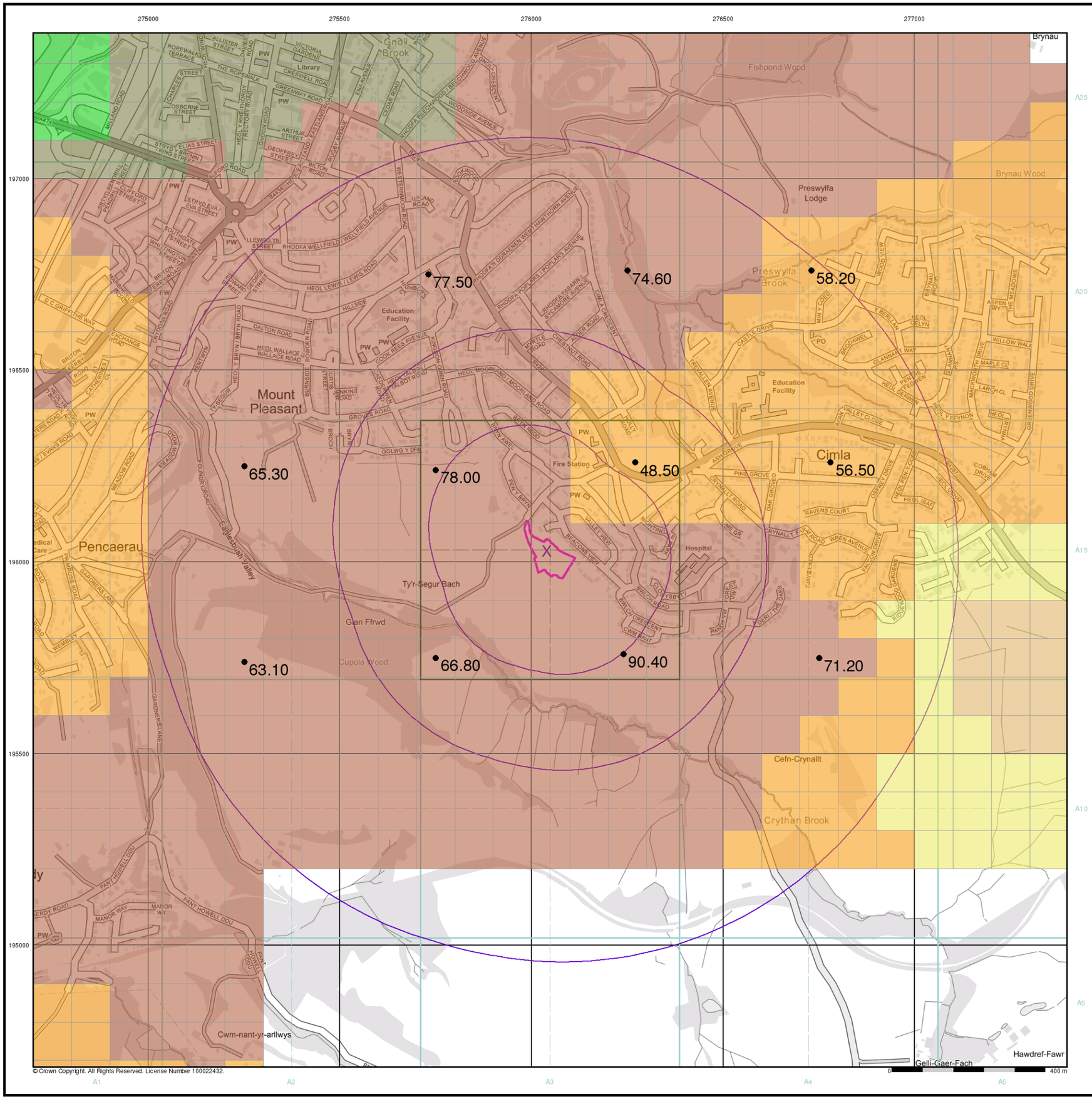


Intégral Géotechnique

General

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

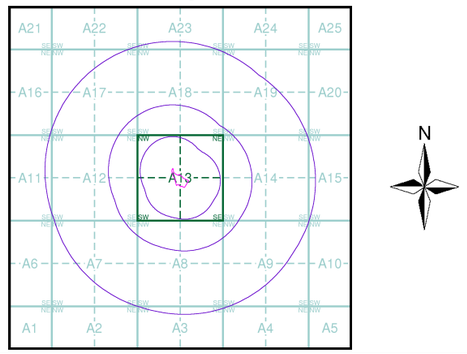
Urban Soil Chemistry Chromium

● 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



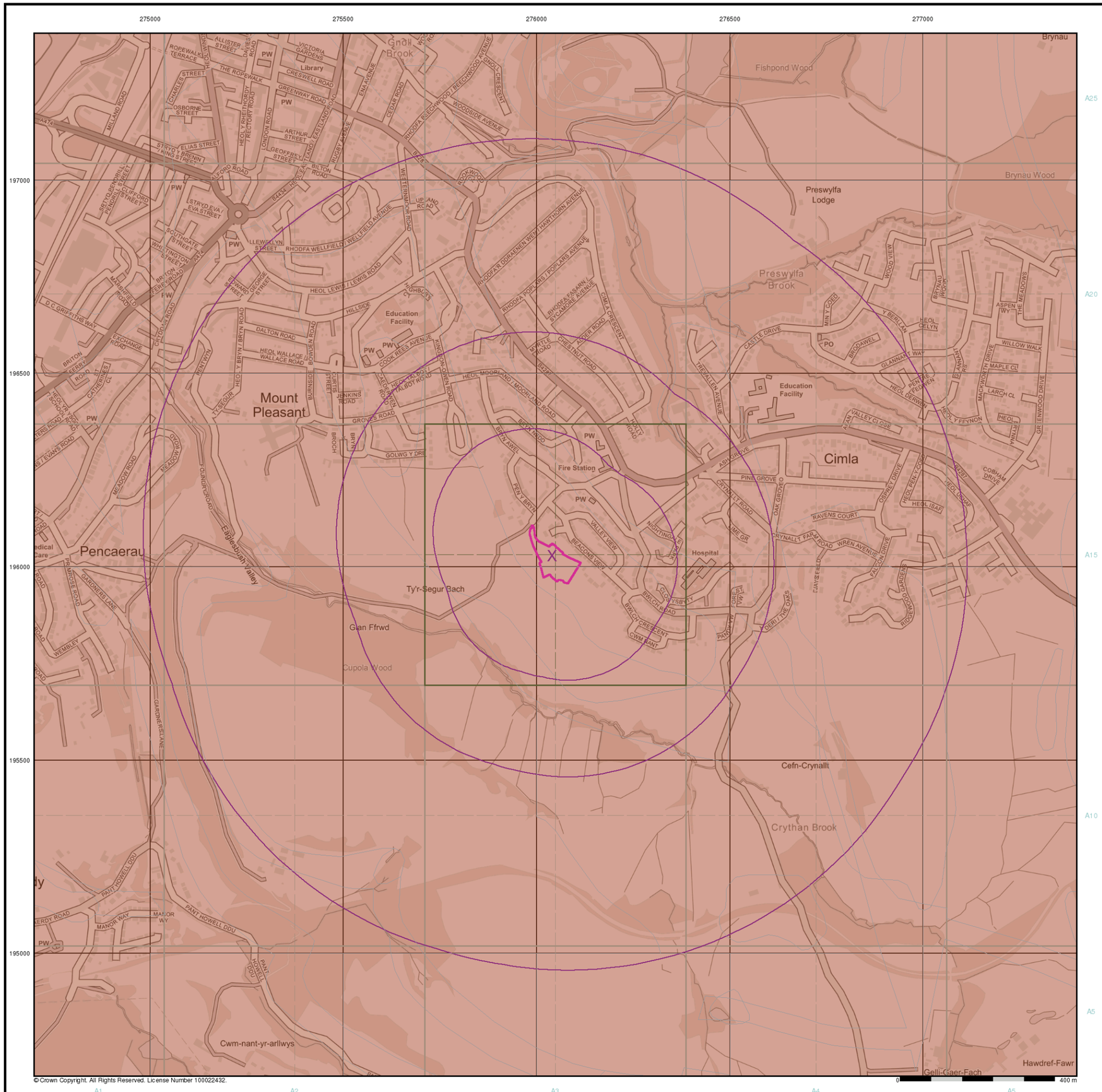
Order Details

Order Details:	294212658_1_1
Customer Ref:	14036/LP
National Grid Reference:	276040, 196030
Slice:	A
Site Area (Ha):	0.78
Search buffer (m):	1000

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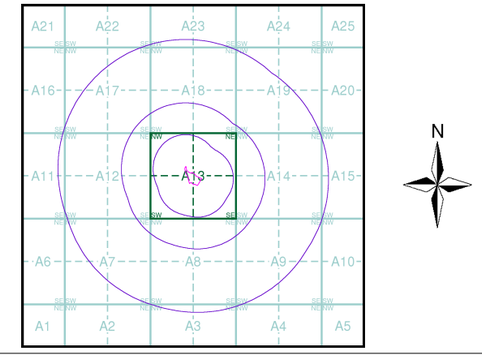
Specified Site | Specified Buffer(s) | X Bearing Reference Point

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



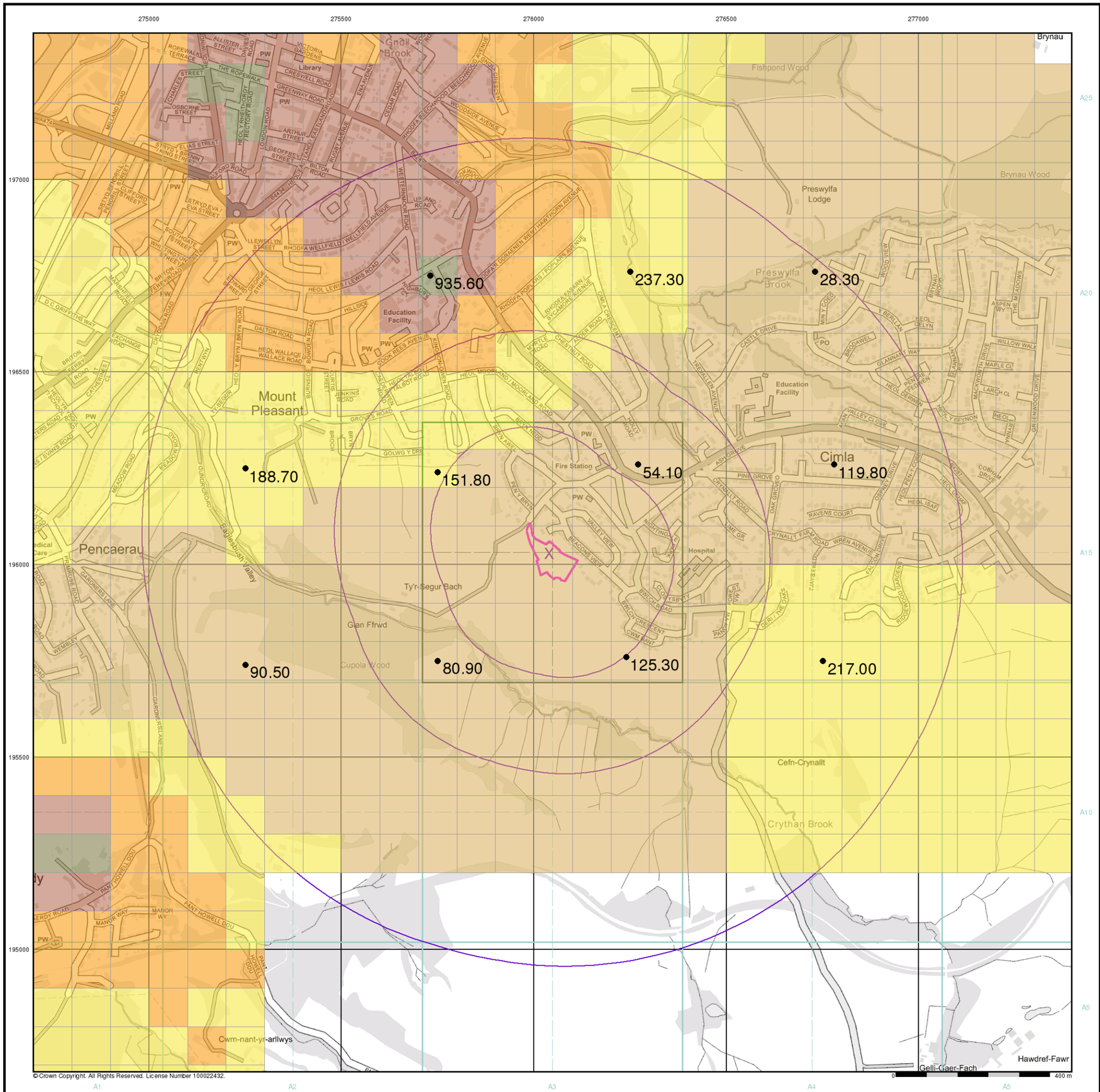
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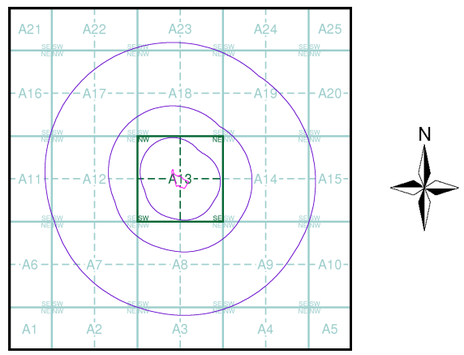
Urban Soil Chemistry Lead

● 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

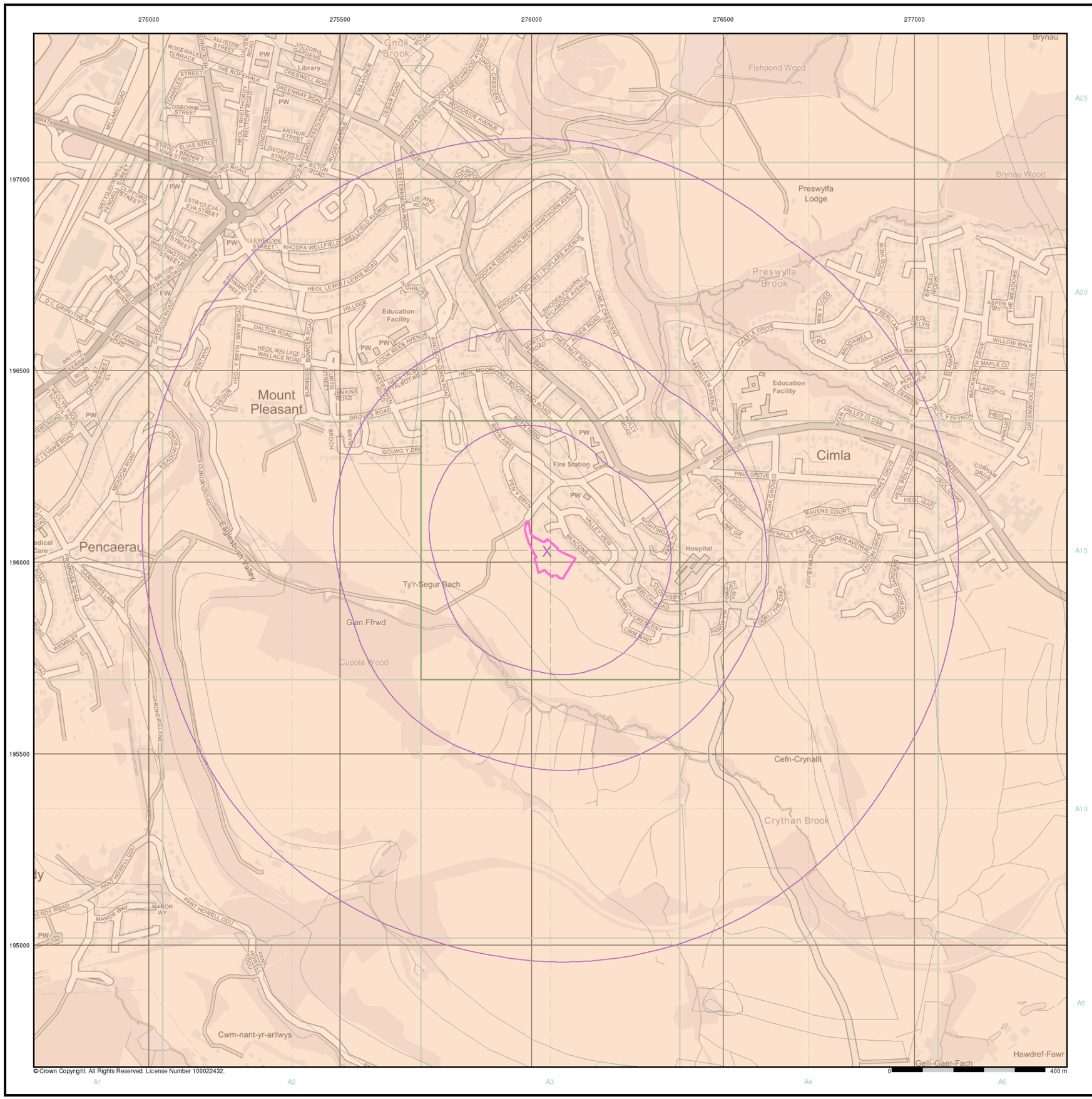
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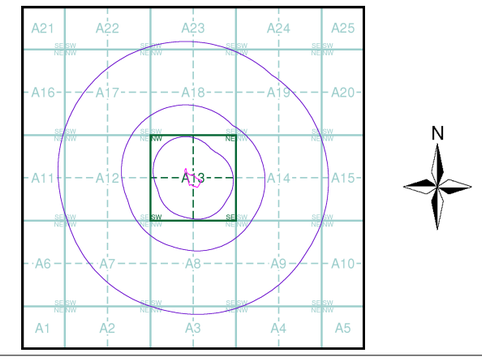
Specified Site | Specified Buffer(s) | X Bearing Reference Point

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



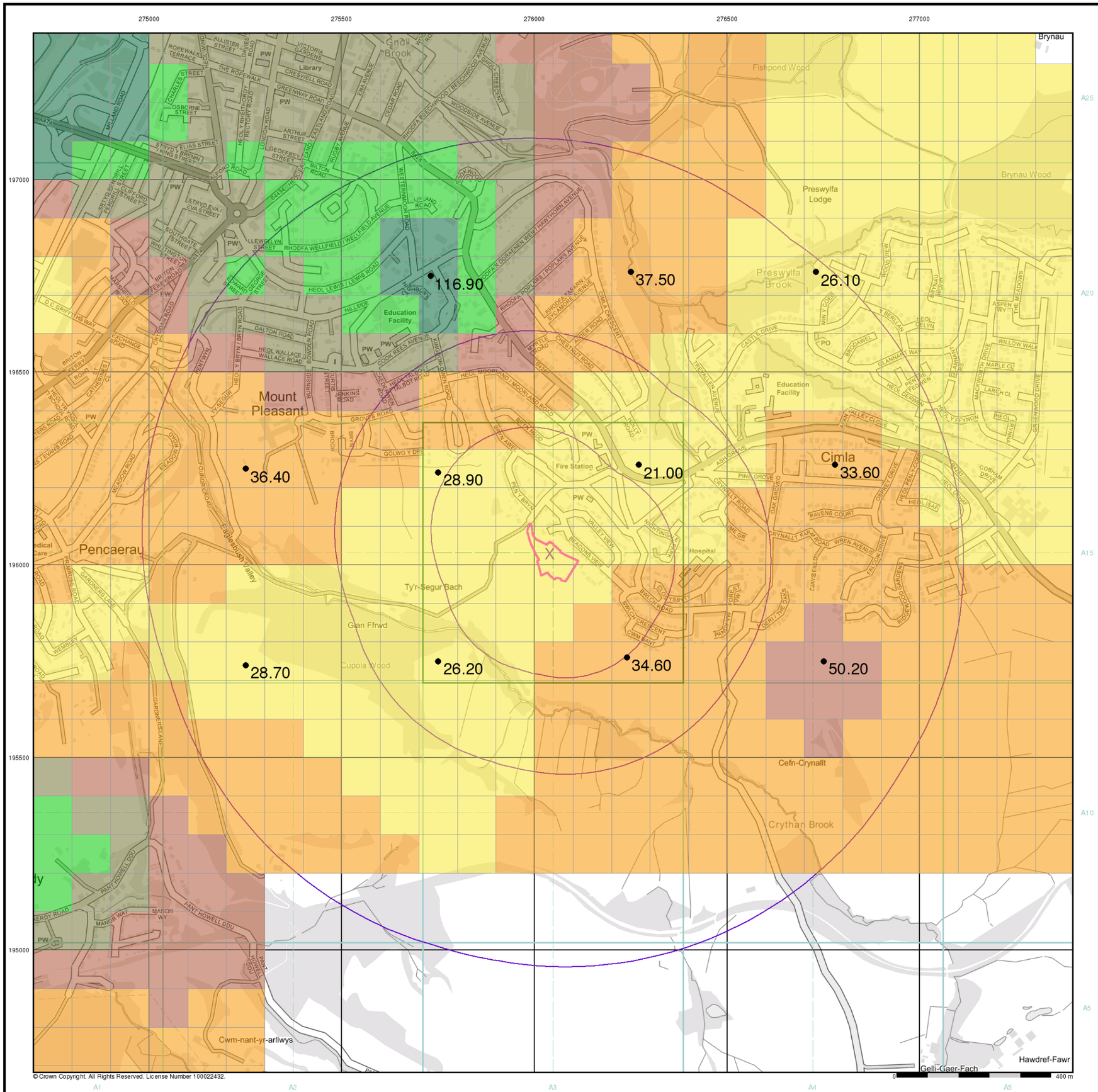
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General

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

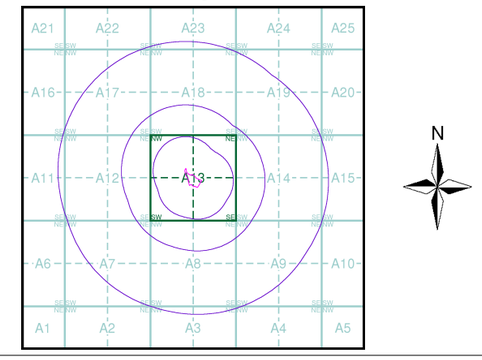
Urban Soil Chemistry Nickel

● 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



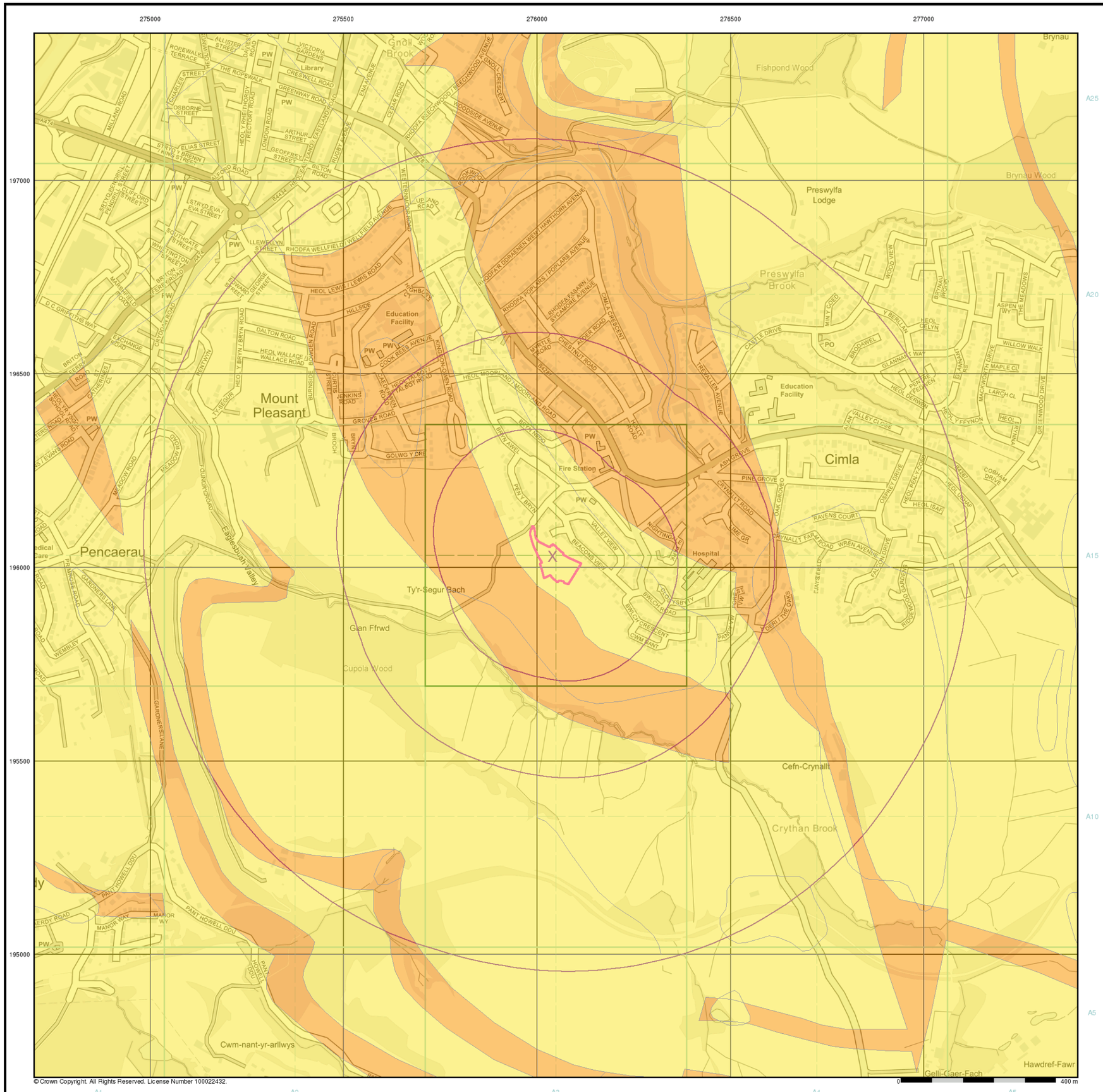
Order Details

Order Details:	294212658_1_1
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National Grid Reference:	276040, 196030
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General

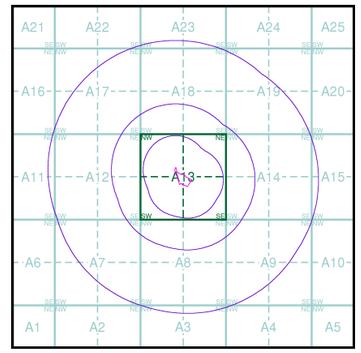
Specified Site | Specified Buffer(s) | X Bearing Reference Point

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



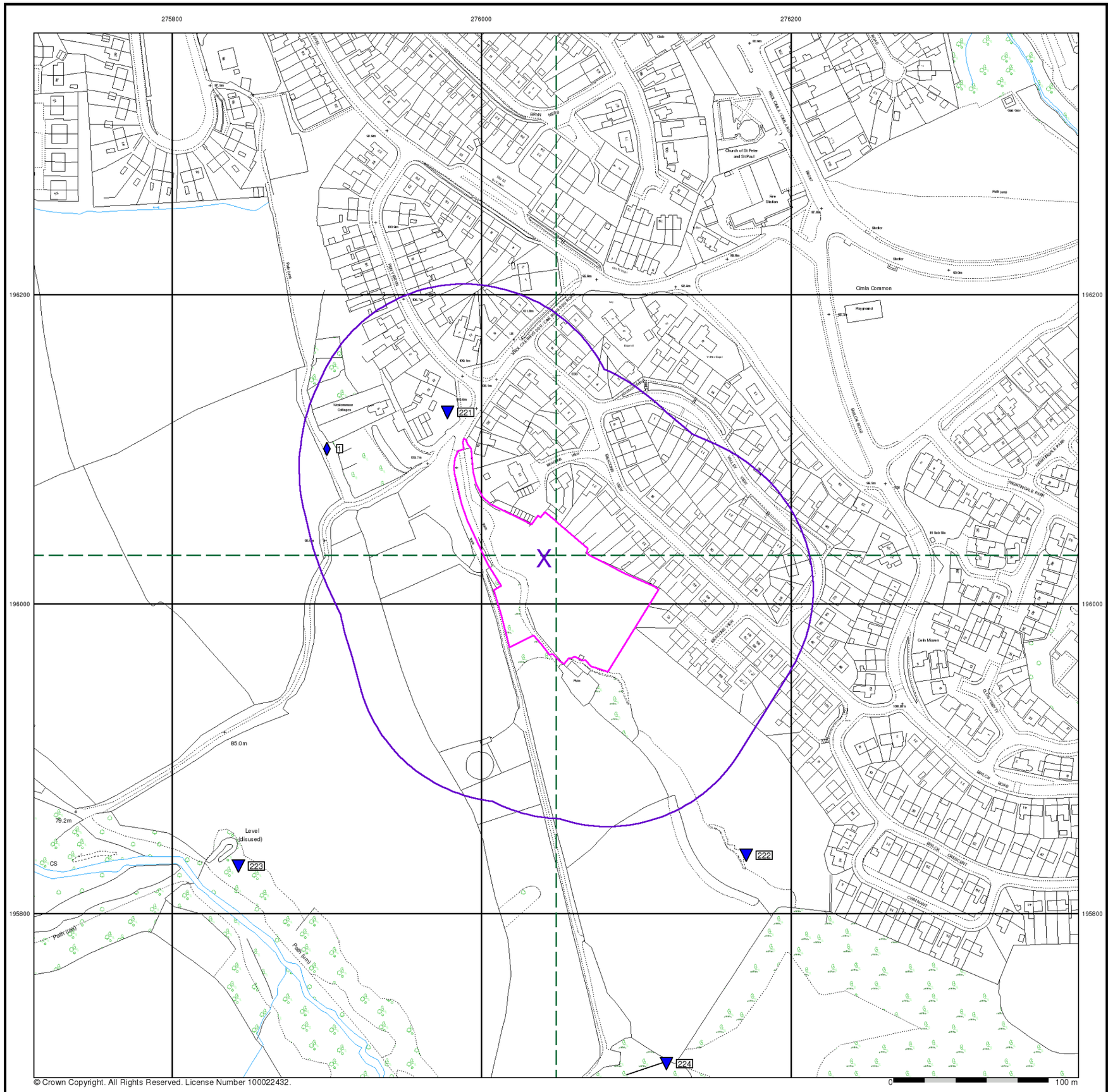
Order Details

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General

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

Agency and Hydrological

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

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

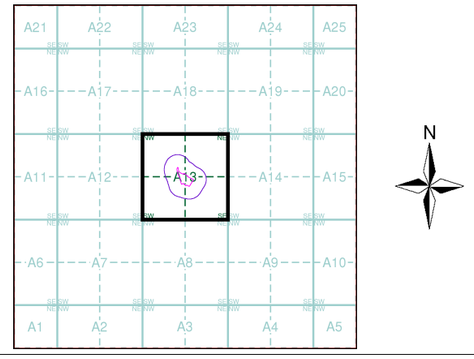
Hazardous Substances

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

Geological

- BGS Recorded Mineral Site

Site Sensitivity Map - Segment A13



Order Details

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Plot Buffer (m):	100

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Geology 1:50,000 Maps Legends

Artificial Ground and Landslip

Map Colour	Lex Code	Rock Name	Rock Type	Min and Max Age
	LSGR	Landscaped Ground (Undivided)	Artificially Modified Ground	Not Supplied - Holocene
	MGR	Made Ground (Undivided)	Artificial Deposit	Not Supplied - Holocene
	SLIP	Landslide Deposit	Unknown/Unclassified Entry	Not Supplied - Quaternary

Superficial Geology

Map Colour	Lex Code	Rock Name	Rock Type	Min and Max Age
	ALV	Alluvium	Clay, Silt, Sand and Gravel	Not Supplied - Holocene
	TFD	Tidal Flat Deposits	Clay, Silt and Sand	Not Supplied - Holocene
	TILLD	Till, Devensian	Diamicton	Not Supplied - Devensian
	GFSDD	Glaciofluvial Sheet Deposits, Devensian	Sand and Gravel	Not Supplied - Devensian
	GFICD	Glaciofluvial Ice Contact Deposits, Devensian	Sand and Gravel	Not Supplied - Devensian
	PEAT	Peat	Peat	Not Supplied - Quaternary
	HEAD	Head	Clay, Silt, Sand and Gravel	Not Supplied - Quaternary
	ALF	Alluvial Fan Deposits	Sand and Gravel	Not Supplied - Quaternary

Bedrock and Faults

Map Colour	Lex Code	Rock Name	Rock Type	Min and Max Age
	SW	Swansea Member	Sandstone	Not Supplied - Westphalian
	H	Hughes Member	Mudstone, Siltstone and Sandstone	Not Supplied - Westphalian
	SW	Swansea Member	Mudstone, Siltstone and Sandstone	Not Supplied - Westphalian
	H	Hughes Member	Sandstone	Not Supplied - Westphalian
	BD	Brithdir Member	Sandstone	Not Supplied - Westphalian
	BD	Brithdir Member	Mudstone, Siltstone and Sandstone	Not Supplied - Westphalian
	RA	Rhondda Member	Mudstone, Siltstone and Sandstone	Not Supplied - Westphalian
	RA	Rhondda Member	Sandstone	Not Supplied - Westphalian
		Rock Segments		
		Faults		

Intégral Géotechnique

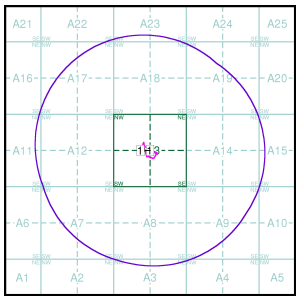
Geology 1:50,000 Maps

This report contains geological map extracts taken from the BGS Digital Geological map of Great Britain at 1:50,000 scale and is designed for users carrying out preliminary site assessments who require geological maps for the area around the site. This mapping may be more up to date than previously published paper maps.
The various geological layers - artificial and landslip deposits, superficial geology and solid (bedrock) geology are displayed in separate maps, but superimposed on the final 'Combined Surface Geology' map. All map legends feature on this page. Not all layers have complete nationwide coverage, so availability of data for relevant map sheets is indicated below.

Geology 1:50,000 Maps Coverage

Map ID: 1
Map Sheet No: 247
Map Name: Swansea
Map Date: 2011
Bedrock Geology: Available
Superficial Geology: Available
Artificial Geology: Available
Faults: Not Supplied
Landslip: Available
Rock Segments: Not Supplied

Geology 1:50,000 Maps - Slice A

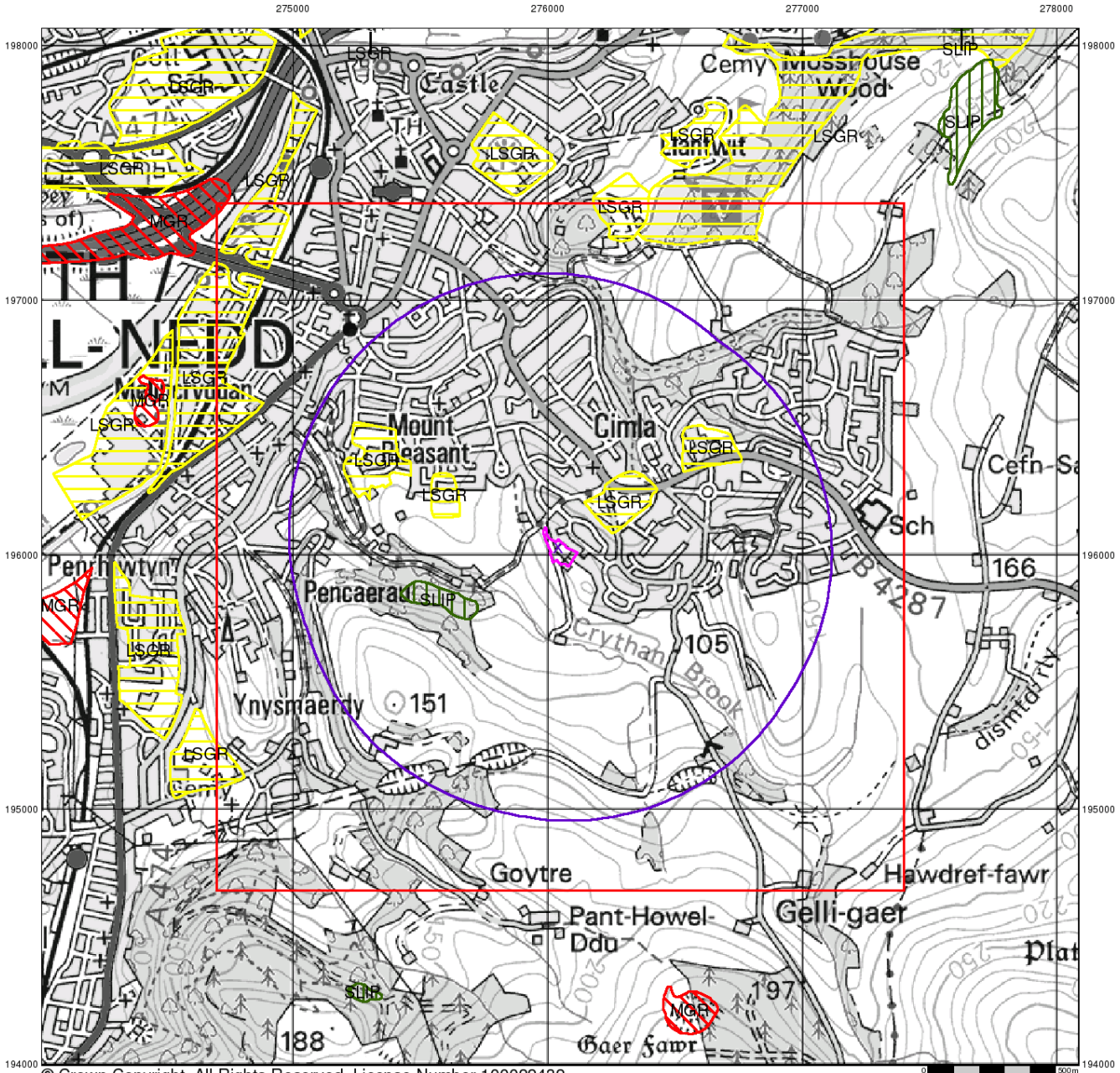


Order Details:

Order Number: 294212658_1_1
Customer Reference: 14036/LP
National Grid Reference: 276040, 196030
Slice: A
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Artificial Ground and Landslip

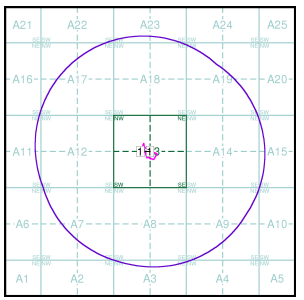
Artificial ground is a term used by BGS for those areas where the ground surface has been significantly modified by human activity. Information about previously developed ground is especially important, as it is often associated with potentially contaminated material, unpredictable engineering conditions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

Artificial ground includes:

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

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

Artificial Ground and Landslip Map - Slice A



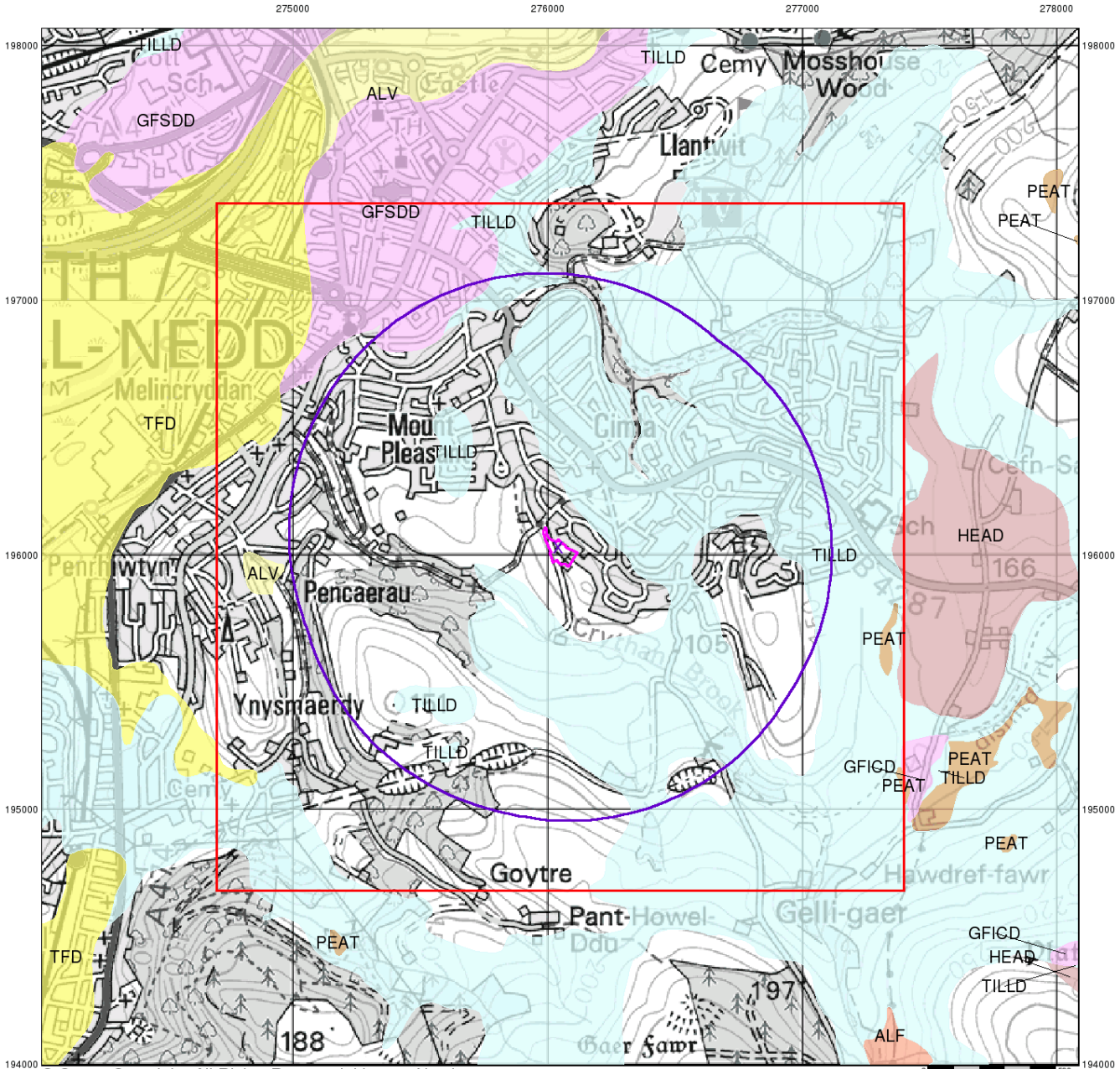
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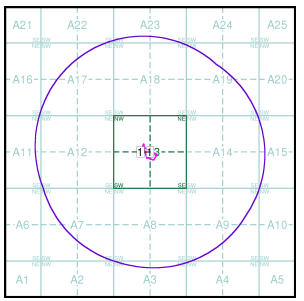
Superficial Geology

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

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

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

Superficial Geology Map - Slice A



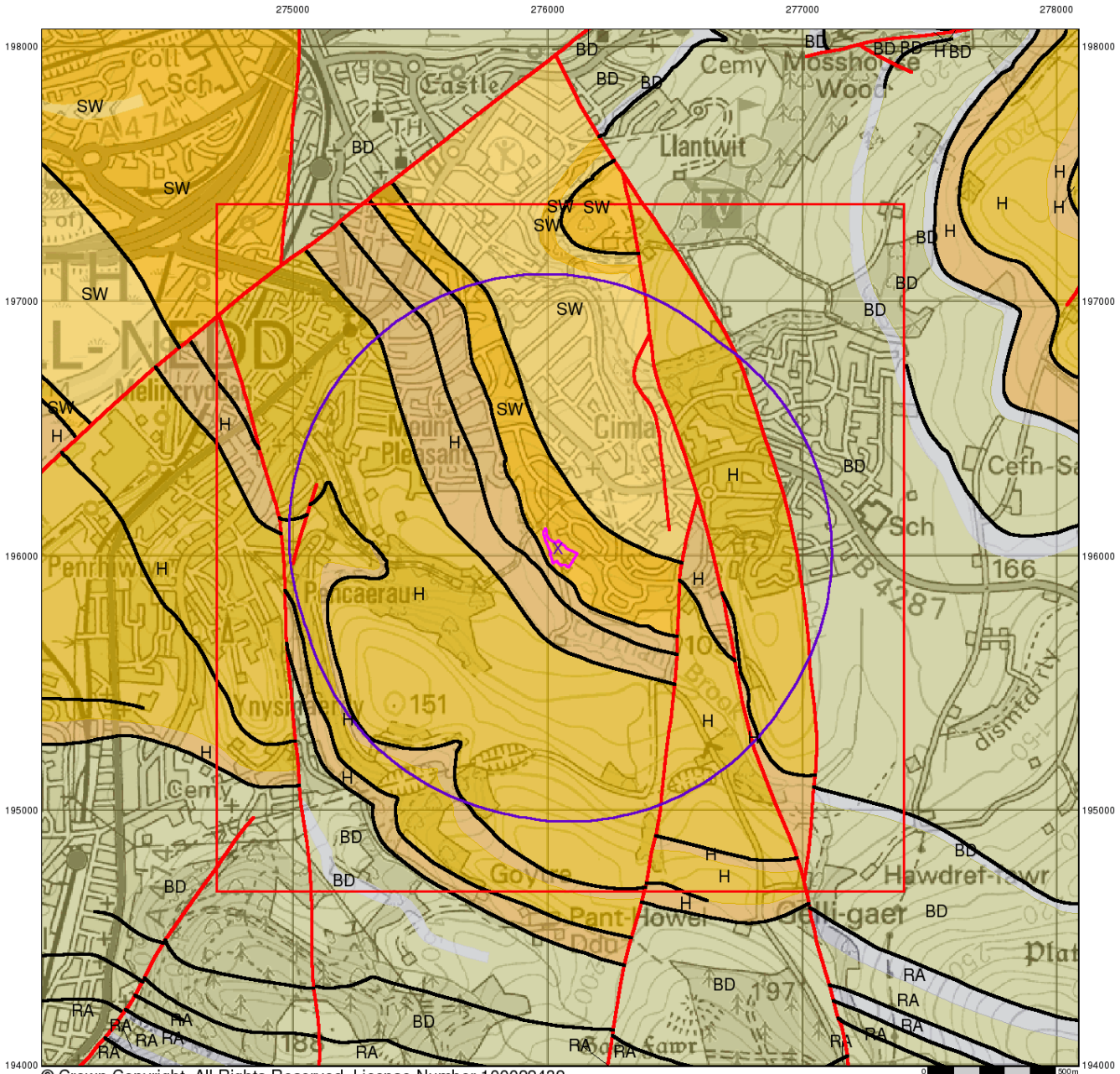
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Bedrock and Faults

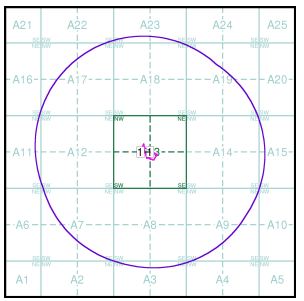
Bedrock geology is a term used for the main mass of rocks forming the Earth and are present everywhere, whether exposed at the surface in outcrops or concealed beneath superficial deposits or water.

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

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

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

Bedrock and Faults Map - Slice A



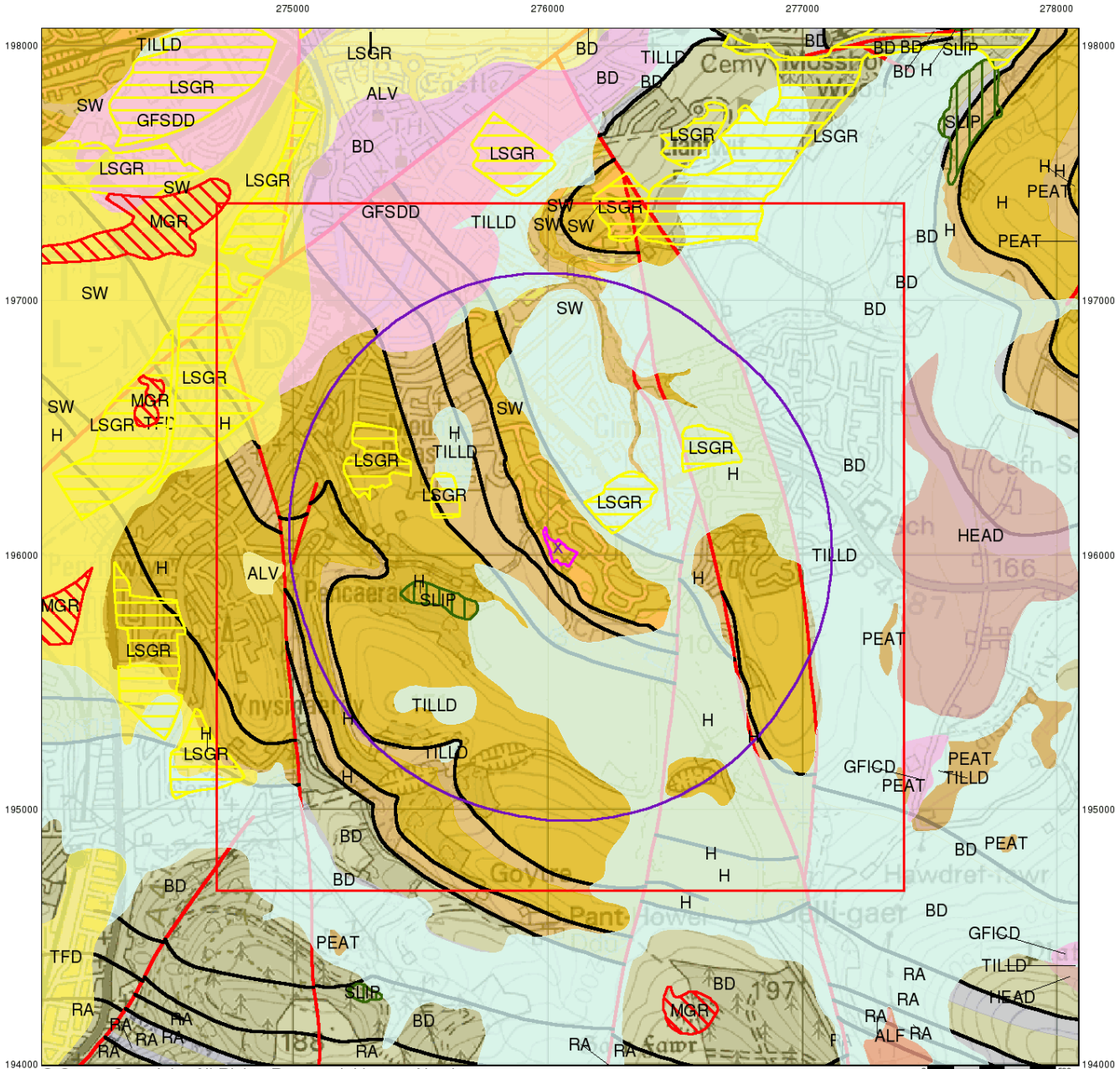
Order Details:

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National Grid Reference:	276040, 196030
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Combined Surface Geology

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

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

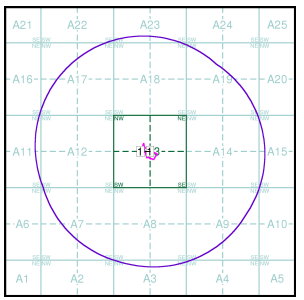
Additional Information

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

Contact

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

Combined Geology Map - Slice A



Order Details:

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Site Details:

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APPENDIX D Boundary Condition Survey

Four-M Development Services Limited
c/o Hammond Architectural Services
Melrose Court, Melrose Hall, St Mellons, Cardiff, CF3 0EG
Tel. 02920 776900 Fax. 02920 799619

Former Tudor Inn, Cimla, Neath.

Set out below are the findings and recommendations resultant from a walkover survey carried out on Monday 25th February 2013 and review of Preliminary Sketch Layout numbered AD02.

Survey of Boundary Conditions

Individual boundaries are shown referenced on the copy of the Site Boundary Key Plan contained in the Appendix A whilst Appendix B contains record photographs. Particular conditions are designated from A to L inclusive and are described in more detail as follows:-

Boundary A

Is formed by a linear stand of large mature conifers with a concrete block facing wall to a raised earth bund that varies from 300mm to 600mm in height. Ground levels both sides of this bund appear to be consistent, therefore no effective retention exists at this boundary. It should be noted that proposed site levels may result in the removal of these conifer trees.

Access to the site is achieved at this location from Cae Rhys Ddu which follows a steep uphill gradient. In addition, two access tracks diverge from Cae Rhys Ddu at the site entrance. In order to achieve a highway design compliant with adoptable standards it is anticipated that proposed roadway levels at the site entrance/adjacent this boundary will be significantly lower than existing. Consequently the proposed road should be given as southerly an alignment as ownerships and levels permit.

Boundary B

Concrete block wall of approximately 1.8m height with prefab garages behind which are visibly in a dilapidated state. Current ground levels indicate there is no effective retention at this boundary.

Boundary C

A line of mature conifers exists in a raised planting bed. Once this is removed by site clearance there would appear to be no boundary retention.

Boundary D

This boundary is an earth bunded field boundary with dry stone facings now in a dilapidated state with a post and wire fence on top . One property has the bund in a rebuilt state with vertical planar stone pitching to its faces and a close boarded fence on top. There does not appear to be any retention at this boundary.

Boundary E

This appears to be the original stone faced earth bund to the fields. The neighbouring property lies generally at a lower level than the site boundary but there do not appear to be any retention issues along this boundary. From a point approximately midway along this boundary the land falls at a significant gradient to the North East.

Boundary F

This is an open unfenced boundary above a vertical exposed rock face of some 4.0 metres height. This rock face is planar sandstone with horizontal bedding. A dilapidated stone building exists at the lower level close to the boundary line. In the longer term with this rock face facing in a SSW direction it will be subject to the prevailing SW winds and driven rain with consequent risk of weathering.

Due to the boundary effectively being a vertical face it is recommended that no buildings, roads or driveways be erected within a build exclusion zone of 6.0 metres measured from the boundary. In addition some form of protection to the vertical rock face is recommended so as to maintain the long term stability of the area above the rock face.

Boundary G

This section of the boundary is overgrown with scrub and is of a steep slope. The presence of vegetation is likely to be contributing to its stability. This section of the site slopes down to a track providing access to the adjacent dilapidated stone building.

Boundary H

This boundary slopes steeply down to an access lane to a livestock compound. It appears that this sloping area has been used/is the result of use as a general rubbish tip for the previous site use. The slope is overgrown with scrub and trees which are contributing to its stability. The slope drops down to the lane where there is vertical stone pitching to a vertical face. It is considered that this stone pitching is essentially cosmetic and should not be considered as a retaining structure.

Boundary J

This area is covered with an extensive stand of Japanese Knotweed which will need treating and eliminating in an approved manner. There are remnant walls and occasional waste in the slope under adjacent ownership. Generally the steep slope has scrub and tree cover contributing to its stability.

Boundary K

This is a vertical stone pitched boundary above the lane access in a condition varying from good to dilapidated. Either freestanding dwarf walls or raised bunds exist at the site surface. The stone pitching should be regarded as cosmetic and not as a retaining structure.

Remedial Options.

1. Consideration should be given to treating boundaries G, H ,J and K by regrading the embankments to a stable slope gradient and stabilising with a geogrid and suitable landscaping e.g. groundcover planting and trees.

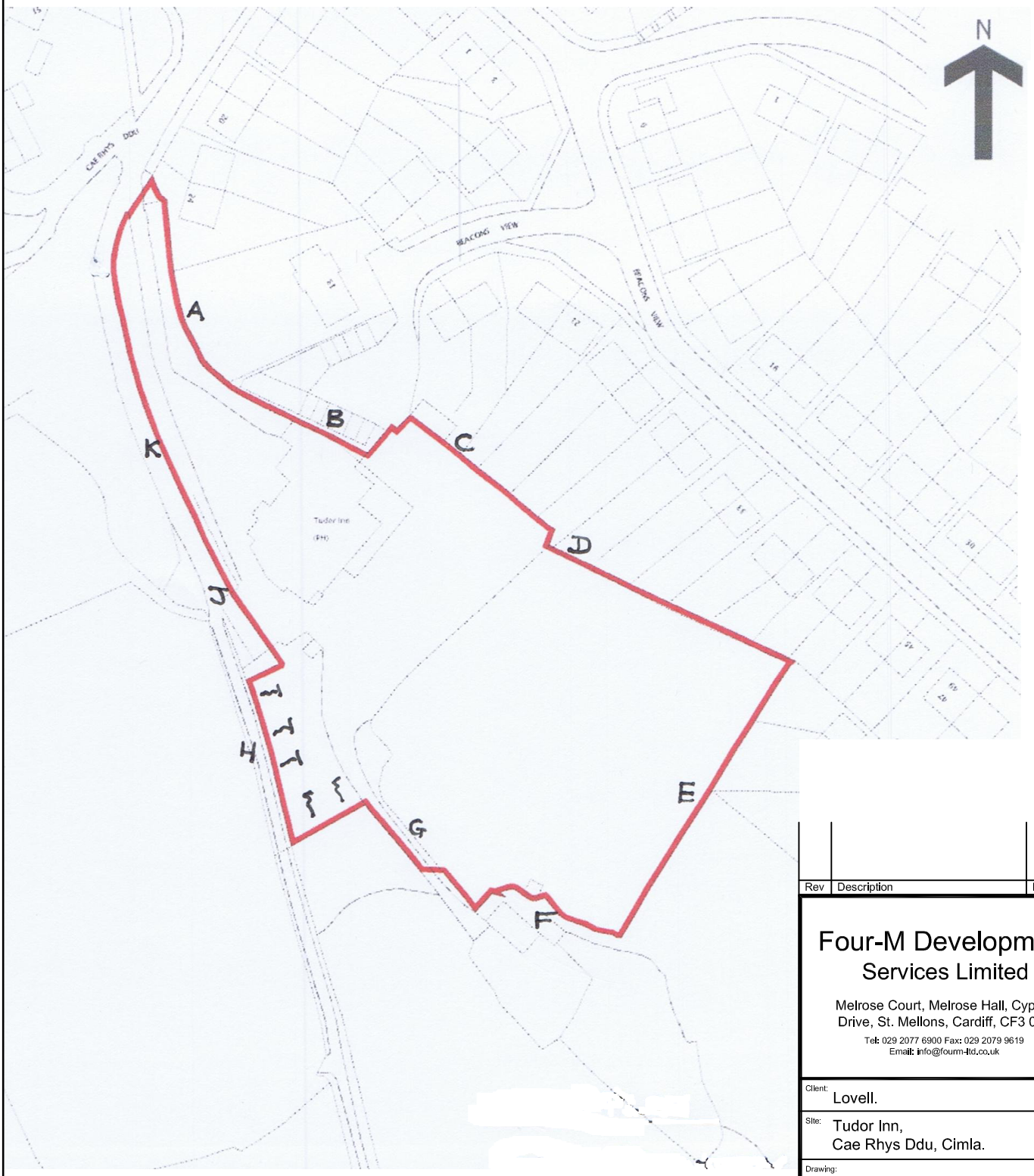
2. Boundary F. Application of netting to exposed face of rock and/or placement of fill against the vertical face to achieve a sloping ground profile either under license or following purchase of the adjacent land with the ruin on it.

3. It appears that the onsite bedrock is to a near horizontal bedding plane and as such it may be difficult to achieve interface with fractures for soakaway drainage. On-site percolation tests are recommended.

4. It should be noted that the regrade design to the rear gardens to plot numbers 7-14 inclusive will require to include terracing. The dwellings to plots 19 and 20 may require reorientation so as to increase clearance to the boundary steep slope.

Appendix A.

Appendix B.



Rev	Description	Date

Four-M Development Services Limited

Melrose Court, Melrose Hall, Cypress Drive, St. Mellons, Cardiff, CF3 0EG.

Tel: 029 2077 6900 Fax: 029 2079 9619
Email: info@fourm-ltd.co.uk

Client: Lovell.

Site: Tudor Inn, Cae Rhys Ddu, Cimla.

Drawing: Site Boundary Key Plan.

Scale:	Date:
N.T.S.	February 2013
Designed By: S.J.F.	Status: Preliminary.

Drawing No.: 312052 - 10 Rev -

























APPENDIX E Stability Report

Intégral
Géotechnique

Envirocheck® Report:

Mining and Ground Stability Datasheet

Order Details:

Order Number:
294212658_1_1

Customer Reference:
14036/LP

National Grid Reference:
276040, 196030

Slice:
A

Site Area (Ha):
0.78

Search Buffer (m):
1000

Site Details:

Phase 1
Former Tudor Inn, Beacons View
Cimla
Neath
SA11 3SB

Client Details:

MR H Pritchard
Integral Geotechnique
Integral House
7 Beddau Way
Castlegate Business Park
Caerphilly
CF83 2AX

Intégral Géotechnique

Contents

Report Section and Details	Page Number
Summary	-
The Summary section provides an overview of the data contained within the report, detailing the number of data set features or the existence of a data set in relation to the buffer selected. For ease of reference, the report is broken down into 4 sections of data; Mining and Natural Cavities Data, Historical Land Use Information (1:2,500), Historical Land Use Information (1:10,000) and Ground Stability Data (1:50,000).	
Mining and Natural Cavities Data	1
The Mining and Natural Cavities Data section features data sets related to the existence of mining areas and their potential hazards; and details of naturally formed cavities. Data sets within this section are not plotted, with the exception of BGS Recorded Mineral Sites and Potential Mining Areas which feature on the Historical Land Use Information (1:10,000) map.	
Historical Land Use Information (1:2,500)	8
The Historical Land Use Information (1:2,500) section contains data captured from analysis carried out by Landmark of 1:1,250 and 1:2,500 scale historical Ordnance Survey mapping, identifying areas where, historically, the land uses were potentially contaminative. For the purpose of this Envirocheck module, only historical data relating to mining and ground stability has been included and plotted on the corresponding Historical Land Use Information (1:2,500) map. This section also includes the Subterranean Features data set, which details various man-made and man-used underground spaces obtained from the Subterranea Britannica society.	
Historical Land Use Information (1:10,000)	9
The Historical Land Use (1:10,000) section covers data captured from the systematic analysis carried out by Landmark of 1:10, 560 and 1:10,000 scale historical Ordnance Survey mapping dating back to the mid-19th century, identifying potentially contaminative past industrial land uses. For the purpose of this Envirocheck module, only data relating to mining and ground stability has been included and plotted on the accompanying Historical Land Use Information (1:10,000) map.	
Ground Stability Data (1:50,000)	12
The Ground Stability (1:50,000) section includes the BGS Geosure data suite, reporting features to 250m and plotted onto 3 separate maps. Also reported is brine subsidence, brine mining and salt mining data sets, of which Brine Pumping and Salt Mining Related Features are plotted, and subsidence insurance claims and insurance investigations data, which is not plotted.	
Historical Map List	13
The Historical Map List section details the historical mapping that has been analysed for your site, in relation to the Historical Land Use Information sections.	
Data Currency	14
Data Suppliers	15
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The brine subsidence data relating to the Driotwich area as provided in this report is derived from JPB studies and physical monitoring undertaken annually over more than 35 years. For more detailed interpretation contact enquiries@jpb.co.uk. JPB retain the copyright and intellectual rights to this data and accept no liability for any loss or damage, including in direct or consequential loss, arising from the use of this data.

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Report Version v53.0

Intégral Géotechnique

Summary

Data Type	Page Number	On Site	0 to 250m	251 to 500m	501 to 1000m
Mining and Natural Cavities Data					
BGS Recorded Mineral Sites	pg 1		3	6	10
Coal Mining Affected Areas	pg 4	Yes	n/a	n/a	n/a
Man Made Mining Cavities					
Mining Instability	pg 4	Yes	n/a	n/a	n/a
Natural Cavities					
Non Coal Mining Areas of Great Britain				n/a	n/a
Potential Mining Areas	pg 4	9	4	3	15
Historical Land Use Information (1:2,500)					
Extractive Industries or Potential Excavations from 1855-1909 (100m)	pg 8		3	n/a	n/a
Extractive Industries or Potential Excavations from 1893-1915 (100m)	pg 8		1	n/a	n/a
Extractive Industries or Potential Excavations from 1906-1937 (100m)	pg 8		2	n/a	n/a
Extractive Industries or Potential Excavations from 1924-1949 (100m)	pg 8		2	n/a	n/a
Extractive Industries or Potential Excavations from 1950-1980 (100m)	pg 8	1	1	n/a	n/a
Subterranean Features (100m)				n/a	n/a
Historical Land Use Information (1:10,000)					
Air Shafts					
Disturbed Ground	pg 9			2	1
General Quarrying	pg 9		1		7
Heap, unknown constituents	pg 9				1
Mineral Railway	pg 9				3
Mining & quarrying general	pg 9				2
Mining of coal & lignite	pg 9		2	5	7
Quarrying of sand & clay, operation of sand & gravel pits					
Former Marshes					
Potentially Infilled Land (Non-Water)	pg 10		1	5	10
Potentially Infilled Land (Water)	pg 11			2	8
Ground Stability Data (1:50,000)					
CBSCB Compensation District			n/a	n/a	n/a
Brine Pumping Related Features					
Brine Subsidence Solution Area					
Potential for Collapsible Ground Stability Hazards	pg 12	Yes		n/a	n/a
Potential for Compressible Ground Stability Hazards	pg 12	Yes		n/a	n/a
Potential for Ground Dissolution Stability Hazards	pg 12	Yes		n/a	n/a
Potential for Landslide Ground Stability Hazards	pg 12	Yes	Yes	n/a	n/a
Potential for Running Sand Ground Stability Hazards	pg 12	Yes	Yes	n/a	n/a
Potential for Shrinking or Swelling Clay Ground Stability Hazards	pg 12	Yes	Yes	n/a	n/a
Salt Mining Related Features					

Intégral Géotechnique

Summary

Report Version v53.0

Intégral Géotechnique

Mining and Natural Cavities Data

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
1	**BGS Recorded Mineral Sites** Site Name: Westernmoor Cottages Location: Neath, West Glamorgan Source: British Geological Survey, National Geoscience Information Service Reference: 154443 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	A13NW (NW)	21	1	275978 196125
2	**BGS Recorded Mineral Sites** Site Name: Cae Rhys Ddu Location: Neath, West Glamorgan Source: British Geological Survey, National Geoscience Information Service Reference: 154423 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	A13SE (SE)	148	1	276171 195839
3	**BGS Recorded Mineral Sites** Site Name: Cwm Cottage Location: Neath, West Glamorgan Source: British Geological Survey, National Geoscience Information Service Reference: 154424 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	A13SW (SW)	225	1	275843 195832
4	**BGS Recorded Mineral Sites** Site Name: Cwm-Pandy Location: Neath, West Glamorgan Source: British Geological Survey, National Geoscience Information Service Reference: 154432 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	A13SE (S)	261	1	276094 195696
5	**BGS Recorded Mineral Sites** Site Name: Ty'N-Yr-Heol Arms Location: Neath, West Glamorgan Source: British Geological Survey, National Geoscience Information Service Reference: 154421 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	A14SW (E)	391	1	276489 195901
6	**BGS Recorded Mineral Sites** Site Name: Cwm-Pandy Location: Neath, West Glamorgan Source: British Geological Survey, National Geoscience Information Service Reference: 154433 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	A9NW (SE)	405	1	276387 195691

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
7	**BGS Recorded Mineral Sites** Site Name: Highfield Location: Neath, West Glamorgan Source: British Geological Survey, National Geoscience Information Service Reference: 154414 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)	456	1	276063 196556
8	**BGS Recorded Mineral Sites** Site Name: Ty-Segur Location: Neath, West Glamorgan Source: British Geological Survey, National Geoscience Information Service Reference: 154425 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	A17SE (NW)	477	1	275603 196387
9	**BGS Recorded Mineral Sites** Site Name: Ysgubor-Newydd Location: Neath, West Glamorgan Source: British Geological Survey, National Geoscience Information Service Reference: 154422 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)	496	1	276322 196474
10	**BGS Recorded Mineral Sites** Site Name: Gimlu Park Location: Neath, West Glamorgan Source: British Geological Survey, National Geoscience Information Service Reference: 154412 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)	650	1	276059 196752
11	**BGS Recorded Mineral Sites** Site Name: Crynollt Location: Neath, West Glamorgan Source: British Geological Survey, National Geoscience Information Service Reference: 154420 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	A14SE (E)	691	1	276805 196007
12	**BGS Recorded Mineral Sites** Site Name: Cimla Park Location: Neath, West Glamorgan Source: British Geological Survey, National Geoscience Information Service Reference: 154451 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	A18NW (N)	886	1	275898 196988

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
13	**BGS Recorded Mineral Sites** Site Name: Eaglesbush Grove Location: Neath, West Glamorgan Source: British Geological Survey, National Geoscience Information Service Reference: 154426 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	A12NW (W)	891	1	275095 196171
14	**BGS Recorded Mineral Sites** Site Name: Westernmoor Colliery Location: Neath, West Glamorgan Source: British Geological Survey, National Geoscience Information Service Reference: 154409 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	A17NW (NW)	907	1	275353 196754
15	**BGS Recorded Mineral Sites** Site Name: Cefn Saeson Dingle Location: Neath, West Glamorgan Source: British Geological Survey, National Geoscience Information Service Reference: 154419 Type: Underground **Status: Ceased** Operator: Unknown Operator Operator Location: Not Supplied Periodic Type: Carboniferous Geology: Brithdir Member Commodity: Coal - Deep Positional Accuracy: Located by supplier to within 10m	A19SE (NE)	913	1	276926 196425
16	**BGS Recorded Mineral Sites** Site Name: Mount Pleasant Location: Neath, West Glamorgan Source: British Geological Survey, National Geoscience Information Service Reference: 154442 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	A17SW (NW)	937	1	275175 196572
17	**BGS Recorded Mineral Sites** Site Name: Gnoll Colliery Location: Neath, West Glamorgan Source: British Geological Survey, National Geoscience Information Service Reference: 154410 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	A23SW (N)	981	1	275778 197064
18	**BGS Recorded Mineral Sites** Site Name: Garth-Mor Location: Neath, West Glamorgan Source: British Geological Survey, National Geoscience Information Service Reference: 154431 Type: Opencast **Status: Ceased** Operator: Unknown Operator Operator Location: Not Supplied Periodic Type: Carboniferous Geology: Hughes Member Commodity: Sandstone Positional Accuracy: Located by supplier to within 10m	A7NW (SW)	986	1	275103 195605

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
19	**BGS Recorded Mineral Sites** Site Name: Gnoll Colliery Location: Neath, West Glamorgan Source: British Geological Survey, National Geoscience Information Service Reference: 154411 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	A23SW (N)	994	1	275873 197094
	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.	A13SW (SE)	0	2	276040 196030
	Mining Instability Mining Evidence: Inconclusive Coal Mining Source: Ove Arup & Partners Boundary Quality: As Supplied	A13SW (SE)	0	3	276040 196030
	Non Coal Mining Areas of Great Britain No Hazard				
20	**Potential Mining Areas** Name: Eaglesbush Ceased Operation: 1903 Commodity: Coal; Esgyrn or Hughes Reference: 4440 Alternate Name/Mine: Garlant Custodian: Not Supplied	A13SW (SE)	0	4	276040 196030
21	**Potential Mining Areas** Name: Eaglesbush and Eskyn Ceased Operation: 1859 Commodity: Coal; Rotten or Bwdwr Reference: 10976 Alternate Name/Mine: Not Supplied Custodian: Not Supplied	A13SW (W)	0	4	276002 196030
22	**Potential Mining Areas** Name: Western Moor Ceased Operation: Not Supplied Commodity: Coal; Seam unnamed Reference: Not Supplied Alternate Name/Mine: Not Supplied Custodian: W.E.C. Thomas, Brynhafod, Neath.	A13SW (SE)	0	4	276040 196030
23	**Potential Mining Areas** Name: Western Moor and Penrose Ceased Operation: 1874 Commodity: Coal; Western Moor Two Feet Reference: Not Supplied Alternate Name/Mine: Not Supplied Custodian: Eaglesbush Estate Office, Eaglesbush, Neath.	A13SW (SE)	0	4	276040 196030
24	**Potential Mining Areas** Name: Western Moor Ceased Operation: 1888 Commodity: Coal; Western Moor Reference: 3273 Alternate Name/Mine: Davies Custodian: Not Supplied	A13SW (SE)	0	4	276040 196030
25	**Potential Mining Areas** Name: Western Moor Ceased Operation: 1887 Commodity: Coal; Western Moor Reference: Not Supplied Alternate Name/Mine: Eastland Custodian: Eaglesbush Estate Office, Eaglesbush, Neath.	A13SW (SE)	0	4	276040 196030

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
26	**Potential Mining Areas** Name: Penrose Ceased Operation: 1870 Commodity: Coal; Erskine (Esgyrn) or Hughes; Boddwr Reference: Not Supplied Alternate Name/Mine: Not Supplied Custodian: J. Thomas, Earl of Jersey's Estate Office, Briton Ferry.	A13SW (SE)	0	4	276040 196030
27	**Potential Mining Areas** Name: Penrose and Eaglesbush Ceased Operation: Not Supplied Commodity: Coal; Esgyrn or Hughes Reference: Not Supplied Alternate Name/Mine: Not Supplied Custodian: Evan Harris, Rhydding, Neath.	A13SW (W)	0	4	276002 196030
28	**Potential Mining Areas** Name: Penrose and Eaglesbush Ceased Operation: Not Supplied Commodity: Coal; Eskyrn (Esgyrn); New Or Boddwr; Rotten Reference: Not Supplied Alternate Name/Mine: Airometer Alternate Name/Mine: Eskyn Stack Old Custodian: Eaglesbush Estate Office, Eaglesbush, Neath.	A13SW (SE)	0	4	276040 196030
29	**Potential Mining Areas** Name: Crythan Ceased Operation: 1922 Commodity: Coal; Westernmoor Reference: 7563 Alternate Name/Mine: Not Supplied Custodian: Not Supplied	A13SW (S)	108	4	275999 195866
30	**Potential Mining Areas** Name: Gnoll Ceased Operation: Not Supplied Commodity: Coal; Little; Hard; Greenway Reference: Not Supplied Alternate Name/Mine: Fire Engine Alternate Name/Mine: Greenway Alternate Name/Mine: Morgan Edwards Custodian: Eaglesbush Estate Office, Eaglesbush, Neath.	A13NW (N)	162	4	276046 196267
31	**Potential Mining Areas** Name: Gnoll House Ceased Operation: 1902 Commodity: Coal; Hard; Little Reference: 4355 Alternate Name/Mine: Not Supplied Custodian: Not Supplied	A13NW (N)	163	4	276046 196267
32	**Potential Mining Areas** Name: Neath Ceased Operation: Not Supplied Commodity: Coal Reference: Not Supplied Alternate Name/Mine: Not Supplied Custodian: Not Supplied	A13NW (N)	163	4	276046 196267
33	**Potential Mining Areas** Name: Eaglesbush Ceased Operation: 1927 Commodity: Coal; Treany or Triany Reference: 9262 Alternate Name/Mine: Not Supplied Custodian: Not Supplied	A12NE (W)	381	4	275600 196039

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
34	**Potential Mining Areas** Name: Treany or Melyn Ville Ceased Operation: 1905 Commodity: Coal and Shale; Treany Reference: 6023 Alternate Name/Mine: Not Supplied Custodian: Not Supplied	A12NE (W)	381	4	275600 196039
35	**Potential Mining Areas** Name: Penrhos or Penrose Ceased Operation: 1927 Commodity: Coal; Boddor Reference: 8761 Alternate Name/Mine: Not Supplied Custodian: Not Supplied	A12SE (W)	433	4	275597 195875
36	**Potential Mining Areas** Name: Gnoll Ceased Operation: 1800 Commodity: Coal; Greenway; Hard; Three Feet Six Reference: Not Supplied Alternate Name/Mine: Boulting Mill Alternate Name/Mine: Castle Alternate Name/Mine: Coles Alternate Name/Mine: Fire Engine Alternate Name/Mine: Greenway Alternate Name/Mine: Greenway New Custodian: Eaglesbush Estate Office, Eaglesbush, Neath.	A18SE (N)	565	4	276054 196670
37	**Potential Mining Areas** Name: Gnoll Ceased Operation: 1886 Commodity: Coal; Graigola; Hard; Little Reference: 1999 Alternate Name/Mine: Nos. 1, 2, 3, 4 Custodian: Not Supplied	A18SE (N)	565	4	276054 196670
38	**Potential Mining Areas** Name: Gnoll Ceased Operation: 1848-1886 Commodity: Coal; Greenway; Hard; Little Reference: 10975 Alternate Name/Mine: Not Supplied Custodian: Not Supplied	A18SE (N)	565	4	276054 196670
39	**Potential Mining Areas** Name: Garlent Ceased Operation: 1892 Commodity: Coal; Garlent Reference: Not Supplied Alternate Name/Mine: Not Supplied Custodian: Eaglesbush Estate Office, Eaglesbush, Neath.	A7NE (SW)	660	4	275588 195473
40	**Potential Mining Areas** Name: Tyle or Gerlent Ceased Operation: 1924 Commodity: Coal; Gerlent; New Bwdwr Reference: 8680 Alternate Name/Mine: Not Supplied Custodian: Not Supplied	A7NE (SW)	660	4	275588 195473
41	**Potential Mining Areas** Name: Danycoed Ceased Operation: 1910 Commodity: Coal; Bodwr; Garlant Reference: 5544 Alternate Name/Mine: Not Supplied Custodian: Not Supplied	A12NW (W)	783	4	275198 196048

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
42	**Potential Mining Areas** Name: Llantwit Lower Ceased Operation: Not Supplied Commodity: Coal Reference: Not Supplied Alternate Name/Mine: Not Supplied Custodian: Not Supplied	A12NW (W)	783	4	275198 196048
43	**Potential Mining Areas** Name: Eaglesbush Ceased Operation: 1930 Commodity: Coal; Garlant Reference: 10046 Alternate Name/Mine: Esgyrn Custodian: Not Supplied	A12SW (W)	813	4	275195 195883
44	**Potential Mining Areas** Name: Goytre Ceased Operation: 1931 Commodity: Coal; Bwdwr Reference: 10612 Alternate Name/Mine: Not Supplied Custodian: Not Supplied	A8SW (S)	901	4	275982 195062
45	**Potential Mining Areas** Name: Ynysmaerdy Ceased Operation: 1927 Commodity: Coal; Bodwr Fach or Garlant; Esgyrn or Hughes Reference: 9089 Alternate Name/Mine: Not Supplied Custodian: Not Supplied	A8SW (S)	901	4	275982 195062
46	**Potential Mining Areas** Name: Briton Ferry Ceased Operation: Not Supplied Commodity: Coal Reference: Not Supplied Alternate Name/Mine: Not Supplied Custodian: Not Supplied	A8SW (S)	901	4	275982 195062
47	**Potential Mining Areas** Name: Eskyn Ceased Operation: 1911 Commodity: Coal; Wenallt Rider Reference: Not Supplied Alternate Name/Mine: Not Supplied Custodian: T.H.E. Morgan, Mineral Offices, Resolven, Neath.	A8SE (S)	953	4	276384 195053
48	**Potential Mining Areas** Name: Eskyn Ceased Operation: 1917 Commodity: Coal; Wenallt Reference: 8639 Alternate Name/Mine: Not Supplied Custodian: Not Supplied	A8SE (S)	953	4	276384 195053
49	**Potential Mining Areas** Name: Gnoll Ceased Operation: Not Supplied Commodity: Coal; Seam unnamed Reference: Not Supplied Alternate Name/Mine: Not Supplied Custodian: Graigola Merthyr Colliery Co. Ltd., Cambrian Place, Swansea.	A23SE (N)	967	4	276063 197072
50	**Potential Mining Areas** Name: Greenway Ceased Operation: 1800 Commodity: Coal; Probably Graigola Reference: Not Supplied Alternate Name/Mine: Not Supplied Custodian: J.E.R. Thomas, Church Place, Neath.	A23SW (N)	967	4	276025 197073

Historical Land Use Information (1:2,500)

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
51	**Extractive Industries or Potential Excavations from 1855-1909** Use: Old Quarry First Map Published Date: 1881 Last Map Published Date: Not Applicable	A13SE (S)	1	-	276060 195963
52	**Extractive Industries or Potential Excavations from 1855-1909** Use: Well First Map Published Date: 1881 Last Map Published Date: Not Applicable	A13SW (W)	63	-	275934 196027
53	**Extractive Industries or Potential Excavations from 1855-1909** Use: Well First Map Published Date: 1881 Last Map Published Date: Not Applicable	A13NW (W)	79	-	275913 196038
54	**Extractive Industries or Potential Excavations from 1893-1915** Use: Well First Map Published Date: 1899 Last Map Published Date: Not Applicable	A13NW (W)	77	-	275914 196041
55	**Extractive Industries or Potential Excavations from 1906-1937** Use: Old Quarry First Map Published Date: 1919 Last Map Published Date: Not Applicable	A13NW (NW)	9	-	275973 196101
56	**Extractive Industries or Potential Excavations from 1906-1937** Use: Well First Map Published Date: 1919 Last Map Published Date: Not Applicable	A13NW (W)	78	-	275914 196038
57	**Extractive Industries or Potential Excavations from 1924-1949** Use: Unspecified Pit First Map Published Date: 1935 Last Map Published Date: Not Applicable	A13NW (NW)	8	-	275974 196103
58	**Extractive Industries or Potential Excavations from 1924-1949** Use: Well First Map Published Date: 1935 Last Map Published Date: Not Applicable	A13NW (W)	78	-	275914 196041
59	**Extractive Industries or Potential Excavations from 1950-1980** Use: Unspecified Quarry First Map Published Date: 1970 Last Map Published Date: N/A	A13SE (S)	0	-	276058 195965
60	**Extractive Industries or Potential Excavations from 1950-1980** Use: Unspecified Pit First Map Published Date: 1951 Last Map Published Date: N/A	A13NW (NW)	12	-	275971 196107

Historical Land Use Information (1:10,000)

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
61	**Disturbed Ground** Use: Not Supplied Date of Mapping: 1884	A14NW (E)	365	-	276468 196095
62	**Disturbed Ground** Use: Not Supplied Date of Mapping: 1921	A13NE (NE)	387	-	276334 196328
63	**Disturbed Ground** Use: Not Supplied Date of Mapping: 1884	A17SW (NW)	993	-	275089 196527
64	**General Quarrying** Use: Not Supplied Date of Mapping: 1884	A13SE (SE)	154	-	276168 195830
65	**General Quarrying** Use: Not Supplied Date of Mapping: 1884	A14NW (E)	573	-	276686 196043
66	**General Quarrying** Use: Not Supplied Date of Mapping: 1884	A14SE (E)	687	-	276801 196001
67	**General Quarrying** Use: Not Supplied Date of Mapping: 1884 - 1900	A12NW (W)	829	-	275154 196108
68	**General Quarrying** Use: Not Supplied Date of Mapping: 1884	A12NW (W)	906	-	275105 196316
69	**General Quarrying** Use: Not Supplied Date of Mapping: 1900 - 1921	A17SW (NW)	940	-	275166 196562
70	**General Quarrying** Use: Not Supplied Date of Mapping: 1884 - 1921	A17SW (W)	964	-	275059 196370
71	**General Quarrying** Use: Not Supplied Date of Mapping: 1921	A17SW (NW)	987	-	275074 196478
72	**Heap, unknown constituents** Use: Not Supplied Date of Mapping: 1921	A3NE (S)	992	-	276385 195013
73	**Mineral Railway** Use: Not Supplied Date of Mapping: 1884 - 1921	A8SW (S)	755	-	275963 195210
74	**Mineral Railway** Use: Not Supplied Date of Mapping: 1900	A12NW (W)	797	-	275186 196061
75	**Mineral Railway** Use: Not Supplied Date of Mapping: 1921	A3NE (S)	996	-	276385 195008
76	**Mining & quarrying general** Use: Not Supplied Date of Mapping: 1900	A17NW (NW)	904	-	275354 196750
77	**Mining & quarrying general** Use: Not Supplied Date of Mapping: 1900	A23SW (N)	996	-	275985 197103
78	**Mining of coal & lignite** Use: Not Supplied Date of Mapping: 1884	A13SW (SW)	113	-	275907 195953
79	**Mining of coal & lignite** Use: Not Supplied Date of Mapping: 1900	A13SW (SW)	231	-	275839 195828
80	**Mining of coal & lignite** Use: Not Supplied Date of Mapping: 1884	A8NE (S)	271	-	276084 195686
81	**Mining of coal & lignite** Use: Not Supplied Date of Mapping: 1884	A14SW (E)	387	-	276483 195893

Historical Land Use Information (1:10,000)

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
82	**Mining of coal & lignite** Use: Not Supplied Date of Mapping: 1884	A8NE (SE)	405	-	276384 195688
83	**Mining of coal & lignite** Use: Not Supplied Date of Mapping: 1900	A18SW (N)	455	-	276044 196558
84	**Mining of coal & lignite** Use: Not Supplied Date of Mapping: 1884	A18SE (NE)	490	-	276326 196463
85	**Mining of coal & lignite** Use: Not Supplied Date of Mapping: 1900	A18NE (N)	645	-	276052 196748
86	**Mining of coal & lignite** Use: Not Supplied Date of Mapping: 1900	A12SW (W)	721	-	275264 196030
87	**Mining of coal & lignite** Use: Not Supplied Date of Mapping: 1884	A17NE (NW)	868	-	275431 196772
88	**Mining of coal & lignite** Use: Not Supplied Date of Mapping: 1921	A18NW (N)	877	-	275926 196981
89	**Mining of coal & lignite** Use: Not Supplied Date of Mapping: 1884	A18NW (N)	906	-	275787 196990
90	**Mining of coal & lignite** Use: Not Supplied Date of Mapping: 1900	A18NW (N)	923	-	275867 197025
91	**Mining of coal & lignite** Use: Not Supplied Date of Mapping: 1884	A19SE (E)	969	-	276999 196401
92	**Potentially Infilled Land (Non-Water)** Use: Unknown Filled Ground (Pit, quarry etc) Date of Mapping: 1992	A13SW (SW)	113	-	275907 195953
93	**Potentially Infilled Land (Non-Water)** Use: Unknown Filled Ground (Pit, quarry etc) Date of Mapping: 1992	A8NE (S)	271	-	276084 195686
94	**Potentially Infilled Land (Non-Water)** Use: Unknown Filled Ground (Pit, quarry etc) Date of Mapping: 1992	A14SW (E)	387	-	276483 195893
95	**Potentially Infilled Land (Non-Water)** Use: Unknown Filled Ground (Pit, quarry etc) Date of Mapping: 1992	A8NE (SE)	405	-	276384 195688
96	**Potentially Infilled Land (Non-Water)** Use: Unknown Filled Ground (Pit, quarry etc) Date of Mapping: 1992	A18SW (N)	455	-	276044 196558
97	**Potentially Infilled Land (Non-Water)** Use: Unknown Filled Ground (Pit, quarry etc) Date of Mapping: 1992	A18SE (NE)	490	-	276326 196463
98	**Potentially Infilled Land (Non-Water)** Use: Unknown Filled Ground (Pit, quarry etc) Date of Mapping: 1992	A14NW (E)	573	-	276686 196043
99	**Potentially Infilled Land (Non-Water)** Use: Unknown Filled Ground (Pit, quarry etc) Date of Mapping: 1992	A18NE (N)	645	-	276052 196748
100	**Potentially Infilled Land (Non-Water)** Use: Unknown Filled Ground (Pit, quarry etc) Date of Mapping: 1992	A14SE (E)	687	-	276801 196001
101	**Potentially Infilled Land (Non-Water)** Use: Unknown Filled Ground (Pit, quarry etc) Date of Mapping: 1992	A12SW (W)	721	-	275264 196030
102	**Potentially Infilled Land (Non-Water)** Use: Unknown Filled Ground (Pit, quarry etc) Date of Mapping: 1992	A17NE (NW)	868	-	275431 196772

Historical Land Use Information (1:10,000)

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
103	**Potentially Infilled Land (Non-Water)** Use: Unknown Filled Ground (Pit, quarry etc) Date of Mapping: 1992	A18NW (N)	877	-	275926 196981
104	**Potentially Infilled Land (Non-Water)** Use: Unknown Filled Ground (Pit, quarry etc) Date of Mapping: 1992	A17NW (NW)	904	-	275354 196750
105	**Potentially Infilled Land (Non-Water)** Use: Unknown Filled Ground (Pit, quarry etc) Date of Mapping: 1992	A18NW (N)	910	-	275784 196993
106	**Potentially Infilled Land (Non-Water)** Use: Unknown Filled Ground (Pit, quarry etc) Date of Mapping: 1992	A19SE (E)	969	-	276999 196401
107	**Potentially Infilled Land (Non-Water)** Use: Unknown Filled Ground (Pit, quarry etc) Date of Mapping: 1992	A23SW (N)	996	-	275985 197103
108	**Potentially Infilled Land (Water)** Use: Unknown Filled Ground (Pond, marsh, river, stream, dock etc) Date of Mapping: 1900	A14NW (NE)	377	-	276408 196245
109	**Potentially Infilled Land (Water)** Use: Unknown Filled Ground (Pond, marsh, river, stream, dock etc) Date of Mapping: 1964	A14NW (NE)	434	-	276470 196257
110	**Potentially Infilled Land (Water)** Use: Unknown Filled Ground (Pond, marsh, river, stream, dock etc) Date of Mapping: 1921	A12NE (NW)	587	-	275460 196362
111	**Potentially Infilled Land (Water)** Use: Unknown Filled Ground (Pond, marsh, river, stream, dock etc) Date of Mapping: 1964	A14NW (NE)	635	-	276664 196328
112	**Potentially Infilled Land (Water)** Use: Unknown Filled Ground (Pond, marsh, river, stream, dock etc) Date of Mapping: 1935	A14NE (E)	667	-	276733 196258
113	**Potentially Infilled Land (Water)** Use: Unknown Filled Ground (Pond, marsh, river, stream, dock etc) Date of Mapping: 1964	A14NE (E)	669	-	276761 196175
114	**Potentially Infilled Land (Water)** Use: Unknown Filled Ground (Pond, marsh, river, stream, dock etc) Date of Mapping: 1935	A14NE (E)	687	-	276770 196215
115	**Potentially Infilled Land (Water)** Use: Unknown Filled Ground (Pond, marsh, river, stream, dock etc) Date of Mapping: 1921	A17NE (NW)	848	-	275449 196761
116	**Potentially Infilled Land (Water)** Use: Unknown Filled Ground (Pond, marsh, river, stream, dock etc) Date of Mapping: 1921	A17NE (NW)	894	-	275519 196867
117	**Potentially Infilled Land (Water)** Use: Unknown Filled Ground (Pond, marsh, river, stream, dock etc) Date of Mapping: 1964	A15SW (E)	999	-	277108 195915

Ground Stability Data (1:50,000)

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
	CBSCB Compensation District The site does not fall within the brine compensation area.				
	Brine Subsidence Solution Area The site does not fall within the brine subsidence solution area.				
118	**Potential for Collapsible Ground Stability Hazards** Hazard Potential: Very Low Source: British Geological Survey, National Geoscience Information Service	A13SW (SE)	0	1	276040 196030
	Potential for Compressible Ground Stability Hazards Hazard Potential: No Hazard Source: British Geological Survey, National Geoscience Information Service	A13SW (SE)	0	1	276040 196030
	Potential for Ground Dissolution Stability Hazards Hazard Potential: No Hazard Source: British Geological Survey, National Geoscience Information Service	A13SW (SE)	0	1	276040 196030
119	**Potential for Landslide Ground Stability Hazards** Hazard Potential: Very Low Source: British Geological Survey, National Geoscience Information Service	A13SW (SE)	0	1	276040 196030
120	**Potential for Landslide Ground Stability Hazards** Hazard Potential: Low Source: British Geological Survey, National Geoscience Information Service	A13SW (SW)	15	1	275984 196002
121	**Potential for Landslide Ground Stability Hazards** Hazard Potential: Low Source: British Geological Survey, National Geoscience Information Service	A13NE (NE)	116	1	276165 196121
122	**Potential for Running Sand Ground Stability Hazards** Hazard Potential: Very Low Source: British Geological Survey, National Geoscience Information Service	A13NE (NE)	116	1	276165 196121
	Potential for Running Sand Ground Stability Hazards Hazard Potential: No Hazard Source: British Geological Survey, National Geoscience Information Service	A13SW (SE)	0	1	276040 196030
123	**Potential for Shrinking or Swelling Clay Ground Stability Hazards** Hazard Potential: Very Low Source: British Geological Survey, National Geoscience Information Service	A13SW (SW)	15	1	275984 196002
	Potential for Shrinking or Swelling Clay Ground Stability Hazards Hazard Potential: No Hazard Source: British Geological Survey, National Geoscience Information Service	A13SW (SE)	0	1	276040 196030

Historical Map List

The following mapping has been analysed for Historical Land Use Information (1:2,500):

1:2,500	Mapsheet	Published Date
Glamorganshire	016_13	1881
Glamorganshire	016_13	1899
Glamorganshire	016_13	1919
Glamorganshire	016_13	1935
Ordnance Survey Plan	SS7595	1970
Ordnance Survey Plan	SS7695	1970

The following mapping has been analysed for Historical Land Use Information (1:10,000):

1:10,560	Mapsheet	Published Date
Glamorganshire	016_00	1884
Glamorganshire	025_00	1884
Glamorganshire	016_SW	1900
Glamorganshire	025_NW	1900
Glamorganshire	016_SW	1921
Glamorganshire	025_NW	1921
Glamorganshire	016_SW	1935
Glamorganshire	025_NW	1936
Ordnance Survey Plan	SS79NE	1964
Ordnance Survey Plan	SS79SE	1964
Ordnance Survey Plan	SS79SW	1964
Ordnance Survey Plan	SS79NW	1965
1:10,000	**Mapsheet**	**Published Date**
Ordnance Survey Plan	SS79SW	1980
Ordnance Survey Plan	SS79NE	1992
Ordnance Survey Plan	SS79NW	1992
Ordnance Survey Plan	SS79SE	1996

Data Currency

Mining and Cavities Data	Version	Update Cycle
BGS Recorded Mineral Sites British Geological Survey - National Geoscience Information Service	November 2021	Bi-Annually
Coal Mining Affected Areas The Coal Authority - Property Searches	March 2014	Annual Rolling Update
Man Made Mining Cavities Stantec UK Ltd	December 2021	Bi-Annually
Mining Instability Ove Arup & Partners	June 1998	Not Applicable
Natural Cavities Stantec UK Ltd	December 2021	Bi-Annually
Non Coal Mining Areas of Great Britain British Geological Survey - National Geoscience Information Service	May 2015	Not Applicable
Historical Land Use Information (1:2,500)	**Version**	**Update Cycle**
Subterranean Features Landmark Information Group Limited	February 2020	Bi-Annually
Ground Stability Data (1:50,000)	**Version**	**Update Cycle**
CBSCB Compensation District Cheshire Brine Subsidence Compensation Board (CBSCB) Cheshire Brine Subsidence Compensation Board (CBSCB)	August 2011 November 2020	As notified
Potential for Collapsible Ground Stability Hazards British Geological Survey - National Geoscience Information Service	April 2020	As notified
Potential for Compressible Ground Stability Hazards British Geological Survey - National Geoscience Information Service	January 2019	As notified
Potential for Ground Dissolution Stability Hazards British Geological Survey - National Geoscience Information Service	January 2019	As notified
Potential for Landslide Ground Stability Hazards British Geological Survey - National Geoscience Information Service	January 2019	As notified
Potential for Running Sand Ground Stability Hazards British Geological Survey - National Geoscience Information Service	January 2019	As notified
Potential for Shrinking or Swelling Clay Ground Stability Hazards British Geological Survey - National Geoscience Information Service	January 2019	As notified
Brine Subsidence Solution Area Johnson Poole & Bloomer	December 2020	Annual Rolling Update

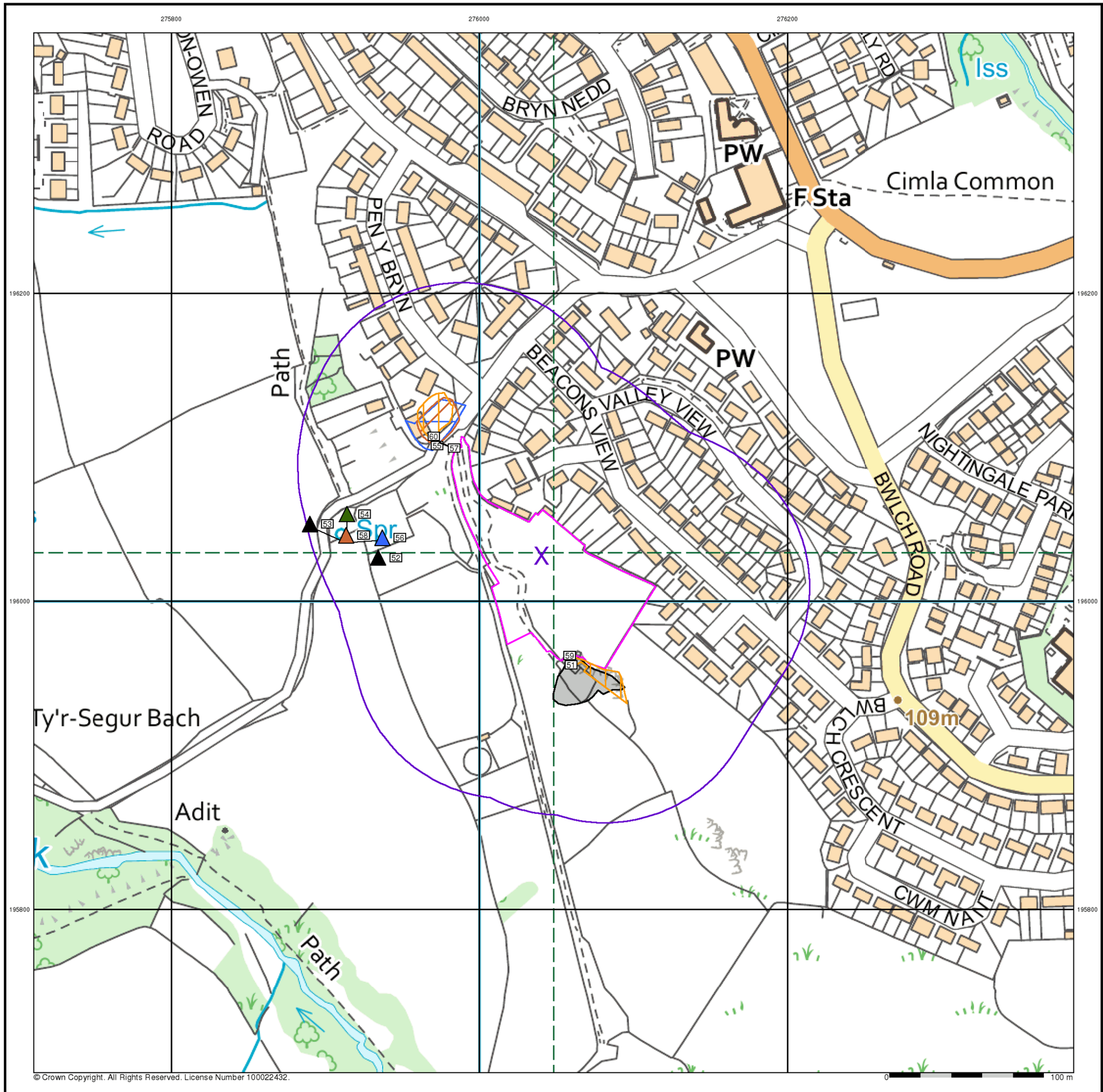
Data Suppliers

A selection of organisations who provide data within this report

Data Supplier	Data Supplier Logo
Ordnance Survey	Map data
British Geological Survey	British Geological Survey NATURAL ENVIRONMENT RESEARCH COUNCIL
The Coal Authority	The Coal Authority
Ove Arup	ARUP
Stantec UK Ltd	Stantec
Wardell Armstrong	wardell armstrong your earth our world
Johnson Poole & Bloomer	JPB

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	**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
3	**Ove Arup & Partners** Central Square, Forth Street, Newcastle upon Tyne, Tyne and Wear, NE1 3PL	Telephone: 0191 261 6080 Fax: 0191 261 7879
4	**Landmark Information Group Limited** Imperium, Imperial Way, Reading, Berkshire, RG2 0TD	Telephone: 0844 844 9960 Fax: 0844 844 9951 Email: customerservice@promap.co.uk Website: www.landmarkinfo.co.uk
-	**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



Intégral Géotechnique

Historical Land Use Information (1:2,500)

General

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

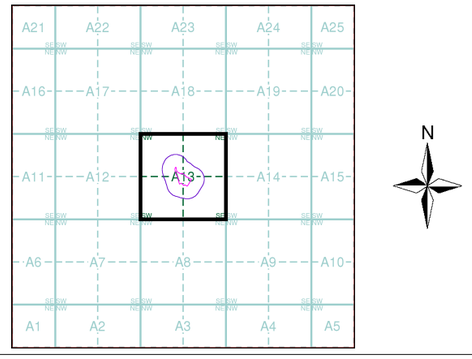
Potentially Contaminative Industrial Uses (Extractive Industries Activity)

	Point	Line	Polygon
Extractive Industries Activity from 1855 - 1909	▲	—	▭
Extractive Industries Activity from 1893 - 1915	▲	—	▨
Extractive Industries Activity from 1906 - 1937	▲	—	▤
Extractive Industries Activity from 1924 - 1949	▲	—	▨
Extractive Industries Activity from 1950 - 1980	▲	—	▥

Subterranean Features

	Point	Line	Polygon
Subterranean Features	▼	- - -	▭

Mining and Ground Stability - Segment A13



Order Details

Order Number:	294212658_1_1
Customer Ref:	14036/LP
National Grid Reference:	276040, 196030
Slice:	A
Site Area (Ha):	0.78
Plot Buffer (m):	100

Site Details

Phase 1, Former Tudor Inn, Beacons View, Cimla, Neath, SA11 3SB

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

Intégral Géotechnique

Historical Land Use Information (1:10,000)

General

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

Several of Type at Location

Potentially Contaminative Industrial Uses (Past Land Uses - Mining)

	Point	Line	Polygon
Air Shafts			
Disturbed Ground			
General Quarrying			
Heap, unknown constituents			
Mineral Railway			
Mining and Quarrying General			
Mining of Coal & Lignite			
Quarrying of Sand and Clay, Operation of Sand and Gravel Pits			

Historical Land Use

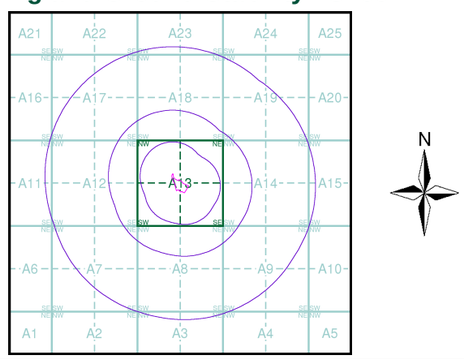
	Point	Line	Polygon
Potentially Infilled Land (Non-Water)			
Potentially Infilled Land (Water)			
Former Marsh			

Mining Data

Potential Mining Area

BGS Recorded Mineral Site

Mining and Ground Stability - Slice A



Order Details

Order Number:	294212658_1_1
Customer Ref:	14036/LP
National Grid Reference:	276040, 196030
Slice:	A
Site Area (Ha):	0.78
Search Buffer (m):	1000

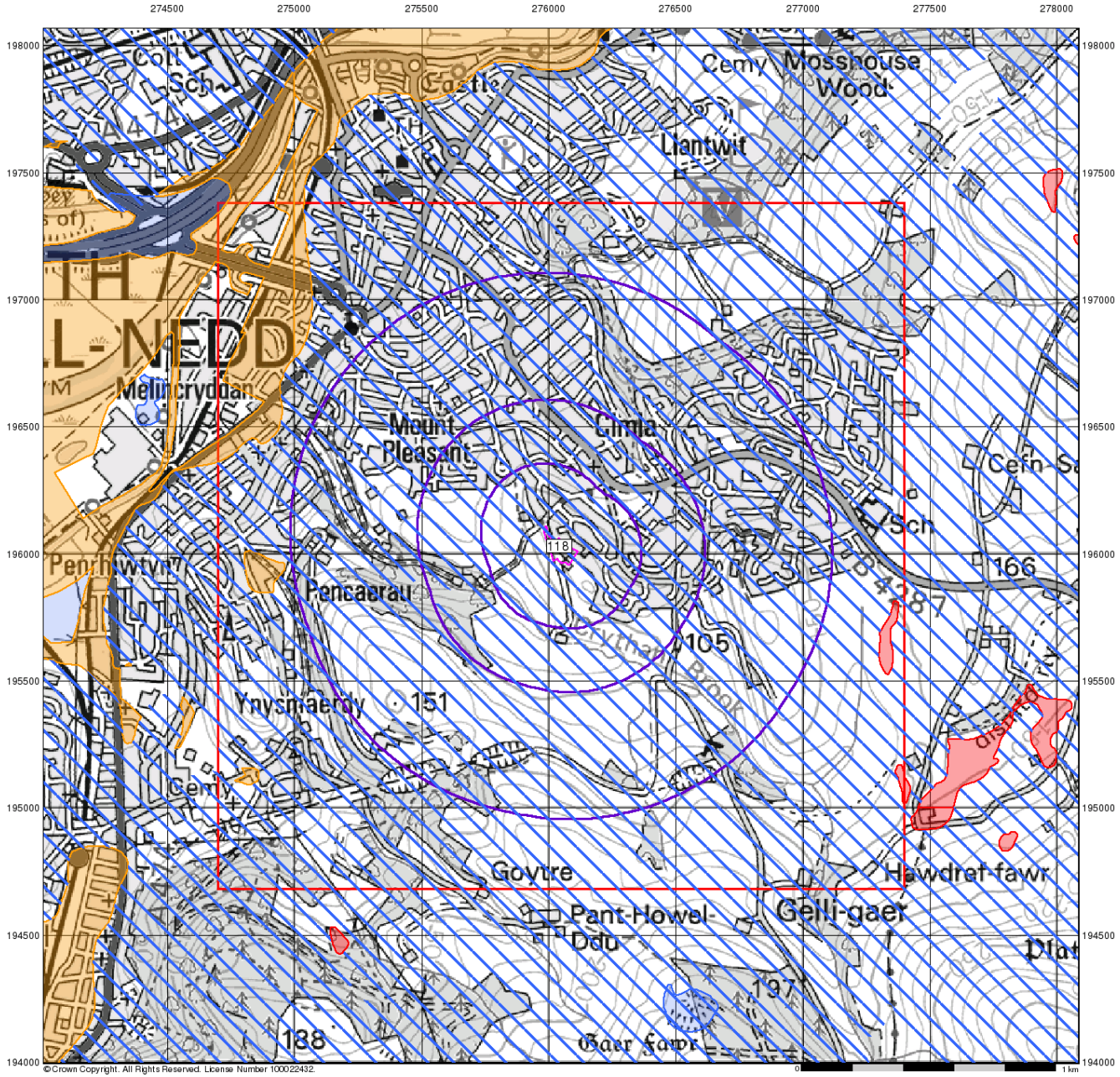
Site Details

Phase 1, Former Tudor Inn, Beacons View, Cimla, Neath, SA11 3SB

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Géotechnique

Ground Stability Data (1:50,000)

General

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

Potential for Compressible Ground Stability Hazards

High | Low
Moderate | Very Low

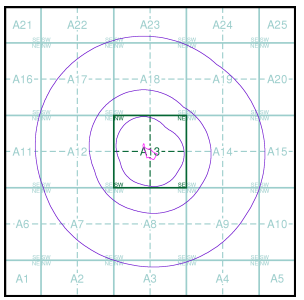
Potential for Collapsible Ground Stability Hazards

High | Low
Moderate | Very Low

Brine Pumping and Salt Mining

	Point	Polygon
Brine Pumping Related Feature	▲	▨
Salt Mining Related Feature	▲	▨

Mining and Ground Stability - Slice A



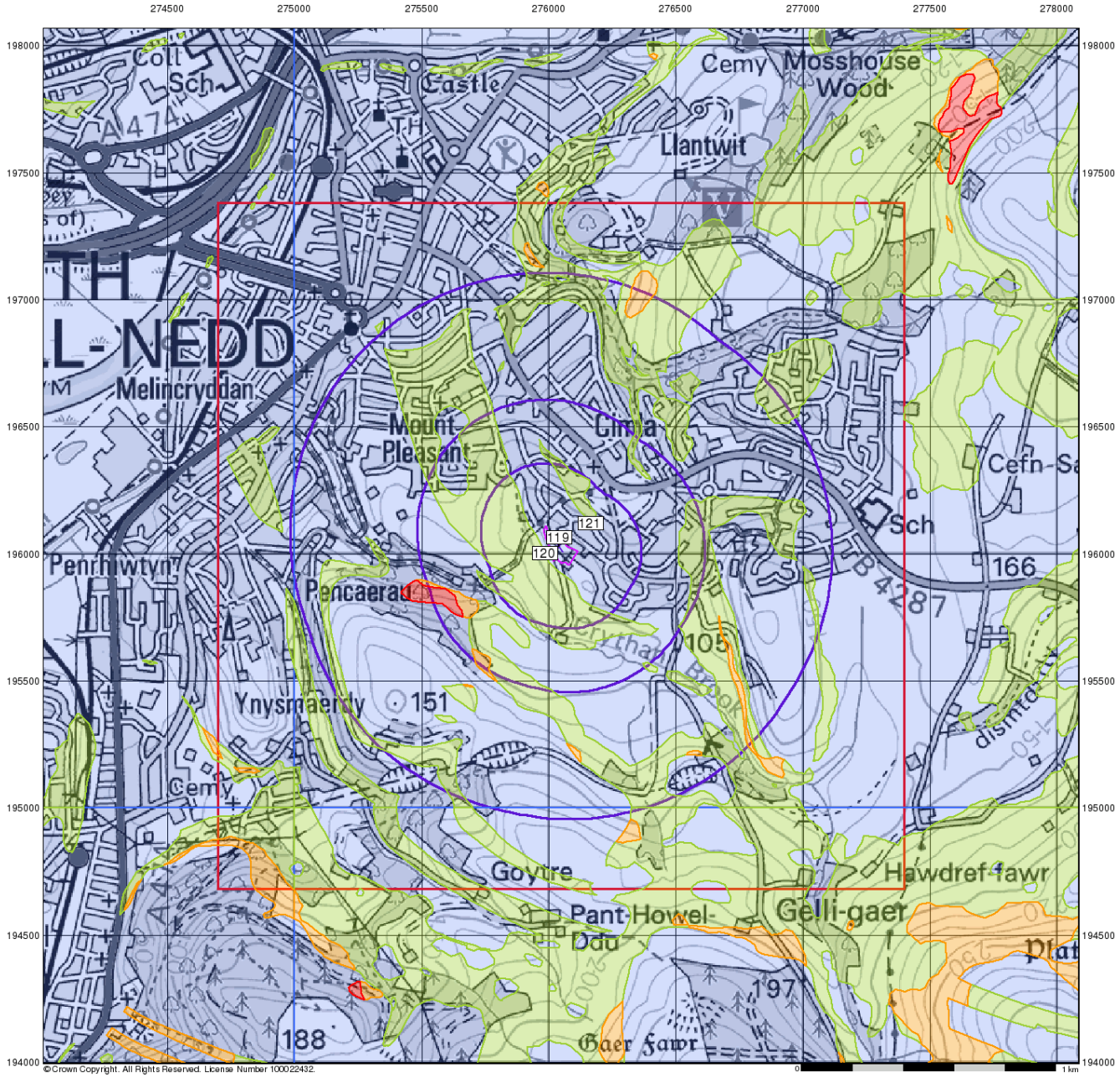
Order Details

Order Number:	294212658_1_1
Customer Ref:	14036/LP
National Grid Reference:	276040, 196030
Slice:	A
Site Area (Ha):	0.78
Search Buffer (m):	1000

Site Details

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Ground Stability Data (1:50,000)

General

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

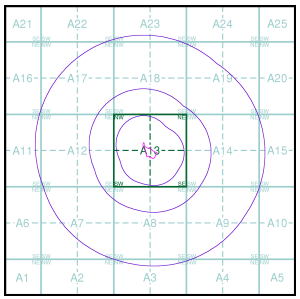
Potential for Landslide Ground Stability Hazards

High | Low | Moderate | Very Low

Potential for Ground Dissolution Stability Hazards

High | Low | Moderate | Very Low

Mining and Ground Stability - Slice A



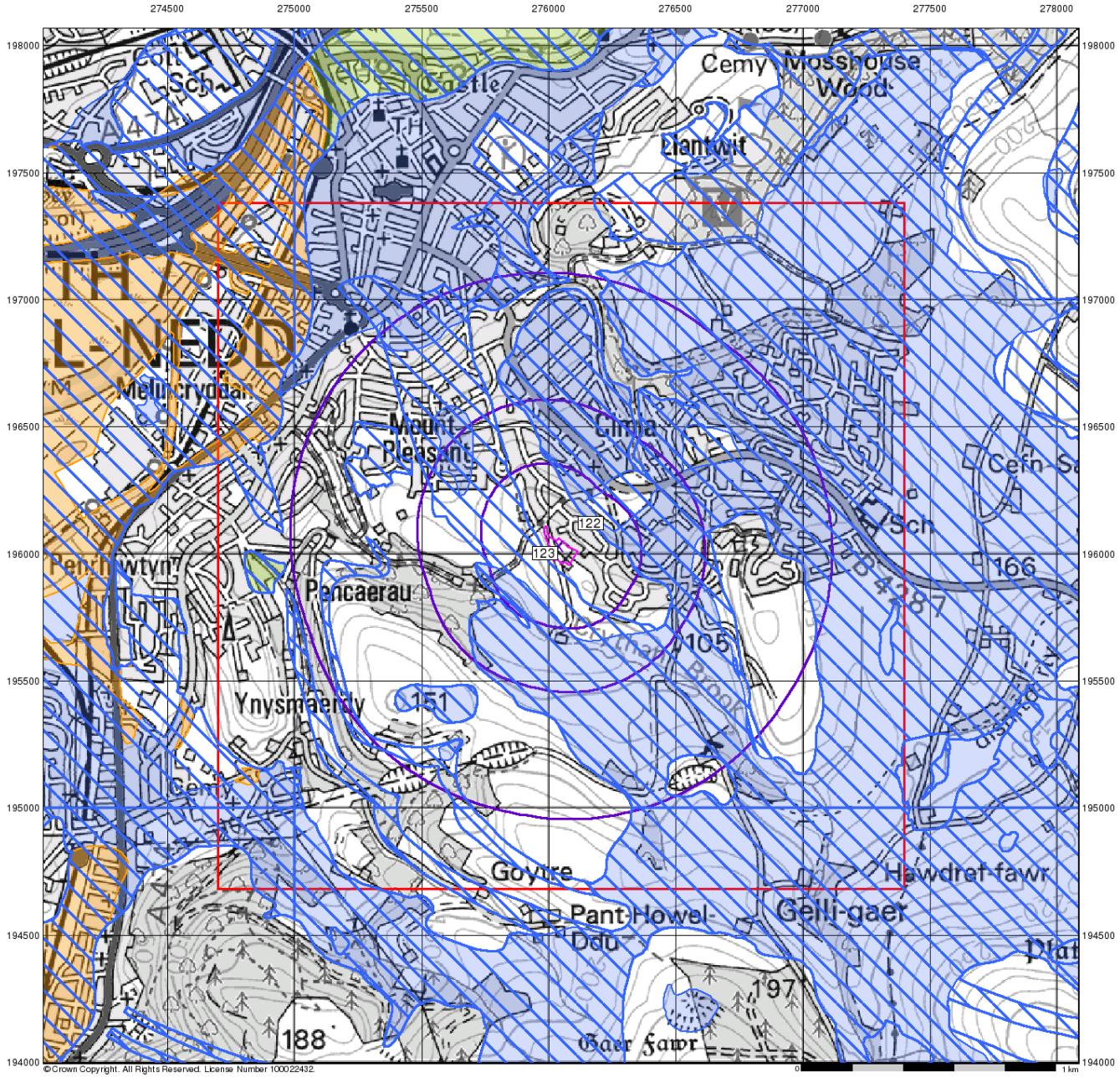
Order Details

Order Number:	294212658_1_1
Customer Ref:	14036/LP
National Grid Reference:	276040, 196030
Slice:	A
Site Area (Ha):	0.78
Search Buffer (m):	1000

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Intégral
Géotechnique

Ground Stability Data (1:50,000)

General

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

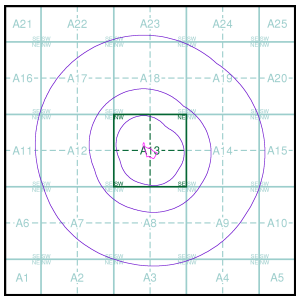
Potential for Running Sand Ground Stability Hazards

High | Low
Moderate | Very Low

Potential for Shrinking or Swelling Clay Ground Stability Hazards

High | Low
Moderate | Very Low

Mining and Ground Stability - Slice A



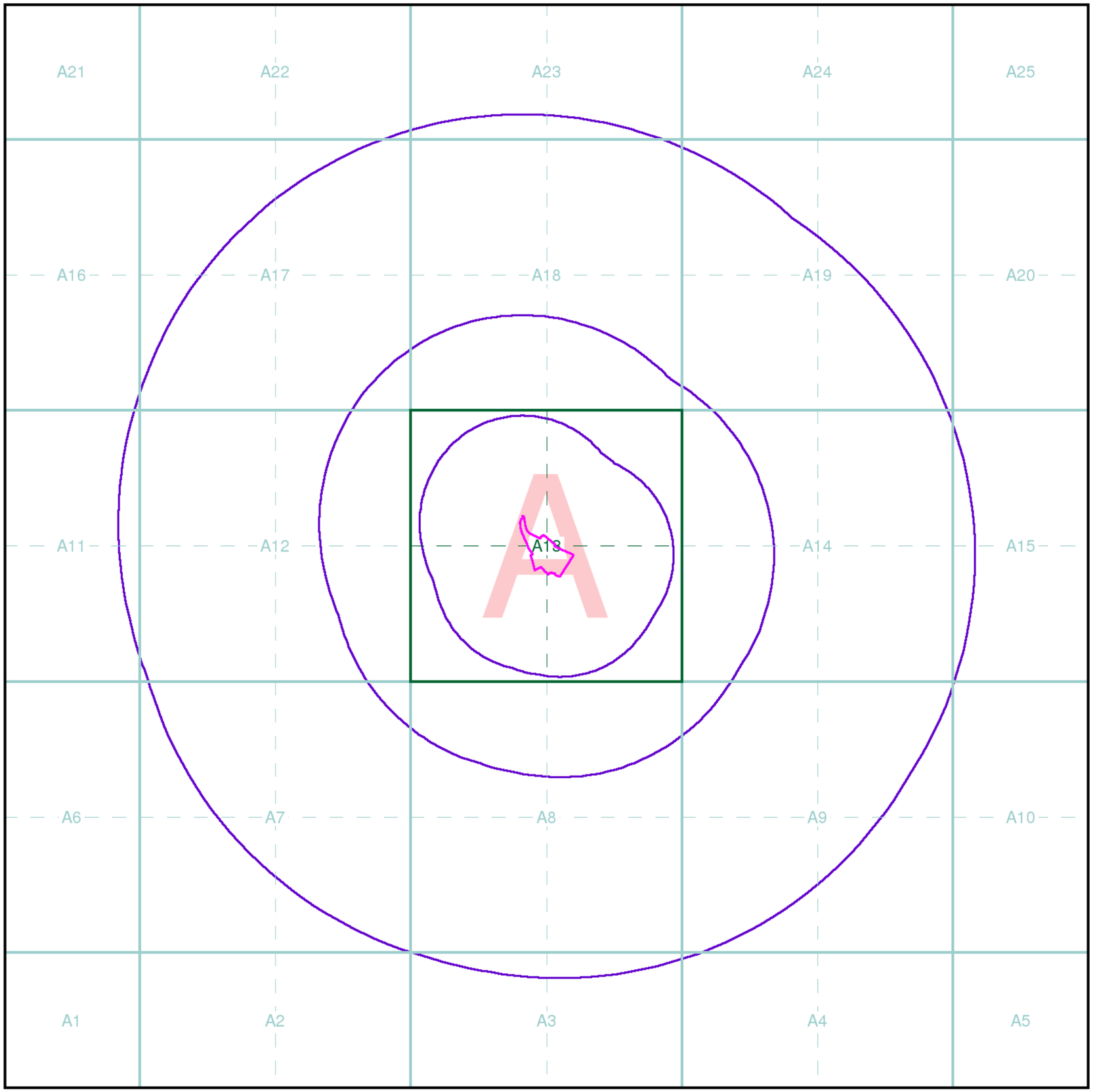
Order Details

Order Number:	294212658_1_1
Customer Ref:	14036/LP
National Grid Reference:	276040, 196030
Slice:	A
Site Area (Ha):	0.78
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Intégral Géotechnique

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 H Pritchard, Integral Geotechnique, Integral House, 7 Beddau Way, Castlegate Business Park, Caerphilly, CF83 2AX

Order Details

Order Number:	294212658_1_1
Customer Ref:	14036/LP
National Grid Reference:	276050, 196010
Site Area (Ha):	0.78
Search Buffer (m):	1000

Site Details

Phase 1, Former Tudor Inn, Beacons View, Cimla, Neath, SA11 3SB

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

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

APPENDIX F Coal Authority Mining Report

The Coal Authority

CON29M
coal mining report

PHASE 1, FORMER TUDOR INN, CIMLA, NEATH PORT TALBOT, SA11 3SB

Known or potential coal mining risks

Past underground coal mining	Page 4
Future underground coal mining	Page 4
Mine entries	Page 5

Further action

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

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

Professional opinion

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

Your reference: 14036/LP
Our reference: 51003008016001
Date: 19 April 2022

Client name: INTEGRAL GEOTECHNIQUE (WALES) LTD.

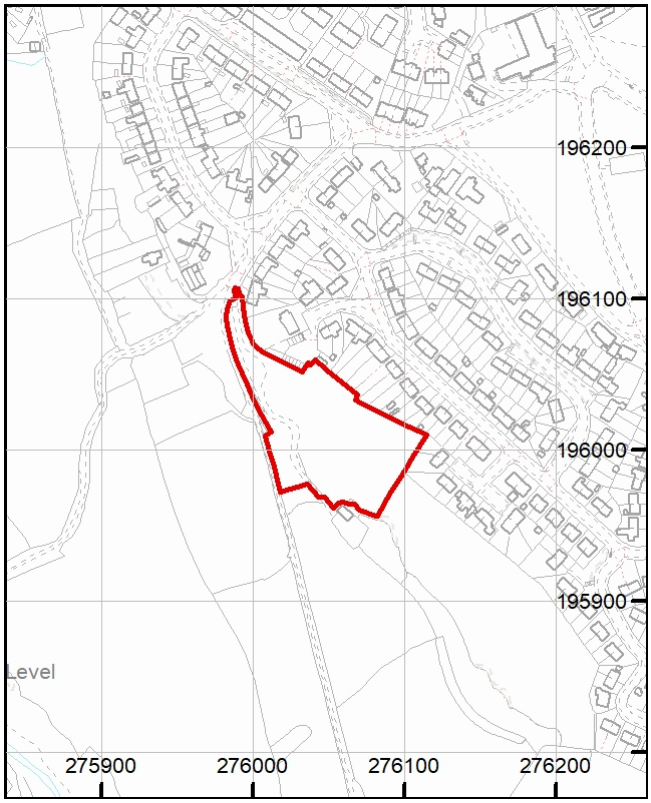
If you require any further assistance please contact our experts on:
0345 762 6848
groundstability@coal.gov.uk

The Law Society

Enquiry boundary

Key

Approximate position of enquiry boundary shown



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

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.

Professional opinion

Future development

If development proposals are being considered, technical advice relating to both the investigation of coal and former coal mines and their treatment should be obtained before beginning work on site. All proposals should apply specialist engineering practice required for former mining areas. No development should be undertaken that intersects, disturbs or interferes with any coal or coal mines without first obtaining the permission of the Coal Authority. Developers should be aware that the investigation of coal seams, mine workings or mine entries may have the potential to generate and/or displace underground gases. Associated risks both to the development site and any neighbouring land or properties should be fully considered when undertaking any ground works. The need for effective measures to prevent gases migrating onto any land or into any properties, either during investigation or remediation work, or after development must also be assessed and properly addressed.

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

Detailed findings

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

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 2 seams of coal at 80m to 280m depth, and last worked in 1903.

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

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

2 Present underground coal mining

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

3 Future underground coal mining

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

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

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

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

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

4 Mine entries

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

This information is based on the information that the Coal Authority has at the time of this enquiry.

Based on the Coal Authority's knowledge of the mining circumstances at the time of this enquiry, there may be unrecorded mine entries in the local area that do not appear on Coal Authority records.

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 0800 288 4242. 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 Trial Pit Records

TP1

Site Location: Cimla, Neath.
Client: Lovell Partnership Ltd.
Project No: 5201E

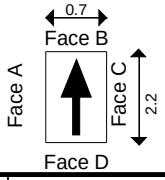
Excavation date: 21/02/2012
Backfill date: 21/02/2012
Logged by: ESP-DT.

Excavation method/plant: Mechanical Excavator. JCB 3CX

Shoring/support: None.

Survey details:
Ground Level: 110.000 mOD
Easting: 276053 m
Northing: 196009 m
Bearing: -

Plan details:



Face stability:
Stable.

Groundwater observations:
No groundwater observed during excavation.

Sampling & Testing

Depth	Type	PID (ppm)	S_u (kPa)
0.20	D		
0.50	D		

Stratum Details

(Thk) & Depth	Description	Legend
(0.35)	Grass surface followed by; soft dark brown slightly sandy CLAY. Common rootlets. (TOPSOIL).	
0.35		
(0.45)	UPPER PENNANT MEASURES. Weathered weak to medium strong very thinly to thinly laminated light brown grey SANDSTONE recovered as; probably dense to very dense light brown grey slightly sandy angular medium coarse GRAVEL with common cobble and boulder sized pieces of broken rock. Solid Rock at base.	
0.80	*End of trial pit at 0.80 m depth.*	

General notes:
1. All linear dimensions are in metres unless stated otherwise.
2. All relative density and shear strength descriptions are based only on field observations and available in-situ shear vane data.
3. Trial pit logged from the ground surface.

Weather and environmental conditions:
Clear. Sunny. Moderate to strong breeze. Very cold.

Other comments:
1. Grid reference and level of site only.
2. Rock at base of pit broken out with hydraulic jackhammer on JCB 3CX to approximately 200mm to undertake SA1.

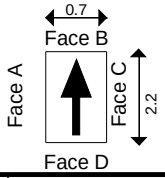
TP2

Site Location: Cimla, Neath.
Client: Lovell Partnership Ltd.
Project No: 5201E

Excavation date:	21/02/2012	**Excavation method/plant:**	Mechanical Excavator. JCB 3CX	**Shoring/support:**	None.
Backfill date:	21/02/2012				
Logged by:	ESP-DT.				

Survey details:
Ground Level: 110.000 mOD
Easting: 276053 m
Northing: 196009 m
Bearing: -

Plan details:



Face stability:
Stable.

Groundwater observations:
No groundwater observed during excavation.

Sampling & Testing / Stratum Details

Depth	Type	PID (ppm)	S_u (kPa)	(Thk) & Depth	Description	Legend
0.20	D			(0.30)	Grass surface followed by; soft dark brown slightly sandy CLAY. Common rootlets. (TOPSOIL).	
0.35	D			(0.10) 0.30	UPPER PENNANT MEASURES. Weathered weak to medium strong very thinly to thinly laminated light brown grey SANDSTONE recovered as; probably dense to very dense light brown slightly sandy angular medium coarse GRAVEL with common cobble and boulder sized pieces of broken rock. Solid Rock at base.	
				0.40	*End of trial pit at 0.40 m depth.*	

General notes:
1. All linear dimensions are in metres unless stated otherwise.
2. All relative density and shear strength descriptions are based only on field observations and available in-situ shear vane data.
3. Trial pit logged from the ground surface.

Weather and environmental conditions:
Clear. Sunny. Moderate to strong breeze. Very cold.

Other comments:
1. Grid reference and level of site only.

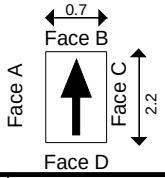
TP3

Site Location: Cimla, Neath.
Client: Lovell Partnership Ltd.
Project No: 5201E

Excavation date:	21/02/2012	**Excavation method/plant:**	Mechanical Excavator. JCB 3CX	**Shoring/support:**	None.
Backfill date:	21/02/2012				
Logged by:	ESP-DT.				

Survey details:
Ground Level: 110.000 mOD
Easting: 276053 m
Northing: 196009 m
Bearing: -

Plan details:



Face stability:
Stable.

Groundwater observations:
No groundwater observed during excavation.

Sampling & Testing / Stratum Details

Depth	Type	PID (ppm)	S_u (kPa)	(Thk) & Depth	Description	Legend
0.10	D			(0.20)	Grass surface followed by; soft dark brown slightly sandy CLAY. Common rootlets. (TOPSOIL).	
				(0.10) 0.20		
				0.30	UPPER PENNANT MEASURES. Weathered weak to medium strong very thinly to thinly laminated light brown grey SANDSTONE recovered as; probably dense to very dense light brown slightly sandy angular medium coarse GRAVEL with common cobble and boulder sized pieces of broken rock. Solid Rock at base.	
					End of trial pit at 0.30 m depth.	

General notes:
1. All linear dimensions are in metres unless stated otherwise.
2. All relative density and shear strength descriptions are based only on field observations and available in-situ shear vane data.
3. Trial pit logged from the ground surface.

Weather and environmental conditions:
Clear. Sunny. Moderate to strong breeze. Very cold.

Other comments:
1. Grid reference and level of site only.

TP4

Site Location: Cimla, Neath.
Client: Lovell Partnership Ltd.
Project No: 5201E

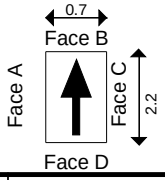
Excavation date: 21/02/2012
Backfill date: 21/02/2012
Logged by: ESP-DT.

Excavation method/plant: Mechanical Excavator. JCB 3CX

Shoring/support: None.

Survey details:
Ground Level: 110.000 mOD
Easting: 276053 m
Northing: 196009 m
Bearing: -

Plan details:



Face stability:
Stable.

Groundwater observations:
No groundwater observed during excavation.

Sampling & Testing

Depth	Type	PID (ppm)	S_u (kPa)
0.10	D		
0.40	D		

Stratum Details

(Thk) & Depth	Description	Legend
(0.30)	Grass surface followed by; soft dark brown slightly sandy CLAY. Common rootlets. (TOPSOIL).	
0.30		
(0.70)	UPPER PENNANT MEASURES. Weathered weak to medium strong very thinly to thinly laminated light brown grey SANDSTONE recovered as; probably dense to very dense light brown slightly sandy angular medium coarse GRAVEL with common cobble and boulder sized pieces of broken rock. Rare Coal fragments visible in pit wall at 0.6m. Solid Rock at base.	
1.00	*End of trial pit at 1.00 m depth.*	

General notes:
1. All linear dimensions are in metres unless stated otherwise.
2. All relative density and shear strength descriptions are based only on field observations and available in-situ shear vane data.
3. Trial pit logged from the ground surface.

Weather and environmental conditions:
Clear. Sunny. Moderate to strong breeze. Very cold.

Other comments:
1. Grid reference and level of site only.

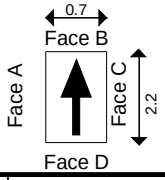
TP5

Site Location: Cimla, Neath.
Client: Lovell Partnership Ltd.
Project No: 5201E

Excavation date:	21/02/2012	**Excavation method/plant:**	Mechanical Excavator. JCB 3CX	**Shoring/support:**	None.
Backfill date:	21/02/2012				
Logged by:	ESP-DT.				

Survey details:
Ground Level: 110.000 mOD
Easting: 276053 m
Northing: 196009 m
Bearing: -

Plan details:



Face stability:
Stable.

Groundwater observations:
No groundwater observed during excavation.

Sampling & Testing / Stratum Details

Depth	Type	PID (ppm)	S_u (kPa)	(Thk) & Depth	Description	Legend
0.10	D			(0.20) 0.20	Grass surface followed by; soft dark brown slightly sandy CLAY. Common rootlets. (TOPSOIL).	
0.50	D			(0.50) 0.70	UPPER PENNANT MEASURES. Weathered weak to medium strong very thinly to thinly laminated light brown grey SANDSTONE recovered as; probably dense to very dense light grey orange slightly sandy angular medium coarse GRAVEL with common cobble and boulder sized pieces of broken rock. Rare Coal fragments visible in pit wall at 0.6m. Solid Rock at base.	
					End of trial pit at 0.70 m depth.	

General notes:
1. All linear dimensions are in metres unless stated otherwise.
2. All relative density and shear strength descriptions are based only on field observations and available in-situ shear vane data.
3. Trial pit logged from the ground surface.

Weather and environmental conditions:
Clear. Sunny. Moderate to strong breeze. Very cold.

Other comments:
1. Grid reference and level of site only.
2. Rock at base of pit broken out with hydraulic jackhammer on JCB 3CX to approximately 200mm to undertake SA2.

TP6

Site Location: Cimla, Neath.
Client: Lovell Partnership Ltd.
Project No: 5201E

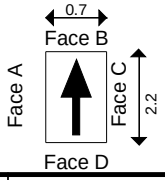
Excavation date: 21/02/2012
Backfill date: 21/02/2012
Logged by: ESP-DT.

Excavation method/plant: Mechanical Excavator. JCB 3CX

Shoring/support: None.

Survey details:
Ground Level: 110.000 mOD
Easting: 276053 m
Northing: 196009 m
Bearing: -

Plan details:



Face stability:
Stable.

Groundwater observations:
No groundwater observed during excavation.

Sampling & Testing

Depth	Type	PID (ppm)	S_u (kPa)
0.05	D		
0.40	D		

Stratum Details

(Thk) & Depth		Description	Legend
(0.10)	0.10	Grass surface followed by; soft dark brown black slightly sandy CLAY. Possible rare coal dust. Common rootlets. (MADE GROUND).	
(0.50)	0.60	UPPER PENNANT MEASURES. Weathered weak to medium strong very thinly to thinly laminated light brown grey SANDSTONE recovered as; probably dense to very dense light brown grey slightly sandy angular medium coarse GRAVEL with common cobble and boulder sized pieces of broken rock. Solid Rock at base.	
		End of trial pit at 0.60 m depth.	

General notes:
1. All linear dimensions are in metres unless stated otherwise.
2. All relative density and shear strength descriptions are based only on field observations and available in-situ shear vane data.
3. Trial pit logged from the ground surface.

Weather and environmental conditions:
Clear. Sunny. Moderate to strong breeze. Very cold.

Other comments:
1. Grid reference and level of site only.

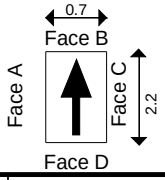
TP7

Site Location: Cimla, Neath.
Client: Lovell Partnership Ltd.
Project No: 5201E

Excavation date:	21/02/2012	**Excavation method/plant:**	**Shoring/support:**
Backfill date:	21/02/2012	Mechanical Excavator.	None.
Logged by:	ESP-DT.	JCB 3CX	

Survey details:
Ground Level: 110.000 mOD
Easting: 276053 m
Northing: 196009 m
Bearing: -

Plan details:



Face stability:
Stable.

Groundwater observations:
No groundwater observed during excavation.

Sampling & Testing / Stratum Details

Depth	Type	PID (ppm)	S_u (kPa)	(Thk) & Depth	Description	Legend
0.20	D			(0.30) 0.30	Tarmacadam/gravel surface followed by; probably medium dense dark brown black sandy fine to coarse angular GRAVEL. Fragments of tile. (MADE GROUND).	
0.50	D			(0.35) 0.65	UPPER PENNANT MEASURES. Weathered weak to medium strong very thinly to thinly laminated light brown grey SANDSTONE recovered as; probably dense to very dense light brown grey slightly sandy angular medium coarse GRAVEL with common cobble and boulder sized pieces of broken rock. Solid Rock at base.	
					End of trial pit at 0.65 m depth.	

General notes:
1. All linear dimensions are in metres unless stated otherwise.
2. All relative density and shear strength descriptions are based only on field observations and available in-situ shear vane data.
3. Trial pit logged from the ground surface.

Weather and environmental conditions:
Clear. Sunny. Moderate to strong breeze. Very cold.

Other comments:
1. Grid reference and level of site only.
2. Rock at base of pit broken out with hydraulic jackhammer on JCB 3CX to approximately 200mm to undertake SA3.

TP8

Site Location: Cimla, Neath.
Client: Lovell Partnership Ltd.
Project No: 5201E

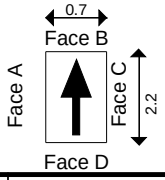
Excavation date: 21/02/2012
Backfill date: 21/02/2012
Logged by: ESP-DT.

Excavation method/plant: Mechanical Excavator. JCB 3CX

Shoring/support: None.

Survey details:
Ground Level: 110.000 mOD
Easting: 276053 m
Northing: 196009 m
Bearing: -

Plan details:



Face stability:
Stable.

Groundwater observations:
No groundwater observed during excavation.

Sampling & Testing / Stratum Details

Depth	Type	PID (ppm)	S_u (kPa)	(Thk) & Depth	Description	Legend
0.10	D			(0.15) 0.15	Tarmacadam surface followed by; probably medium dense brown sandy medium coarse angular GRAVEL. (MADE GROUND).	
				(0.15) 0.30	UPPER PENNANT MEASURES. Weathered weak to medium strong very thinly to thinly laminated light brown grey SANDSTONE recovered as; probably dense to very dense light brown grey slightly sandy angular medium coarse GRAVEL with common cobble and boulder sized pieces of broken rock. Solid Rock at base.	
					End of trial pit at 0.20 m depth.	

General notes:
1. All linear dimensions are in metres unless stated otherwise.
2. All relative density and shear strength descriptions are based only on field observations and available in-situ shear vane data.
3. Trial pit logged from the ground surface.

Weather and environmental conditions:
Clear. Sunny. Moderate to strong breeze. Very cold.

Other comments:
1. Grid reference and level of site only.

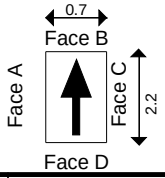
TP9

Site Location:	Cimla, Neath.
Client:	Lovell Partnership Ltd.
Project No:	5201E

Excavation date:	21/02/2012	**Excavation method/plant:**	**Shoring/support:**
Backfill date:	21/02/2012	Mechanical Excavator.	None.
Logged by:	ESP-DT.	JCB 3CX	

Survey details:
Ground Level: 110.000 mOD
Easting: 276053 m
Northing: 196009 m
Bearing: -

Plan details:



Face stability:
Unstable beyond 0.8m. Spalling material from pit walls.

Groundwater observations:
No groundwater observed during excavation.

Sampling & Testing / Stratum Details

Depth	Type	PID (ppm)	S_u (kPa)	(Thk) & Depth	Description	Legend
0.20	D				Grass surface followed by; probably loose black brown slightly clayey sandy GRAVEL. Common fragments of brick, concrete, plastic, tiles, porcelain, glass, metal, rope, material, carpet. Wrapper dated 06/1990 at approximately 1.1m. Pit terminated at 3.2m due to collapsing sides. (MADE GROUND).	
0.50	D					
1.00	D					
				(3.20)		
2.00	D					
				3.20	*End of trial pit at 3.20 m depth.*	

General notes:
1. All linear dimensions are in metres unless stated otherwise.
2. All relative density and shear strength descriptions are based only on field observations and available in-situ shear vane data.
3. Trial pit logged from the ground surface.

Weather and environmental conditions:
Clear. Sunny. Moderate to strong breeze. Very cold.

Other comments:
1. Grid reference and level of site only.

TP10

Site Location: Cimla, Neath.
Client: Lovell Partnership Ltd.
Project No: 5201E

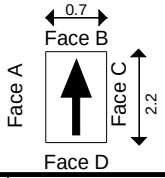
Excavation date: 21/02/2012
Backfill date: 21/02/2012
Logged by: ESP-DT.

Excavation method/plant: Mechanical Excavator. JCB 3CX

Shoring/support: None.

Survey details:
Ground Level: 110.000 mOD
Easting: 276053 m
Northing: 196009 m
Bearing: -

Plan details:



Face stability:
Stable.

Groundwater observations:
No groundwater observed during excavation.

Sampling & Testing / Stratum Details

Depth	Type	PID (ppm)	S_u (kPa)	(Thk) & Depth	Description	Legend
0.10	D			(0.20) 0.20	Tarmacadam/gravel surface followed by; red brown slightly clayey, gravelly angular GRAVEL. Probable fill material. (MADE GROUND).	
0.25	D			(0.10) 0.30	UPPER PENNANT MEASURES. Weathered weak to medium strong very thinly to thinly laminated light brown grey SANDSTONE recovered as; probably dense to very dense light brown grey slightly sandy angular medium coarse GRAVEL with common cobble and boulder sized pieces of broken rock. Solid Rock at base.	
					End of trial pit at 0.30 m depth.	

General notes:
1. All linear dimensions are in metres unless stated otherwise.
2. All relative density and shear strength descriptions are based only on field observations and available in-situ shear vane data.
3. Trial pit logged from the ground surface.

Weather and environmental conditions:
Clear. Sunny. Moderate to strong breeze. Very cold.

Other comments:
1. Grid reference and level of site only.

APPENDIX H Results of Soakaway Infiltration Testing

APPENDIX F - SOAKAWAY INFILTRATION TEST RESULTS

Project Name:	TUDOR INN. CIMLA, NEATH.
Project Ref:	5201e
Test Location:	**SA1 (TP1)**
Soil Infiltration Rate (m/sec)	**1.21E-05**

Test results:

Time (mins)	Water Level (m bgl)
0	0.40
10	0.44
25	0.44
40	0.46
60	0.47
75	0.49
105	0.50
125	0.55
155	0.57
195	0.59

Pit Dimensions (m)

Length	2.20
Width	0.70
Depth	0.60

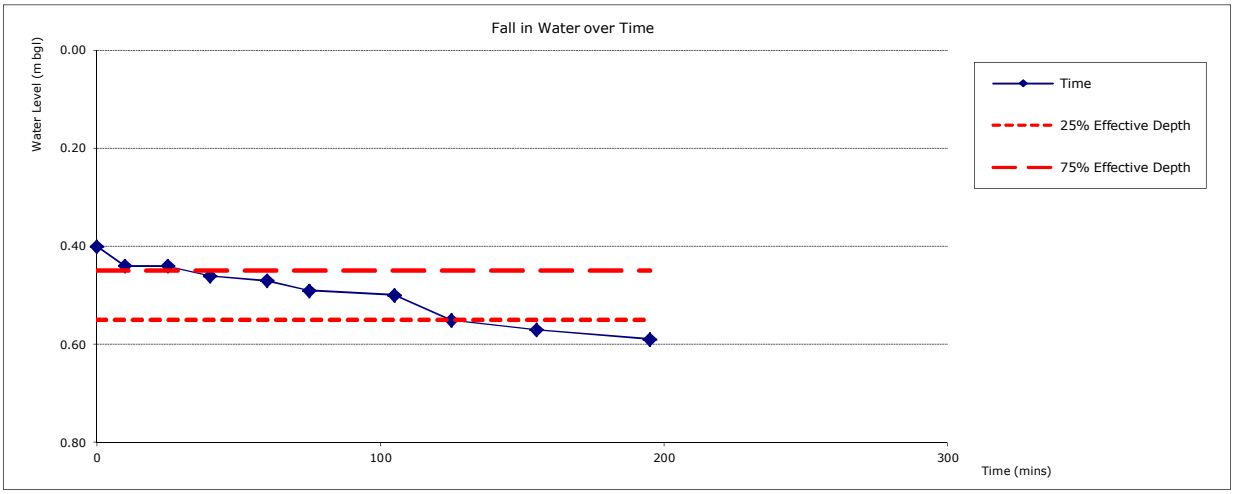
Assumed Invert Level (m bgl)	0.40

Ground Conditions:

0.0-0.35m	Topsoil
0.35 - 0.6m	Brown grey slightly sandy angular medium coarse GRAVEL (weathered sandstone)

Remarks:

1. Testing undertaken in general accordance with BRE Digest 365:2007
2. Trial pit was not filled with aggregate for test.
3. Stability of pit sides was good.



Soil Infiltration Rate (m/sec)

$$f = \frac{V_{p75-25}}{\alpha_{p50} \times t_{p75-25}}$$

V_{p75-25}	Effective depth storage volume of water in the trial pit between 75% and 25% effective depth	0.15
α_{p50}	The internal surface area of the trial pit up to 50% effective depth and including the base area	2.12
t_{p75-25}	The time for the water level to fall from 75% to 25% effective depth	100

Soil Infiltration Rate (m/sec)

$$f = \frac{0.154}{12720}$$

f **1.21E-05**

APPENDIX F - SOAKAWAY INFILTRATION TEST RESULTS

Project Name:	TUDOR INN. CIMLA, NEATH.
Project Ref:	5201e
Test Location:	**SA2a (TP5)** (Fill One)
Soil Infiltration Rate (m/sec)	**3.87E-05**

Test results:

Time (mins)	Water Level (m bgl)
0	0.25
5	0.27
10	0.30
20	0.32
30	0.35
40	0.38
50	0.41
60	0.48
70	0.54
80	0.55

Pit Dimensions (m)

Length	2.20
Width	0.70
Depth	0.60

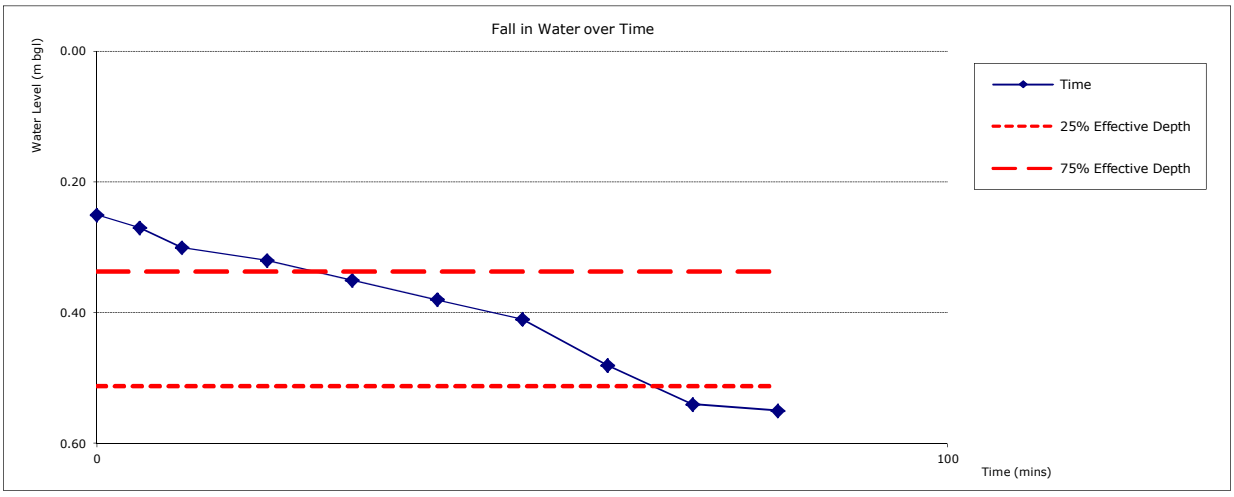
Assumed Invert Level (m bgl)	0.25

Ground Conditions:

0.0-0.2m	Topsoil
0.2 - 0.6m	Grey/orange slightly sandy angular medium coarse GRAVEL (weathered sandstone)

Remarks:

1. Testing undertaken in general accordance with BRE Digest 365:2007
2. Trial pit was not filled with aggregate for test.
3. Stability of pit sides was good.



Soil Infiltration Rate (m/sec)

$$f = \frac{V_{p75-25}}{\alpha_{p50} \times t_{p75-25}}$$

V_{p75-25}	Effective depth storage volume of water in the trial pit between 75% and 25% effective depth	0.27
α_{p50}	The internal surface area of the trial pit up to 50% effective depth and including the base area	2.555
t_{p75-25}	The time for the water level to fall from 75% to 25% effective depth	45

Soil Infiltration Rate (m/sec)

$$f = \frac{0.270}{6962.375}$$

f **3.87E-05**

APPENDIX F - SOAKAWAY INFILTRATION TEST RESULTS

Project Name:	TUDOR INN. CIMLA, NEATH.
Project Ref:	5201e
Test Location:	**SA2b (TP5)** (Fill Two)
Soil Infiltration Rate (m/sec)	**1.85E-05**

Test results:

Time (mins)	Water Level (m bgl)
0	0.30
10	0.33
20	0.38
30	0.41
40	0.44
60	0.47
80	0.50
90	0.55

Pit Dimensions (m)

Length	0.80
Width	0.70
Depth	0.60

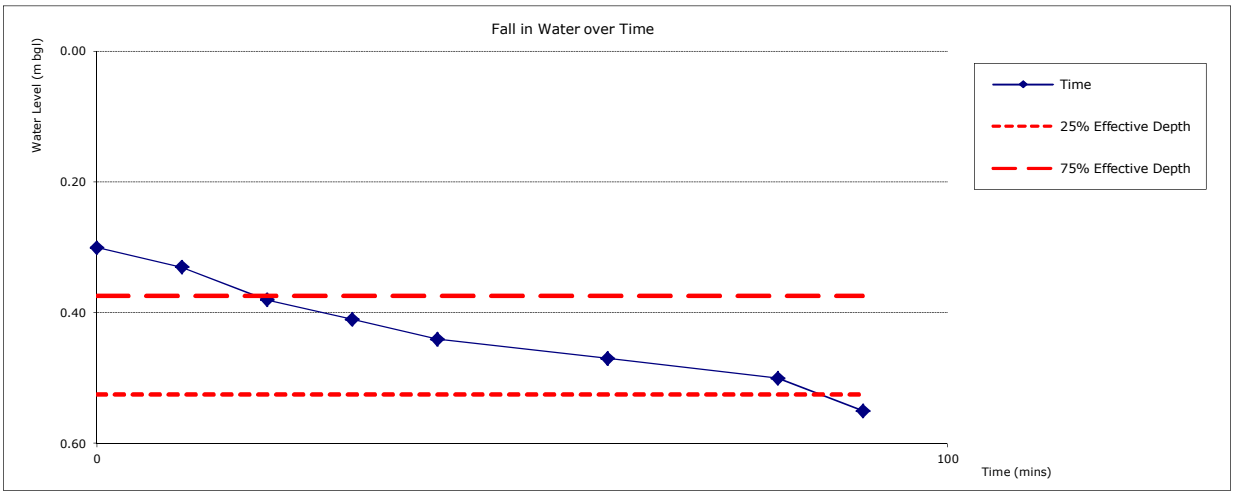
Assumed Invert Level (m bgl)	0.30

Ground Conditions:

0.0-0.2m	Topsoil
0.2 - 0.6m	Grey/orange slightly sandy angular medium coarse GRAVEL (weathered sandstone)

Remarks:

1. Testing undertaken in general accordance with BRE Digest 365:2007
2. Trial pit was not filled with aggregate for test.
3. Stability of pit sides was good.



Soil Infiltration Rate (m/sec)

$$f = \frac{V_{p75-25}}{\alpha_{p50} \times t_{p75-25}}$$

V_{p75-25}	Effective depth storage volume of water in the trial pit between 75% and 25% effective depth	0.08
α_{p50}	The internal surface area of the trial pit up to 50% effective depth and including the base area	1.01
t_{p75-25}	The time for the water level to fall from 75% to 25% effective depth	75

Soil Infiltration Rate (m/sec)

$$f = \frac{0.084}{4545}$$

f **1.85E-05**

APPENDIX F - SOAKAWAY INFILTRATION TEST RESULTS

Project Name:	TUDOR INN. CIMLA, NEATH.
Project Ref:	5201e
Test Location:	SA3 (TP7)
Soil Infiltration Rate (m/sec)	**test failed**

Test results:

Time (mins)	Water Level (m bgl)
0	0.05
5	0.05
10	0.05
30	0.05
45	0.06
65	0.06
95	0.07
115	0.07
140	0.08
185	0.08

Pit Dimensions (m)

Length	2.20
Width	0.70
Depth	0.65

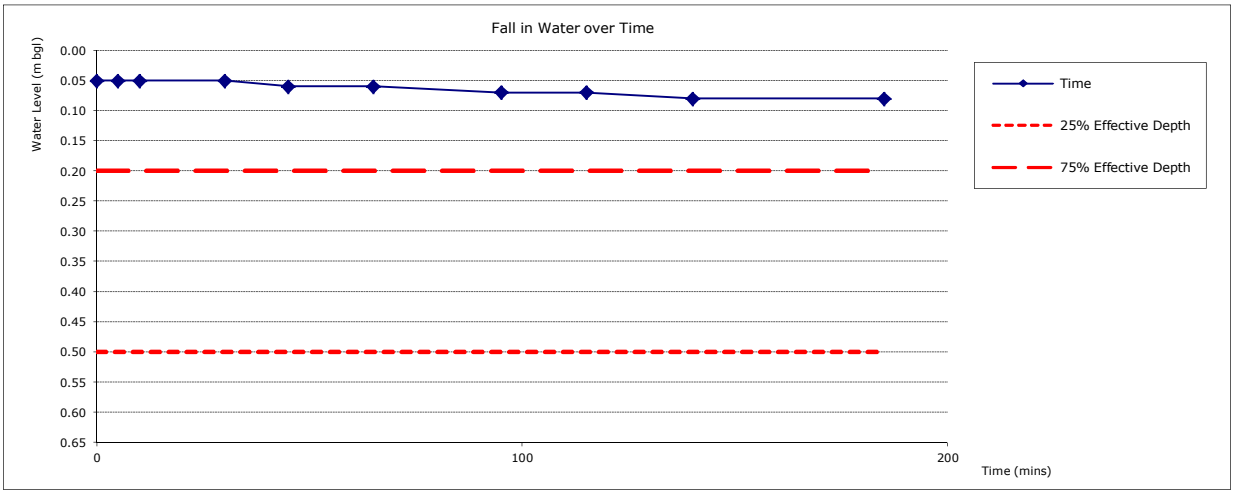
Assumed Invert Level (m bgl)	0.05

Ground Conditions:

0.0 - 0.3m	Topsoil
0.3 - 0.65m	Grey/brown slightly sandy angular medium coarse GRAVEL (weathered sandstone)

Remarks:

1. Testing undertaken in general accordance with BRE Digest 365:2007
2. Trial pit was not filled with aggregate for test.
3. Stability of pit sides was good.



Soil Infiltration Rate (m/sec) $f = \frac{V_{p75-25}}{\alpha_{p50} \times t_{p75-25}}$

V_{p75-25}	Effective depth storage volume of water in the trial pit between 75% and 25% effective depth	0.46
α_{p50}	The internal surface area of the trial pit up to 50% effective depth and including the base area	3.28
t_{p75-25}	The time for the water level to fall from 75% to 25% effective depth	n/a

Soil Infiltration Rate (m/sec) $f = \frac{0.462}{\text{no value}}$

f **test failed**

APPENDIX I Rotary Drillhole Records

Project Name: Tudor Inn.
Site Location: Cimla, Neath.
Client: Lovell Partnership Ltd.
Project No: 5201E

Drilling method: Rotary Open hole.
Equipment: FRASTE.

RO1

Start date: 15/03/2013
End date: 15/03/2013
Backfill date: 15/03/2013

Driller: GF.
Logged by: APEX.
Date logged: 15/03/2013

Ground Level: 110.000 mOD
Easting: 276053 m
Northing: 196009 m

Core Details and SPT Data

Depth (Length)	TCR (%)	SCR (%)	RQD (%)	SPT-N (penetration)

Strata Details

Depth (Thickness)	Description
(1.20)	CLAY and BOULDERS.
1.20	SANDSTONE.
(2.80)	
4.00	COAL.
(2.80)	
6.80	MUDSTONE.
	Continued next sheet

Legend

Water

Strikes / Standing

Depth

Backfill/ Installations

1 2 3 4 5 6 7 8 9

Progress & Standing Water Levels

Date	Time	Hole Depth	Casing Depth	Water Depth

Water Strikes

Date	Time	Strike Depth	Casing Depth	Elapsed minutes	Standing Depth	Depth Sealed

Hole and Casing Diameters

Hole Depth	Hole Diameter	Casing Diameter	Casing Depth
21.00 m	-		

General Remarks:

1. Grid reference and level of site only.
2. All descriptions are from drillers logs only.
3. No gas detected during drilling.
4. Air mist flush used through shallow sandstone, then water flush to end.
3. Holes backfilled with arisings and gravel on completion.

Project Name: Tudor Inn. **Site Location:** Cimla, Neath. **Client:** Lovell Partnership Ltd. **Project No:** 5201E	Drilling method: Rotary Open hole. Equipment: FRASTE.	**RO1**	
Start date: 15/03/2013 End date: 15/03/2013 Backfill date: 15/03/2013	Driller: GF. Logged by: APEX. Date logged: 15/03/2013	Ground Level: 110.000 mOD Easting: 276053 m Northing: 196009 m	

Core Details and SPT Data

Depth (Length)	TCR (%)	SCR (%)	RQD (%)	SPT-N (penetration)

Strata Details

Depth (Thickness)	Description
	MUDSTONE.
(14.20)	
	Continued next sheet

Legend

Water

Strikes / Standing	Depth	Backfill/ Installations

11 12 13 14 15 16 17 18 19

Progress & Standing Water Levels

Date	Time	Hole Depth	Casing Depth	Water Depth

Water Strikes

Date	Time	Strike Depth	Casing Depth	Elapsed minutes	Standing Depth	Depth Sealed

Hole and Casing Diameters

Hole Depth	Hole Diameter	Casing Diameter	Casing Depth
21.00 m	-		

General Remarks:

1. Grid reference and level of site only.
2. All descriptions are from drillers logs only.
3. No gas detected during drilling.
4. Air mist flush used through shallow sandstone, then water flush to end.
3. Holes backfilled with arisings and gravel on completion.

Project Name: Tudor Inn.
Site Location: Cimla, Neath.
Client: Lovell Partnership Ltd.
Project No: 5201E

Drilling method: Rotary Open hole.
Equipment: FRASTE.

RO1

Start date: 15/03/2013
End date: 15/03/2013
Backfill date: 15/03/2013

Driller: GF.
Logged by: APEX.
Date logged: 15/03/2013

Ground Level: 110.000 mOD
Easting: 276053 m
Northing: 196009 m

Core Details and SPT Data

Depth (Length)	TCR (%)	SCR (%)	RQD (%)	SPT-N (penetration)

Strata Details

Depth (Thickness)	Description	Legend
	MUDSTONE.	
21.00	*End of Borehole at 21.00 m*	

Water

Strikes / Standing	Depth	Backfill/ Installations

Progress & Standing Water Levels

Date	Time	Hole Depth	Casing Depth	Water Depth

Water Strikes

Date	Time	Strike Depth	Casing Depth	Elapsed minutes	Standing Depth	Depth Sealed

Hole and Casing Diameters

Hole Depth	Hole Diameter	Casing Diameter	Casing Depth
21.00 m	-		

General Remarks:

1. Grid reference and level of site only.
2. All descriptions are from drillers logs only.
3. No gas detected during drilling.
4. Air mist flush used through shallow sandstone, then water flush to end.
3. Holes backfilled with arisings and gravel on completion.

Project Name: Tudor Inn.
Site Location: Cimla, Neath.
Client: Lovell Partnership Ltd.
Project No: 5201E

Drilling method: Rotary Open hole.
Equipment: FRASTE.

RO2

Start date: 14/03/2013
End date: 14/03/2013
Backfill date: 15/03/2013

Driller: GF.
Logged by: APEX.
Date logged: 14/03/2013

Ground Level: 110.000 mOD
Easting: 276053 m
Northing: 196009 m

Core Details and SPT Data

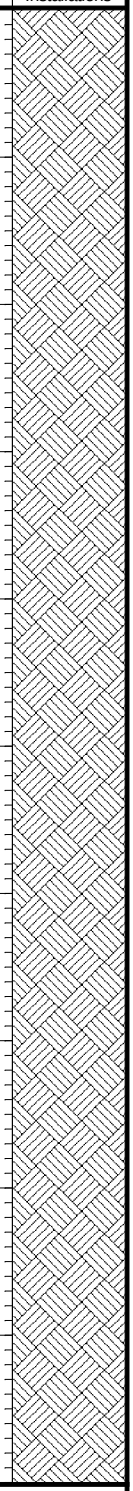
Depth (Length)	TCR (%)	SCR (%)	RQD (%)	SPT-N (penetration)

Strata Details

Depth (Thickness)	Description	Legend
(0.30)	BOULDER CLAY.	
0.30	SANDSTONE.	
(8.50)		
8.80	COAL.	
(1.60)	*Continued next sheet*	

Water

Strikes / Standing	Depth	Backfill/ Installations



Progress & Standing Water Levels

Date	Time	Hole Depth	Casing Depth	Water Depth

Water Strikes

Date	Time	Strike Depth	Casing Depth	Elapsed minutes	Standing Depth	Depth Sealed

Hole and Casing Diameters

Hole Depth	Hole Diameter	Casing Diameter	Casing Depth
30.00 m	-		

General Remarks:

1. Grid reference and level of site only.
2. All descriptions are from drillers logs only.
3. No gas detected during drilling.
4. Air mist flush used through shallow sandstone, then water flush to end.
3. Holes backfilled with arisings and gravel on completion.

Project Name: Tudor Inn.
Site Location: Cimla, Neath.
Client: Lovell Partnership Ltd.
Project No: 5201E

Drilling method: Rotary Open hole.
Equipment: FRASTE.

RO2

Start date: 14/03/2013
End date: 14/03/2013
Backfill date: 15/03/2013

Driller: GF.
Logged by: APEX.
Date logged: 14/03/2013

Ground Level: 110.000 mOD
Easting: 276053 m
Northing: 196009 m

Core Details and SPT Data

Depth (Length)	TCR (%)	SCR (%)	RQD (%)	SPT-N (penetration)

Strata Details

Depth (Thickness)	Description	Legend
	COAL.	
10.40	MUDSTONE.	
	Continued next sheet	

Water

Strikes / Standing	Depth	Backfill/ Installations

Progress & Standing Water Levels

Date	Time	Hole Depth	Casing Depth	Water Depth

Water Strikes

Date	Time	Strike Depth	Casing Depth	Elapsed minutes	Standing Depth	Depth Sealed

Hole and Casing Diameters

Hole Depth	Hole Diameter	Casing Diameter	Casing Depth
30.00 m	-		

General Remarks:

1. Grid reference and level of site only.
2. All descriptions are from drillers logs only.
3. No gas detected during drilling.
4. Air mist flush used through shallow sandstone, then water flush to end.
3. Holes backfilled with arisings and gravel on completion.

Project Name: Tudor Inn.
Site Location: Cimla, Neath.
Client: Lovell Partnership Ltd.
Project No: 5201E

Drilling method: Rotary Open hole.
Equipment: FRASTE.

RO2

Start date: 14/03/2013
End date: 14/03/2013
Backfill date: 15/03/2013

Driller: GF.
Logged by: APEX.
Date logged: 14/03/2013

Ground Level: 110.000 mOD
Easting: 276053 m
Northing: 196009 m

Core Details and SPT Data

Depth (Length)	TCR (%)	SCR (%)	RQD (%)	SPT-N (penetration)

Strata Details

Depth (Thickness)	Description	Legend
(19.60)	MUDSTONE.	

Water

Strikes / Standing	Depth

Backfill/ Installations

21
22
23
24
25
26
27
28
29

Progress & Standing Water Levels

Date	Time	Hole Depth	Casing Depth	Water Depth

Water Strikes

End of Borehole at 30.00 m

Date	Time	Strike Depth	Casing Depth	Elapsed minutes	Standing Depth	Depth Sealed

Hole and Casing Diameters

Hole Depth	Hole Diameter	Casing Diameter	Casing Depth
30.00 m	-		

General Remarks:

1. Grid reference and level of site only.
2. All descriptions are from drillers logs only.
3. No gas detected during drilling.
4. Air mist flush used through shallow sandstone, then water flush to end.
3. Holes backfilled with arisings and gravel on completion.

Project Name: Tudor Inn.
Site Location: Cimla, Neath.
Client: Lovell Partnership Ltd.
Project No: 5201E

Drilling method: Rotary Open hole.
Equipment: FRASTE.

RO3

Start date: 13/03/2013
End date: 14/03/2013
Backfill date: 15/03/2013

Driller: GF.
Logged by: APEX.
Date logged: 14/03/2013

Ground Level: 110.000 mOD
Easting: 276053 m
Northing: 196009 m

Core Details and SPT Data

Depth (Length)	TCR (%)	SCR (%)	RQD (%)	SPT-N (penetration)

Strata Details

Depth (Thickness)	Description	Legend
(0.40)	BOULDER CLAY.	
0.40	SANDSTONE.	
(11.20)		
	Continued next sheet	

Water

Strikes / Standing	Depth	Backfill/ Installations

1 2 3 4 5 6 7 8 9

Progress & Standing Water Levels

Date	Time	Hole Depth	Casing Depth	Water Depth

Water Strikes

Date	Time	Strike Depth	Casing Depth	Elapsed minutes	Standing Depth	Depth Sealed

Hole and Casing Diameters

Hole Depth	Hole Diameter	Casing Diameter	Casing Depth
30.00 m	-		

General Remarks:

1. Grid reference and level of site only.
2. All descriptions are from drillers logs only.
3. No gas detected during drilling.
4. Air mist flush used through shallow sandstone, then water flush to end.
3. Holes backfilled with arisings and gravel on completion.

EARTH SCIENCE PARTNERSHIP
E|S|P

Project Name: Tudor Inn.
Site Location: Cimla, Neath.
Client: Lovell Partnership Ltd.
Project No: 5201E

Drilling method: Rotary Open hole.
Equipment: FRASTE.

RO3

Start date: 13/03/2013
End date: 14/03/2013
Backfill date: 15/03/2013

Driller: GF.
Logged by: APEX.
Date logged: 14/03/2013

Ground Level: 110.000 mOD
Easting: 276053 m
Northing: 196009 m

Core Details and SPT Data

Depth (Length)	TCR (%)	SCR (%)	RQD (%)	SPT-N (penetration)

Strata Details

Depth (Thickness)	Description	Legend
	SANDSTONE.	
11.60		
(0.90)	Dark MUDSTONE with traces of COAL.	
12.50		
(1.00)	COAL.	
13.50		
	MUDSTONE.	
	Continued next sheet	

Water

Strikes / Standing	Depth	Backfill/ Installations

11
12
13
14
15
16
17
18
19

Progress & Standing Water Levels

Date	Time	Hole Depth	Casing Depth	Water Depth

Water Strikes

Date	Time	Strike Depth	Casing Depth	Elapsed minutes	Standing Depth	Depth Sealed

Hole and Casing Diameters

Hole Depth	Hole Diameter	Casing Diameter	Casing Depth
30.00 m	-		

General Remarks:

1. Grid reference and level of site only.
2. All descriptions are from drillers logs only.
3. No gas detected during drilling.
4. Air mist flush used through shallow sandstone, then water flush to end.
3. Holes backfilled with arisings and gravel on completion.

Project Name: Tudor Inn. **Site Location:** Cimla, Neath. **Client:** Lovell Partnership Ltd. **Project No:** 5201E	Drilling method: Rotary Open hole. Equipment: FRASTE.	**RO3**	
Start date: 13/03/2013 End date: 14/03/2013 Backfill date: 15/03/2013	Driller: GF. Logged by: APEX. Date logged: 14/03/2013	Ground Level: 110.000 mOD Easting: 276053 m Northing: 196009 m	

Core Details and SPT Data

Depth (Length)	TCR (%)	SCR (%)	RQD (%)	SPT-N (penetration)

Strata Details

Depth (Thickness)	Description	Legend
(16.50)	MUDSTONE.	

Water

Strikes / Standing	Depth	Backfill/ Installations

21 22 23 24 25 26 27 28 29

Progress & Standing Water Levels

Date	Time	Hole Depth	Casing Depth	Water Depth

Water Strikes

End of Borehole at 30.00 m

Date	Time	Strike Depth	Casing Depth	Elapsed minutes	Standing Depth	Depth Sealed

Hole and Casing Diameters

Hole Depth	Hole Diameter	Casing Diameter	Casing Depth
30.00 m	-		

General Remarks:

1. Grid reference and level of site only.
2. All descriptions are from drillers logs only.
3. No gas detected during drilling.
4. Air mist flush used through shallow sandstone, then water flush to end.
3. Holes backfilled with arisings and gravel on completion.

APPENDIX J Geotechnical Laboratory Test Results

Laboratory Report

GEO Site & Testing Services Limited

Contract Number: 18840

Client's Reference: 5201e PO1935

Report Date: 20-03-2013

Client Name: Earth Science Partnership

Contract Title: Tudoe Inn, Clima

For the attention of: Daniel Thomas

Date Received: 06-03-2013

Date Commenced: 06-03-2013

Date Completed: 14-03-2013

Test Description	Quantity	Checked	Approved
pH Value of Soil 1377 : 1990 Part 3 : 9	9		
Water Soluble Sulphate 2:1 extract 1377 : 1990 Part 3 : 5	9		
Acid Soluble Sulphate 1377 : 1990 Part 3 : 5	9		

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

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 in full, without the prior written approval of the laboratory.

Approved Signatories:
Paul Evans (Quality Manager), Emma Williams (Office Manager),
Benjamin Sharp (Laboratory Coordinator), Alex Wynn (Business Development Manager).

GEO Site & Testing Services Ltd, Unit 4, Heol Aur, Dafen Ind Estate, Dafen, Llanelli, Carmarthenshire SA15 8QN
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01554 750752
Fax: 01554 770529
01554 784041
Web: www.geo.uk.com

Certificate of Analysis

Date:	14/03/2013
Client:	ESP
Our Reference:	18840-060313
Client Reference:	5201e PO1935
Contract Title:	Tudoe Inn, Clima
Description: (Total Samples)	9
Date Received:	06/03/2013
Date Started:	06/03/2013
Date Completed:	13/03/2013
Test Procedures:	(B.S. 1377 : PART 3 : 1990 AND BRE CP2/79)
Notes:	

Solid samples will be disposed 1 month and liquids 2 weeks after the date of issue of this test certificate

Approved By:

Authorised Signatories:	Emma Williams Laboratory Office Manager	Wayne Honey Laboratory Technician	Paul Evans Quality Manager

Contract No: 18840-060313
Client Ref: 5201e PO1935
Location: Tudoe Inn, Clima
Date: 14/03/2013

SUMMARY OF CHEMICAL ANALYSIS

(B.S. 1377 : PART 3 : 1990 AND BRE CP2/79)

Hole Number	Sample Number	Depth m	Sulphate Content SO3 (as SO_4)			Chloride Content		pH Value @ 25°C	Total Sulphur %	Magnesium g/l	Nitrate mg/l	Remarks
			Acid Soluble Sulphate as % SO_4 Clause 5.5.	Aqueous Extract Sulphate as g/l SO_4 Clause 5.5.	Ground-water g/l Clause 5.4.	Soluble Chloride as % equiv. NaCl Clause 7.3	Ground-water g/l Clause 7.2	Clause 9.				
TP1		0.50	<.01 (<.01)	0.01 (0.02)				7.00				
TP2		0.20	0.02 (0.02)	0.02 (0.02)				6.20				
TP3		0.10	0.03 (0.04)	0.01 (0.02)				5.98				
TP4		0.40	0.15 (0.19)	0.03 (0.04)				5.91				
TP6		0.40	0.02 (0.02)	<.01 (<.01)				7.09				
TP7		0.50	0.03 (0.04)	<.01 (<.01)				7.37				
TP9		0.20	0.02 (0.02)	<.01 (<.01)				7.53				
TP9		1.00	0.09 (0.10)	0.01 (0.02)				7.17				
TP10		0.25	0.05 (0.06)	<.01 (<.01)				7.29				

NCP - No Chloride present