg/l	1.0	< 1.0	< 1.0
Copper (Dissolved)	U	1450	2:1	µg/l	1.0	2.3	4.6
Manganese (Dissolved)	U	1450	2:1	µg/l	1.0	350	43
Molybdenum (Dissolved)	U	1450	2:1	µg/l	1.0	120	4.1
Nickel (Dissolved)	U	1450	2:1	µg/l	1.0	1.2	< 1.0
Lead (Dissolved)	U	1450	2:1	µg/l	1.0	1.4	< 1.0
Antimony (Dissolved)	U	1450	2:1	µg/l	1.0	7.3	< 1.0
Selenium (Dissolved)	U	1450	2:1	µg/l	1.0	< 1.0	2.0
Vanadium (Dissolved)	U	1450	2:1	µg/l	1.0	< 1.0	< 1.0
Zinc (Dissolved)	U	1450	2:1	µg/l	1.0	2.9	< 1.0
Mercury Low Level	U	1460	2:1	µg/l	0.010	< 0.010	< 0.010
Iron (Dissolved)	N	1450	2:1	µg/l	20	140	71
Chromium (Hexavalent)	U	1490	2:1	µg/l	20	< 20	< 20
C2 Aliphatic TPH >C5-C6	N	1675	2:1	µg/l	0.10	[B] < 0.10	[B] < 0.10
C2 Aliphatic TPH >C6-C8	N	1675	2:1	µg/l	0.10	[B] < 0.10	[B] < 0.10
C2 Aliphatic TPH >C8-C10	N	1675	2:1	µg/l	0.10	[B] < 0.10	[B] < 0.10
C2 Aliphatic TPH >C10-C12	N	1675	2:1	µg/l	0.10	[B] < 0.10	[B] < 0.10
C2 Aliphatic TPH >C12-C16	N	1675	2:1	µg/l	0.10	[B] < 0.10	[B] < 0.10
C2 Aliphatic TPH >C16-C21	N	1675	2:1	µg/l	0.10	[B] < 0.10	[B] < 0.10
C2 Aliphatic TPH >C21-C35	N	1675	2:1	µg/l	0.10	[B] < 0.10	[B] < 0.10
C2 Aliphatic TPH >C35-C44	N	1675	2:1	µg/l	0.10	[B] < 0.10	[B] < 0.10

Results - Leachate

Project: Q0330 Caenant Terrace

Client: Quantum Geotechnic Ltd				**Chemtest Job No.:**		20-24026	20-24026
Quotation No.: Q20-19535				**Chemtest Sample ID.:**		1061271	1061273
Order No.:				Client Sample Ref.:		ES2	ES3
				Client Sample ID.:		ES2	ES3
				Sample Location:		HP05	HP05
				Sample Type:		SOIL	SOIL
				Top Depth (m):		0.50	1.00
				Date Sampled:		03-Sep-2020	03-Sep-2020
Determinand	**Accred.**	**SOP**	**Type**	**Units**	**LOD**		
Total Aliphatic Hydrocarbons	N	1675	2:1	µg/l	5.0	[B] < 5.0	[B] < 5.0
C2 Aromatic TPH >C5-C7	N	1675	2:1	µg/l	0.10	[B] < 0.10	[B] < 0.10
C2 Aromatic TPH >C7-C8	N	1675	2:1	µg/l	0.10	[B] < 0.10	[B] < 0.10
C2 Aromatic TPH >C8-C10	N	1675	2:1	µg/l	0.10	[B] < 0.10	[B] < 0.10
C2 Aromatic TPH >C10-C12	N	1675	2:1	µg/l	0.10	[B] < 0.10	[B] < 0.10
C2 Aromatic TPH >C12-C16	N	1675	2:1	µg/l	0.10	[B] < 0.10	[B] < 0.10
C2 Aromatic TPH >C16-C21	N	1675	2:1	µg/l	0.10	[B] < 0.10	[B] < 0.10
C2 Aromatic TPH >C21-C35	N	1675	2:1	µg/l	0.10	[B] < 0.10	[B] < 0.10
C2 Aromatic TPH >C35-C44	N	1675	2:1	µg/l	0.10	[B] < 0.10	[B] < 0.10
C2 Total Aromatic Hydrocarbons	N	1675	2:1	µg/l	5.0	[B] < 5.0	[B] < 5.0
Total Petroleum Hydrocarbons	N	1675	2:1	µg/l	10	[B] < 10	[B] < 10
Naphthalene	N	1700	2:1	µg/l	0.010	< 0.010	< 0.010
Acenaphthylene	N	1700	2:1	µg/l	0.010	< 0.010	< 0.010
Acenaphthene	N	1700	2:1	µg/l	0.010	< 0.010	< 0.010
Fluorene	N	1700	2:1	µg/l	0.010	< 0.010	< 0.010
Phenanthrene	N	1700	2:1	µg/l	0.010	< 0.010	< 0.010
Anthracene	N	1700	2:1	µg/l	0.010	< 0.010	< 0.010
Fluoranthene	N	1700	2:1	µg/l	0.010	< 0.010	< 0.010
Pyrene	N	1700	2:1	µg/l	0.010	< 0.010	< 0.010
Benzo[a]anthracene	N	1700	2:1	µg/l	0.010	< 0.010	< 0.010
Chrysene	N	1700	2:1	µg/l	0.010	< 0.010	< 0.010
Benzo[b]fluoranthene	N	1700	2:1	µg/l	0.010	< 0.010	< 0.010
Benzo[k]fluoranthene	N	1700	2:1	µg/l	0.010	< 0.010	< 0.010
Benzo[a]pyrene	N	1700	2:1	µg/l	0.010	< 0.010	< 0.010
Indeno(1,2,3-c,d)Pyrene	N	1700	2:1	µg/l	0.010	< 0.010	< 0.010
Dibenz(a,h)Anthracene	N	1700	2:1	µg/l	0.010	< 0.010	< 0.010
Benzo[g,h,i]perylene	N	1700	2:1	µg/l	0.010	< 0.010	< 0.010
Coronene	N	1700	2:1	µg/l	0.010	< 0.010	< 0.010
Total Of 16 PAH's	N	1700	2:1	µg/l	0.20	< 0.20	< 0.20
Benzene	U	1760	2:1	µg/l	1.0	[B] < 1.0	[B] < 1.0
Toluene	U	1760	2:1	µg/l	1.0	[B] < 1.0	[B] < 1.0
Ethylbenzene	U	1760	2:1	µg/l	1.0	[B] < 1.0	[B] < 1.0
m & p-Xylene	U	1760	2:1	µg/l	1.0	[B] < 1.0	[B] < 1.0
o-Xylene	U	1760	2:1	µg/l	1.0	[B] < 1.0	[B] < 1.0
Methyl Tert-Butyl Ether	N	1760	2:1	µg/l	1.0	[B] < 1.0	[B] < 1.0
Total Phenols	U	1920	2:1	mg/l	0.030	< 0.030	< 0.030

Results - Soil

Project: Q0330 Caenant Terrace

Client: Quantum Geotechnic Ltd			**Chemtest Job No.:**		20-24026	20-24026
Quotation No.: Q20-19535			**Chemtest Sample ID.:**		1061271	1061273
Order No.:			Client Sample Ref.:		ES2	ES3
			Client Sample ID.:		ES2	ES3
			Sample Location:		HP05	HP05
			Sample Type:		SOIL	SOIL
			Top Depth (m):		0.50	1.00
			Date Sampled:		03-Sep-2020	03-Sep-2020
			Asbestos Lab:		COVENTRY	COVENTRY
Determinand	**Accred.**	**SOP**	**Units**	**LOD**		
ACM Type	U	2192		N/A	-	-
Asbestos Identification	U	2192		N/A	No Asbestos Detected	No Asbestos Detected
ACM Detection Stage	U	2192		N/A	-	-
Moisture	N	2030	%	0.020	20	22
Soil Colour	N	2040		N/A	Brown	Brown
Other Material	N	2040		N/A	Stones	Stones
Soil Texture	N	2040		N/A	Clay	Clay
pH	M	2010		4.0	8.6	8.0
Boron (Hot Water Soluble)	M	2120	mg/kg	0.40	0.62	0.58
Magnesium (Water Soluble)	M	2120	mg/kg	20	< 20	< 20
Sulphate (2:1 Water Soluble) as SO4	M	2120	g/l	0.010	0.066	0.081
Nitrite (Extractable)	N	2220	mg/kg	0.10	< 0.10	1.0
Nitrate (Water Soluble)	N	2220	g/l	0.010	< 0.010	< 0.010
Cyanide (Complex)	M	2300	mg/kg	0.50	[B] < 0.50	[B] < 0.50
Cyanide (Free)	M	2300	mg/kg	0.50	[B] < 0.50	[B] < 0.50
Cyanide (Total)	M	2300	mg/kg	0.50	[B] < 0.50	[B] < 0.50
Sulphide (Easily Liberatable)	N	2325	mg/kg	0.50	16	5.9
Ammoniacal Nitrogen	M	2425	mg/kg	0.50	10	18
Aluminium (Total)	N	2430	mg/kg	100	14000	13000
Iron (Total)	N	2430	mg/kg	100	22000	21000
Sulphate (Total)	M	2430	mg/kg	100	3400	1100
Arsenic	M	2450	mg/kg	1.0	21	19
Barium	M	2450	mg/kg	10	220	220
Beryllium	U	2450	mg/kg	1.0	< 1.0	1.4
Cadmium	M	2450	mg/kg	0.10	0.59	0.31
Chromium	M	2450	mg/kg	1.0	18	25
Manganese	M	2450	mg/kg	5.0	670	960
Molybdenum	M	2450	mg/kg	2.0	3.5	< 2.0
Antimony	N	2450	mg/kg	2.0	2.7	< 2.0
Copper	M	2450	mg/kg	0.50	120	72
Mercury	M	2450	mg/kg	0.10	0.25	0.12
Nickel	M	2450	mg/kg	0.50	66	49
Lead	M	2450	mg/kg	0.50	210	100
Selenium	M	2450	mg/kg	0.20	< 0.20	0.59
Vanadium	U	2450	mg/kg	5.0	87	30
Zinc	M	2450	mg/kg	0.50	290	140

Results - Soil

Project: Q0330 Caenant Terrace

Client: Quantum Geotechnic Ltd		**Chemtest Job No.:**			20-24026	20-24026
Quotation No.: Q20-19535		**Chemtest Sample ID.:**			1061271	1061273
Order No.:		Client Sample Ref.:			ES2	ES3
		Client Sample ID.:			ES2	ES3
		Sample Location:			HP05	HP05
		Sample Type:			SOIL	SOIL
		Top Depth (m):			0.50	1.00
		Date Sampled:			03-Sep-2020	03-Sep-2020
		Asbestos Lab:			COVENTRY	COVENTRY
Determinand	**Accred.**	**SOP**	**Units**	**LOD**		
Chromium (Hexavalent)	N	2490	mg/kg	0.50	< 0.50	< 0.50
Organic Matter	M	2625	%	0.40	9.8	3.6
Aliphatic TPH >C5-C6	N	2680	mg/kg	0.010	[B] < 0.010	[B] < 0.010
Aliphatic TPH >C6-C8	N	2680	mg/kg	0.010	[B] < 0.010	[B] < 0.010
Aliphatic TPH >C8-C10	N	2680	mg/kg	0.10	[B] 1.6	[B] < 0.10
Aliphatic TPH >C10-C12	N	2680	mg/kg	0.10	[B] 4.9	[B] < 0.10
Aliphatic TPH >C12-C16	N	2680	mg/kg	0.10	[B] 7.0	[B] < 0.10
Aliphatic TPH >C16-C21	N	2680	mg/kg	0.10	[B] 5.0	[B] < 0.10
Aliphatic TPH >C21-C35	N	2680	mg/kg	0.10	[B] 7.4	[B] < 0.10
Aliphatic TPH >C35-C44	N	2680	mg/kg	0.10	[B] 0.82	[B] < 0.10
Total Aliphatic Hydrocarbons	N	2680	mg/kg	1.0	[B] 27	[B] < 1.0
Aromatic TPH >C5-C7	N	2680	mg/kg	0.010	[B] < 0.010	[B] < 0.010
Aromatic TPH >C7-C8	N	2680	mg/kg	0.010	[B] < 0.010	[B] < 0.010
Aromatic TPH >C8-C10	N	2680	mg/kg	0.10	[B] 2.9	[B] < 0.10
Aromatic TPH >C10-C12	N	2680	mg/kg	0.10	[B] 9.8	[B] < 0.10
Aromatic TPH >C12-C16	N	2680	mg/kg	0.10	[B] 18	[B] < 0.10
Aromatic TPH >C16-C21	N	2680	mg/kg	0.10	[B] 260	[B] < 0.10
Aromatic TPH >C21-C35	N	2680	mg/kg	0.10	[B] 770	[B] < 0.10
Aromatic TPH >C35-C44	N	2680	mg/kg	0.10	[B] 54	[B] < 0.10
Total Aromatic Hydrocarbons	N	2680	mg/kg	1.0	[B] 1100	[B] < 1.0
Total Petroleum Hydrocarbons	N	2680	mg/kg	2.0	[B] 1100	[B] < 2.0
Naphthalene	N	2700	mg/kg	0.010	13	< 0.010
Acenaphthylene	N	2700	mg/kg	0.010	5.4	< 0.010
Acenaphthene	N	2700	mg/kg	0.010	2.8	< 0.010
Fluorene	N	2700	mg/kg	0.010	6.1	< 0.010
Phenanthrene	N	2700	mg/kg	0.010	24	0.54
Anthracene	N	2700	mg/kg	0.010	16	0.29
Fluoranthene	N	2700	mg/kg	0.010	92	2.2
Pyrene	N	2700	mg/kg	0.010	90	2.5
Benzo[a]anthracene	N	2700	mg/kg	0.010	65	2.4
Chrysene	N	2700	mg/kg	0.010	53	2.0
Benzo[b]fluoranthene	N	2700	mg/kg	0.010	81	2.8
Benzo[k]fluoranthene	N	2700	mg/kg	0.010	31	1.1
Benzo[a]pyrene	N	2700	mg/kg	0.010	72	2.0
Indeno(1,2,3-c,d)Pyrene	N	2700	mg/kg	0.010	44	1.1
Dibenz(a,h)Anthracene	N	2700	mg/kg	0.010	13	0.60
Benzo[g,h,i]perylene	N	2700	mg/kg	0.010	41	1.1

Results - Soil

Project: Q0330 Caenant Terrace

Client: Quantum Geotechnic Ltd			**Chemtest Job No.:**		20-24026	20-24026
Quotation No.: Q20-19535			**Chemtest Sample ID.:**		1061271	1061273
Order No.:			Client Sample Ref.:		ES2	ES3
			Client Sample ID.:		ES2	ES3
			Sample Location:		HP05	HP05
			Sample Type:		SOIL	SOIL
			Top Depth (m):		0.50	1.00
			Date Sampled:		03-Sep-2020	03-Sep-2020
			Asbestos Lab:		COVENTRY	COVENTRY
Determinand	**Accred.**	**SOP**	**Units**	**LOD**		
Coronene	N	2700	mg/kg	0.010	< 0.010	< 0.010
Total Of 17 PAH's	N	2700	mg/kg	0.20	650	19
Benzene	M	2760	µg/kg	1.0	[B] < 1.0	[B] < 1.0
Toluene	M	2760	µg/kg	1.0	[B] < 1.0	[B] < 1.0
Ethylbenzene	M	2760	µg/kg	1.0	[B] < 1.0	[B] < 1.0
m & p-Xylene	M	2760	µg/kg	1.0	[B] < 1.0	[B] < 1.0
o-Xylene	M	2760	µg/kg	1.0	[B] < 1.0	[B] < 1.0
Methyl Tert-Butyl Ether	M	2760	µg/kg	1.0	[B] < 1.0	[B] < 1.0
Total Phenols	M	2920	mg/kg	0.30	< 0.30	< 0.30

Deviations

In accordance with UKAS Policy on Deviating Samples TPS 63. Chemtest have a procedure to ensure 'upon receipt of each sample a competent laboratory shall assess whether the sample is suitable with regard to the requested test(s)'. This policy and the respective holding times applied, can be supplied upon request.The reason a sample is declared as deviating is detailed below. Where applicable the analysis remains UKAS/MCERTs accredited but the results may be compromised.

Sample:	Sample Ref:	Sample ID:	Sample Location:	Sampled Date:	Deviation Code(s):	Containers Received:
1061271	ES2	ES2	HP05	03-Sep-2020	B	Amber Glass 250ml
1061271	ES2	ES2	HP05	03-Sep-2020	B	Amber Glass 60ml
1061271	ES2	ES2	HP05	03-Sep-2020	B	Plastic Tub 1000g
1061273	ES3	ES3	HP05	03-Sep-2020	B	Amber Glass 250ml
1061273	ES3	ES3	HP05	03-Sep-2020	B	Amber Glass 60ml
1061273	ES3	ES3	HP05	03-Sep-2020	B	Plastic Tub 1000g

Test Methods

SOP	Title	Parameters included	Method summary
1010	pH Value of Waters	pH	pH Meter
1100	Chemical Oxygen Demand	Chemical Oxygen demand (COD)	Dichromate oxidation of organic matter in sample followed by colorimetric determination of residual Cr[VI].
1220	Anions, Alkalinity & Ammonium in Waters	Fluoride; Chloride; Nitrite; Nitrate; Total; Oxidisable Nitrogen (TON); Sulfate; Phosphate; Alkalinity; Ammonium	Automated colorimetric analysis using 'Aquakem 600' Discrete Analyser.
1300	Cyanides & Thiocyanate in Waters	Free (or easy liberatable) Cyanide; total Cyanide; complex Cyanide; Thiocyanate	Continuous Flow Analysis.
1325	Sulphide in Waters	Sulphides	Automated colorimetric analysis by 'Aquakem 600' Discrete Analyser using N,N–dimethyl-pphenylenediamine.
1415	Cations in Waters by ICP-MS	Sodium; Potassium; Calcium; Magnesium	Direct determination by inductively coupled plasma - mass spectrometry (ICP-MS).
1450	Metals in Waters by ICP-MS	Metals, including: Antimony; Arsenic; Barium; Beryllium; Boron; Cadmium; Chromium; Cobalt; Copper; Lead; Manganese; Mercury; Molybdenum; Nickel; Selenium; Tin; Vanadium; Zinc	Filtration of samples followed by direct determination by inductively coupled plasma mass spectrometry (ICP-MS).
1460	Mercury low-level in Waters by AFS	Mercury	Atomic Fluorescence Spectrometry, with collimated UV source, wavelength 253.7 nm.
1490	Hexavalent Chromium in Waters	Chromium [VI]	Automated colorimetric analysis by 'Aquakem 600' Discrete Analyser using 1,5-diphenylcarbazide.
1675	TPH Aliphatic/Aromatic split in Waters by GC-FID(cf. Texas Method 1006 / TPH CWG)	Aliphatics: >C5–C6, >C6–C8, >C8– C10, >C10–C12, >C12–C16, >C16–C21, >C21–C35, >C35– C44Aromatics: >C5–C7, >C7–C8, >C8– C10, >C10–C12, >C12–C16, >C16– C21, >C21– C35, >C35– C44	Pentane extraction / GCxGC FID detection
1700	Speciated Polynuclear Aromatic Hydrocarbons (PAH) in Waters by GC-FID	Acenaphthene; Acenaphthylene; Anthracene; Benzo[a]Anthracene; Benzo[a]Pyrene; Benzo[b]Fluoranthene; Benzo[ghi]Perylene; Benzo[k]Fluoranthene; Chrysene; Dibenz[ah]Anthracene; Fluoranthene; Fluorene; Indeno[123cd]Pyrene; Naphthalene; Phenanthrene; Pyrene	Dichloromethane extraction / GC-FID (GC-FID detection is non-selective and can be subject to interference from co-eluting compounds)
1760	Volatile Organic Compounds (VOCs) in Waters by Headspace GC-MS	Volatile organic compounds, including BTEX and halogenated Aliphatic/Aromatics. (cf. USEPA Method 8260)	Automated headspace gas chromatographic (GC) analysis of water samples with mass spectrometric (MS) detection of volatile organic compounds.
1920	Phenols in Waters by HPLC	Phenolic compounds including: Phenol, Cresols, Xylenols, Trimethylphenols Note: Chlorophenols are excluded.	Determination by High Performance Liquid Chromatography (HPLC) using electrochemical detection.
2010	pH Value of Soils	pH	pH Meter
2030	Moisture and Stone Content of Soils(Requirement of MCERTS)	Moisture content	Determination of moisture content of soil as a percentage of its as received mass obtained at <37°C.
2040	Soil Description(Requirement of MCERTS)	Soil description	As received soil is described based upon BS5930
2120	Water Soluble Boron, Sulphate, Magnesium & Chromium	Boron; Sulphate; Magnesium; Chromium	Aqueous extraction / ICP-OES
2192	Asbestos	Asbestos	Polarised light microscopy / Gravimetry
2220	Water soluble Chloride in Soils	Chloride	Aqueous extraction and measuremernt by 'Aquakem 600' Discrete Analyser using ferric nitrate / mercuric thiocyanate.
2300	Cyanides & Thiocyanate in Soils	Free (or easy liberatable) Cyanide; total Cyanide; complex Cyanide; Thiocyanate	Allkaline extraction followed by colorimetric determination using Automated Flow Injection Analyser.

Test Methods

SOP	Title	Parameters included	Method summary
2325	Sulphide in Soils	Sulphide	Steam distillation with sulphuric acid / analysis by 'Aquakem 600' Discrete Analyser, using N,N–dimethyl-p-phenylenediamine.
2425	Extractable Ammonium in soils	Ammonium	Extraction with potassium chloride solution / analysis by 'Aquakem 600' Discrete Analyser using sodium salicylate and sodium dichloroisocyanurate.
2430	Total Sulphate in soils	Total Sulphate	Acid digestion followed by determination of sulphate in extract by ICP-OES.
2450	Acid Soluble Metals in Soils	Metals, including: Arsenic; Barium; Beryllium; Cadmium; Chromium; Cobalt; Copper; Lead; Manganese; Mercury; Molybdenum; Nickel; Selenium; Vanadium; Zinc	Acid digestion followed by determination of metals in extract by ICP-MS.
2490	Hexavalent Chromium in Soils	Chromium [VI]	Soil extracts are prepared by extracting dried and ground soil samples into boiling water. Chromium [VI] is determined by 'Aquakem 600' Discrete Analyser using 1,5-diphenylcarbazide.
2625	Total Organic Carbon in Soils	Total organic Carbon (TOC)	Determined by high temperature combustion under oxygen, using an Eltra elemental analyser.
2680	TPH A/A Split	Aliphatics: >C5–C6, >C6–C8,>C8–C10, >C10–C12, >C12–C16, >C16–C21, >C21–C35, >C35– C44Aromatics: >C5–C7, >C7–C8, >C8– C10, >C10–C12, >C12–C16, >C16– C21, >C21– C35, >C35– C44	Dichloromethane extraction / GCxGC FID detection
2700	Speciated Polynuclear Aromatic Hydrocarbons (PAH) in Soil by GC-FID	Acenaphthene; Acenaphthylene; Anthracene; Benzo[a]Anthracene; Benzo[a]Pyrene; Benzo[b]Fluoranthene; Benzo[ghi]Perylene; Benzo[k]Fluoranthene; Chrysene; Dibenz[ah]Anthracene; Fluoranthene; Fluorene; Indeno[123cd]Pyrene; Naphthalene; Phenanthrene; Pyrene	Dichloromethane extraction / GC-FID (GC-FID detection is non-selective and can be subject to interference from co-eluting compounds)
2760	Volatile Organic Compounds (VOCs) in Soils by Headspace GC-MS	Volatile organic compounds, including BTEX and halogenated Aliphatic/Aromatics.(cf. USEPA Method 8260)*please refer to UKAS schedule	Automated headspace gas chromatographic (GC) analysis of a soil sample, as received, with mass spectrometric (MS) detection of volatile organic compounds.
2920	Phenols in Soils by HPLC	Phenolic compounds including Resorcinol, Phenol, Methylphenols, Dimethylphenols, 1-Naphthol and TrimethylphenolsNote: chlorophenols are excluded.	60:40 methanol/water mixture extraction, followed by HPLC determination using electrochemical detection.
640	Characterisation of Waste (Leaching C10)	Waste material including soil, sludges and granular waste	ComplianceTest for Leaching of Granular Waste Material and Sludge
650	Characterisation of Waste (Leaching WAC)	Waste material including soil, sludges and granular waste	ComplianceTest for Leaching of Granular Waste Material and Sludge

Report Information

Key

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

Comments or interpretations are beyond the scope of UKAS accreditation
The results relate only to the items tested
Uncertainty of measurement for the determinands tested are available upon request
None of the results in this report have been recovery corrected
All results are expressed on a dry weight basis

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

For all other tests the samples were dried at < 37°C prior to analysis
All Asbestos testing is performed at the indicated laboratory
Issue numbers are sequential starting with 1 all subsequent reports are incremented by 1

Sample Deviation Codes

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

Sample Retention and Disposal

All soil samples will be retained for a period of 45 days from the date of receipt
All water samples will be retained for 14 days from the date of receipt
Charges may apply to extended sample storage

If you require extended retention of samples, please email your requirements to:
customerservices@chemtest.com

eurofins | Chemtest
Eurofins Chemtest Ltd
Depot Road
Newmarket
CB8 0AL
Tel: 01638 606070
Email: info@chemtest.com

Final Report

Report No.:	20-24608-1
Initial Date of Issue:	30-Sep-2020
Client	Quantum Geotechnic Ltd
Client Address:	Plas Newydd Llanedi Pontarddulais Swansea SA4 0FQ
Contact(s):	Phil Darby
Project	Q0330 Caenant Terrace
Quotation No.:	Q20-19535
Date Received:	15-Sep-2020
Order No.:	
Date Instructed:	21-Sep-2020
No. of Samples:	4
Turnaround (Wkdays):	5
Results Due:	25-Sep-2020
Date Approved:	30-Sep-2020
Approved By:	
Details:	Glynn Harvey, Technical Manager

Results - Leachate

Project: Q0330 Caenant Terrace

Client: Quantum Geotechnic Ltd				**Chemtest Job No.:**		20-24608	20-24608	20-24608	20-24608
Quotation No.: Q20-19535				**Chemtest Sample ID.:**		1064049	1064050	1064052	1064054
Order No.:				Client Sample Ref.:		ES3	ES1	ES2	ES4
				Client Sample ID.:		3	1	2	4
				Sample Location:		HP07	HP06	WS01	WS01
				Sample Type:		SOIL	SOIL	SOIL	SOIL
				Top Depth (m):		1.00	0.50	1.00	2.00
				Bottom Depth (m):				1.20	2.20
				Date Sampled:		08-Sep-2020	08-Sep-2020	08-Sep-2020	09-Sep-2020
Determinand	**Accred.**	**SOP**	**Type**	**Units**	**LOD**				
pH	U	1010	2:1		N/A	8.2	7.9	8.0	8.0
Biochemical Oxygen Demand	N	1090		mg O2/l	4.0	U/S	U/S	U/S	U/S
Chemical Oxygen Demand	U	1100	2:1	mg O2/l	10	18	69	52	39
Ammoniacal Nitrogen	U	1220	2:1	mg/l	0.050	0.27	0.10	0.14	0.34
Nitrite	U	1220	2:1	mg/l	0.020	2.6	< 0.020	< 0.020	< 0.020
Nitrate	U	1220	2:1	mg/l	0.50	15	< 0.50	< 0.50	< 0.50
Sulphate	U	1220	2:1	mg/l	1.0	50	530	< 1.0	1.0
Cyanide (Total)	U	1300	2:1	mg/l	0.050	< 0.050	< 0.050	< 0.050	< 0.050
Cyanide (Free)	U	1300	2:1	mg/l	0.050	< 0.050	< 0.050	< 0.050	< 0.050
Cyanide (Complex)	U	1300	2:1	mg/l	0.050	< 0.050	< 0.050	< 0.050	< 0.050
Sulphide	U	1325	2:1	mg/l	0.050	< 0.050	< 0.050	< 0.050	< 0.050
Magnesium	U	1415	2:1	mg/l	0.50	4.1	12	0.84	0.84
Aluminium (Dissolved)	N	1450	2:1	µg/l	10	18	< 10	480	330
Arsenic (Dissolved)	U	1450	2:1	µg/l	1.0	2.2	17	5.7	4.8
Boron (Dissolved)	U	1450	2:1	µg/l	20	40	720	220	130
Barium (Dissolved)	U	1450	2:1	µg/l	5.0	79	110	21	15
Beryllium (Dissolved)	U	1450	2:1	µg/l	1.0	< 1.0	< 1.0	< 1.0	< 1.0
Cadmium (Dissolved)	U	1450	2:1	µg/l	0.080	< 0.080	< 0.080	< 0.080	< 0.080
Chromium (Dissolved)	U	1450	2:1	µg/l	1.0	< 1.0	< 1.0	1.8	< 1.0
Copper (Dissolved)	U	1450	2:1	µg/l	1.0	3.6	6.3	5.2	4.0
Manganese (Dissolved)	U	1450	2:1	µg/l	1.0	3.2	360	21	13
Molybdenum (Dissolved)	U	1450	2:1	µg/l	1.0	14	19	12	7.4
Nickel (Dissolved)	U	1450	2:1	µg/l	1.0	51	1.1	1.5	1.9
Lead (Dissolved)	U	1450	2:1	µg/l	1.0	< 1.0	< 1.0	3.0	3.9
Antimony (Dissolved)	U	1450	2:1	µg/l	1.0	2.1	6.9	11	6.9
Selenium (Dissolved)	U	1450	2:1	µg/l	1.0	2.2	1.0	< 1.0	< 1.0
Vanadium (Dissolved)	U	1450	2:1	µg/l	1.0	< 1.0	< 1.0	8.7	5.8
Zinc (Dissolved)	U	1450	2:1	µg/l	1.0	25	14	1.5	< 1.0
Mercury Low Level	U	1460	2:1	µg/l	0.010	< 0.010	< 0.010	< 0.010	< 0.010
Iron (Dissolved)	N	1450	2:1	µg/l	20	120	500	3300	2600
Chromium (Hexavalent)	U	1490	2:1	µg/l	20	< 20	< 20	< 20	< 20
C2 Aliphatic TPH >C5-C6	N	1675	2:1	µg/l	0.10	< 0.10	< 0.10	< 0.10	< 0.10
C2 Aliphatic TPH >C6-C8	N	1675	2:1	µg/l	0.10	< 0.10	< 0.10	< 0.10	< 0.10
C2 Aliphatic TPH >C8-C10	N	1675	2:1	µg/l	0.10	< 0.10	< 0.10	< 0.10	< 0.10
C2 Aliphatic TPH >C10-C12	N	1675	2:1	µg/l	0.10	< 0.10	< 0.10	< 0.10	< 0.10
C2 Aliphatic TPH >C12-C16	N	1675	2:1	µg/l	0.10	< 0.10	< 0.10	< 0.10	< 0.10
C2 Aliphatic TPH >C16-C21	N	1675	2:1	µg/l	0.10	< 0.10	< 0.10	< 0.10	< 0.10

Results - Leachate

Project: Q0330 Caenant Terrace

Client: Quantum Geotechnic Ltd				**Chemtest Job No.:**		20-24608	20-24608	20-24608	20-24608
Quotation No.: Q20-19535				**Chemtest Sample ID.:**		1064049	1064050	1064052	1064054
Order No.:				Client Sample Ref.:		ES3	ES1	ES2	ES4
				Client Sample ID.:		3	1	2	4
				Sample Location:		HP07	HP06	WS01	WS01
				Sample Type:		SOIL	SOIL	SOIL	SOIL
				Top Depth (m):		1.00	0.50	1.00	2.00
				Bottom Depth (m):				1.20	2.20
				Date Sampled:		08-Sep-2020	08-Sep-2020	08-Sep-2020	09-Sep-2020
Determinand	**Accred.**	**SOP**	**Type**	**Units**	**LOD**				
C2 Aliphatic TPH >C21-C35	N	1675	2:1	µg/l	0.10	< 0.10	< 0.10	< 0.10	< 0.10
C2 Aliphatic TPH >C35-C44	N	1675	2:1	µg/l	0.10	< 0.10	< 0.10	< 0.10	< 0.10
Total Aliphatic Hydrocarbons	N	1675	2:1	µg/l	5.0	< 5.0	< 5.0	< 5.0	< 5.0
C2 Aromatic TPH >C5-C7	N	1675	2:1	µg/l	0.10	< 0.10	< 0.10	< 0.10	< 0.10
C2 Aromatic TPH >C7-C8	N	1675	2:1	µg/l	0.10	< 0.10	< 0.10	< 0.10	< 0.10
C2 Aromatic TPH >C8-C10	N	1675	2:1	µg/l	0.10	< 0.10	< 0.10	< 0.10	< 0.10
C2 Aromatic TPH >C10-C12	N	1675	2:1	µg/l	0.10	< 0.10	< 0.10	< 0.10	< 0.10
C2 Aromatic TPH >C12-C16	N	1675	2:1	µg/l	0.10	< 0.10	< 0.10	< 0.10	< 0.10
C2 Aromatic TPH >C16-C21	N	1675	2:1	µg/l	0.10	< 0.10	< 0.10	< 0.10	< 0.10
C2 Aromatic TPH >C21-C35	N	1675	2:1	µg/l	0.10	< 0.10	< 0.10	< 0.10	< 0.10
C2 Aromatic TPH >C35-C44	N	1675	2:1	µg/l	0.10	< 0.10	< 0.10	< 0.10	< 0.10
C2 Total Aromatic Hydrocarbons	N	1675	2:1	µg/l	5.0	< 5.0	< 5.0	< 5.0	< 5.0
Total Petroleum Hydrocarbons	N	1675	2:1	µg/l	10	< 10	< 10	< 10	< 10
Naphthalene	N	1700	2:1	µg/l	0.010	< 0.010	< 0.010	< 0.010	< 0.010
Acenaphthylene	N	1700	2:1	µg/l	0.010	< 0.010	< 0.010	< 0.010	< 0.010
Acenaphthene	N	1700	2:1	µg/l	0.010	< 0.010	< 0.010	< 0.010	< 0.010
Fluorene	N	1700	2:1	µg/l	0.010	< 0.010	< 0.010	< 0.010	< 0.010
Phenanthrene	N	1700	2:1	µg/l	0.010	< 0.010	< 0.010	< 0.010	< 0.010
Anthracene	N	1700	2:1	µg/l	0.010	< 0.010	< 0.010	< 0.010	< 0.010
Fluoranthene	N	1700	2:1	µg/l	0.010	< 0.010	< 0.010	< 0.010	< 0.010
Pyrene	N	1700	2:1	µg/l	0.010	< 0.010	< 0.010	< 0.010	< 0.010
Benzo[a]anthracene	N	1700	2:1	µg/l	0.010	< 0.010	< 0.010	< 0.010	< 0.010
Chrysene	N	1700	2:1	µg/l	0.010	< 0.010	< 0.010	< 0.010	< 0.010
Benzo[b]fluoranthene	N	1700	2:1	µg/l	0.010	< 0.010	< 0.010	< 0.010	< 0.010
Benzo[k]fluoranthene	N	1700	2:1	µg/l	0.010	< 0.010	< 0.010	< 0.010	< 0.010
Benzo[a]pyrene	N	1700	2:1	µg/l	0.010	< 0.010	< 0.010	< 0.010	< 0.010
Indeno(1,2,3-c,d)Pyrene	N	1700	2:1	µg/l	0.010	< 0.010	< 0.010	< 0.010	< 0.010
Dibenz(a,h)Anthracene	N	1700	2:1	µg/l	0.010	< 0.010	< 0.010	< 0.010	< 0.010
Benzo[g,h,i]perylene	N	1700	2:1	µg/l	0.010	< 0.010	< 0.010	< 0.010	< 0.010
Coronene	N	1700	2:1	µg/l	0.010	< 0.010	< 0.010	< 0.010	< 0.010
Total Of 16 PAH's	N	1700	2:1	µg/l	0.20	< 0.20	< 0.20	< 0.20	< 0.20
Benzene	U	1760	2:1	µg/l	1.0	< 1.0	< 1.0	< 1.0	< 1.0
Toluene	U	1760	2:1	µg/l	1.0	< 1.0	< 1.0	< 1.0	< 1.0
Ethylbenzene	U	1760	2:1	µg/l	1.0	< 1.0	< 1.0	< 1.0	< 1.0
m & p-Xylene	U	1760	2:1	µg/l	1.0	< 1.0	< 1.0	< 1.0	< 1.0
o-Xylene	U	1760	2:1	µg/l	1.0	< 1.0	< 1.0	< 1.0	< 1.0
Methyl Tert-Butyl Ether	N	1760	2:1	µg/l	1.0	< 1.0	< 1.0	< 1.0	< 1.0

Results - Leachate

Project: Q0330 Caenant Terrace

Client: Quantum Geotechnic Ltd						**Chemtest Job No.:**	20-24608	20-24608	20-24608
Quotation No.: Q20-19535						**Chemtest Sample ID.:**	1064049	1064050	1064052	1064054
Order No.:						Client Sample Ref.:	ES3	ES1	ES2	ES4
						Client Sample ID.:	3	1	2	4
						Sample Location:	HP07	HP06	WS01	WS01
						Sample Type:	SOIL	SOIL	SOIL	SOIL
						Top Depth (m):	1.00	0.50	1.00	2.00
						Bottom Depth (m):			1.20	2.20
						Date Sampled:	08-Sep-2020	08-Sep-2020	08-Sep-2020	09-Sep-2020
Determinand	**Accred.**	**SOP**	**Type**	**Units**	**LOD**					
Total Phenols	U	1920	2:1	mg/l	0.030		< 0.030	< 0.030	< 0.030	< 0.030

Results - Soil

Project: Q0330 Caenant Terrace

Client: Quantum Geotechnic Ltd			**Chemtest Job No.:**		20-24608	20-24608	20-24608	20-24608
Quotation No.: Q20-19535			**Chemtest Sample ID.:**		1064049	1064050	1064052	1064054
Order No.:			Client Sample Ref.:		ES3	ES1	ES2	ES4
			Client Sample ID.:		3	1	2	4
			Sample Location:		HP07	HP06	WS01	WS01
			Sample Type:		SOIL	SOIL	SOIL	SOIL
			Top Depth (m):		1.00	0.50	1.00	2.00
			Bottom Depth (m):				1.20	2.20
			Date Sampled:		08-Sep-2020	08-Sep-2020	08-Sep-2020	09-Sep-2020
			Asbestos Lab:		COVENTRY	COVENTRY	COVENTRY	COVENTRY
Determinand	**Accred.**	**SOP**	**Units**	**LOD**				
ACM Type	U	2192		N/A	-	-	-	-
Asbestos Identification	U	2192		N/A	No Asbestos Detected	No Asbestos Detected	No Asbestos Detected	No Asbestos Detected
ACM Detection Stage	U	2192		N/A	-	-	-	-
Moisture	N	2030	%	0.020	22	22	25	20
Soil Colour	N	2040		N/A	Brown	Brown	Brown	Brown
Other Material	N	2040		N/A	Stones	Stones	Stones	Stones
Soil Texture	N	2040		N/A	Loam	Loam	Loam	Clay
pH	M	2010		4.0	8.5	9.3	7.6	8.1
Boron (Hot Water Soluble)	M	2120	mg/kg	0.40	0.80	0.47	3.7	0.51
Magnesium (Water Soluble)	M	2120	mg/kg	20	40	< 20	< 20	< 20
Sulphate (2:1 Water Soluble) as SO4	M	2120	g/l	0.010	< 0.010	0.060	0.37	< 0.010
Nitrite (Extractable)	N	2220	mg/kg	0.10	< 0.10	0.46	< 0.10	< 0.10
Nitrate (Water Soluble)	N	2220	g/l	0.010	< 0.010	< 0.010	< 0.010	< 0.010
Cyanide (Complex)	M	2300	mg/kg	0.50	< 0.50	< 0.50	< 0.50	< 0.50
Cyanide (Free)	M	2300	mg/kg	0.50	< 0.50	< 0.50	< 0.50	< 0.50
Cyanide (Total)	M	2300	mg/kg	0.50	< 0.50	< 0.50	< 0.50	< 0.50
Sulphide (Easily Liberatable)	N	2325	mg/kg	0.50	5.1	23	8.3	6.8
Ammoniacal Nitrogen	M	2425	mg/kg	0.50	1.9	1.2	9.3	0.66
Aluminium (Total)	N	2430	mg/kg	100	330	6900	8600	7200
Iron (Total)	N	2430	mg/kg	100	2100	20000	20000	12000
Sulphate (Total)	M	2430	mg/kg	100	< 100	2100	8200	1500
Arsenic	M	2450	mg/kg	1.0	2.1	28	110	5.8
Barium	M	2450	mg/kg	10	20	300	110	48
Beryllium	U	2450	mg/kg	1.0	< 1.0	< 1.0	< 1.0	< 1.0
Cadmium	M	2450	mg/kg	0.10	< 0.10	0.37	1.9	0.35
Chromium	M	2450	mg/kg	1.0	< 1.0	14	15	14
Manganese	M	2450	mg/kg	5.0	31	610	300	100
Molybdenum	M	2450	mg/kg	2.0	< 2.0	3.2	2.6	< 2.0
Antimony	N	2450	mg/kg	2.0	< 2.0	2.4	3.3	< 2.0
Copper	M	2450	mg/kg	0.50	7.3	89	350	21
Mercury	M	2450	mg/kg	0.10	< 0.10	0.11	0.36	< 0.10
Nickel	M	2450	mg/kg	0.50	2.0	28	21	24
Lead	M	2450	mg/kg	0.50	12	120	150	27
Selenium	M	2450	mg/kg	0.20	< 0.20	0.68	1.2	0.31
Vanadium	U	2450	mg/kg	5.0	< 5.0	24	23	17

Results - Soil

Project: Q0330 Caenant Terrace

Client: Quantum Geotechnic Ltd			**Chemtest Job No.:**		20-24608	20-24608	20-24608	20-24608
Quotation No.: Q20-19535			**Chemtest Sample ID.:**		1064049	1064050	1064052	1064054
Order No.:			Client Sample Ref.:		ES3	ES1	ES2	ES4
			Client Sample ID.:		3	1	2	4
			Sample Location:		HP07	HP06	WS01	WS01
			Sample Type:		SOIL	SOIL	SOIL	SOIL
			Top Depth (m):		1.00	0.50	1.00	2.00
			Bottom Depth (m):				1.20	2.20
			Date Sampled:		08-Sep-2020	08-Sep-2020	08-Sep-2020	09-Sep-2020
			Asbestos Lab:		COVENTRY	COVENTRY	COVENTRY	COVENTRY
Determinand	**Accred.**	**SOP**	**Units**	**LOD**				
Zinc	M	2450	mg/kg	0.50	18	150	250	76
Chromium (Hexavalent)	N	2490	mg/kg	0.50	< 0.50	< 0.50	< 0.50	< 0.50
Organic Matter	M	2625	%	0.40	31	40	16	3.6
Aliphatic TPH >C5-C6	N	2680	mg/kg	0.010	< 0.010	< 0.010	< 0.010	< 0.010
Aliphatic TPH >C6-C8	N	2680	mg/kg	0.010	< 0.010	< 0.010	< 0.010	< 0.010
Aliphatic TPH >C8-C10	N	2680	mg/kg	0.10	1.7	< 0.10	< 0.10	< 0.10
Aliphatic TPH >C10-C12	N	2680	mg/kg	0.10	3.6	< 0.10	< 0.10	< 0.10
Aliphatic TPH >C12-C16	N	2680	mg/kg	0.10	5.5	< 0.10	< 0.10	< 0.10
Aliphatic TPH >C16-C21	N	2680	mg/kg	0.10	6.4	< 0.10	< 0.10	< 0.10
Aliphatic TPH >C21-C35	N	2680	mg/kg	0.10	15	< 0.10	< 0.10	< 0.10
Aliphatic TPH >C35-C44	N	2680	mg/kg	0.10	2.0	< 0.10	< 0.10	< 0.10
Total Aliphatic Hydrocarbons	N	2680	mg/kg	1.0	34	< 1.0	< 1.0	< 1.0
Aromatic TPH >C5-C7	N	2680	mg/kg	0.010	< 0.010	< 0.010	< 0.010	< 0.010
Aromatic TPH >C7-C8	N	2680	mg/kg	0.010	< 0.010	< 0.010	< 0.010	< 0.010
Aromatic TPH >C8-C10	N	2680	mg/kg	0.10	3.0	< 0.10	< 0.10	< 0.10
Aromatic TPH >C10-C12	N	2680	mg/kg	0.10	0.47	12	< 0.10	11
Aromatic TPH >C12-C16	N	2680	mg/kg	0.10	28	12	< 0.10	12
Aromatic TPH >C16-C21	N	2680	mg/kg	0.10	900	14	< 0.10	11
Aromatic TPH >C21-C35	N	2680	mg/kg	0.10	1900	59	< 0.10	12
Aromatic TPH >C35-C44	N	2680	mg/kg	0.10	110	< 0.10	< 0.10	< 0.10
Total Aromatic Hydrocarbons	N	2680	mg/kg	1.0	3000	96	< 1.0	46
Total Petroleum Hydrocarbons	N	2680	mg/kg	2.0	3000	96	< 2.0	46
Naphthalene	N	2700	mg/kg	0.010	1.1	0.67	< 0.010	0.76
Acenaphthylene	N	2700	mg/kg	0.010	2.9	1.6	< 0.010	1.9
Acenaphthene	N	2700	mg/kg	0.010	0.48	0.68	< 0.010	0.99
Fluorene	N	2700	mg/kg	0.010	0.83	1.6	< 0.010	2.1
Phenanthrene	N	2700	mg/kg	0.010	7.0	11	< 0.010	16
Anthracene	N	2700	mg/kg	0.010	3.1	3.8	< 0.010	5.7
Fluoranthene	N	2700	mg/kg	0.010	21	19	< 0.010	28
Pyrene	N	2700	mg/kg	0.010	19	19	< 0.010	27
Benzo[a]anthracene	N	2700	mg/kg	0.010	14	9.4	< 0.010	14
Chrysene	N	2700	mg/kg	0.010	15	8.8	< 0.010	13
Benzo[b]fluoranthene	N	2700	mg/kg	0.010	21	12	< 0.010	17
Benzo[k]fluoranthene	N	2700	mg/kg	0.010	7.3	4.3	< 0.010	6.2
Benzo[a]pyrene	N	2700	mg/kg	0.010	14	9.9	< 0.010	13
Indeno(1,2,3-c,d)Pyrene	N	2700	mg/kg	0.010	10	9.8	< 0.010	8.7

Results - Soil

Project: Q0330 Caenant Terrace

Client: Quantum Geotechnic Ltd			**Chemtest Job No.:**		20-24608	20-24608	20-24608	20-24608
Quotation No.: Q20-19535			**Chemtest Sample ID.:**		1064049	1064050	1064052	1064054
Order No.:			Client Sample Ref.:		ES3	ES1	ES2	ES4
			Client Sample ID.:		3	1	2	4
			Sample Location:		HP07	HP06	WS01	WS01
			Sample Type:		SOIL	SOIL	SOIL	SOIL
			Top Depth (m):		1.00	0.50	1.00	2.00
			Bottom Depth (m):				1.20	2.20
			Date Sampled:		08-Sep-2020	08-Sep-2020	08-Sep-2020	09-Sep-2020
			Asbestos Lab:		COVENTRY	COVENTRY	COVENTRY	COVENTRY
Determinand	**Accred.**	**SOP**	**Units**	**LOD**				
Dibenz(a,h)Anthracene	N	2700	mg/kg	0.010	3.4	4.0	< 0.010	2.6
Benzo[g,h,i]perylene	N	2700	mg/kg	0.010	8.9	8.8	< 0.010	7.7
Coronene	N	2700	mg/kg	0.010	< 0.010	< 0.010	< 0.010	< 0.010
Total Of 17 PAH's	N	2700	mg/kg	0.20	150	120	< 0.20	160
Benzene	M	2760	µg/kg	1.0	< 1.0	< 1.0	< 1.0	< 1.0
Toluene	M	2760	µg/kg	1.0	< 1.0	< 1.0	< 1.0	< 1.0
Ethylbenzene	M	2760	µg/kg	1.0	< 1.0	< 1.0	< 1.0	< 1.0
m & p-Xylene	M	2760	µg/kg	1.0	< 1.0	< 1.0	< 1.0	< 1.0
o-Xylene	M	2760	µg/kg	1.0	< 1.0	< 1.0	< 1.0	< 1.0
Methyl Tert-Butyl Ether	M	2760	µg/kg	1.0	< 1.0	< 1.0	< 1.0	< 1.0
Total Phenols	M	2920	mg/kg	0.30	< 0.30	< 0.30	< 0.30	< 0.30

Test Methods

SOP	Title	Parameters included	Method summary
1010	pH Value of Waters	pH	pH Meter
1090	Biochemical Oxygen Demand	Biochemical Oxygen demand (BOD)	Colorimetric determination of dissolved oxygen in seeded sample after 5 days incubation at 20°C.
1100	Chemical Oxygen Demand	Chemical Oxygen demand (COD)	Dichromate oxidation of organic matter in sample followed by colorimetric determination of residual Cr[VI].
1220	Anions, Alkalinity & Ammonium in Waters	Fluoride; Chloride; Nitrite; Nitrate; Total; Oxidisable Nitrogen (TON); Sulfate; Phosphate; Alkalinity; Ammonium	Automated colorimetric analysis using 'Aquakem 600' Discrete Analyser.
1300	Cyanides & Thiocyanate in Waters	Free (or easy liberatable) Cyanide; total Cyanide; complex Cyanide; Thiocyanate	Continuous Flow Analysis.
1325	Sulphide in Waters	Sulphides	Automated colorimetric analysis by 'Aquakem 600' Discrete Analyser using N,N–dimethyl-pphenylenediamine.
1415	Cations in Waters by ICP-MS	Sodium; Potassium; Calcium; Magnesium	Direct determination by inductively coupled plasma - mass spectrometry (ICP-MS).
1450	Metals in Waters by ICP-MS	Metals, including: Antimony; Arsenic; Barium; Beryllium; Boron; Cadmium; Chromium; Cobalt; Copper; Lead; Manganese; Mercury; Molybdenum; Nickel; Selenium; Tin; Vanadium; Zinc	Filtration of samples followed by direct determination by inductively coupled plasma mass spectrometry (ICP-MS).
1460	Mercury low-level in Waters by AFS	Mercury	Atomic Fluorescence Spectrometry, with collimated UV source, wavelength 253.7 nm.
1490	Hexavalent Chromium in Waters	Chromium [VI]	Automated colorimetric analysis by 'Aquakem 600' Discrete Analyser using 1,5-diphenylcarbazide.
1675	TPH Aliphatic/Aromatic split in Waters by GC-FID(cf. Texas Method 1006 / TPH CWG)	Aliphatics: >C5–C6, >C6–C8, >C8– C10, >C10–C12, >C12–C16, >C16–C21, >C21–C35, >C35– C44Aromatics: >C5–C7, >C7–C8, >C8– C10, >C10–C12, >C12–C16, >C16– C21, >C21– C35, >C35– C44	Pentane extraction / GCxGC FID detection
1700	Speciated Polynuclear Aromatic Hydrocarbons (PAH) in Waters by GC-FID	Acenaphthene; Acenaphthylene; Anthracene; Benzo[a]Anthracene; Benzo[a]Pyrene; Benzo[b]Fluoranthene; Benzo[ghi]Perylene; Benzo[k]Fluoranthene; Chrysene; Dibenz[ah]Anthracene; Fluoranthene; Fluorene; Indeno[123cd]Pyrene; Naphthalene; Phenanthrene; Pyrene	Dichloromethane extraction / GC-FID (GC-FID detection is non-selective and can be subject to interference from co-eluting compounds)
1760	Volatile Organic Compounds (VOCs) in Waters by Headspace GC-MS	Volatile organic compounds, including BTEX and halogenated Aliphatic/Aromatics. (cf. USEPA Method 8260)	Automated headspace gas chromatographic (GC) analysis of water samples with mass spectrometric (MS) detection of volatile organic compounds.
1920	Phenols in Waters by HPLC	Phenolic compounds including: Phenol, Cresols, Xylenols, Trimethylphenols Note: Chlorophenols are excluded.	Determination by High Performance Liquid Chromatography (HPLC) using electrochemical detection.
2010	pH Value of Soils	pH	pH Meter
2030	Moisture and Stone Content of Soils(Requirement of MCERTS)	Moisture content	Determination of moisture content of soil as a percentage of its as received mass obtained at <37°C.
2040	Soil Description(Requirement of MCERTS)	Soil description	As received soil is described based upon BS5930
2120	Water Soluble Boron, Sulphate, Magnesium & Chromium	Boron; Sulphate; Magnesium; Chromium	Aqueous extraction / ICP-OES
2192	Asbestos	Asbestos	Polarised light microscopy / Gravimetry
2220	Water soluble Chloride in Soils	Chloride	Aqueous extraction and measurememrnt by 'Aquakem 600' Discrete Analyser using ferric nitrate / mercuric thiocyanate.

Test Methods

SOP	Title	Parameters included	Method summary
2300	Cyanides & Thiocyanate in Soils	Free (or easy liberatable) Cyanide; total Cyanide; complex Cyanide; Thiocyanate	Allkaline extraction followed by colorimetric determination using Automated Flow Injection Analyser.
2325	Sulphide in Soils	Sulphide	Steam distillation with sulphuric acid / analysis by 'Aquakem 600' Discrete Analyser, using N,N–dimethyl-p-phenylenediamine.
2425	Extractable Ammonium in soils	Ammonium	Extraction with potassium chloride solution / analysis by 'Aquakem 600' Discrete Analyser using sodium salicylate and sodium dichloroisocyanurate.
2430	Total Sulphate in soils	Total Sulphate	Acid digestion followed by determination of sulphate in extract by ICP-OES.
2450	Acid Soluble Metals in Soils	Metals, including: Arsenic; Barium; Beryllium; Cadmium; Chromium; Cobalt; Copper; Lead; Manganese; Mercury; Molybdenum; Nickel; Selenium; Vanadium; Zinc	Acid digestion followed by determination of metals in extract by ICP-MS.
2490	Hexavalent Chromium in Soils	Chromium [VI]	Soil extracts are prepared by extracting dried and ground soil samples into boiling water. Chromium [VI] is determined by 'Aquakem 600' Discrete Analyser using 1,5-diphenylcarbazide.
2625	Total Organic Carbon in Soils	Total organic Carbon (TOC)	Determined by high temperature combustion under oxygen, using an Eltra elemental analyser.
2680	TPH A/A Split	Aliphatics: >C5–C6, >C6–C8,>C8–C10, >C10–C12, >C12–C16, >C16–C21, >C21–C35, >C35– C44Aromatics: >C5–C7, >C7–C8, >C8– C10, >C10–C12, >C12–C16, >C16– C21, >C21– C35, >C35– C44	Dichloromethane extraction / GCxGC FID detection
2700	Speciated Polynuclear Aromatic Hydrocarbons (PAH) in Soil by GC-FID	Acenaphthene; Acenaphthylene; Anthracene; Benzo[a]Anthracene; Benzo[a]Pyrene; Benzo[b]Fluoranthene; Benzo[ghi]Perylene; Benzo[k]Fluoranthene; Chrysene; Dibenz[ah]Anthracene; Fluoranthene; Fluorene; Indeno[123cd]Pyrene; Naphthalene; Phenanthrene; Pyrene	Dichloromethane extraction / GC-FID (GC-FID detection is non-selective and can be subject to interference from co-eluting compounds)
2760	Volatile Organic Compounds (VOCs) in Soils by Headspace GC-MS	Volatile organic compounds, including BTEX and halogenated Aliphatic/Aromatics.(cf. USEPA Method 8260)*please refer to UKAS schedule	Automated headspace gas chromatographic (GC) analysis of a soil sample, as received, with mass spectrometric (MS) detection of volatile organic compounds.
2920	Phenols in Soils by HPLC	Phenolic compounds including Resorcinol, Phenol, Methylphenols, Dimethylphenols, 1-Naphthol and TrimethylphenolsNote: chlorophenols are excluded.	60:40 methanol/water mixture extraction, followed by HPLC determination using electrochemical detection.
640	Characterisation of Waste (Leaching C10)	Waste material including soil, sludges and granular waste	ComplianceTest for Leaching of Granular Waste Material and Sludge
650	Characterisation of Waste (Leaching WAC)	Waste material including soil, sludges and granular waste	ComplianceTest for Leaching of Granular Waste Material and Sludge

Report Information

Key

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

Comments or interpretations are beyond the scope of UKAS accreditation
The results relate only to the items tested
Uncertainty of measurement for the determinands tested are available upon request
None of the results in this report have been recovery corrected
All results are expressed on a dry weight basis

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

For all other tests the samples were dried at < 37°C prior to analysis
All Asbestos testing is performed at the indicated laboratory
Issue numbers are sequential starting with 1 all subsequent reports are incremented by 1

Sample Deviation Codes

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

Sample Retention and Disposal

All soil samples will be retained for a period of 45 days from the date of receipt
All water samples will be retained for 14 days from the date of receipt
Charges may apply to extended sample storage

If you require extended retention of samples, please email your requirements to:
customerservices@chemtest.com

Eurofins Chemtest Ltd
Depot Road
Newmarket
CB8 0AL
Tel: 01638 606070
Email: info@chemtest.com

Final Report

Report No.:	20-24616-1		
Initial Date of Issue:	29-Sep-2020		
Client	Quantum Geotechnic Ltd		
Client Address:	Plas Newydd Llanedi Pontarddulais Swansea SA4 0FQ		
Contact(s):	Phil Darby		
Project	Q0330 Caenant Terrace		
Quotation No.:	Q20-19535	**Date Received:**	15-Sep-2020
Order No.:		**Date Instructed:**	21-Sep-2020
No. of Samples:	2		
Turnaround (Wkdays):	5	**Results Due:**	25-Sep-2020
Date Approved:	29-Sep-2020		
Approved By:			
Details:	Glynn Harvey, Technical Manager		

Results - Leachate

Project: Q0330 Caenant Terrace

Client: Quantum Geotechnic Ltd				**Chemtest Job No.:**		20-24616	20-24616
Quotation No.: Q20-19535				**Chemtest Sample ID.:**		1064115	1064117
Order No.:				Client Sample Ref.:		ES3	ES4
				Client Sample ID.:		3	4
				Sample Location:		HP04	HP04
				Sample Type:		SOIL	SOIL
				Top Depth (m):		0.5	1.0
				Bottom Depth (m):		0.6	1.1
				Date Sampled:		07-Sep-2020	07-Sep-2020
Determinand	**Accred.**	**SOP**	**Type**	**Units**	**LOD**		
pH	U	1010	2:1		N/A	8.2	7.9
Biochemical Oxygen Demand	N	1090		mg O2/l	4.0	U/S	U/S
Chemical Oxygen Demand	U	1100	2:1	mg O2/l	10	36	12
Ammoniacal Nitrogen	U	1220	2:1	mg/l	0.050	0.36	0.37
Nitrite	U	1220	2:1	mg/l	0.020	0.13	0.035
Nitrate	U	1220	2:1	mg/l	0.50	2.1	5.3
Sulphate	U	1220	2:1	mg/l	1.0	130	45
Cyanide (Total)	U	1300	2:1	mg/l	0.050	< 0.050	< 0.050
Cyanide (Free)	U	1300	2:1	mg/l	0.050	< 0.050	< 0.050
Cyanide (Complex)	U	1300	2:1	mg/l	0.050	< 0.050	< 0.050
Sulphide	U	1325	2:1	mg/l	0.050	< 0.050	< 0.050
Magnesium	U	1415	2:1	mg/l	0.50	27	5.4
Aluminium (Dissolved)	N	1450	2:1	µg/l	10	< 10	25
Arsenic (Dissolved)	U	1450	2:1	µg/l	1.0	9.0	2.6
Boron (Dissolved)	U	1450	2:1	µg/l	20	170	100
Barium (Dissolved)	U	1450	2:1	µg/l	5.0	38	79
Beryllium (Dissolved)	U	1450	2:1	µg/l	1.0	< 1.0	< 1.0
Cadmium (Dissolved)	U	1450	2:1	µg/l	0.080	< 0.080	< 0.080
Chromium (Dissolved)	U	1450	2:1	µg/l	1.0	< 1.0	< 1.0
Copper (Dissolved)	U	1450	2:1	µg/l	1.0	4.6	1.8
Manganese (Dissolved)	U	1450	2:1	µg/l	1.0	150	220
Molybdenum (Dissolved)	U	1450	2:1	µg/l	1.0	37	3.3
Nickel (Dissolved)	U	1450	2:1	µg/l	1.0	< 1.0	1.5
Lead (Dissolved)	U	1450	2:1	µg/l	1.0	< 1.0	< 1.0
Antimony (Dissolved)	U	1450	2:1	µg/l	1.0	9.4	< 1.0
Selenium (Dissolved)	U	1450	2:1	µg/l	1.0	1.9	< 1.0
Vanadium (Dissolved)	U	1450	2:1	µg/l	1.0	< 1.0	< 1.0
Zinc (Dissolved)	U	1450	2:1	µg/l	1.0	3.9	24
Mercury Low Level	U	1460	2:1	µg/l	0.010	< 0.010	< 0.010
Iron (Dissolved)	N	1450	2:1	µg/l	20	140	92
Chromium (Hexavalent)	U	1490	2:1	µg/l	20	< 20	< 20
C2 Aliphatic TPH >C5-C6	N	1675	2:1	µg/l	0.10	< 0.10	< 0.10
C2 Aliphatic TPH >C6-C8	N	1675	2:1	µg/l	0.10	< 0.10	< 0.10
C2 Aliphatic TPH >C8-C10	N	1675	2:1	µg/l	0.10	< 0.10	< 0.10
C2 Aliphatic TPH >C10-C12	N	1675	2:1	µg/l	0.10	< 0.10	< 0.10
C2 Aliphatic TPH >C12-C16	N	1675	2:1	µg/l	0.10	< 0.10	< 0.10
C2 Aliphatic TPH >C16-C21	N	1675	2:1	µg/l	0.10	< 0.10	< 0.10

Results - Leachate

Project: Q0330 Caenant Terrace

Client: Quantum Geotechnic Ltd				**Chemtest Job No.:**		20-24616	20-24616
Quotation No.: Q20-19535				**Chemtest Sample ID.:**		1064115	1064117
Order No.:				Client Sample Ref.:		ES3	ES4
				Client Sample ID.:		3	4
				Sample Location:		HP04	HP04
				Sample Type:		SOIL	SOIL
				Top Depth (m):		0.5	1.0
				Bottom Depth (m):		0.6	1.1
				Date Sampled:		07-Sep-2020	07-Sep-2020
Determinand	**Accred.**	**SOP**	**Type**	**Units**	**LOD**		
C2 Aliphatic TPH >C21-C35	N	1675	2:1	µg/l	0.10	< 0.10	< 0.10
C2 Aliphatic TPH >C35-C44	N	1675	2:1	µg/l	0.10	< 0.10	< 0.10
Total Aliphatic Hydrocarbons	N	1675	2:1	µg/l	5.0	< 5.0	< 5.0
C2 Aromatic TPH >C5-C7	N	1675	2:1	µg/l	0.10	< 0.10	< 0.10
C2 Aromatic TPH >C7-C8	N	1675	2:1	µg/l	0.10	< 0.10	< 0.10
C2 Aromatic TPH >C8-C10	N	1675	2:1	µg/l	0.10	< 0.10	< 0.10
C2 Aromatic TPH >C10-C12	N	1675	2:1	µg/l	0.10	< 0.10	< 0.10
C2 Aromatic TPH >C12-C16	N	1675	2:1	µg/l	0.10	< 0.10	< 0.10
C2 Aromatic TPH >C16-C21	N	1675	2:1	µg/l	0.10	< 0.10	< 0.10
C2 Aromatic TPH >C21-C35	N	1675	2:1	µg/l	0.10	< 0.10	< 0.10
C2 Aromatic TPH >C35-C44	N	1675	2:1	µg/l	0.10	< 0.10	< 0.10
C2 Total Aromatic Hydrocarbons	N	1675	2:1	µg/l	5.0	< 5.0	< 5.0
Total Petroleum Hydrocarbons	N	1675	2:1	µg/l	10	< 10	< 10
Naphthalene	N	1700	2:1	µg/l	0.010	< 0.010	< 0.010
Acenaphthylene	N	1700	2:1	µg/l	0.010	< 0.010	< 0.010
Acenaphthene	N	1700	2:1	µg/l	0.010	< 0.010	< 0.010
Fluorene	N	1700	2:1	µg/l	0.010	< 0.010	< 0.010
Phenanthrene	N	1700	2:1	µg/l	0.010	< 0.010	< 0.010
Anthracene	N	1700	2:1	µg/l	0.010	< 0.010	< 0.010
Fluoranthene	N	1700	2:1	µg/l	0.010	< 0.010	< 0.010
Pyrene	N	1700	2:1	µg/l	0.010	< 0.010	< 0.010
Benzo[a]anthracene	N	1700	2:1	µg/l	0.010	< 0.010	< 0.010
Chrysene	N	1700	2:1	µg/l	0.010	< 0.010	< 0.010
Benzo[b]fluoranthene	N	1700	2:1	µg/l	0.010	< 0.010	< 0.010
Benzo[k]fluoranthene	N	1700	2:1	µg/l	0.010	< 0.010	< 0.010
Benzo[a]pyrene	N	1700	2:1	µg/l	0.010	< 0.010	< 0.010
Indeno(1,2,3-c,d)Pyrene	N	1700	2:1	µg/l	0.010	< 0.010	< 0.010
Dibenz(a,h)Anthracene	N	1700	2:1	µg/l	0.010	< 0.010	< 0.010
Benzo[g,h,i]perylene	N	1700	2:1	µg/l	0.010	< 0.010	< 0.010
Coronene	N	1700	2:1	µg/l	0.010	< 0.010	< 0.010
Total Of 16 PAH's	N	1700	2:1	µg/l	0.20	< 0.20	< 0.20
Benzene	U	1760	2:1	µg/l	1.0	< 1.0	< 1.0
Toluene	U	1760	2:1	µg/l	1.0	< 1.0	< 1.0
Ethylbenzene	U	1760	2:1	µg/l	1.0	< 1.0	< 1.0
m & p-Xylene	U	1760	2:1	µg/l	1.0	< 1.0	< 1.0
o-Xylene	U	1760	2:1	µg/l	1.0	< 1.0	< 1.0
Methyl Tert-Butyl Ether	N	1760	2:1	µg/l	1.0	< 1.0	< 1.0

Results - Leachate

Project: Q0330 Caenant Terrace

Client: Quantum Geotechnic Ltd				**Chemtest Job No.:**		20-24616	20-24616
Quotation No.: Q20-19535				**Chemtest Sample ID.:**		1064115	1064117
Order No.:				Client Sample Ref.:		ES3	ES4
				Client Sample ID.:		3	4
				Sample Location:		HP04	HP04
				Sample Type:		SOIL	SOIL
				Top Depth (m):		0.5	1.0
				Bottom Depth (m):		0.6	1.1
				Date Sampled:		07-Sep-2020	07-Sep-2020
Determinand	**Accred.**	**SOP**	**Type**	**Units**	**LOD**		
Total Phenols	U	1920	2:1	mg/l	0.030	< 0.030	< 0.030

Results - Soil

Project: Q0330 Caenant Terrace

Client: Quantum Geotechnic Ltd			**Chemtest Job No.:**		20-24616	20-24616
Quotation No.: Q20-19535			**Chemtest Sample ID.:**		1064115	1064117
Order No.:			Client Sample Ref.:		ES3	ES4
			Client Sample ID.:		3	4
			Sample Location:		HP04	HP04
			Sample Type:		SOIL	SOIL
			Top Depth (m):		0.5	1.0
			Bottom Depth (m):		0.6	1.1
			Date Sampled:		07-Sep-2020	07-Sep-2020
			Asbestos Lab:		COVENTRY	COVENTRY
Determinand	**Accred.**	**SOP**	**Units**	**LOD**		
ACM Type	U	2192		N/A	-	-
Asbestos Identification	U	2192		N/A	No Asbestos Detected	No Asbestos Detected
ACM Detection Stage	U	2192		N/A	-	-
Moisture	N	2030	%	0.020	9.7	23
Soil Colour	N	2040		N/A	Brown	Brown
Other Material	N	2040		N/A	Stones	Stones
Soil Texture	N	2040		N/A	Sand	Sand
pH	M	2010		4.0	8.8	7.8
Boron (Hot Water Soluble)	M	2120	mg/kg	0.40	0.53	3.8
Magnesium (Water Soluble)	M	2120	mg/kg	20	20	20
Sulphate (2:1 Water Soluble) as SO4	M	2120	g/l	0.010	0.072	0.28
Nitrite (Extractable)	N	2220	mg/kg	0.10	0.26	< 0.10
Nitrate (Water Soluble)	N	2220	g/l	0.010	< 0.010	< 0.010
Cyanide (Complex)	M	2300	mg/kg	0.50	< 0.50	< 0.50
Cyanide (Free)	M	2300	mg/kg	0.50	< 0.50	< 0.50
Cyanide (Total)	M	2300	mg/kg	0.50	< 0.50	< 0.50
Sulphide (Easily Liberatable)	N	2325	mg/kg	0.50	4.9	2.5
Ammoniacal Nitrogen	M	2425	mg/kg	0.50	4.6	1.8
Aluminium (Total)	N	2430	mg/kg	100	7200	6900
Iron (Total)	N	2430	mg/kg	100	21000	25000
Sulphate (Total)	M	2430	mg/kg	100	1200	1300
Arsenic	M	2450	mg/kg	1.0	27	65
Barium	M	2450	mg/kg	10	110	470
Beryllium	U	2450	mg/kg	1.0	< 1.0	1.3
Cadmium	M	2450	mg/kg	0.10	0.52	0.27
Chromium	M	2450	mg/kg	1.0	17	17
Manganese	M	2450	mg/kg	5.0	710	560
Molybdenum	M	2450	mg/kg	2.0	< 2.0	7.9
Antimony	N	2450	mg/kg	2.0	< 2.0	4.8
Copper	M	2450	mg/kg	0.50	59	88
Mercury	M	2450	mg/kg	0.10	0.10	0.17
Nickel	M	2450	mg/kg	0.50	35	41
Lead	M	2450	mg/kg	0.50	110	100
Selenium	M	2450	mg/kg	0.20	0.32	1.2
Vanadium	U	2450	mg/kg	5.0	22	39

Results - Soil

Project: Q0330 Caenant Terrace

Client: Quantum Geotechnic Ltd			**Chemtest Job No.:**		20-24616	20-24616
Quotation No.: Q20-19535			**Chemtest Sample ID.:**		1064115	1064117
Order No.:			Client Sample Ref.:		ES3	ES4
			Client Sample ID.:		3	4
			Sample Location:		HP04	HP04
			Sample Type:		SOIL	SOIL
			Top Depth (m):		0.5	1.0
			Bottom Depth (m):		0.6	1.1
			Date Sampled:		07-Sep-2020	07-Sep-2020
			Asbestos Lab:		COVENTRY	COVENTRY
Determinand	**Accred.**	**SOP**	**Units**	**LOD**		
Zinc	M	2450	mg/kg	0.50	200	130
Chromium (Hexavalent)	N	2490	mg/kg	0.50	< 0.50	< 0.50
Organic Matter	M	2625	%	0.40	5.7	36
Aliphatic TPH >C5-C6	N	2680	mg/kg	0.010	< 0.010	< 0.010
Aliphatic TPH >C6-C8	N	2680	mg/kg	0.010	< 0.010	< 0.010
Aliphatic TPH >C8-C10	N	2680	mg/kg	0.10	< 0.10	< 0.10
Aliphatic TPH >C10-C12	N	2680	mg/kg	0.10	< 0.10	< 0.10
Aliphatic TPH >C12-C16	N	2680	mg/kg	0.10	< 0.10	< 0.10
Aliphatic TPH >C16-C21	N	2680	mg/kg	0.10	< 0.10	< 0.10
Aliphatic TPH >C21-C35	N	2680	mg/kg	0.10	< 0.10	< 0.10
Aliphatic TPH >C35-C44	N	2680	mg/kg	0.10	< 0.10	< 0.10
Total Aliphatic Hydrocarbons	N	2680	mg/kg	1.0	< 1.0	< 1.0
Aromatic TPH >C5-C7	N	2680	mg/kg	0.010	< 0.010	< 0.010
Aromatic TPH >C7-C8	N	2680	mg/kg	0.010	< 0.010	< 0.010
Aromatic TPH >C8-C10	N	2680	mg/kg	0.10	< 0.10	< 0.10
Aromatic TPH >C10-C12	N	2680	mg/kg	0.10	< 0.10	< 0.10
Aromatic TPH >C12-C16	N	2680	mg/kg	0.10	< 0.10	< 0.10
Aromatic TPH >C16-C21	N	2680	mg/kg	0.10	< 0.10	< 0.10
Aromatic TPH >C21-C35	N	2680	mg/kg	0.10	< 0.10	< 0.10
Aromatic TPH >C35-C44	N	2680	mg/kg	0.10	< 0.10	< 0.10
Total Aromatic Hydrocarbons	N	2680	mg/kg	1.0	< 1.0	< 1.0
Total Petroleum Hydrocarbons	N	2680	mg/kg	2.0	< 2.0	< 2.0
Naphthalene	N	2700	mg/kg	0.010	< 0.010	< 0.010
Acenaphthylene	N	2700	mg/kg	0.010	< 0.010	< 0.010
Acenaphthene	N	2700	mg/kg	0.010	< 0.010	< 0.010
Fluorene	N	2700	mg/kg	0.010	< 0.010	< 0.010
Phenanthrene	N	2700	mg/kg	0.010	0.80	< 0.010
Anthracene	N	2700	mg/kg	0.010	0.30	< 0.010
Fluoranthene	N	2700	mg/kg	0.010	1.4	< 0.010
Pyrene	N	2700	mg/kg	0.010	1.5	< 0.010
Benzo[a]anthracene	N	2700	mg/kg	0.010	0.93	< 0.010
Chrysene	N	2700	mg/kg	0.010	1.3	< 0.010
Benzo[b]fluoranthene	N	2700	mg/kg	0.010	1.5	< 0.010
Benzo[k]fluoranthene	N	2700	mg/kg	0.010	0.47	< 0.010
Benzo[a]pyrene	N	2700	mg/kg	0.010	1.3	< 0.010
Indeno(1,2,3-c,d)Pyrene	N	2700	mg/kg	0.010	1.1	< 0.010

Results - Soil

Project: Q0330 Caenant Terrace

Client: Quantum Geotechnic Ltd			**Chemtest Job No.:**		20-24616	20-24616
Quotation No.: Q20-19535			**Chemtest Sample ID.:**		1064115	1064117
Order No.:			Client Sample Ref.:		ES3	ES4
			Client Sample ID.:		3	4
			Sample Location:		HP04	HP04
			Sample Type:		SOIL	SOIL
			Top Depth (m):		0.5	1.0
			Bottom Depth (m):		0.6	1.1
			Date Sampled:		07-Sep-2020	07-Sep-2020
			Asbestos Lab:		COVENTRY	COVENTRY
Determinand	**Accred.**	**SOP**	**Units**	**LOD**		
Dibenz(a,h)Anthracene	N	2700	mg/kg	0.010	0.40	< 0.010
Benzo[g,h,i]perylene	N	2700	mg/kg	0.010	1.3	< 0.010
Coronene	N	2700	mg/kg	0.010	< 0.010	< 0.010
Total Of 17 PAH's	N	2700	mg/kg	0.20	12	< 0.20
Benzene	M	2760	µg/kg	1.0	< 1.0	< 1.0
Toluene	M	2760	µg/kg	1.0	< 1.0	< 1.0
Ethylbenzene	M	2760	µg/kg	1.0	< 1.0	< 1.0
m & p-Xylene	M	2760	µg/kg	1.0	< 1.0	< 1.0
o-Xylene	M	2760	µg/kg	1.0	< 1.0	< 1.0
Methyl Tert-Butyl Ether	M	2760	µg/kg	1.0	< 1.0	< 1.0
Total Phenols	M	2920	mg/kg	0.30	< 0.30	< 0.30

Test Methods

SOP	Title	Parameters included	Method summary
1010	pH Value of Waters	pH	pH Meter
1090	Biochemical Oxygen Demand	Biochemical Oxygen demand (BOD)	Colorimetric determination of dissolved oxygen in seeded sample after 5 days incubation at 20°C.
1100	Chemical Oxygen Demand	Chemical Oxygen demand (COD)	Dichromate oxidation of organic matter in sample followed by colorimetric determination of residual Cr[VI].
1220	Anions, Alkalinity & Ammonium in Waters	Fluoride; Chloride; Nitrite; Nitrate; Total; Oxidisable Nitrogen (TON); Sulfate; Phosphate; Alkalinity; Ammonium	Automated colorimetric analysis using 'Aquakem 600' Discrete Analyser.
1300	Cyanides & Thiocyanate in Waters	Free (or easy liberatable) Cyanide; total Cyanide; complex Cyanide; Thiocyanate	Continuous Flow Analysis.
1325	Sulphide in Waters	Sulphides	Automated colorimetric analysis by 'Aquakem 600' Discrete Analyser using N,N–dimethyl-pphenylenediamine.
1415	Cations in Waters by ICP-MS	Sodium; Potassium; Calcium; Magnesium	Direct determination by inductively coupled plasma - mass spectrometry (ICP-MS).
1450	Metals in Waters by ICP-MS	Metals, including: Antimony; Arsenic; Barium; Beryllium; Boron; Cadmium; Chromium; Cobalt; Copper; Lead; Manganese; Mercury; Molybdenum; Nickel; Selenium; Tin; Vanadium; Zinc	Filtration of samples followed by direct determination by inductively coupled plasma mass spectrometry (ICP-MS).
1460	Mercury low-level in Waters by AFS	Mercury	Atomic Fluorescence Spectrometry, with collimated UV source, wavelength 253.7 nm.
1490	Hexavalent Chromium in Waters	Chromium [VI]	Automated colorimetric analysis by 'Aquakem 600' Discrete Analyser using 1,5-diphenylcarbazide.
1675	TPH Aliphatic/Aromatic split in Waters by GC-FID(cf. Texas Method 1006 / TPH CWG)	Aliphatics: >C5–C6, >C6–C8, >C8– C10, >C10–C12, >C12–C16, >C16–C21, >C21–C35, >C35– C44Aromatics: >C5–C7, >C7–C8, >C8– C10, >C10–C12, >C12–C16, >C16– C21, >C21– C35, >C35– C44	Pentane extraction / GCxGC FID detection
1700	Speciated Polynuclear Aromatic Hydrocarbons (PAH) in Waters by GC-FID	Acenaphthene; Acenaphthylene; Anthracene; Benzo[a]Anthracene; Benzo[a]Pyrene; Benzo[b]Fluoranthene; Benzo[ghi]Perylene; Benzo[k]Fluoranthene; Chrysene; Dibenz[ah]Anthracene; Fluoranthene; Fluorene; Indeno[123cd]Pyrene; Naphthalene; Phenanthrene; Pyrene	Dichloromethane extraction / GC-FID (GC-FID detection is non-selective and can be subject to interference from co-eluting compounds)
1760	Volatile Organic Compounds (VOCs) in Waters by Headspace GC-MS	Volatile organic compounds, including BTEX and halogenated Aliphatic/Aromatics. (cf. USEPA Method 8260)	Automated headspace gas chromatographic (GC) analysis of water samples with mass spectrometric (MS) detection of volatile organic compounds.
1920	Phenols in Waters by HPLC	Phenolic compounds including: Phenol, Cresols, Xylenols, Trimethylphenols Note: Chlorophenols are excluded.	Determination by High Performance Liquid Chromatography (HPLC) using electrochemical detection.
2010	pH Value of Soils	pH	pH Meter
2030	Moisture and Stone Content of Soils(Requirement of MCERTS)	Moisture content	Determination of moisture content of soil as a percentage of its as received mass obtained at <37°C.
2040	Soil Description(Requirement of MCERTS)	Soil description	As received soil is described based upon BS5930
2120	Water Soluble Boron, Sulphate, Magnesium & Chromium	Boron; Sulphate; Magnesium; Chromium	Aqueous extraction / ICP-OES
2192	Asbestos	Asbestos	Polarised light microscopy / Gravimetry
2220	Water soluble Chloride in Soils	Chloride	Aqueous extraction and measurememrnt by 'Aquakem 600' Discrete Analyser using ferric nitrate / mercuric thiocyanate.

Test Methods

SOP	Title	Parameters included	Method summary
2300	Cyanides & Thiocyanate in Soils	Free (or easy liberatable) Cyanide; total Cyanide; complex Cyanide; Thiocyanate	Allkaline extraction followed by colorimetric determination using Automated Flow Injection Analyser.
2325	Sulphide in Soils	Sulphide	Steam distillation with sulphuric acid / analysis by 'Aquakem 600' Discrete Analyser, using N,N–dimethyl-p-phenylenediamine.
2425	Extractable Ammonium in soils	Ammonium	Extraction with potassium chloride solution / analysis by 'Aquakem 600' Discrete Analyser using sodium salicylate and sodium dichloroisocyanurate.
2430	Total Sulphate in soils	Total Sulphate	Acid digestion followed by determination of sulphate in extract by ICP-OES.
2450	Acid Soluble Metals in Soils	Metals, including: Arsenic; Barium; Beryllium; Cadmium; Chromium; Cobalt; Copper; Lead; Manganese; Mercury; Molybdenum; Nickel; Selenium; Vanadium; Zinc	Acid digestion followed by determination of metals in extract by ICP-MS.
2490	Hexavalent Chromium in Soils	Chromium [VI]	Soil extracts are prepared by extracting dried and ground soil samples into boiling water. Chromium [VI] is determined by 'Aquakem 600' Discrete Analyser using 1,5-diphenylcarbazide.
2625	Total Organic Carbon in Soils	Total organic Carbon (TOC)	Determined by high temperature combustion under oxygen, using an Eltra elemental analyser.
2680	TPH A/A Split	Aliphatics: >C5–C6, >C6–C8,>C8–C10, >C10–C12, >C12–C16, >C16–C21, >C21–C35, >C35– C44Aromatics: >C5–C7, >C7–C8, >C8– C10, >C10–C12, >C12–C16, >C16– C21, >C21– C35, >C35– C44	Dichloromethane extraction / GCxGC FID detection
2700	Speciated Polynuclear Aromatic Hydrocarbons (PAH) in Soil by GC-FID	Acenaphthene; Acenaphthylene; Anthracene; Benzo[a]Anthracene; Benzo[a]Pyrene; Benzo[b]Fluoranthene; Benzo[ghi]Perylene; Benzo[k]Fluoranthene; Chrysene; Dibenz[ah]Anthracene; Fluoranthene; Fluorene; Indeno[123cd]Pyrene; Naphthalene; Phenanthrene; Pyrene	Dichloromethane extraction / GC-FID (GC-FID detection is non-selective and can be subject to interference from co-eluting compounds)
2760	Volatile Organic Compounds (VOCs) in Soils by Headspace GC-MS	Volatile organic compounds, including BTEX and halogenated Aliphatic/Aromatics.(cf. USEPA Method 8260)*please refer to UKAS schedule	Automated headspace gas chromatographic (GC) analysis of a soil sample, as received, with mass spectrometric (MS) detection of volatile organic compounds.
2920	Phenols in Soils by HPLC	Phenolic compounds including Resorcinol, Phenol, Methylphenols, Dimethylphenols, 1-Naphthol and TrimethylphenolsNote: chlorophenols are excluded.	60:40 methanol/water mixture extraction, followed by HPLC determination using electrochemical detection.
640	Characterisation of Waste (Leaching C10)	Waste material including soil, sludges and granular waste	ComplianceTest for Leaching of Granular Waste Material and Sludge
650	Characterisation of Waste (Leaching WAC)	Waste material including soil, sludges and granular waste	ComplianceTest for Leaching of Granular Waste Material and Sludge

Report Information

Key

U	UKAS accredited
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N	Unaccredited
S	This analysis has been subcontracted to a UKAS accredited laboratory that is accredited for this analysis
SN	This analysis has been subcontracted to a UKAS accredited laboratory that is not accredited for this analysis
T	This analysis has been subcontracted to an unaccredited laboratory
I/S	Insufficient Sample
U/S	Unsuitable Sample
N/E	not evaluated
<	"less than"
>	"greater than"

Comments or interpretations are beyond the scope of UKAS accreditation
The results relate only to the items tested
Uncertainty of measurement for the determinands tested are available upon request
None of the results in this report have been recovery corrected
All results are expressed on a dry weight basis

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

For all other tests the samples were dried at < 37°C prior to analysis
All Asbestos testing is performed at the indicated laboratory
Issue numbers are sequential starting with 1 all subsequent reports are incremented by 1

Sample Deviation Codes

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

Sample Retention and Disposal

All soil samples will be retained for a period of 45 days from the date of receipt
All water samples will be retained for 14 days from the date of receipt
Charges may apply to extended sample storage

If you require extended retention of samples, please email your requirements to:
customerservices@chemtest.com

Eurofins Chemtest Ltd
Depot Road
Newmarket
CB8 0AL
Tel: 01638 606070
Email: info@chemtest.com

2183

Final Report

Report No.:	20-27448-1		
Initial Date of Issue:	16-Oct-2020		
Client	Quantum Geotechnic Ltd		
Client Address:	Plas Newydd Llanedi Pontarddulais Swansea SA4 0FQ		
Contact(s):	Phil Darby		
Project	Q0330 Caenat Terrace		
Quotation No.:	Q20-19535	**Date Received:**	07-Oct-2020
Order No.:		**Date Instructed:**	12-Oct-2020
No. of Samples:	2		
Turnaround (Wkdays):	5	**Results Due:**	16-Oct-2020
Date Approved:	16-Oct-2020		

Approved By:



Details: Glynn Harvey, Technical Manager

Results - Water

Project: Q0330 Caenat Terrace

Client: Quantum Geotechnic Ltd			**Chemtest Job No.:**		20-27448	20-27448
Quotation No.: Q20-19535			**Chemtest Sample ID.:**		1078747	1078748
			Sample Location:		EW1	EW2
			Sample Type:		WATER	WATER
			Date Sampled:		06-Oct-2020	06-Oct-2020
Determinand	**Accred.**	**SOP**	**Units**	**LOD**		
pH	U	1010		N/A	8.2	8.2
Biochemical Oxygen Demand Low Level	N	1090	mg O2/l	1.0	4.0	8.0
Alkalinity (Total)	U	1220	mg/l	10	180	110
Chloride	U	1220	mg/l	1.0	20	18
Ammonia (Free)	U	1220	mg/l	0.050	1.8	< 0.050
Ammonium	U	1220	mg/l	0.050	20	0.089
Ammoniacal Nitrogen	U	1220	mg/l	0.050	17	0.076
Nitrate	U	1220	mg/l	0.50	< 0.50	6.2
Phosphorus (Dissolved)	U	1220	mg/l	0.020	1.2	0.042
Sulphate	U	1220	mg/l	1.0	30	24
Cyanide (Total)	U	1300	mg/l	0.050	< 0.050	< 0.050
Cyanide (Free)	U	1300	mg/l	0.050	< 0.050	< 0.050
Sulphide	U	1325	mg/l	0.050	0.051	< 0.050
Calcium	U	1415	mg/l	5.0	58	32
Total Hardness as CaCO3	U	1270	mg/l	15	220	110
Aluminium (Dissolved)	N	1450	µg/l	10	< 10	26
Arsenic (Dissolved)	U	1450	µg/l	1.0	1.5	1.6
Boron (Dissolved)	U	1450	µg/l	20	21	< 20
Barium (Dissolved)	U	1450	µg/l	5.0	29	25
Beryllium (Dissolved)	U	1450	µg/l	1.0	< 1.0	< 1.0
Cadmium (Dissolved)	U	1450	µg/l	0.080	< 0.080	< 0.080
Chromium (Dissolved)	U	1450	µg/l	1.0	< 1.0	4.8
Copper (Dissolved)	U	1450	µg/l	1.0	1.0	5.8
Iron (Dissolved)	N	1450	µg/l	20	420	150
Mercury (Dissolved)	U	1450	µg/l	0.50	< 0.50	< 0.50
Molybdenum (Dissolved)	U	1450	µg/l	1.0	< 1.0	< 1.0
Nickel (Dissolved)	U	1450	µg/l	1.0	< 1.0	1.6
Lead (Dissolved)	U	1450	µg/l	1.0	< 1.0	< 1.0
Antimony (Dissolved)	U	1450	µg/l	1.0	< 1.0	< 1.0
Selenium (Dissolved)	U	1450	µg/l	1.0	< 1.0	< 1.0
Vanadium (Dissolved)	U	1450	µg/l	1.0	< 1.0	< 1.0
Zinc (Dissolved)	U	1450	µg/l	1.0	4.1	8.5
Low-Level Chromium (Hexavalent)	U	1495	µg/l	0.10	0.30	< 0.10
Dissolved Organic Carbon	U	1610	mg/l	2.0	8.7	7.0
Total Organic Carbon	U	1610	mg/l	2.0	11	8.2
Aliphatic TPH >C5-C6	N	1675	µg/l	0.10	< 0.10	< 0.10
Aliphatic TPH >C6-C8	N	1675	µg/l	0.10	< 0.10	< 0.10
Aliphatic TPH >C8-C10	N	1675	µg/l	0.10	< 0.10	< 0.10
Aliphatic TPH >C10-C12	N	1675	µg/l	0.10	< 0.10	< 0.10
Aliphatic TPH >C12-C16	N	1675	µg/l	0.10	< 0.10	< 0.10
Aliphatic TPH >C16-C21	N	1675	µg/l	0.10	< 0.10	< 0.10

Results - Water

Project: Q0330 Caenat Terrace

Client: Quantum Geotechnic Ltd			**Chemtest Job No.:**		20-27448	20-27448
Quotation No.: Q20-19535			**Chemtest Sample ID.:**		1078747	1078748
			Sample Location:		EW1	EW2
			Sample Type:		WATER	WATER
			Date Sampled:		06-Oct-2020	06-Oct-2020
Determinand	**Accred.**	**SOP**	**Units**	**LOD**		
Aliphatic TPH >C21-C35	N	1675	µg/l	0.10	< 0.10	< 0.10
Aliphatic TPH >C35-C44	N	1675	µg/l	0.10	< 0.10	< 0.10
Total Aliphatic Hydrocarbons	N	1675	µg/l	5.0	< 5.0	< 5.0
Aromatic TPH >C5-C7	N	1675	µg/l	0.10	< 0.10	< 0.10
Aromatic TPH >C7-C8	N	1675	µg/l	0.10	< 0.10	< 0.10
Aromatic TPH >C8-C10	N	1675	µg/l	0.10	< 0.10	< 0.10
Aromatic TPH >C10-C12	N	1675	µg/l	0.10	< 0.10	< 0.10
Aromatic TPH >C12-C16	N	1675	µg/l	0.10	< 0.10	< 0.10
Aromatic TPH >C16-C21	N	1675	µg/l	0.10	< 0.10	< 0.10
Aromatic TPH >C21-C35	N	1675	µg/l	0.10	< 0.10	< 0.10
Aromatic TPH >C35-C44	N	1675	µg/l	0.10	< 0.10	< 0.10
Total Aromatic Hydrocarbons	N	1675	µg/l	5.0	< 5.0	< 5.0
Total Petroleum Hydrocarbons	N	1675	µg/l	10	< 10	< 10
Naphthalene	N	1700	µg/l	0.010	< 0.010	< 0.010
Acenaphthylene	N	1700	µg/l	0.010	< 0.010	< 0.010
Acenaphthene	N	1700	µg/l	0.010	< 0.010	< 0.010
Fluorene	N	1700	µg/l	0.010	< 0.010	< 0.010
Phenanthrene	N	1700	µg/l	0.010	< 0.010	< 0.010
Anthracene	N	1700	µg/l	0.010	< 0.010	< 0.010
Fluoranthene	N	1700	µg/l	0.010	< 0.010	< 0.010
Pyrene	N	1700	µg/l	0.010	< 0.010	< 0.010
Benzo[a]anthracene	N	1700	µg/l	0.010	< 0.010	< 0.010
Chrysene	N	1700	µg/l	0.010	< 0.010	< 0.010
Benzo[b]fluoranthene	N	1700	µg/l	0.010	< 0.010	< 0.010
Benzo[k]fluoranthene	N	1700	µg/l	0.010	< 0.010	< 0.010
Benzo[a]pyrene	N	1700	µg/l	0.010	< 0.010	< 0.010
Indeno(1,2,3-c,d)Pyrene	N	1700	µg/l	0.010	< 0.010	< 0.010
Dibenz(a,h)Anthracene	N	1700	µg/l	0.010	< 0.010	< 0.010
Benzo[g,h,i]perylene	N	1700	µg/l	0.010	< 0.010	< 0.010
Total Of 16 PAH's	N	1700	µg/l	0.20	< 0.20	< 0.20
Benzene	U	1760	µg/l	1.0	< 1.0	< 1.0
Toluene	U	1760	µg/l	1.0	< 1.0	< 1.0
Ethylbenzene	U	1760	µg/l	1.0	< 1.0	< 1.0
m & p-Xylene	U	1760	µg/l	1.0	< 1.0	< 1.0
o-Xylene	U	1760	µg/l	1.0	< 1.0	< 1.0
Total Phenols	U	1920	mg/l	0.030	< 0.030	< 0.030

Test Methods

SOP	Title	Parameters included	Method summary
1010	pH Value of Waters	pH	pH Meter
1090	Biochemical Oxygen Demand	Biochemical Oxygen demand (BOD)	Colorimetric determination of dissolved oxygen in seeded sample after 5 days incubation at 20°C.
1220	Anions, Alkalinity & Ammonium in Waters	Fluoride; Chloride; Nitrite; Nitrate; Total; Oxidisable Nitrogen (TON); Sulfate; Phosphate; Alkalinity; Ammonium	Automated colorimetric analysis using 'Aquakem 600' Discrete Analyser.
1270	Total Hardness of Waters	Total hardness	Calculation applied to calcium and magnesium results, expressed as mg l-1 CaCO3 equivalent.
1300	Cyanides & Thiocyanate in Waters	Free (or easy liberatable) Cyanide; total Cyanide; complex Cyanide; Thiocyanate	Continuous Flow Analysis.
1325	Sulphide in Waters	Sulphides	Automated colorimetric analysis by 'Aquakem 600' Discrete Analyser using N,N–dimethyl-pphenylenediamine.
1415	Cations in Waters by ICP-MS	Sodium; Potassium; Calcium; Magnesium	Direct determination by inductively coupled plasma - mass spectrometry (ICP-MS).
1450	Metals in Waters by ICP-MS	Metals, including: Antimony; Arsenic; Barium; Beryllium; Boron; Cadmium; Chromium; Cobalt; Copper; Lead; Manganese; Mercury; Molybdenum; Nickel; Selenium; Tin; Vanadium; Zinc	Filtration of samples followed by direct determination by inductively coupled plasma mass spectrometry (ICP-MS).
1495	Low Level Hexavalent Chromium in Waters	Chromium [VI]	Colorimetric determination of hexavalent chromium expressed as Cr (VI) µg/l in water, using Ion Chromatography and UV-visible spectrophotometry.
1610	Total/Dissolved Organic Carbon in Waters	Organic Carbon	TOC Analyser using Catalytic Oxidation
1675	TPH Aliphatic/Aromatic split in Waters by GC-FID(cf. Texas Method 1006 / TPH CWG)	Aliphatics: >C5–C6, >C6–C8, >C8– C10, >C10–C12, >C12–C16, >C16–C21, >C21–C35, >C35– C44Aromatics: >C5–C7, >C7–C8, >C8– C10, >C10–C12, >C12–C16, >C16–C21, >C21– C35, >C35– C44	Pentane extraction / GCxGC FID detection
1700	Speciated Polynuclear Aromatic Hydrocarbons (PAH) in Waters by GC-FID	Acenaphthene; Acenaphthylene; Anthracene; Benzo[a]Anthracene; Benzo[a]Pyrene; Benzo[b]Fluoranthene; Benzo[ghi]Perylene; Benzo[k]Fluoranthene; Chrysene; Dibenz[ah]Anthracene; Fluoranthene; Fluorene; Indeno[123cd]Pyrene; Naphthalene; Phenanthrene; Pyrene	Dichloromethane extraction / GC-FID (GC-FID detection is non-selective and can be subject to interference from co-eluting compounds)
1760	Volatile Organic Compounds (VOCs) in Waters by Headspace GC-MS	Volatile organic compounds, including BTEX and halogenated Aliphatic/Aromatics. (cf. USEPA Method 8260)	Automated headspace gas chromatographic (GC) analysis of water samples with mass spectrometric (MS) detection of volatile organic compounds.
1920	Phenols in Waters by HPLC	Phenolic compounds including: Phenol, Cresols, Xylenols, Trimethylphenols Note: Chlorophenols are excluded.	Determination by High Performance Liquid Chromatography (HPLC) using electrochemical detection.

Report Information

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I/S	Insufficient Sample
U/S	Unsuitable Sample
N/E	not evaluated
<	"less than"
>	"greater than"

Comments or interpretations are beyond the scope of UKAS accreditation
The results relate only to the items tested
Uncertainty of measurement for the determinands tested are available upon request
None of the results in this report have been recovery corrected
All results are expressed on a dry weight basis

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

For all other tests the samples were dried at < 37°C prior to analysis
All Asbestos testing is performed at the indicated laboratory
Issue numbers are sequential starting with 1 all subsequent reports are incremented by 1

Sample Deviation Codes

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

Sample Retention and Disposal

All soil samples will be retained for a period of 45 days from the date of receipt
All water samples will be retained for 14 days from the date of receipt
Charges may apply to extended sample storage

If you require extended retention of samples, please email your requirements to:
customerservices@chemtest.com

Eurofins Chemtest Ltd
Depot Road
Newmarket
CB8 0AL
Tel: 01638 606070
Email: info@chemtest.com

Final Report

Report No.:	20-23593-1		
Initial Date of Issue:	29-Sep-2020		
Client	Quantum Geotechnic Ltd		
Client Address:	Plas Newydd Llanedi Pontarddulais Swansea SA4 0FQ		
Contact(s):	Phil Darby		
Project	Q0330 Caenant Terrace		
Quotation No.:	Q20-19535	**Date Received:**	04-Sep-2020
Order No.:		**Date Instructed:**	21-Sep-2020
No. of Samples:	4		
Turnaround (Wkdays):	5	**Results Due:**	25-Sep-2020
Date Approved:	29-Sep-2020		
Approved By:			
Details:	Glynn Harvey, Technical Manager		

Results - Leachate

Project: Q0330 Caenant Terrace

Client: Quantum Geotechnic Ltd				**Chemtest Job No.:**		20-23593	20-23593	20-23593	20-23593
Quotation No.: Q20-19535				**Chemtest Sample ID.:**		1059069	1059073	1059076	1059078
Order No.:				Client Sample Ref.:		ES1	ES2	ES1	ES3
				Client Sample ID.:		1	2	1	3
				Sample Location:		HP01	HP02	HP03	HP03
				Sample Type:		SOIL	SOIL	SOIL	SOIL
				Top Depth (m):		0.3	0.5	0.15	1.0
				Date Sampled:		01-Sep-2020	02-Sep-2020	02-Sep-2020	02-Sep-2020
Determinand	**Accred.**	**SOP**	**Type**	**Units**	**LOD**				
pH	U	1010	2:1		N/A	8.2	10.4	9.4	7.1
Chemical Oxygen Demand	U	1100	2:1	mg O2/l	10	18	18	29	47
Ammoniacal Nitrogen	U	1220	2:1	mg/l	0.050	0.061	0.13	0.14	7.2
Nitrite	U	1220	2:1	mg/l	0.020	< 0.020	< 0.020	< 0.020	< 0.020
Nitrate	U	1220	2:1	mg/l	0.50	12	1.1	< 0.50	< 0.50
Sulphate	U	1220	2:1	mg/l	1.0	14	170	110	1300
Cyanide (Total)	U	1300	2:1	mg/l	0.050	< 0.050	< 0.050	< 0.050	< 0.050
Cyanide (Free)	U	1300	2:1	mg/l	0.050	< 0.050	< 0.050	< 0.050	< 0.050
Cyanide (Complex)	U	1300	2:1	mg/l	0.050	< 0.050	< 0.050	< 0.050	< 0.050
Sulphide	U	1325	2:1	mg/l	0.050	< 0.050	< 0.050	< 0.050	< 0.050
Magnesium	U	1415	2:1	mg/l	0.50	3.6	0.79	4.5	150
Aluminium (Dissolved)	N	1450	2:1	µg/l	10	< 10	270	17	250
Arsenic (Dissolved)	U	1450	2:1	µg/l	1.0	2.3	4.4	16	1.3
Boron (Dissolved)	U	1450	2:1	µg/l	20	< 20	94	61	86
Barium (Dissolved)	U	1450	2:1	µg/l	5.0	76	19	31	52
Beryllium (Dissolved)	U	1450	2:1	µg/l	1.0	< 1.0	< 1.0	< 1.0	< 1.0
Cadmium (Dissolved)	U	1450	2:1	µg/l	0.080	< 0.080	< 0.080	< 0.080	0.93
Chromium (Dissolved)	U	1450	2:1	µg/l	1.0	3.7	5.2	< 1.0	< 1.0
Copper (Dissolved)	U	1450	2:1	µg/l	1.0	2.7	4.7	1.5	5.1
Manganese (Dissolved)	U	1450	2:1	µg/l	1.0	< 1.0	< 1.0	32	8000
Molybdenum (Dissolved)	U	1450	2:1	µg/l	1.0	6.4	7.3	6.9	< 1.0
Nickel (Dissolved)	U	1450	2:1	µg/l	1.0	< 1.0	< 1.0	< 1.0	22
Lead (Dissolved)	U	1450	2:1	µg/l	1.0	1.2	< 1.0	< 1.0	< 1.0
Antimony (Dissolved)	U	1450	2:1	µg/l	1.0	3.7	4.5	< 1.0	< 1.0
Selenium (Dissolved)	U	1450	2:1	µg/l	1.0	< 1.0	2.4	7.4	< 1.0
Vanadium (Dissolved)	U	1450	2:1	µg/l	1.0	< 1.0	62	52	< 1.0
Zinc (Dissolved)	U	1450	2:1	µg/l	1.0	9.5	2.1	< 1.0	240
Mercury Low Level	U	1460	2:1	µg/l	0.010	0.011	< 0.010	< 0.010	< 0.010
Iron (Dissolved)	N	1450	2:1	µg/l	20	110	160	61	570
Chromium (Hexavalent)	U	1490	2:1	µg/l	20	< 20	< 20	< 20	< 20
C2 Aliphatic TPH >C5-C6	N	1675	2:1	µg/l	0.10	[B] < 0.10	[B] < 0.10	[B] < 0.10	[B] < 0.10
C2 Aliphatic TPH >C6-C8	N	1675	2:1	µg/l	0.10	[B] < 0.10	[B] < 0.10	[B] < 0.10	[B] < 0.10
C2 Aliphatic TPH >C8-C10	N	1675	2:1	µg/l	0.10	[B] < 0.10	[B] < 0.10	[B] < 0.10	[B] < 0.10
C2 Aliphatic TPH >C10-C12	N	1675	2:1	µg/l	0.10	[B] < 0.10	[B] < 0.10	[B] < 0.10	[B] < 0.10
C2 Aliphatic TPH >C12-C16	N	1675	2:1	µg/l	0.10	[B] < 0.10	[B] < 0.10	[B] < 0.10	[B] < 0.10
C2 Aliphatic TPH >C16-C21	N	1675	2:1	µg/l	0.10	[B] < 0.10	[B] < 0.10	[B] < 0.10	[B] < 0.10
C2 Aliphatic TPH >C21-C35	N	1675	2:1	µg/l	0.10	[B] < 0.10	[B] < 0.10	[B] < 0.10	[B] < 0.10
C2 Aliphatic TPH >C35-C44	N	1675	2:1	µg/l	0.10	[B] < 0.10	[B] < 0.10	[B] < 0.10	[B] < 0.10

Results - Leachate

Project: Q0330 Caenant Terrace

Client: Quantum Geotechnic Ltd				**Chemtest Job No.:**		20-23593	20-23593	20-23593	20-23593
Quotation No.: Q20-19535				**Chemtest Sample ID.:**		1059069	1059073	1059076	1059078
Order No.:				Client Sample Ref.:		ES1	ES2	ES1	ES3
				Client Sample ID.:		1	2	1	3
				Sample Location:		HP01	HP02	HP03	HP03
				Sample Type:		SOIL	SOIL	SOIL	SOIL
				Top Depth (m):		0.3	0.5	0.15	1.0
				Date Sampled:		01-Sep-2020	02-Sep-2020	02-Sep-2020	02-Sep-2020
Determinand	**Accred.**	**SOP**	**Type**	**Units**	**LOD**				
Total Aliphatic Hydrocarbons	N	1675	2:1	µg/l	5.0	[B] < 5.0	[B] < 5.0	[B] < 5.0	[B] < 5.0
C2 Aromatic TPH >C5-C7	N	1675	2:1	µg/l	0.10	[B] < 0.10	[B] < 0.10	[B] < 0.10	[B] < 0.10
C2 Aromatic TPH >C7-C8	N	1675	2:1	µg/l	0.10	[B] < 0.10	[B] < 0.10	[B] < 0.10	[B] < 0.10
C2 Aromatic TPH >C8-C10	N	1675	2:1	µg/l	0.10	[B] < 0.10	[B] < 0.10	[B] < 0.10	[B] < 0.10
C2 Aromatic TPH >C10-C12	N	1675	2:1	µg/l	0.10	[B] < 0.10	[B] < 0.10	[B] < 0.10	[B] < 0.10
C2 Aromatic TPH >C12-C16	N	1675	2:1	µg/l	0.10	[B] < 0.10	[B] < 0.10	[B] < 0.10	[B] < 0.10
C2 Aromatic TPH >C16-C21	N	1675	2:1	µg/l	0.10	[B] < 0.10	[B] < 0.10	[B] < 0.10	[B] < 0.10
C2 Aromatic TPH >C21-C35	N	1675	2:1	µg/l	0.10	[B] < 0.10	[B] < 0.10	[B] < 0.10	[B] < 0.10
C2 Aromatic TPH >C35-C44	N	1675	2:1	µg/l	0.10	[B] < 0.10	[B] < 0.10	[B] < 0.10	[B] < 0.10
C2 Total Aromatic Hydrocarbons	N	1675	2:1	µg/l	5.0	[B] < 5.0	[B] < 5.0	[B] < 5.0	[B] < 5.0
Total Petroleum Hydrocarbons	N	1675	2:1	µg/l	10	[B] < 10	[B] < 10	[B] < 10	[B] < 10
Naphthalene	N	1700	2:1	µg/l	0.010	< 0.010	< 0.010	< 0.010	< 0.010
Acenaphthylene	N	1700	2:1	µg/l	0.010	< 0.010	< 0.010	< 0.010	< 0.010
Acenaphthene	N	1700	2:1	µg/l	0.010	< 0.010	< 0.010	< 0.010	< 0.010
Fluorene	N	1700	2:1	µg/l	0.010	< 0.010	< 0.010	< 0.010	< 0.010
Phenanthrene	N	1700	2:1	µg/l	0.010	< 0.010	< 0.010	< 0.010	< 0.010
Anthracene	N	1700	2:1	µg/l	0.010	< 0.010	< 0.010	< 0.010	< 0.010
Fluoranthene	N	1700	2:1	µg/l	0.010	< 0.010	< 0.010	< 0.010	< 0.010
Pyrene	N	1700	2:1	µg/l	0.010	< 0.010	< 0.010	< 0.010	< 0.010
Benzo[a]anthracene	N	1700	2:1	µg/l	0.010	< 0.010	< 0.010	< 0.010	< 0.010
Chrysene	N	1700	2:1	µg/l	0.010	< 0.010	< 0.010	< 0.010	< 0.010
Benzo[b]fluoranthene	N	1700	2:1	µg/l	0.010	< 0.010	< 0.010	< 0.010	< 0.010
Benzo[k]fluoranthene	N	1700	2:1	µg/l	0.010	< 0.010	< 0.010	< 0.010	< 0.010
Benzo[a]pyrene	N	1700	2:1	µg/l	0.010	< 0.010	< 0.010	< 0.010	< 0.010
Indeno(1,2,3-c,d)Pyrene	N	1700	2:1	µg/l	0.010	< 0.010	< 0.010	< 0.010	< 0.010
Dibenz(a,h)Anthracene	N	1700	2:1	µg/l	0.010	< 0.010	< 0.010	< 0.010	< 0.010
Benzo[g,h,i]perylene	N	1700	2:1	µg/l	0.010	< 0.010	< 0.010	< 0.010	< 0.010
Coronene	N	1700	2:1	µg/l	0.010	< 0.010	< 0.010	< 0.010	< 0.010
Total Of 16 PAH's	N	1700	2:1	µg/l	0.20	< 0.20	< 0.20	< 0.20	< 0.20
Benzene	U	1760	2:1	µg/l	1.0	[B] < 1.0	[B] < 1.0	[B] < 1.0	[B] < 1.0
Toluene	U	1760	2:1	µg/l	1.0	[B] < 1.0	[B] < 1.0	[B] < 1.0	[B] < 1.0
Ethylbenzene	U	1760	2:1	µg/l	1.0	[B] < 1.0	[B] < 1.0	[B] < 1.0	[B] < 1.0
m & p-Xylene	U	1760	2:1	µg/l	1.0	[B] < 1.0	[B] < 1.0	[B] < 1.0	[B] < 1.0
o-Xylene	U	1760	2:1	µg/l	1.0	[B] < 1.0	[B] < 1.0	[B] < 1.0	[B] < 1.0
Methyl Tert-Butyl Ether	N	1760	2:1	µg/l	1.0	[B] < 1.0	[B] < 1.0	[B] < 1.0	[B] < 1.0
Total Phenols	U	1920	2:1	mg/l	0.030	< 0.030	< 0.030	< 0.030	< 0.030

Results - Soil

Project: Q0330 Caenant Terrace

Client: Quantum Geotechnic Ltd			**Chemtest Job No.:**		20-23593	20-23593	20-23593	20-23593
Quotation No.: Q20-19535			**Chemtest Sample ID.:**		1059069	1059073	1059076	1059078
Order No.:			Client Sample Ref.:		ES1	ES2	ES1	ES3
			Client Sample ID.:		1	2	1	3
			Sample Location:		HP01	HP02	HP03	HP03
			Sample Type:		SOIL	SOIL	SOIL	SOIL
			Top Depth (m):		0.3	0.5	0.15	1.0
			Date Sampled:		01-Sep-2020	02-Sep-2020	02-Sep-2020	02-Sep-2020
			Asbestos Lab:		COVENTRY	COVENTRY	COVENTRY	COVENTRY
Determinand	**Accred.**	**SOP**	**Units**	**LOD**				
ACM Type	U	2192		N/A	-	-	-	-
Asbestos Identification	U	2192	%	0.001	No Asbestos Detected	No Asbestos Detected	No Asbestos Detected	No Asbestos Detected
ACM Detection Stage	U	2192		N/A	-	-	-	-
Moisture	N	2030	%	0.020	12	9.5	5.1	40
Soil Colour	N	2040		N/A	Brown	Brown	Brown	Brown
Other Material	N	2040		N/A	Stones	Stones	Stones	None
Soil Texture	N	2040		N/A	Sand	Sand	Sand	Sand
pH	M	2010		4.0	8.4	10.1	9.8	5.5
Boron (Hot Water Soluble)	M	2120	mg/kg	0.40	0.46	0.89	1.1	0.92
Magnesium (Water Soluble)	M	2120	mg/kg	20	< 20	< 20	< 20	180
Sulphate (2:1 Water Soluble) as SO4	M	2120	g/l	0.010	0.025	0.19	0.35	1.0
Nitrite (Extractable)	N	2220	mg/kg	0.10	< 0.10	< 0.10	< 0.10	< 0.10
Nitrate (Water Soluble)	N	2220	g/l	0.010	0.012	< 0.010	< 0.010	< 0.010
Cyanide (Complex)	M	2300	mg/kg	0.50	[B] < 0.50	[B] < 0.50	[B] < 0.50	[B] < 0.50
Cyanide (Free)	M	2300	mg/kg	0.50	[B] < 0.50	[B] < 0.50	[B] < 0.50	[B] < 0.50
Cyanide (Total)	M	2300	mg/kg	0.50	[B] < 0.50	[B] < 0.50	[B] < 0.50	[B] < 0.50
Sulphide (Easily Liberatable)	N	2325	mg/kg	0.50	9.2	33	260	48
Ammoniacal Nitrogen	M	2425	mg/kg	0.50	3.2	1.1	0.86	35
Aluminium (Total)	N	2430	mg/kg	100	8400	6900	17000	6600
Iron (Total)	N	2430	mg/kg	100	21000	17000	20000	17000
Sulphate (Total)	M	2430	mg/kg	100	2600	1900	4600	17000
Arsenic	M	2450	mg/kg	1.0	47	37	20	25
Barium	M	2450	mg/kg	10	470	170	350	130
Beryllium	U	2450	mg/kg	1.0	< 1.0	< 1.0	2.2	< 1.0
Cadmium	M	2450	mg/kg	0.10	2.0	0.48	0.20	0.15
Chromium	M	2450	mg/kg	1.0	29	130	120	23
Manganese	M	2450	mg/kg	5.0	760	2700	2300	350
Molybdenum	M	2450	mg/kg	2.0	4.7	2.0	< 2.0	< 2.0
Antimony	N	2450	mg/kg	2.0	9.1	6.7	< 2.0	< 2.0
Copper	M	2450	mg/kg	0.50	200	140	23	15
Mercury	M	2450	mg/kg	0.10	0.32	0.15	< 0.10	< 0.10
Nickel	M	2450	mg/kg	0.50	47	22	40	13
Lead	M	2450	mg/kg	0.50	800	190	46	15
Selenium	M	2450	mg/kg	0.20	0.86	0.22	0.48	0.88
Vanadium	U	2450	mg/kg	5.0	40	150	110	22
Zinc	M	2450	mg/kg	0.50	830	460	120	48

Results - Soil

Project: Q0330 Caenant Terrace

Client: Quantum Geotechnic Ltd			**Chemtest Job No.:**		20-23593	20-23593	20-23593	20-23593
Quotation No.: Q20-19535			**Chemtest Sample ID.:**		1059069	1059073	1059076	1059078
Order No.:			Client Sample Ref.:		ES1	ES2	ES1	ES3
			Client Sample ID.:		1	2	1	3
			Sample Location:		HP01	HP02	HP03	HP03
			Sample Type:		SOIL	SOIL	SOIL	SOIL
			Top Depth (m):		0.3	0.5	0.15	1.0
			Date Sampled:		01-Sep-2020	02-Sep-2020	02-Sep-2020	02-Sep-2020
			Asbestos Lab:		COVENTRY	COVENTRY	COVENTRY	COVENTRY
Determinand	**Accred.**	**SOP**	**Units**	**LOD**				
Chromium (Hexavalent)	N	2490	mg/kg	0.50	< 0.50	< 0.50	< 0.50	< 0.50
Organic Matter	M	2625	%	0.40	24	34	< 0.40	< 0.40
Aliphatic TPH >C5-C6	N	2680	mg/kg	0.010	[B] < 0.010	[B] < 0.010	[B] < 0.010	[B] < 0.010
Aliphatic TPH >C6-C8	N	2680	mg/kg	0.010	[B] < 0.010	[B] < 0.010	[B] < 0.010	[B] < 0.010
Aliphatic TPH >C8-C10	N	2680	mg/kg	0.10	[B] 1.4	[B] 0.96	[B] 0.88	[B] 1.8
Aliphatic TPH >C10-C12	N	2680	mg/kg	0.10	[B] 3.8	[B] 3.3	[B] 3.5	[B] 4.9
Aliphatic TPH >C12-C16	N	2680	mg/kg	0.10	[B] 3.5	[B] 3.4	[B] 3.8	[B] 5.3
Aliphatic TPH >C16-C21	N	2680	mg/kg	0.10	[B] 1.8	[B] 1.8	[B] 1.7	[B] 3.0
Aliphatic TPH >C21-C35	N	2680	mg/kg	0.10	[B] 2.9	[B] 3.2	[B] 1.6	[B] 5.2
Aliphatic TPH >C35-C44	N	2680	mg/kg	0.10	[B] 0.74	[B] 2.7	[B] 2.6	[B] < 0.10
Total Aliphatic Hydrocarbons	N	2680	mg/kg	1.0	[B] 14	[B] 15	[B] 14	[B] 20
Aromatic TPH >C5-C7	N	2680	mg/kg	0.010	[B] < 0.010	[B] < 0.010	[B] < 0.010	[B] < 0.010
Aromatic TPH >C7-C8	N	2680	mg/kg	0.010	[B] < 0.010	[B] < 0.010	[B] < 0.010	[B] < 0.010
Aromatic TPH >C8-C10	N	2680	mg/kg	0.10	[B] 0.30	[B] 2.9	[B] 2.3	[B] 2.0
Aromatic TPH >C10-C12	N	2680	mg/kg	0.10	[B] 0.13	[B] 0.12	[B] 0.16	[B] 0.78
Aromatic TPH >C12-C16	N	2680	mg/kg	0.10	[B] 1.6	[B] 6.3	[B] 1.5	[B] 3.4
Aromatic TPH >C16-C21	N	2680	mg/kg	0.10	[B] 20	[B] 56	[B] 1.6	[B] 2.5
Aromatic TPH >C21-C35	N	2680	mg/kg	0.10	[B] 58	[B] 140	[B] 16	[B] 170
Aromatic TPH >C35-C44	N	2680	mg/kg	0.10	[B] 3.4	[B] 11	[B] 6.3	[B] 6.3
Total Aromatic Hydrocarbons	N	2680	mg/kg	1.0	[B] 84	[B] 220	[B] 28	[B] 190
Total Petroleum Hydrocarbons	N	2680	mg/kg	2.0	[B] 98	[B] 230	[B] 42	[B] 210
Naphthalene	N	2700	mg/kg	0.010	0.71	< 0.010	< 0.010	< 0.010
Acenaphthylene	N	2700	mg/kg	0.010	0.50	< 0.010	< 0.010	< 0.010
Acenaphthene	N	2700	mg/kg	0.010	0.41	< 0.010	< 0.010	< 0.010
Fluorene	N	2700	mg/kg	0.010	0.36	< 0.010	< 0.010	< 0.010
Phenanthrene	N	2700	mg/kg	0.010	2.9	1.4	< 0.010	< 0.010
Anthracene	N	2700	mg/kg	0.010	0.57	0.33	< 0.010	< 0.010
Fluoranthene	N	2700	mg/kg	0.010	4.6	3.0	< 0.010	< 0.010
Pyrene	N	2700	mg/kg	0.010	4.3	2.9	< 0.010	< 0.010
Benzo[a]anthracene	N	2700	mg/kg	0.010	2.8	1.7	< 0.010	< 0.010
Chrysene	N	2700	mg/kg	0.010	2.9	2.2	< 0.010	< 0.010
Benzo[b]fluoranthene	N	2700	mg/kg	0.010	4.2	2.8	< 0.010	< 0.010
Benzo[k]fluoranthene	N	2700	mg/kg	0.010	1.6	1.1	< 0.010	< 0.010
Benzo[a]pyrene	N	2700	mg/kg	0.010	2.8	2.0	< 0.010	< 0.010
Indeno(1,2,3-c,d)Pyrene	N	2700	mg/kg	0.010	2.1	1.6	< 0.010	< 0.010
Dibenz(a,h)Anthracene	N	2700	mg/kg	0.010	1.0	0.73	< 0.010	< 0.010
Benzo[g,h,i]perylene	N	2700	mg/kg	0.010	1.8	1.7	< 0.010	< 0.010

Results - Soil

Project: Q0330 Caenant Terrace

Client: Quantum Geotechnic Ltd			**Chemtest Job No.:**		20-23593	20-23593	20-23593	20-23593
Quotation No.: Q20-19535			**Chemtest Sample ID.:**		1059069	1059073	1059076	1059078
Order No.:			Client Sample Ref.:		ES1	ES2	ES1	ES3
			Client Sample ID.:		1	2	1	3
			Sample Location:		HP01	HP02	HP03	HP03
			Sample Type:		SOIL	SOIL	SOIL	SOIL
			Top Depth (m):		0.3	0.5	0.15	1.0
			Date Sampled:		01-Sep-2020	02-Sep-2020	02-Sep-2020	02-Sep-2020
			Asbestos Lab:		COVENTRY	COVENTRY	COVENTRY	COVENTRY
Determinand	**Accred.**	**SOP**	**Units**	**LOD**				
Coronene	N	2700	mg/kg	0.010	< 0.010	< 0.010	< 0.010	< 0.010
Total Of 17 PAH's	N	2700	mg/kg	0.20	34	21	< 0.20	< 0.20
Benzene	M	2760	µg/kg	1.0	[B] < 1.0	[B] < 1.0	[B] < 1.0	[B] < 1.0
Toluene	M	2760	µg/kg	1.0	[B] < 1.0	[B] < 1.0	[B] < 1.0	[B] < 1.0
Ethylbenzene	M	2760	µg/kg	1.0	[B] < 1.0	[B] < 1.0	[B] < 1.0	[B] < 1.0
m & p-Xylene	M	2760	µg/kg	1.0	[B] < 1.0	[B] < 1.0	[B] < 1.0	[B] < 1.0
o-Xylene	M	2760	µg/kg	1.0	[B] < 1.0	[B] < 1.0	[B] < 1.0	[B] < 1.0
Methyl Tert-Butyl Ether	M	2760	µg/kg	1.0	[B] < 1.0	[B] < 1.0	[B] < 1.0	[B] < 1.0
Total Phenols	M	2920	mg/kg	0.30	< 0.30	< 0.30	< 0.30	< 0.30

Deviations

In accordance with UKAS Policy on Deviating Samples TPS 63. Chemtest have a procedure to ensure 'upon receipt of each sample a competent laboratory shall assess whether the sample is suitable with regard to the requested test(s)'. This policy and the respective holding times applied, can be supplied upon request.The reason a sample is declared as deviating is detailed below. Where applicable the analysis remains UKAS/MCERTs accredited but the results may be compromised.

Sample:	Sample Ref:	Sample ID:	Sample Location:	Sampled Date:	Deviation Code(s):	Containers Received:
1059069	ES1	1	HP01	01-Sep-2020	B	Amber Glass 250ml
1059069	ES1	1	HP01	01-Sep-2020	B	Amber Glass 60ml
1059069	ES1	1	HP01	01-Sep-2020	B	Plastic Tub 1000g
1059073	ES2	2	HP02	02-Sep-2020	B	Amber Glass 250ml
1059073	ES2	2	HP02	02-Sep-2020	B	Amber Glass 60ml
1059073	ES2	2	HP02	02-Sep-2020	B	Plastic Tub 1000g
1059076	ES1	1	HP03	02-Sep-2020	B	Amber Glass 250ml
1059076	ES1	1	HP03	02-Sep-2020	B	Amber Glass 60ml
1059076	ES1	1	HP03	02-Sep-2020	B	Plastic Tub 1000g
1059078	ES3	3	HP03	02-Sep-2020	B	Amber Glass 250ml
1059078	ES3	3	HP03	02-Sep-2020	B	Amber Glass 60ml
1059078	ES3	3	HP03	02-Sep-2020	B	Plastic Tub 1000g

Test Methods

SOP	Title	Parameters included	Method summary
1010	pH Value of Waters	pH	pH Meter
1100	Chemical Oxygen Demand	Chemical Oxygen demand (COD)	Dichromate oxidation of organic matter in sample followed by colorimetric determination of residual Cr[VI].
1220	Anions, Alkalinity & Ammonium in Waters	Fluoride; Chloride; Nitrite; Nitrate; Total; Oxidisable Nitrogen (TON); Sulfate; Phosphate; Alkalinity; Ammonium	Automated colorimetric analysis using 'Aquakem 600' Discrete Analyser.
1300	Cyanides & Thiocyanate in Waters	Free (or easy liberatable) Cyanide; total Cyanide; complex Cyanide; Thiocyanate	Continuous Flow Analysis.
1325	Sulphide in Waters	Sulphides	Automated colorimetric analysis by 'Aquakem 600' Discrete Analyser using N,N–dimethyl-pphenylenediamine.
1415	Cations in Waters by ICP-MS	Sodium; Potassium; Calcium; Magnesium	Direct determination by inductively coupled plasma - mass spectrometry (ICP-MS).
1450	Metals in Waters by ICP-MS	Metals, including: Antimony; Arsenic; Barium; Beryllium; Boron; Cadmium; Chromium; Cobalt; Copper; Lead; Manganese; Mercury; Molybdenum; Nickel; Selenium; Tin; Vanadium; Zinc	Filtration of samples followed by direct determination by inductively coupled plasma mass spectrometry (ICP-MS).
1460	Mercury low-level in Waters by AFS	Mercury	Atomic Fluorescence Spectrometry, with collimated UV source, wavelength 253.7 nm.
1490	Hexavalent Chromium in Waters	Chromium [VI]	Automated colorimetric analysis by 'Aquakem 600' Discrete Analyser using 1,5-diphenylcarbazide.
1675	TPH Aliphatic/Aromatic split in Waters by GC-FID(cf. Texas Method 1006 / TPH CWG)	Aliphatics: >C5–C6, >C6–C8, >C8– C10, >C10–C12, >C12–C16, >C16–C21, >C21–C35, >C35– C44Aromatics: >C5–C7, >C7–C8, >C8– C10, >C10–C12, >C12–C16, >C16– C21, >C21– C35, >C35– C44	Pentane extraction / GCxGC FID detection
1700	Speciated Polynuclear Aromatic Hydrocarbons (PAH) in Waters by GC-FID	Acenaphthene; Acenaphthylene; Anthracene; Benzo[a]Anthracene; Benzo[a]Pyrene; Benzo[b]Fluoranthene; Benzo[ghi]Perylene; Benzo[k]Fluoranthene; Chrysene; Dibenz[ah]Anthracene; Fluoranthene; Fluorene; Indeno[123cd]Pyrene; Naphthalene; Phenanthrene; Pyrene	Dichloromethane extraction / GC-FID (GC-FID detection is non-selective and can be subject to interference from co-eluting compounds)
1760	Volatile Organic Compounds (VOCs) in Waters by Headspace GC-MS	Volatile organic compounds, including BTEX and halogenated Aliphatic/Aromatics. (cf. USEPA Method 8260)	Automated headspace gas chromatographic (GC) analysis of water samples with mass spectrometric (MS) detection of volatile organic compounds.
1920	Phenols in Waters by HPLC	Phenolic compounds including: Phenol, Cresols, Xylenols, Trimethylphenols Note: Chlorophenols are excluded.	Determination by High Performance Liquid Chromatography (HPLC) using electrochemical detection.
2010	pH Value of Soils	pH	pH Meter
2030	Moisture and Stone Content of Soils(Requirement of MCERTS)	Moisture content	Determination of moisture content of soil as a percentage of its as received mass obtained at <37°C.
2040	Soil Description(Requirement of MCERTS)	Soil description	As received soil is described based upon BS5930
2120	Water Soluble Boron, Sulphate, Magnesium & Chromium	Boron; Sulphate; Magnesium; Chromium	Aqueous extraction / ICP-OES
2192	Asbestos	Asbestos	Polarised light microscopy / Gravimetry
2220	Water soluble Chloride in Soils	Chloride	Aqueous extraction and measuremernt by 'Aquakem 600' Discrete Analyser using ferric nitrate / mercuric thiocyanate.
2300	Cyanides & Thiocyanate in Soils	Free (or easy liberatable) Cyanide; total Cyanide; complex Cyanide; Thiocyanate	Allkaline extraction followed by colorimetric determination using Automated Flow Injection Analyser.

Test Methods

SOP	Title	Parameters included	Method summary
2325	Sulphide in Soils	Sulphide	Steam distillation with sulphuric acid / analysis by 'Aquakem 600' Discrete Analyser, using N,N–dimethyl-p-phenylenediamine.
2425	Extractable Ammonium in soils	Ammonium	Extraction with potassium chloride solution / analysis by 'Aquakem 600' Discrete Analyser using sodium salicylate and sodium dichloroisocyanurate.
2430	Total Sulphate in soils	Total Sulphate	Acid digestion followed by determination of sulphate in extract by ICP-OES.
2450	Acid Soluble Metals in Soils	Metals, including: Arsenic; Barium; Beryllium; Cadmium; Chromium; Cobalt; Copper; Lead; Manganese; Mercury; Molybdenum; Nickel; Selenium; Vanadium; Zinc	Acid digestion followed by determination of metals in extract by ICP-MS.
2490	Hexavalent Chromium in Soils	Chromium [VI]	Soil extracts are prepared by extracting dried and ground soil samples into boiling water. Chromium [VI] is determined by 'Aquakem 600' Discrete Analyser using 1,5-diphenylcarbazide.
2625	Total Organic Carbon in Soils	Total organic Carbon (TOC)	Determined by high temperature combustion under oxygen, using an Eltra elemental analyser.
2680	TPH A/A Split	Aliphatics: >C5–C6, >C6–C8,>C8–C10, >C10–C12, >C12–C16, >C16–C21, >C21–C35, >C35– C44Aromatics: >C5–C7, >C7–C8, >C8– C10, >C10–C12, >C12–C16, >C16– C21, >C21– C35, >C35– C44	Dichloromethane extraction / GCxGC FID detection
2700	Speciated Polynuclear Aromatic Hydrocarbons (PAH) in Soil by GC-FID	Acenaphthene; Acenaphthylene; Anthracene; Benzo[a]Anthracene; Benzo[a]Pyrene; Benzo[b]Fluoranthene; Benzo[ghi]Perylene; Benzo[k]Fluoranthene; Chrysene; Dibenz[ah]Anthracene; Fluoranthene; Fluorene; Indeno[123cd]Pyrene; Naphthalene; Phenanthrene; Pyrene	Dichloromethane extraction / GC-FID (GC-FID detection is non-selective and can be subject to interference from co-eluting compounds)
2760	Volatile Organic Compounds (VOCs) in Soils by Headspace GC-MS	Volatile organic compounds, including BTEX and halogenated Aliphatic/Aromatics.(cf. USEPA Method 8260)*please refer to UKAS schedule	Automated headspace gas chromatographic (GC) analysis of a soil sample, as received, with mass spectrometric (MS) detection of volatile organic compounds.
2920	Phenols in Soils by HPLC	Phenolic compounds including Resorcinol, Phenol, Methylphenols, Dimethylphenols, 1-Naphthol and TrimethylphenolsNote: chlorophenols are excluded.	60:40 methanol/water mixture extraction, followed by HPLC determination using electrochemical detection.
640	Characterisation of Waste (Leaching C10)	Waste material including soil, sludges and granular waste	ComplianceTest for Leaching of Granular Waste Material and Sludge
650	Characterisation of Waste (Leaching WAC)	Waste material including soil, sludges and granular waste	ComplianceTest for Leaching of Granular Waste Material and Sludge

Report Information

Key

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

Comments or interpretations are beyond the scope of UKAS accreditation
The results relate only to the items tested
Uncertainty of measurement for the determinands tested are available upon request
None of the results in this report have been recovery corrected
All results are expressed on a dry weight basis

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

For all other tests the samples were dried at < 37°C prior to analysis
All Asbestos testing is performed at the indicated laboratory
Issue numbers are sequential starting with 1 all subsequent reports are incremented by 1

Sample Deviation Codes

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

Sample Retention and Disposal

All soil samples will be retained for a period of 45 days from the date of receipt
All water samples will be retained for 14 days from the date of receipt
Charges may apply to extended sample storage

If you require extended retention of samples, please email your requirements to:
customerservices@chemtest.com

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