BROWNFIELD SOLUTIONS LTD

GEO-ENVIRONMENTAL ENGINEERING EXCELLENCE

CASTLE GREEN HOMES

Mindale Farm, Meliden

Mining Risk Assessment

AH/C6347/14956

December 2025

PROJECT QUALITY CONTROL DATA SHEET

Site Name:	Mindale Farm, Meliden		
Document Name:	Mining Risk Assessment		
Reference:	AH/C6347/14956		
Revision:	-	04/12/2025	Final.

Issued By:	**Client:**	**Engineer:**
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Original Issue – AH/C6347/14956

Written by:	Checked by:	Approved by:
		
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MINF-MEL-SP01	E	Proposed Development Layout Plan
C6347/01	-	Site Location Plan
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C6347/03	-	Geological Map Extract

APPENDICIES

Appendix	Title
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1.0 INTRODUCTION

1.1 Context and Objectives

This report describes a Mining Risk Assessment (MRA) carried out by Brownfield Solutions Limited (BSL) for Castle Green Homes on a site off Fford Talargoch, Meliden.

This report has been prepared in line with the gov.uk online guidance, 'Planning applications: Mining Risk Assessments'. The purpose and objectives of this MRA are as follows:

- Review of all available information on the mining issues which are relevant to the application site.
- Identify and assess the risks to the proposed development from mining, including the cumulative impact of issues.
- Recommend mitigation measures to address the mining issues affecting the site, including any necessary remedial works and/or demonstrate how mining issues have influenced the proposed development.
- Demonstrate to the Local Planning Authority that the application site is, or can be made, safe and stable to meet the requirements of national planning policy with regards to development on unstable land.

1.2 Proposed Development

The proposed development is for a residential end use, comprising the construction of 154 traditional two storey houses with associated private gardens, highways, public open space (POS) areas and infrastructure as shown on the proposed development plan, drawing No. MINF-MEL-SP01 Rev E provided to BSL by the client.

1.3 Previous Reports.

This report should be read in conjunction with BSL Desk Study Assessment Report (AH/C6347/14864) issued in November 2025.

1.4 Limitations

BSL have used reasonable skill, care and diligence for the investigation of the site and the production of this report. The findings and opinions conveyed via this report are based on information obtained from a number of sources as detailed within this report, BSL have assumed this information is correct and reliable. Nevertheless, BSL cannot and does not guarantee the authenticity or reliability of the information it has relied upon.

This report has been prepared for the sole use and reliance of the Client, Castle Green Homes. No other third parties may rely upon or reproduce the contents of this report without the written permission of Brownfield Solutions Ltd (BSL). If any unauthorised third party comes into possession of this report, they rely on it at their own risk and BSL do not owe them any Duty of Care.

Any recommendations made in this report should be confirmed with the Regulatory Authorities prior to implementation to ensure compliance.

This assessment has been based on the proposed planning layouts provided. Any subsequent change to the planning layout may have an impact on the validity of recommendations made within this report. Furthermore, new information, changed practices or new legislation may necessitate revised interpretation of the report after the date of its submission.

There may be other conditions prevailing on the site which are outside the scope of work and have not been highlighted by this assessment and therefore have not been taken into account by this report. Responsibility cannot be accepted for such site conditions not revealed by the assessment.

The site plans enclosed in this report should not be scaled off. Any site boundary line depicted on plans does not imply legal ownership of land.

2.0 THE SITE

2.1 Location

The site is located off Fford Talargoch, Meliden, LL19 8PG. It is situated approximately 3Km south of Prestatyn Town Centre, centred on National Grid Reference 305565, 380834 as shown on the Site Location Plan, Drawing No. C6347/01.

2.2 Site Description

A walkover survey was carried out on the site on the 31st October 2025. The main site features and potential issues identified during this survey are detailed below:

Feature	Description
Site Area	5.89 hectares.
Site Access	Access to the site is gained off Fford Talargoch to the south, and also from Ffordd y Newydd in the centre.
Current Land Use and Site Features	The site comprises existing grassed agricultural fields and associated farm buildings.
Potential Mining Related Features	No mining related features were identified.
Vegetation	There are sporadic mature/semi-mature trees within the hedge rows with grass surfacing across the site and along the site boundaries.
Topography	The site is generally flat.
Site Boundaries	The site is bounded by mature and semi-mature trees and hedges.
Surrounding Area	The site is set within a mixed commercial and residential area. Residential properties exist to the south and east, a school to the south-east and further grassed fields to the north and west.

3.0 SITE SETTING

3.1 Site History

In summary, the map evidence indicates that the site has remained as agricultural fields with minimal previous development.

Historical land use in the surrounding area has been predominantly residential with some industrial uses including a railway, tanks, filter beds, reservoirs, various industrial processes and a mine. The Talargoch Mine is present to the south of the site with associated shafts to the south and east. The mine is indicated to be disused from 1898 mapping with an associated chimney from 1964 mapping, the mine and associated features are not present on mapping later than 1977.

3.2 Published Geology

The following publications of the British Geological Survey (BGS) were examined in respect of the geology underlying the site:

- 1:50,000 Scale Geological Map Sheet 95 Rhyl. Solid and Drift Edition.
- British Geological Survey (BGS) Geology of Britain Map Viewer.
- BGS GeoIndex Onshore.
- BGS Geology Sheet 95 and 107 Memoirs of Rhyl and the Denbigh District, 1984.
- Mining Abandonment Plans.
- Groundsure Enviro+Geo Insight Report.
- Groundsure GeoRisk Report.

Made Ground
Information from the environmental data report and BGS mapping indicates made ground deposits aren't present, however, based on the historical mapping and the development that has taken place, localised made ground deposits are likely to be present associated with former and existing farm buildings.

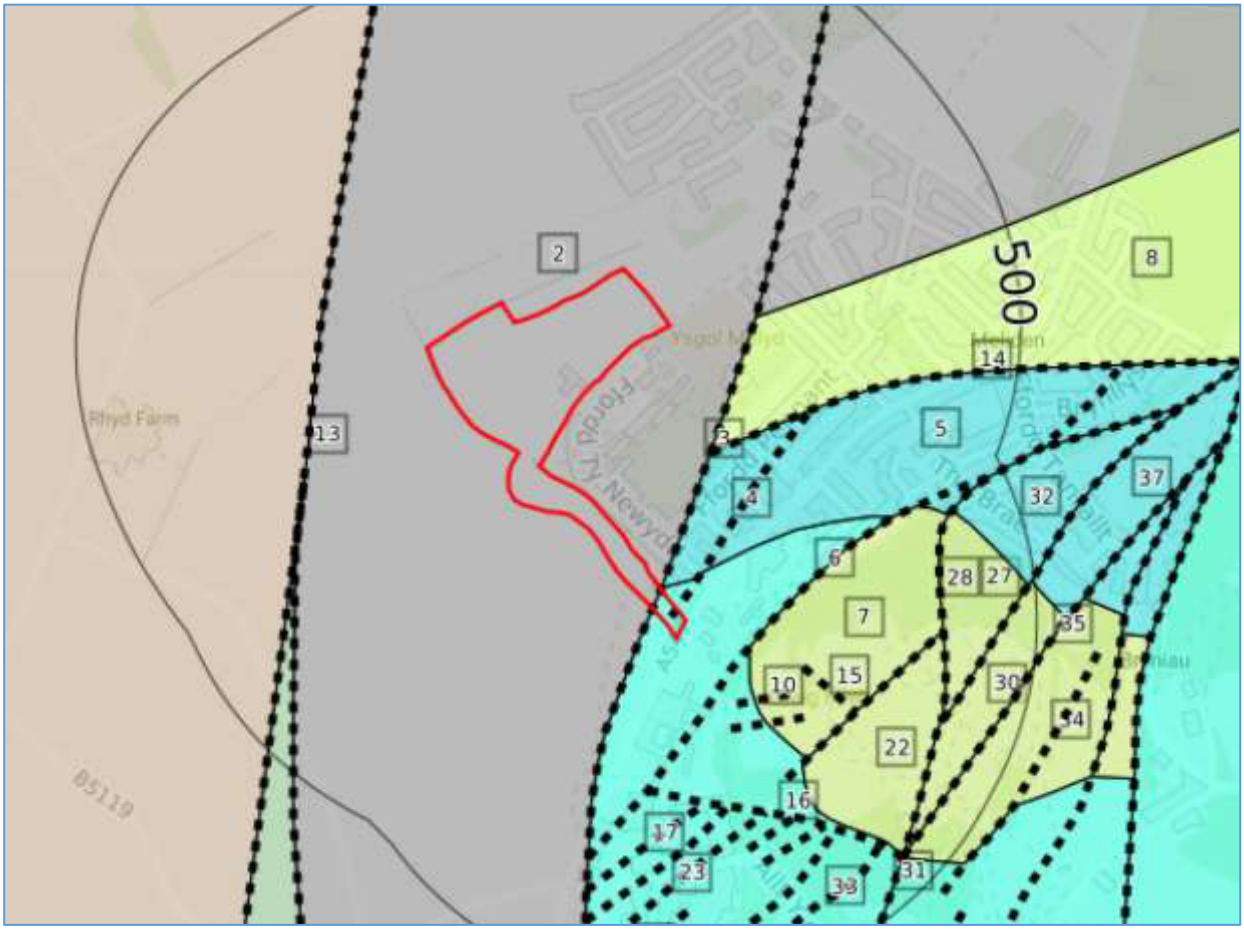
Superficial Deposits
The site is indicated to be underlain predominantly by Devensian Till. This stratum typically comprises clay with varying amounts of silt, sand, and gravel. The north-west boundary of the site is underlain by Alluvium deposits that typically comprise clay, silt, sand and gravel.

Solid Geology
The deeper solid geology is indicated to predominantly be part of the Pennine Coal Measures Group which typically comprises sedimentary rock and coal. The southern-most area of the site is underlain by Llanarmon Limestone Formation which typically comprises Limestone.

Minimal information exists regarding the depth to bedrock, however, an approximate depth of 50.00-60.00m bgl has been estimated from available information.

A fault is shown to traverse the southern part of the site in a north to south direction, downthrown to the west. However, any movements associated with this fault should now have stopped.

The geology of the site and the surrounding area is shown on the Geological Map Extract, Drawing No. C6347/03, and also below.



Site Boundary in red. 3: Fault. 4: Talargoch Vein. 13: Fault and Panton Vein

The ores of the north-east wales mining field occur largely in the middle and upper beds of the Carboniferous Limestone (such as the Llanarmon Limestone Formation) and the lower beds of the Cefn y Fedw Sandstones, or the Chert Beds in northern Flintshire. These ore-bearing beds outcrop over a large part of what was Flintshire and east Denbighshire, and dip eastwards below the Coal Measures of the North-East Wales Coalfield. The mines are grouped in three main areas: Prestatyn and Dyserth to Holywell; Holywell and Halkyn to Llanarmon; and the Minera district. The ores normally occur in the thin veins, but locally the presence of cavities in the limestone give rise to pipes or flats which provide larger ore bodies. The lodes occur in two main sets: i. veins, mainly eastwest; ii. cross-courses, mainly north-south. The mineralisation in the veins and crosscourses is slightly different both in composition and age.

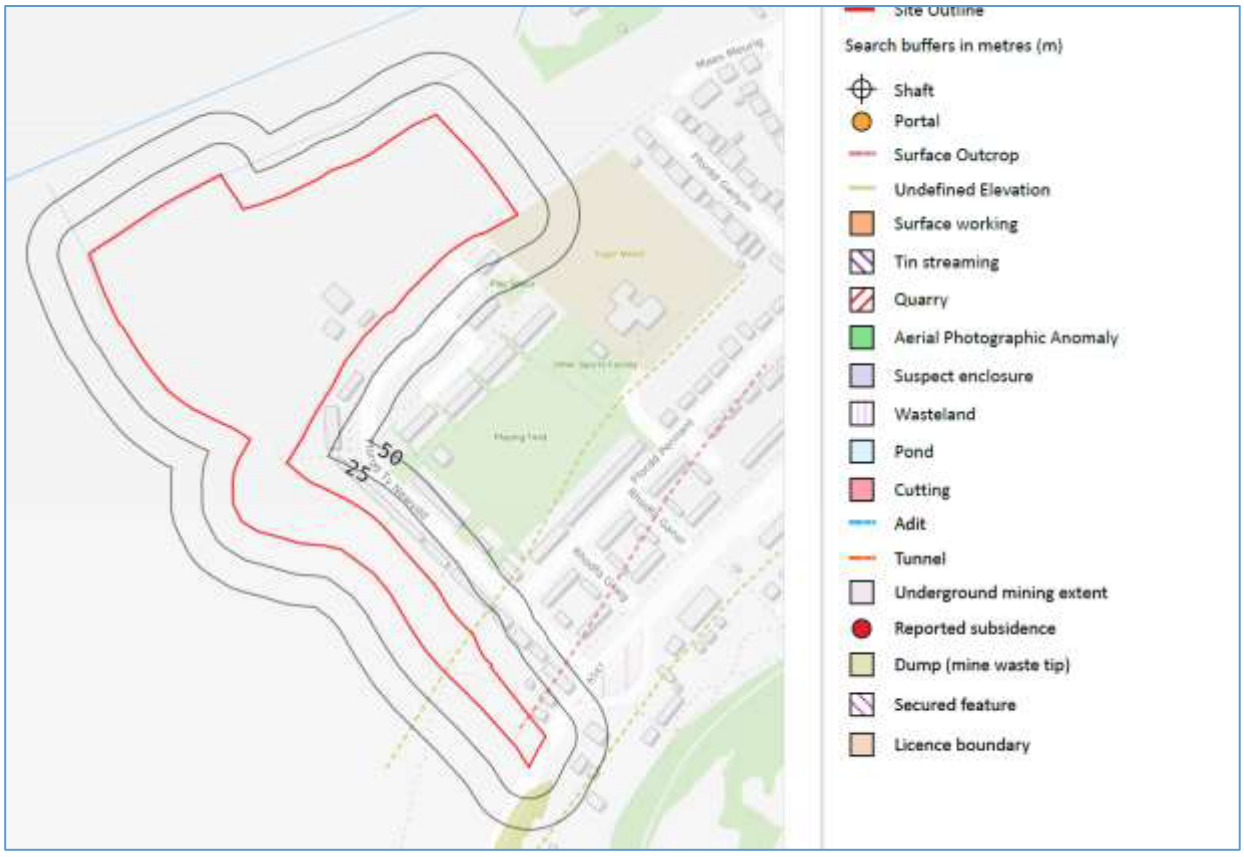
The site is in an area where mineral veins are abundant to the south-east of the site. Based on geological mapping, information gained from the BGS maps, geological memoir and the Mining Remediation Authority Interactive Map, the following veins are shown to subcrop and dip beneath the site at approximately 14˚ to the north-west.

Seam	Approximate Distance from Site (m)	Dip (˚)	Thickness (m)	Description
Talargoch Vein	Sub-crops – Onsite S	**14 (NW)**	**0.3 – 9.0**	Most productive vein in the area. Lead, zinc and silver
Pantons Vein	Sub-crops off site circa to the NE	**14 (NW)**	-	Lead and zinc

The Talargoch mine worked three main veins: Panton's Vein on the northwest; Talargoch Vein in the centre; and South Joint to the north-east (which does not subcrop or dip beneath the site). They are all inclined to the north-west and are roughly parallel in strike. The Talargoch Vein alone runs the whole length of the mine, about 1400 yards, and was the most productive vein. These veins are cut off in the north-east by a series of faults which bring unproductive shale and coal layers against the Black Limestone.

The Talargoch Vein varies in width between 0.30m and 9.00m, being narrowest in the Lower White Limestone where it is pinched for long distances. The dip of the vein varies between 1 in 2 and 1 in 7, but it is generally about 1 in 4, and all to the north-west. The lead and zinc ores are separated in the vein, the blende being uppermost, and occur together with calcite, chert, and fragments of limestone. The relative proportions of ore-material and their grade vary according to the depth of the vein in relation to the limestone beds. In the Lower Limestones the ore is more regularly distributed but less rich than that in the Middle Limestone.

The Pantons Vein is shown to lie to the north-west of the Talargoch Vein, running parallel to it with, and dipping to the north-west away from site.



The above extract from the Groundsure report shows an additional lead vein, of an undefined elevation, sub-cropping beneath the site.

3.3 BGS Boreholes

There are no BGS borehole records within a relevant distance of the site.

3.4 Mining Search

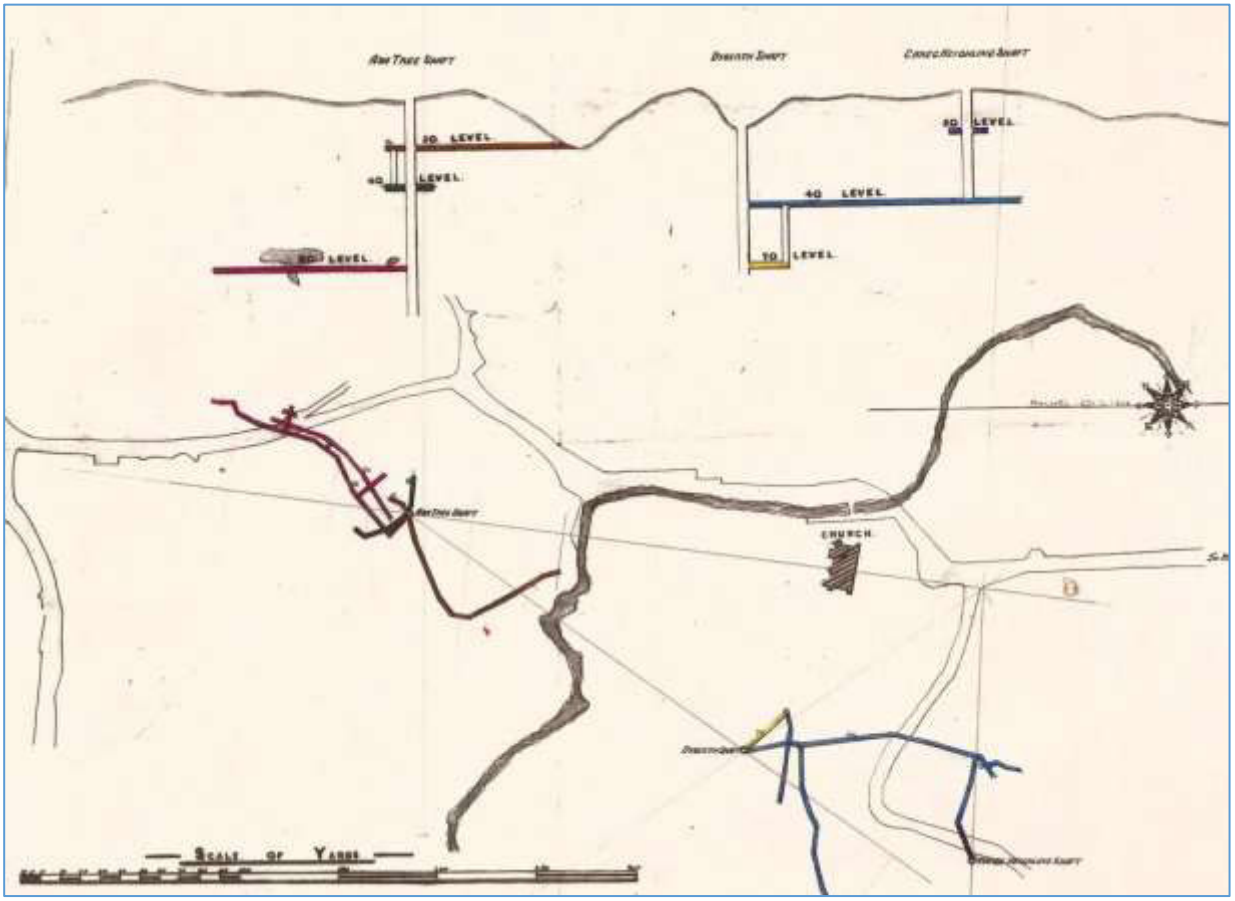
A Geo-Risk report has been carried out for the property by Groundsure, ref. BRO-LGJ-R5C-OHV-V9K, which is presented in Appendix B, the main findings of which are presented below.

Highlighted Evidence	Issue	Details
Past Mining Activity	Yes	The site lies within an area of historic lead mining activity. A mineral vein is recorded to sub-crop across the south of the site another is indicated to underly the site at an undetermined depth.
Ground Stability	Yes	The site lies within an area that could be affected by infilled land and natural instability.
Mining Features	Yes	Three mineral veins have been identified within proximity of the site. Two mineral veins are indicated to underly the site one sub-cropping in the south of the site and the other underlying the site at an undefined depth. The third underlies the site 45m south-east of the site at an undefined depth. A wasteland 33m north-east and a mine waste tip 17m south-east are also indicated assumed to be related to the Talargoch Mine. Three BritPits are present from 73m South of the site associated with the Talargoch Mine. Three non-coal mining sources comprising bedded iron ore or mineral veins were identified underlying the site.
Past Underground Mining	Yes	Disused Lead Mines are indicated to have been present onsite and the surrounding area.
Mine Entries	No	Up to thirty mine shafts were identified between 6m south-west and 223m south indicated as drain shafts, old shafts and lead shafts.
Past, present and future opencast mining	No	Several ground working are indicated to be present in the surrounding area from 5m south-east.
Mining subsidence	Yes	A mining cavity associated with the Talargoch Lead Mine onsite in the south of the site.

3.5 Other Information Sources

The area surrounding the Talargoch Mine is indicated to have been significantly affected by the Talargoch mine and associated mining. The surrounding area is considered one of the most productive areas in Britain of lead and zinc ores. It is estimated that the Talargoch mine produced 57,752tons of lead ore and 49,810tons of blende between 1845 and 1884. The Talargoch Mine worked three main veins, Paton's Vein in the north-east, Talargoch Vein in the centre, and South Joint to the north-east. The three veins have a north to west trend transected by a series of faults. The Talargoch Vein was the largest and most productive vein. The Talargoch Vein varies between 0.3m and 0.9m in thickness with an average dip of 14˚ to the east. (*Talargoch Mine, British Mining No.31 by J.A.Thorburn issued in 1986*.)

A plan and section map of the Talargoch Lead Mine at Dyserth, reference 55085E/39, shows four distinct working levels of the mineral veins, at 20ft bgl, 40ft bgl, 70ft bgl, and 80ft bgl. All four of the levels are shown to be horizontal, as shown in the extract below.


20 LEVEL
40 LEVEL
80 LEVEL
40 LEVEL
70 LEVEL
CHURCH
SCALE OF YARDS

4.0 RISK ASSESSMENT

4.1 Basis of Risk Assessment

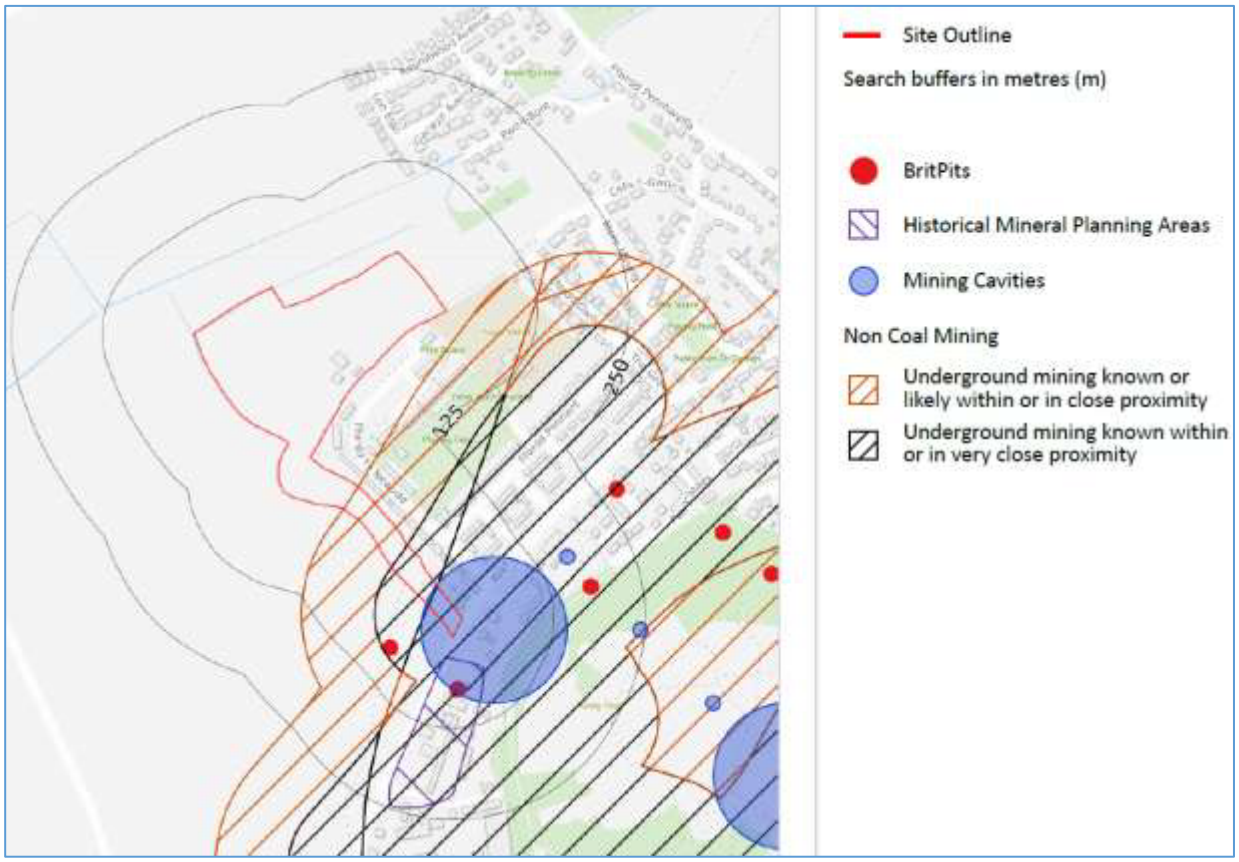
Guidance from CIRIA C758 'Abandoned Mine Workings Manual' has been drawn upon in order to develop a risk-based approach to the mining related risks at the property.

The risks from the following mining issues are presented in detail in the subsequent sections, and in a summary table at the end of the section.

A moderate risk or greater should be considered as requiring further investigation or remedial action.

The Pantons Vein is shown to subcrop to the north-west of the site and also dip to the north-west away from the site, and therefore is not considered to pose any risk to the site itself and will not be considered any further in this Mining Risk Assessment.

Note, the mine related risks are localised to the south of the site in the area of proposed highways development. The remainder of the site comprising predominantly the proposed development area is considered to be unaffected by the Non-coal mining and therefore a low risk is considered across the remainder of the site. The below sections detail the risk considered to the south area of the site. This is highlighted on the below extract.



4.2 Recorded Workings

Information from various databases has shown the site is affected by several worked ore deposits and mineral veins in the south of the site associated with the Talargoch Mine.

Guidance within CIRIA C758 'Abandoned Mine Workings Manual' indicates that a void will not migrate to the surface where there is more than ten times the seam thickness of rock cover (10t criterion, Piggott and Eynon 1978; Wardell and Eynon 1968). Up to this depth, the void will begin to choke with rock from the roof, which is represented by broken ground. Sands and clays of superficial deposits are considered to have minimal bulking because of their plastic and mobile nature and their propensity to be influenced by groundwater flows to a greater extent.

Beyond 10 times the vein thickness, the upwards migration of the void would be expected to 'choke out', due to bulking of the collapsed materials (i.e. there will be acceptable cover over the workings to prevent void migration to the surface).

Based on CIRIA guidance, there is not sufficient solid rock cover for the shallowest vein to prevent upward migration of collapses affecting the future development.

A mining cavity is also highlighted, with minimal information regarding its exact properties, dimensions, and current status.

The risk to the proposed development is therefore considered to be **high** in the southernmost area of the site.

4.3 Unrecorded Workings

Before 1850 there was no statutory requirement to record the extent of abandoned mine workings in the UK and only after the enactment of the Mines Regulation Act (1860) were mine owners obliged to deposit accurate plans of abandoned mines, but prior to this date many thousands of workings had been abandoned without accurate records kept. As such, there are extensive unrecorded workings within mineralised strata throughout the UK where shallow workings are present at a depth which could impact surface developments.

In addition, other examples of illicit workings that may not appear on plans include workings carried out during miners strikes or where accessible seams or mineral veins were subject to plunder during times of privation such as the First and Second World Wars.

Based on the available information, BSL believe there are mineral veins at or close to the surface which may have been worked at some time in the past.

A mineral vein sub-crops the south of the site, there are also two bedded iron ore resources underlying the site, as well as multiple other Mineral veins within the surrounding area to the south. It is considered likely that unrecorded workings are present within these veins and deposits that may affect the site.

At this stage there is considered to be a **moderate** potential risk in relation to unrecorded workings. This will need to be reviewed when development proposals are known.

4.4 Recorded Mine Entries

There are five records of recorded mine entries within 50m of the site boundary. None of these are onsite.

The details are summarised in the table below:

Location	Shaft Type	Treatment
6m SE	Drain shaft	-
45m SE	Old shaft	-

Location	Shaft Type	Treatment
6m SE	Drain shaft	-
45m SE	Shaft	-
45m SE	Shaft	-
49M SE	Unspecified Shaft	-

No treatment information is held as to what steps, if any, have been taken to fill or cap any of the mineshafts located adjacent on the site. Therefore there is a possibility that shafts may remain open or loosely covered beneath the surface.

Guidance on the potential theoretical zone of influence from collapse of a mine shaft is contained in CIRIA C758. This recommends that all shafts within influencing distance of proposed structures are stabilised prior to development. The zone of influence of a mine shaft is indicated by the depth to rockhead, drawn back at an angle of 45°.

At this stage given the uncertainties over the ground conditions, until the depth to bedrock can be proven on site, the potential zone of influence is considered to be 20m away from the shaft location. Based on the available information it is indicated that all nine of the recorded mine shafts are within a potentially influencing distance of the site, and the location of these shafts will have an impact on the development layout, though only the highway section. A ground investigation is required to determine the depths to bedrock and subsequently calculate the zones of influence at each mineshaft location.

The risk from recorded mine entries is therefore considered to be **high**.

4.5 Unrecorded Mine Entries

Given the potential shallow depth of the workable mineral veins, it is possible that unrecorded mine entries may exist on the site. The risk from unrecorded mine entries is therefore considered to be **moderate**.

4.6 Other Mining Related Issues

A fault is indicated to traverse the south of the site, however any associated movement of the fault is considered to no longer occur and therefore the risk from mining geology is considered to be low.

Records of mining surface hazards exist on site in the form of shallow workings and Britpits relating to the lager Talargoch Mine, with the **moderate** risk considered.

4.7 Risk Assessment Summary

A summary of the assessment of the risks detailed above that are considered to affect the southern area of the site are presented in the table below. A moderate risk or greater should be considered as requiring further investigation or remedial action.

Mining Issue	Documented Issue	Risk Assessment
Recorded Workings	Yes	**High**
Unrecorded Workings	No	**Moderate**
Recorded Mine Entries	No	**High**
Unrecorded Mine Entries	No	**Moderate**
Mining Geology (fissures)	No	**Low**
Other Mining Related Issues	No	**Moderate**

5.0 CONCLUSIONS AND RECOMMENDATIONS

5.1 Identified Mining Issues

From the assessment carried out above, the risks from recorded historic mining activities are generally considered to be moderate to high for the southernmost part of the site in the area of the proposed highways, and low for the remaining area of the site comprising the residential dwellings.

5.2 Recommendations

The information relating to depths to bedrock in the area is minimal. BSL would recommend an initial trial trenching exercise in the area of the mineral veins in the south to try and identify bedrock, and whether there are any obvious signs of historic workings and any mine related subsidence.

If bedrock is not encountered, then it would be recommended that a series of boreholes are drilled to depths of up to 50-60m across the south of the site to confirm or otherwise the presence of the mineral veins or workings within the identified seam that dips beneath the subject site.

Boreholes should be extended as necessary to encounter the Talargoch Vein or deep enough to confirm that bedrock at least ten times the identified thickness of the Bullhurst seam that exists at the borehole location.

If any additional existing ground investigation data or information of past treatment of workings is known to be available, this should provided to BSL, so this assessment can be revised.

Once information from boreholes is available, the mining risk should be re-assessed based on the available data by a suitably competent geotechnical engineer, such as BSL.

Further guidance on the potential zone of influence from a theoretical collapse of a mine shaft can be found in CIRIA C758 'Abandoned Mine Workings Manual' and it is recommended that all shafts within influencing distance of proposed structures are stabilised prior to development. Building over the top of, or in close proximity to, mine entries should be avoided wherever possible, even after they have been capped, in line with the Mining Remediation Authority's adopted policy. Furthermore, the presence of a mineshaft may preclude the issue of a new-build warranty from a third party such as the NHBC or LABC.

5.3 Remediation

If mine workings are found to be present underlying the site, the proposed new development highways area in the south of the site may require treatment unless a suitable thickness of competent bedrock is encountered above the workings.

Appropriate geotechnical design will be necessary for the development, notwithstanding any potential stabilisation works required, if voiding/broken ground is encountered within influencing depth.

If workings are encountered that require treatment, the remedial works would be likely to comprise:

- Drilling and grouting of building footprints and highways / infrastructure as necessary.
- Potential installation of geogrid reinforcement beneath any areas of hardstanding (i.e. car parks and walkways)
- Investigation of any potential shaft features identified and treatment by filling and capping, if required.

Guidance on foundation, floor slab and pavement design in respect of mining stability is given in CIRIA C758 and CIRIA publication SP32 'Construction Over Abandoned Mineworkings', 'Structural Foundations Manual for Low Rise Buildings' (Atkinson) and the NCB publication, 'Subsidence Engineers Handbook'. Note it is generally desirable to limit stresses transferred to any grouted horizons to <160kN/m^2.

It is cautioned that colliery spoil can contain significantly elevated sulphur and sulphate concentrations leading to the formation of aggressive ground conditions for concrete in certain circumstances. Buried concrete should be designed in accordance with BRE Special Digest 1 (2005) to ensure suitable protection is provided to concrete against aggressive ground conditions.

If evidence of potential influence from mine entries or workings is identified during construction, BSL should be consulted to provide suitable recommendations for remedial measures, if required.

6.0 REFERENCES

Atkinson, M. F. Structural Foundations Manual for Low Rise Buildings. Second Edition. 2004.

BRE. 2005. Concrete in aggressive ground. BRE Special Digest 1, 3rd Edition. BRE, Garston.

CIRIA Special Publication SP32, PSA Civil Engineering Technical Guide 34, 'Construction over abandoned mine workings'. 1984.

CIRIA C758 'Abandoned Mine Workings Manual'. 2019.

Mines and Quarries Act 1954.

National Coal Board. Subsidence Engineers' Handbook. Revised Edition. 1975.

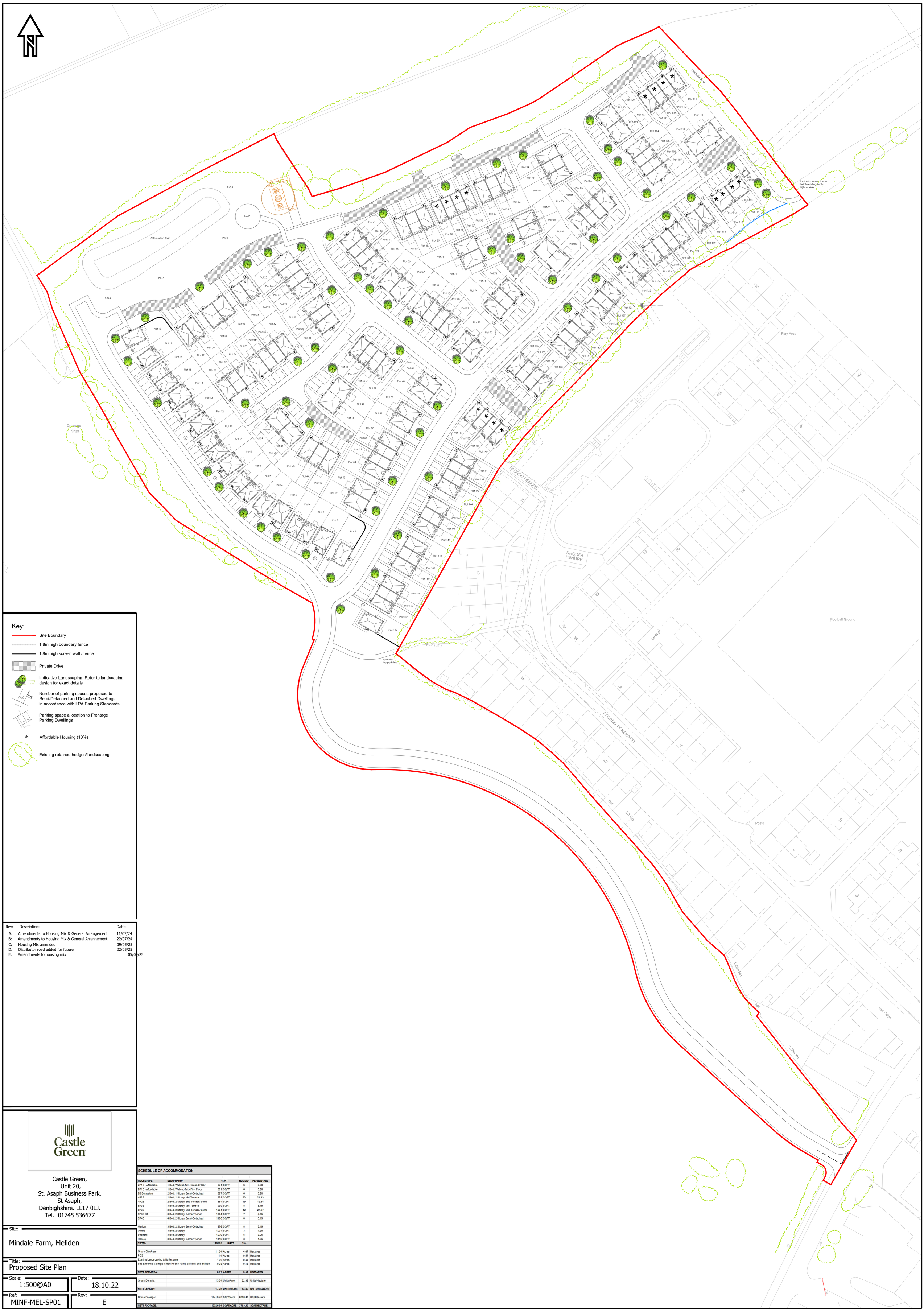
National Planning Policy Framework (NPPF) – Technical Guidance. March 2012.

National Planning Policy Framework (NPPF). July 2018.

Welsh Government. National Planning Framework (NPF). 2019.

Talargoch Mine, British Mining No.31 by J.A.Thorburn. 1986.

DRAWINGS



Key:

- Site Boundary
- 1.8m high boundary fence
- 1.8m high screen wall / fence
- Private Drive
- Indicative Landscaping. Refer to landscaping design for exact details
- Number of parking spaces proposed to Semi-Detached and Detached Dwellings in accordance with LPA Parking Standards
- Parking space allocation to Frontage Parking Dwellings
- * Affordable Housing (10%)
- Existing retained hedges/landscaping

Rev:	Description:	Date:
A:	Amendments to Housing Mix & General Arrangement	11/07/24
B:	Amendments to Housing Mix & General Arrangement	22/07/24
C:	Housing Mix amended	09/05/25
D:	Distributor road added for future	22/05/25
E:	Amendments to housing mix	05/09/25

Castle Green

Castle Green,
Unit 20,
St. Asaph Business Park,
St Asaph,
Denbighshire. LL17 0LJ.
Tel. 01745 536677

Site:
Mindale Farm, Meliden

Title:
Proposed Site Plan

Scale: 1:500@A0

Date: 18.10.22

Ref: MINF-MEL-SP01

Rev: E

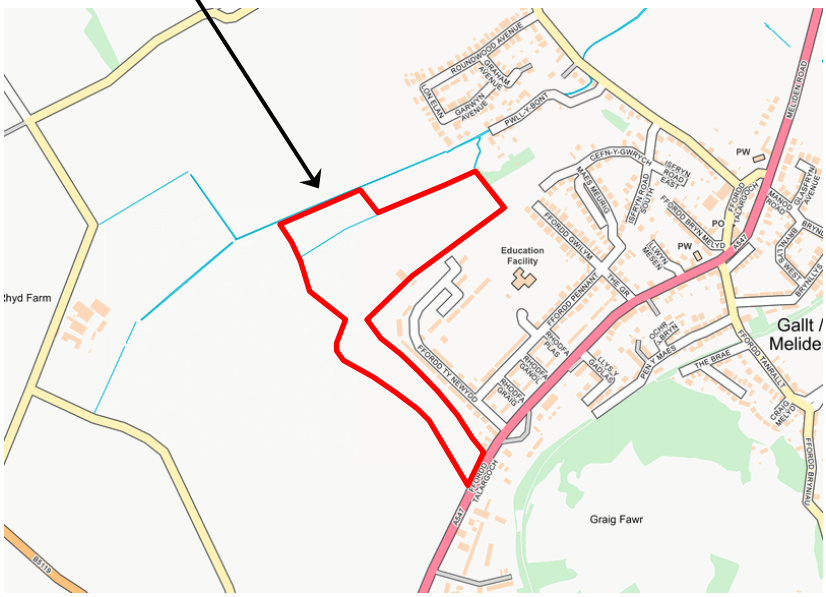
SCHEDULE OF ACCOMMODATION

HOUSETYPE	DESCRIPTION	SQFT	NUMBER	PERCENTAGE
2P1B - Affordable	1 Bed, Walk up flat - Ground Floor	571 SQFT	6	3.90
2P1B - Affordable	1 Bed, Walk up flat - First Floor	661 SQFT	6	3.90
2B Bungalow	2 Bed, 1 Storey, Semi-Detached	627 SQFT	6	3.90
4P2B	2 Bed, 2 Storey, Mid Terrace	879 SQFT	33	21.43
4P2B	2 Bed, 2 Storey, End Terrace/ Semi	884 SQFT	19	12.34
5P3B	3 Bed, 2 Storey, Mid Terrace	999 SQFT	8	5.19
5P3B	3 Bed, 2 Storey, End Terrace/ Semi	1004 SQFT	42	27.27
5P3B CT	3 Bed, 2 Storey, Corner Turner	1004 SQFT	7	4.55
6P4B	4 Bed, 2 Storey, Semi-Detached	1186 SQFT	8	5.19
Marlow	3 Bed, 2 Storey, Semi-Detached	976 SQFT	8	5.19
Oxford	3 Bed, 2 Storey	1034 SQFT	3	1.95
Stratford	3 Bed, 2 Storey.	1079 SQFT	5	3.25
Henley	3 Bed, 2 Storey, Corner Turner	1116 SQFT	3	1.95
TOTAL		143286 SQFT	154	
Gross Site Area		11.54 Acres	4.67	Hectares
POS		1.4 Acres	0.57	Hectares
Existing Landscaping & Buffer zone		1.09 Acres	0.44	Hectares
Site Entrance & Single-Sided Road / Pump Station / Sub-station		0.38 Acres	0.15	Hectares
NETT SITE AREA:		8.67 ACRES	3.51	HECTARES
Gross Density:		13.34 Units/Acre	32.98	Units/Hectare
NETT DENSITY:		17.76 UNITS/ACRE	43.89	UNITS/HECTARE
Gross Footage:		12416.46 SQFT/Acre	2850.40	SQM/Hectare
NETT FOOTAGE:		16526.64 SQFT/ACRE	3793.96	SQM/HECTARE

SITE LOCATION

NEAREST POSTCODE: LL19 8PG

SITE ENTRANCE WHAT3WORDS:
///RECAPTURE.FUNKY.COUNTRY



REV	DATE	DESCRIPTION	BY	CKD

BROWNFIELD SOLUTIONS LTD
GEO-ENVIRONMENTAL ENGINEERING EXCELLENCE

CLIENT
CASTLE GREEN HOMES

PROJECT TITLE
MINDALE FARM, MELIDEN

DRAWING TITLE
SITE LOCATION PLAN

DRAWING No.	REVISION	SCALE	DATE
C6347/01	-	NTS	29/10/25

DRAWN BY	CHECKED BY
SD	JM

EXISTING FARM BUILDINGS

SITE ACCESS

KEY

APPROXIMATE SITE BOUNDARY

NOTES

1. ALL DIMENSIONS TO BE CHECKED ON SITE BEFORE COMMENCING WORKS. ANY DISCREPANCIES ARE TO BE REPORTED TO THE ARCHITECT & ENGINEER FOR VERIFICATION. FIGURED DIMENSIONS ONLY ARE TO BE TAKEN FROM THIS DRAWING.
2. THIS DRAWING IS TO BE READ IN CONJUNCTION WITH ALL RELEVANT ENGINEERS REPORTS. THIS DRAWING IS COPYRIGHT OF BSL.
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REV	DATE	DESCRIPTION	BY	CKD

BROWNFIELD SOLUTIONS LTD
GEO-ENVIRONMENTAL ENGINEERING EXCELLENCE

CLIENT
CASTLE GREEN HOMES

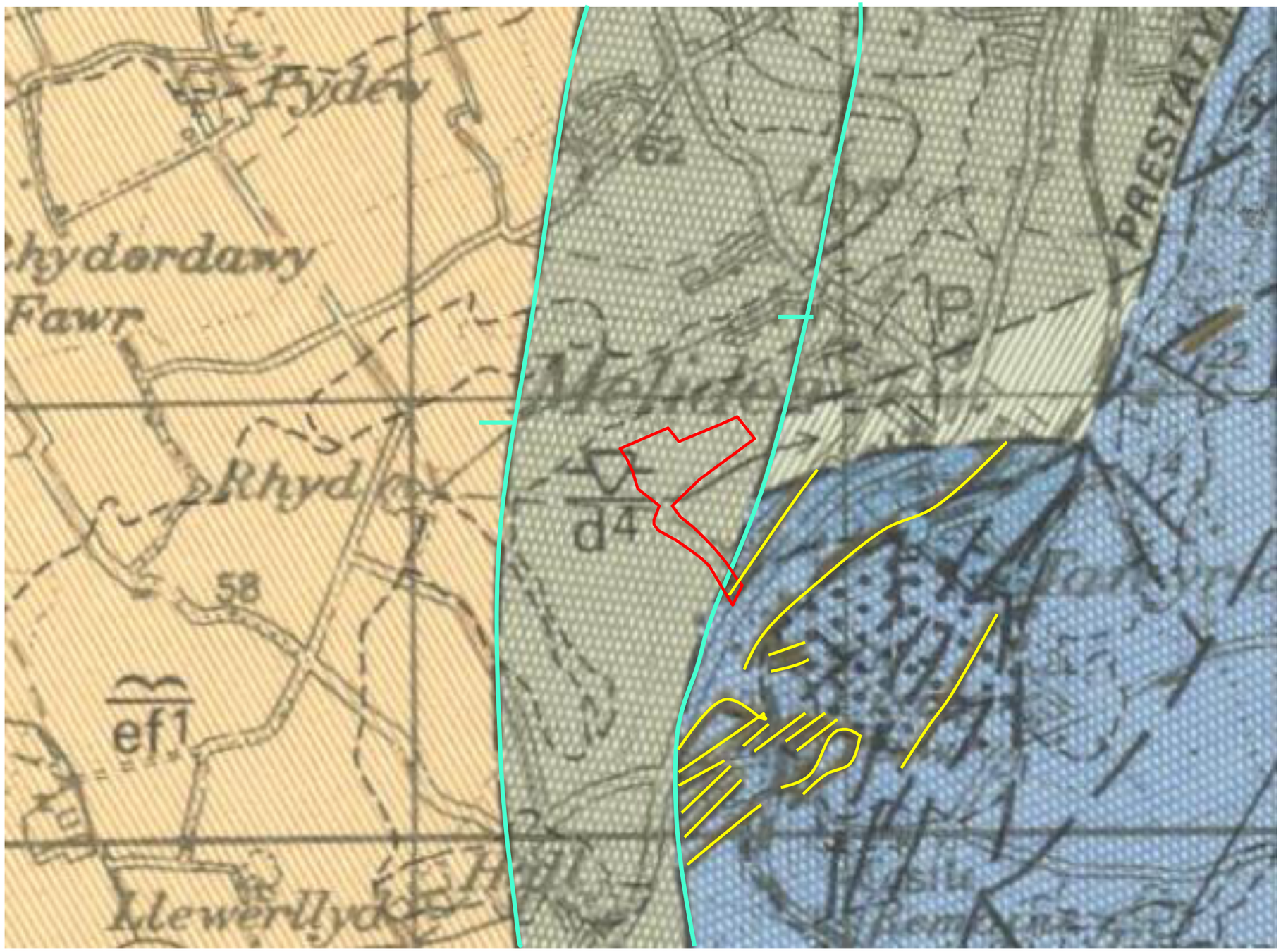
PROJECT TITLE
MINDALE FARM, MELIDEN

DRAWING TITLE
SITE FEATURES PLAN

DRAWING No.	REVISION	SCALE	DATE
C6347/02	-	NTS	13/11/25

DRAWN BY	CHECKED BY
AH	JM

DEVELOPMENT HIGH RISK AREAS



KEY

- APPROXIMATE SITE BOUNDARY
- FAULT LINE
- MINERAL VEINS

NOTES

1. ALL DIMENSIONS TO BE CHECKED ON SITE BEFORE COMMENCING WORKS. ANY DISCREPANCIES ARE TO BE REPORTED TO THE ARCHITECT & ENGINEER FOR VERIFICATION. FIGURED DIMENSIONS ONLY ARE TO BE TAKEN FROM THIS DRAWING.
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CLIENT
CASTLE GREEN HOMES

PROJECT TITLE
MINDALE FARM, MELIDEN

DRAWING TITLE
GEOLOGICAL MAP EXTRACT

DRAWING No.	REVISION	SCALE	DATE
C6347/03	-	NTS	01/12/2025

DRAWN BY	CHECKED BY
AH	JM

APPENDIX A

BGS Boreholes

SJ 08 SE / 24

SL c. 38 m

Walker's Shaft, Meliden Grid Ref: 0564 8049

				Ft	in	Ft	in	
	Soil		(.45m)	1	6	1	6	(.45m)
	Marl and clay	+31.6	(6.40m)	21	0	22	6	(6.85m)
	Dry sand		(3.20m)	10	6	33	0	(10.05m)
QUATERNARY	Quick sand	+18.8	(9.14m)	30	0	63	0	(19.20m)
	Strong clay	+17.0	(1.82m)	6	0	69	0	(21.03m)
	Gravel	+9.69	(7.31m)	24	0	93	0	(28.34m)
	Gravelly clay, with water	+0.55	(9.14m)	30	0	123	0	(37.49m)
	Sand and gravel		(10.97m)	36	0	159	0	(48.46m)
	Gravel, containing bones	-14.12	(3.65m)	12	0	171	0	(52.12m)
CARBONIFEROUS LIMESTONE	Hard blue limestone		(15.54m)	51	0	222	0	(67.66m)
	Shale		(51.20m)	168	0	390	0	(118.87m)
	White limestone		(115.21m)	378	0	768	0	(234.08m)

(From Rhyl memoir O.S. 79 N.W. pp. 22 and 29)

7_1.TIF

95/28 SJ08/7

WELSH NATIONAL WATER DEVELOPMENT AUTHORITY
DEE AND CLWYD RIVER DIVISION
DETAILED HYDROGEOLOGICAL RECORD SHEET: INDIVIDUAL SITE RECORD

SJ08/7

NAME Talargoch Mine, Walker's Shaft. N.G.R. 055 804 SJ08 SE/24
DYSERTH, FLINTSHIRE

EXACT SITE KNOWN YES/~~NO~~ LOCATION SKETCH ~~YES~~/NO

HEIGHT A.O.D. ....29..... METRES ESTIMATED FROM MAP/~~SURVEY~~

REFERENCE POINT NONE/~~DETAILS~~/~~SKETCH~~

LOG YES/~~NO~~ LOCATION OF LOG ~~HERE~~/I.~~G~~.S./ROWLANDS 83

SUMMARY OF LOG
Drift to 181
Carb lst 232
Shale 407
carb lst 477 8

Rockhead -27.23m AOD.

WATER QUALITY INFORMATION ~~YES~~/NO

WATER LEVEL INFORMATION

ABSTRACTION YES/NO/OCCASIONALLY/NOT KNOWN/STAND-BY

LICENCE NO. LICENSED ABSTRACTION
/HOUR /DAY /YEAR

PUMPING TEST ~~YES~~/NO DATE

LOCATION OF DATA

WATER LEVELS RECORDED NONE/~~ISOLATED~~ READINGS/~~MONTHLY~~/~~AUTOGRAPHIC~~

LOCATION OF RECORDS

ACCESS

APPENDIX B

Mining Search

Groundsure
LOCATION INTELLIGENCE

GeoRisk

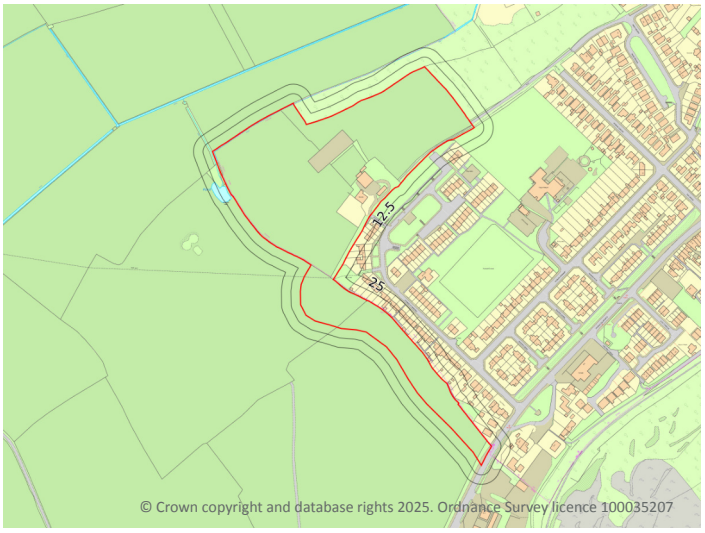
FFORDD TY NEWYDD, GALLT MELYD, PRESTATYN, SIR DDINBYCH, LL19 8PX

Professional opinion

ACTION REQUIRED

There is an identified mining risk and further action is recommended. See guidance on page 2 >.

Site plan



Search results

Non-coal mining
Further action page 4 >

Historical features
Identified page 4 >

Geological features
Identified page 4 >

Oil and gas
Identified page 4 >

Natural instability
Identified page 5 >

Infilled land
Identified page 5 >

Sinkholes
Not identified

Coal mining alert
Not identified

Cheshire brine alert
Not identified

Assesses mining risk from; **Stone**, **Clay**, **Metals**, **Evaporites** and **Hydrocarbons**

Contact us with any questions at:
info@groundsure.com ↗
01273 257 755

Ref: BRO-LGJ-R5C-OHV-V9K
Your ref: C6347-70136-SD
Grid ref: 305565 380834
Date: 29 October 2025

To save you time when assessing the report, we only provide maps and data tables of features we have identified to be of note.

You can view a full list of the information we have searched on **page 25 >**.

Non-coal mining assessment

We consider there to be a non-coal mining-related risk to the property. Please refer to the assessment of mining experts Groundsure below for further details.

Non-coal mining

Mining types: Metals, Stone, Unspecified

Past mining activity

The property lies within an area of historic lead mining activity. Due to the independent and unsystematic manner of the local mining, some of which are of considerable antiquity, records are very poor and incomplete.

A mineralised vein is recorded to pass through the property at surface outcrop.

A mineralised vein is recorded to pass through the property at an undefined elevation.

There is a possibility of unrecorded mining features associated with these mineralised veins within the property.

Current and future mining

According to our archive the property does not presently lie within an area with planning permission for non-coal mineral development. We are not aware of any planned future mining activity.

Next steps for consideration:

- Unless there is already a detailed survey available, a prudent purchaser may wish to consider obtaining a visual inspection, looking for visible defects and signs of mining-related settlement or subsidence effects within the property area. This inspection should be carried out by a suitably qualified and experienced person, who could be sought through www.ricsfirms.com.
- If the property is subject to future development in the vicinity of the recorded mining features, a mining site investigation is recommended to clarify the mining risk to the proposed development.

Other considerations

Other ground hazards have been identified at the site. Please refer to the findings and recommendations below for further details. If the property is to be redeveloped, these findings should be used to inform geotechnical investigations at the site. Please also note, recommendations assume structures are present within the site boundary. If there are no structures or multiple structures present these recommendations should be treated appropriately.

Ground stability

The property is indicated to lie within an area that could be affected by infilled land.

The property is indicated to lie within an area that could be affected by natural instability.

Next steps for consideration:

- if a survey has been undertaken at the property that considers ground instability and no issues were found, no further action is required
- however, based on the findings of this report, the purchaser should be encouraged to consider potential instability in any future development or alteration of the ground including planting and removing trees, and regardless of the survey outcome
- if no survey has yet been undertaken, we recommend one is carried out by a suitably qualified and experienced person
- if ground instability issues have been or are subsequently identified in a survey we recommend following any advice given in the survey findings
- if the property is in an area at risk of shrink-swell subsidence and has clay drainage pipes, consideration should be given to replacing these with a modern equivalent
- if a residential property, check whether it benefits from an NHBC guarantee or other builder warranty that often covers structural issues. Please note the presence of an NHBC guarantee wouldn't change the risk assessment of this report.

Energy

Oil and gas

A record of a well used for oil and gas extraction, exploration, or development has been identified in the locality of the property, although not in close proximity. The presence of a well does not necessarily mean that any active exploration or producing is occurring. We recommend checking the data within the report to see if the well has a ‘completed by’ date within the data as this would indicate that no further activity is taking place at the site.
You may wish to visit the website of any identified operator for further information.

Non-coal mining summary

Mining records

Records relating to recorded mining areas or activity have been identified in the vicinity of the site.

See page 6 > for details. The Non-coal mining assessment on page 2 > will cover any next steps relating to these features, if applicable.

Mining features	Identified
Mine plans	Identified
Researched mining	Identified
BritPits	Identified
Mineral Planning Areas	Identified
Non-coal mining areas	Identified
Mining cavities	Identified
Coal mining areas	Not identified
Brine areas	Not identified
Gypsum areas	Not identified
Tin mining areas	Not identified

Historical features

Historical mapping has identified mining features in the vicinity of the site.

See page 12 > for details. The Non-coal mining assessment on page 2 > will cover any next steps relating to these features, if applicable.

Non-coal mining	Identified
Coal and associated mining	Not identified
Industry associated with mining	Identified

Geological features

There are geological features that could indicate the presence of mining operations in the area or other sources of ground instability.

See page 17 > for details. The Non-coal mining assessment on page 2 > will cover any next steps relating to these features, if applicable.

Artificial and made ground	Not identified
Mineral veins	Identified

Oil and gas

Historical, active or planned wells or extraction areas have been identified near the property.

See page 18 > for details and page 3 > for recommended next steps.

Oil and gas areas	Not identified
Oil and gas wells	Identified

Ground stability summary

Natural instability

Searches of natural ground stability data have identified potential ground stability risks.

See page 20 > for details and page 3 > for recommended next steps.

Shrink-swell hazard	Non-Plastic
Natural ground subsidence	Moderate
Landslides	Not identified
Natural cavities	Information
Coastal erosion	Not identified

Infilled land

Areas of infilled land or landfill have been identified in the vicinity of the site.

See page 23 > for details and page 3 > for recommended next steps.

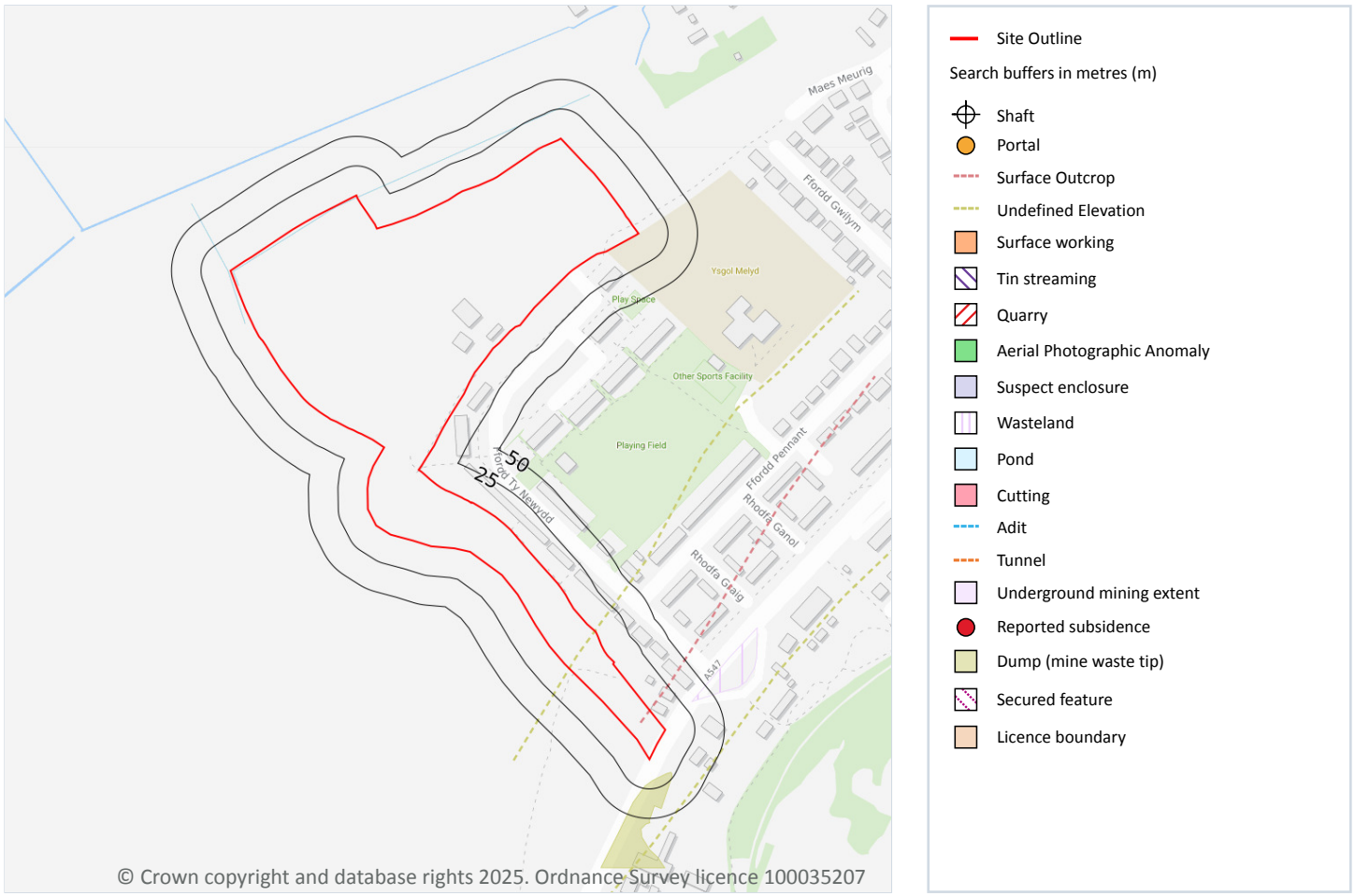
Infilled land	Identified
Historical landfill sites	Information

Sinkholes

No records of sinkholes have been identified in the vicinity of the property.

Reported recent incidents	Not identified
Recorded incidents (Stantec)	Not identified
Historical incidents	Not identified

Non-coal mining / Mining features



Mineralised veins

Mineralised veins identified from OS, BGS Geological mapping, Lidar data, and mine plans sourced from the BGS and various collections and sources.

Location	Feature	Mineral	Mining type
On site	Undefined elevation	Lead	Metals
45m SE	Undefined elevation	Lead	Metals
On site	Surface outcrop	Copper	Metals

This data is sourced from Groundsure

Surface features

Surface features, including suspect enclosures and wasteland, identified from OS, BGS Geological mapping,

Lidar data, and mine plans sourced from the BGS and various collections and sources.

Location	Feature	Mineral	Mining type
33m NE	Wasteland	Mined	Unspecified

This data is sourced from Groundsure

Mine waste tips

Mine waste tips identified from OS, BGS Geological mapping, Lidar data, and mine plans sourced from the BGS and various collections and sources.

Location	Feature	Mineral	Mining type
17m SE	Mine waste tip	Mined	Unspecified

This data is sourced from Groundsure

Researched mining

The property has been found to be either within or in proximity to areas of potential mining identified from alternative or archival sources, including; BGS Geological paper maps, Lidar data, aerial photographs (from World War II onwards), archaeological data services, websites, Tithe maps, and various text/plans from collected books and reports. Some of this data is approximate and Groundsure have interpreted the resultant risk area and, where possible, specific areas of risk have been captured. Any such risk areas or features in the vicinity of the property are presented on the 'Mining features' map and within the detailed sections on Mine entries, Mineralised veins, Surface workings, Surface features, Underground mine workings or Mine waste tips.

This data is sourced from Groundsure

Mining Record Office plans

The property has been found to be either within or in proximity to areas defined on Mining Record Office plans. This dataset is representative of Mining Record Office plan extents held by Groundsure and should be considered approximate. Where possible, plans have been located and any specific areas of risk they depict have been captured. Any such risk areas or features in the vicinity of the property are presented on the 'Mining features' map and within the detailed sections on Mine entries, Mineralised veins, Surface workings, Surface features, Underground mine workings or Mine waste tips.

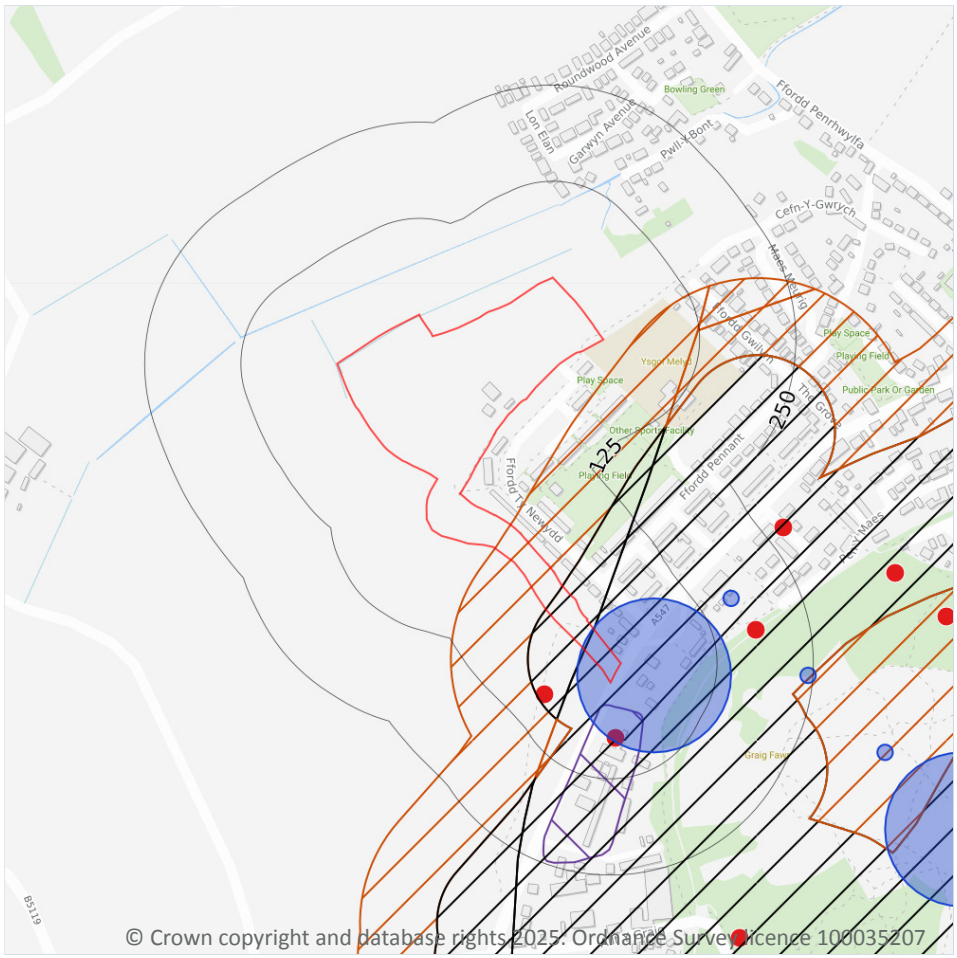
This data is sourced from Groundsure

BGS mine plans

The property has been found to be either within or in proximity to areas defined on BGS mine plans. This dataset is representative of BGS mine plan extents held by Groundsure and should be considered approximate. Where possible, plans have been located and any specific areas of risk depicted have been captured. Any such risk areas or features in the vicinity of the property are presented on the Mining features map and within detailed sections on Mine entries, Mineralised veins, Surface workings, Surface features, Underground mine workings or Mine waste tips.

This data is sourced from Groundsure.

Non-coal mining / Mining records



Site Outline

Search buffers in metres (m)

BritPits

Historical Mineral Planning Areas

Mining Cavities

Non Coal Mining

Underground mining known or likely within or in close proximity

Underground mining known within or in very close proximity

BritPits

BritPits (an abbreviation of British Pits) is a database maintained by the British Geological Survey of currently active and closed surface and underground mineral workings. Details of major mineral handling sites, such as wharfs and rail depots are also held in the database.

Location	Details	Description
73m S	Name: Talargoch Mine Address: Bryniau, Meliden, PRESTATYN, Flintshire Commodity: Lead Status: Ceased	Type: Working is wholly underground, access by shaft, adit, drift or incline. Working may be termed Colliery, Mine, Drift Mine, Slant, Level, Adit or Ingoing Eye (Ingaun' Ee' - Scots). May also be locally termed `Quarry' or `Underground Quarry' when referring to sites extracting building stone (e.g. in Dorset and Wiltshire). The location given is that of the mine entrance and may be approximate for older sites shown on contemporaneous mapping by the Geological Survey used as the source document. Status description: Site which has ceased to extract minerals. May be considered as 'Closed' by operator. May be considered to have 'Active', 'Dormant' or 'Expired' planning permissions by the Mineral Planning Authority.
77m SW	Name: Talargoch Mine Address: Bryniau, Meliden, PRESTATYN, Flintshire Commodity: Lead Status: Ceased	Type: Working is wholly underground, access by shaft, adit, drift or incline. Working may be termed Colliery, Mine, Drift Mine, Slant, Level, Adit or Ingoing Eye (Ingaun' Ee' - Scots). May also be locally termed `Quarry' or `Underground Quarry' when referring to sites extracting building stone (e.g. in Dorset and Wiltshire). The location given is that of the mine entrance and may be approximate for older sites shown on contemporaneous mapping by the Geological Survey used as the source document. Status description: Site which has ceased to extract minerals. May be considered as 'Closed' by operator. May be considered to have 'Active', 'Dormant' or 'Expired' planning permissions by the Mineral Planning Authority.
181m E	Name: Talargoch Mine Address: Bryniau, Meliden, PRESTATYN, Flintshire Commodity: Lead Status: Ceased	Type: Working is wholly underground, access by shaft, adit, drift or incline. Working may be termed Colliery, Mine, Drift Mine, Slant, Level, Adit or Ingoing Eye (Ingaun' Ee' - Scots). May also be locally termed `Quarry' or `Underground Quarry' when referring to sites extracting building stone (e.g. in Dorset and Wiltshire). The location given is that of the mine entrance and may be approximate for older sites shown on contemporaneous mapping by the Geological Survey used as the source document. Status description: Site which has ceased to extract minerals. May be considered as 'Closed' by operator. May be considered to have 'Active', 'Dormant' or 'Expired' planning permissions by the Mineral Planning Authority.

This data is sourced from the British Geological Survey.

Mineral Planning Areas

Boundaries of mineral planning permissions for England and Wales. This data was collated between the 1940s (and retrospectively to the 1930s) and the mid 1980s. The data includes permitted, withdrawn and refused permissions.

Location	Site Name	Mineral	Type	Planning Status	Planning Status Date	Additional information
30m S	Talargoch	Not available	Not available	Not available	Not available	No further details available

This data is sourced from the British Geological Survey.

Non-coal mining areas

The potential for historical non-coal mining to have affected an area. The assessment is drawn from expert knowledge and literature in addition to the digital geological map of Britain. Mineral commodities may be divided into seven general categories - vein minerals, chalk, oil shale, building stone, bedded ores, evaporites and 'other' commodities (including ball clay, jet, black marble, graphite and chert).

Location	Name	Commodity	Class	Likelihood
On site	Not available	Iron Ore (Bedded)	D	Underground mining is considered likely to have occurred within or close to the area. The location, extent and nature of mining should be considered in any site investigation. Potential for difficult ground conditions should be considered.
On site	Not available	Vein Mineral	E	Underground mining is known or considered likely within or very close to the area. The location, extent and nature of mining should be considered in any site investigation. Potential for difficult ground conditions should be considered.
On site	Not available	Iron Ore (Bedded)	E	Underground mining is known or considered likely within or very close to the area. The location, extent and nature of mining should be considered in any site investigation. Potential for difficult ground conditions should be considered.

This data is sourced from the British Geological Survey.

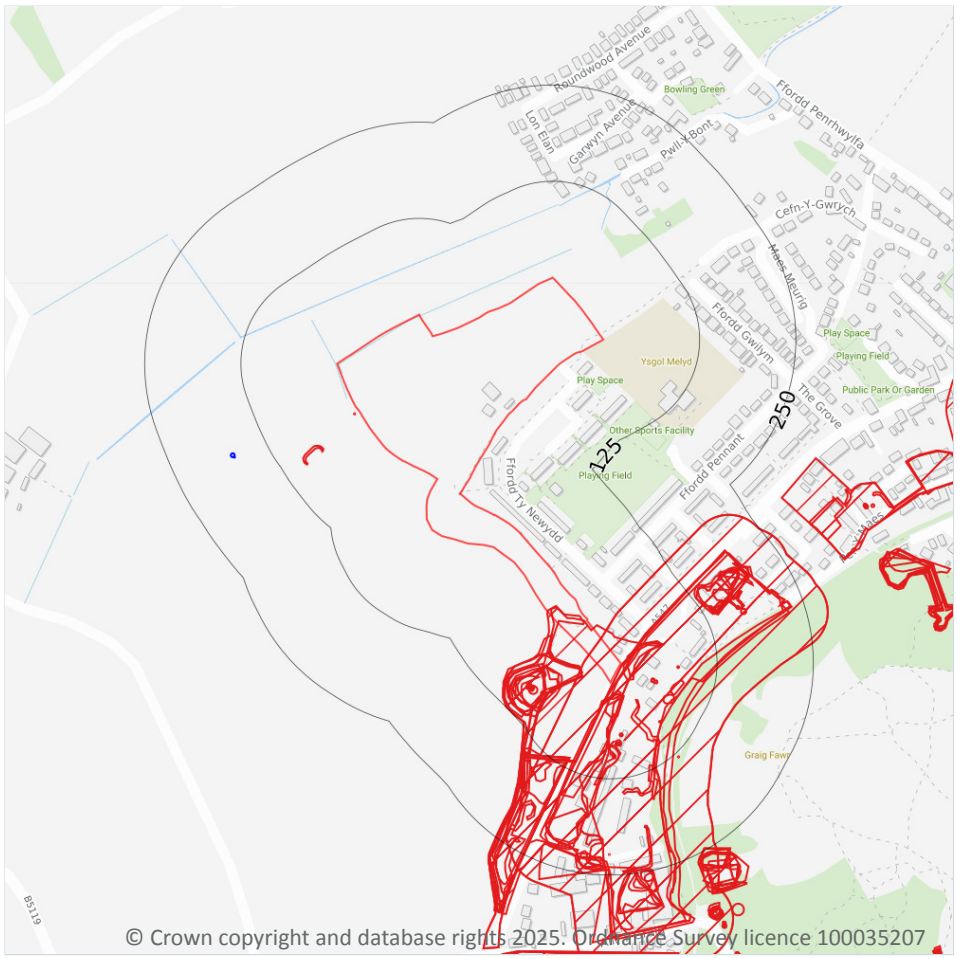
Mining cavities

Industry recognised national database of mining cavities. Degraded mines may result in hazardous subsidence (crown holes). Climatic conditions and water escape can also trigger subsidence over mine entrances and workings.

Location	Mine Address	Mineral
On site	Talargoch, Clwyd	Lead
156m NE	Talargoch Mine, Dyserth, Denbighshire	-
234m E	Graig Fawr, Dyserth, Denbighshire	-

This data is sourced from Stantec UK Ltd.

Non-coal mining / Historical features



Site Outline

Search buffers in metres (m)

Non-coal mining

Coal and associated mining

Industry associated with mining

Non-coal mining

Historical land uses identified from Ordnance Survey mapping that involved mining for substances other then coal.

Location	Land use	Date
On site	Disused Lead Mine	1938
On site	Disused Lead Mine	1912
On site	Lead Mine	1871
On site	Unspecified Disused Mine	1898
2m SE	Disused Mine	1899
5m SE	Ground Workings	1912

Location	Land use	Date
6m SE	Unspecified Ground Workings	1949
6m SE	Unspecified Ground Workings	1949
6m SW	Drain Shaft	1993
7m SE	Lead Mine	1871
9m E	Unspecified Heap	1959
14m SE	Unspecified Ground Workings	1959
17m SW	Unspecified Disused Mine	1959
17m S	Unspecified Ground Workings	1911
17m SE	Ground Workings	1871
21m SE	Ground Workings	1912
21m SW	Disused Lead Mine	1949
21m SW	Disused Lead Mine	1949
21m SW	Disused Lead Mine	1911
40m SE	Ground Workings	1964
45m SW	Unspecified Heap	1898
45m SE	Old Shafts	1912
45m SE	Shaft	1871
45m SE	Shaft	1899
49m SE	Unspecified Shaft	1871
50m SW	Unspecified Heap	1871
52m SW	Unspecified Heap	1959
55m SW	Ground Workings	1871
55m SW	Ground Workings	1899
55m SW	Unspecified Heap	1938
57m SW	Unspecified Heap	1911
65m SW	Ground Workings	1993
68m S	Old Shaft	1912
68m S	Shaft	1899

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info@groundsure.com ↗
01273 257 755

Location	Land use	Date
68m SW	Refuse Tip	1964
71m SE	Old Shafts	1912
73m SE	Old Shafts	1912
74m E	Trial Shaft	1912
76m S	Unspecified Shafts	1898
78m S	Lead Shaft	1899
78m S	Shaft	1871
79m S	Lead Shafts	1871
79m SW	Unspecified Disused Shaft	1969
80m SW	Disused Shaft	1964
81m SW	Unspecified Old Shaft	1911
81m SE	Shaft	1899
82m S	Ground Workings	1899
82m SW	Unspecified Old Shaft	1898
83m SW	Lead Shaft	1871
83m SW	Unspecified Old Shaft	1938
84m SW	Lead Shaft	1871
84m SW	Old Lead Shaft	1899
84m SW	Old Shaft	1912
90m S	Lead Shaft	1871
94m S	Lead Shafts	1871
111m SW	Unspecified Ground Workings	1949
111m SW	Unspecified Ground Workings	1949
116m SW	Unspecified Ground Workings	1959
119m SE	Ground Workings	1993
121m SW	Unspecified Ground Workings	1911
129m NE	Unspecified Heaps	1911
129m NE	Ground Workings	1912

Location	Land use	Date
130m SE	Old Shaft	1993
131m SW	Unspecified Pit	1938
133m NE	Unspecified Pits	1949
133m NE	Unspecified Pits	1949
135m NE	Ground Workings	1987
136m NE	Ground Workings	1977
136m NE	Ground Workings	1962
137m NE	Ground Workings	1964
143m SW	Ground Workings	1964
145m SW	Unspecified Ground Workings	1969
149m NE	Unspecified Pit	1959
166m NE	Ground Workings	1871
167m NE	Old Shaft	1899
167m NE	Old Shaft	1912
168m S	Unspecified Ground Workings	1959
170m NE	Unspecified Old Shaft	1898
171m NE	Unspecified Heap	1949
171m NE	Unspecified Heap	1949
175m NE	Unspecified Heap	1959
191m S	Ground Workings	1964
199m S	Unspecified Ground Workings	1959
221m S	Unspecified Heap	1959
223m S	Old Shaft	1993
225m S	Unspecified Ground Workings	1911
241m S	Unspecified Ground Workings	1959
245m S	Unspecified Ground Workings	1911
246m S	Unspecified Pit	1959
246m S	Unspecified Ground Workings	1949

Location	Land use	Date
246m S	Unspecified Ground Workings	1949
248m SE	Unspecified Heap	1979
248m SE	Unspecified Heap	1994
248m SE	Unspecified Heap	1959
248m SE	Unspecified Heap	1969

This data is sourced from Groundsure.

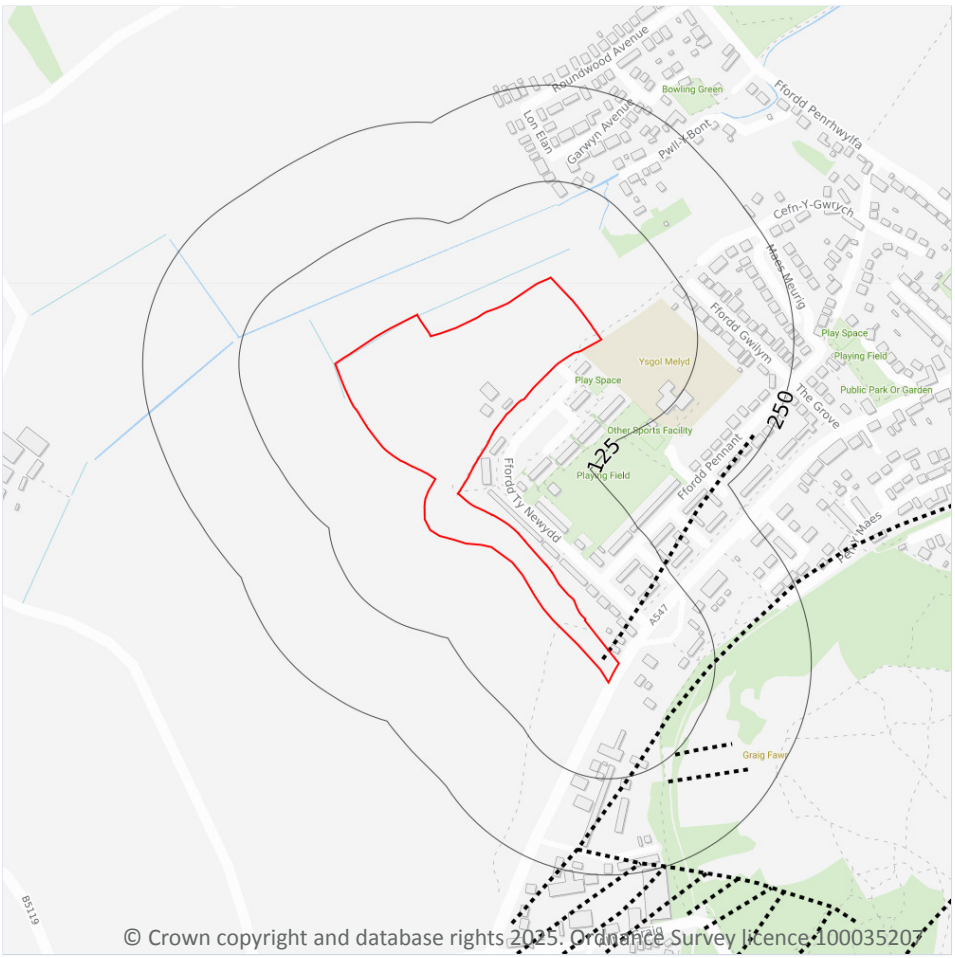
Industry associated with mining

Historical land uses identified from Ordnance Survey mapping that indicate the presence of industry which was often associated with mineral extraction. Extraction sites were often located in close proximity to these land uses.

Location	Land use	Date
169m SW	Wind Pump	1911
169m SW	Wind Pump	1912

This data is sourced from Groundsure.

Non-coal mining / Geological features 50k



Site Outline

Search buffers in metres (m)

- Made ground
- Worked ground
- Infilled ground
- Disturbed ground
- Landscaped ground
- Mineral veins

Linear features - mineral veins (50k)

Detail of linear features such as mineral veins identified from geological maps at 1:50,000 scale. The presence of mineral veins in the area is an indicator that mining operations may have occurred in the area.

Location	Category	Description
On site	MINERAL_VEIN	Mineral vein, inferred
90m SE	MINERAL_VEIN	Mineral vein, inferred
128m SE	MINERAL_VEIN	Mineral vein, inferred
150m SE	MINERAL_VEIN	Mineral vein, inferred
220m S	MINERAL_VEIN	Mineral vein, inferred
238m S	MINERAL_VEIN	Mineral vein, inferred

Location	Category	Description
250m S	MINERAL_VEIN	Mineral vein, inferred

This data is sourced from the British Geological Survey.

Non-coal mining / Oil and gas

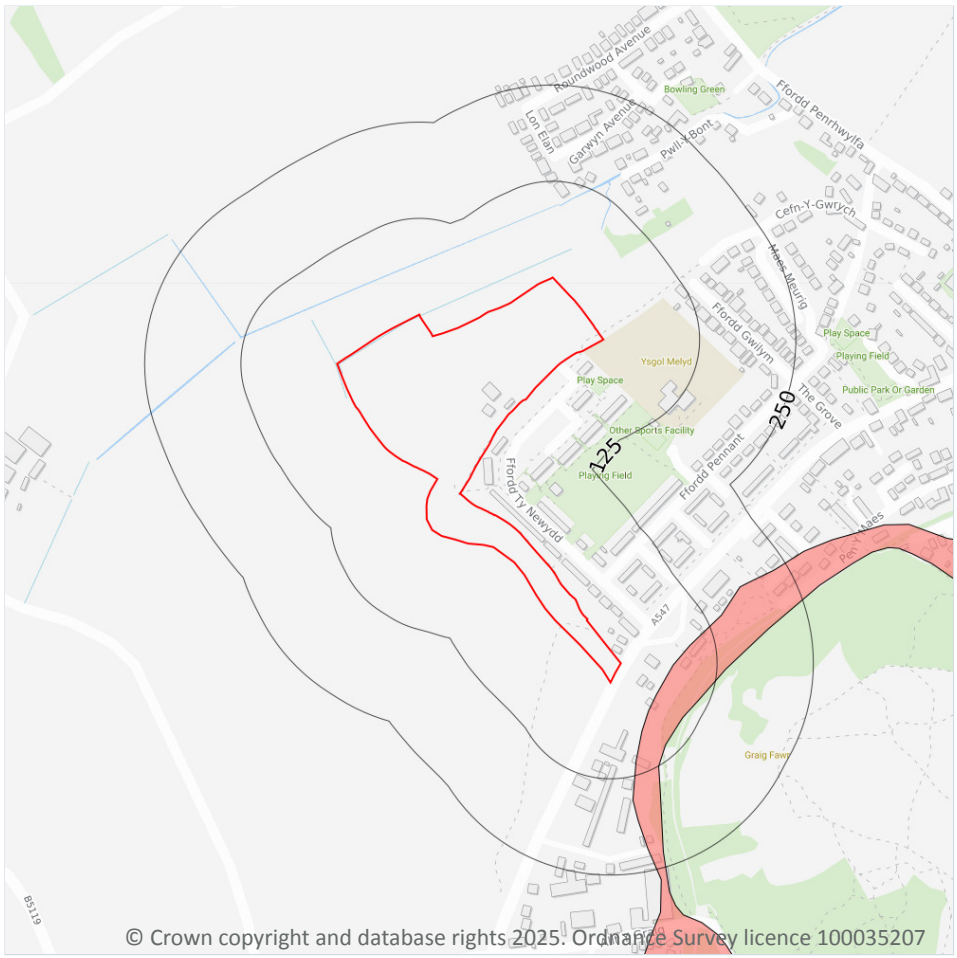
Oil or gas drilling well

The database of oil and gas wells shows all existing and historic licensed oil, gas, shale gas, and coalbed methane extraction sites. These wells may have been licensed in any one of the 14 licensing rounds since 1910.

ID	Distance	Direction	Details	
1	4-5 km	SW	Site Name: RHUDDLAN 1 Operator: EVERGREEN Type: Coalbed Methane Intent: Exploration	NSTA References: L110/23- 1 Licence Number: EXL201 Date of first drilling: 02/02/1993 Date of well completion: 16/04/2003 Licence Expiry: 16/04/2008

This data is sourced from the North Sea Transition Authority (NSTA).

Ground stability / Landslides



Site Outline

Search buffers in metres (m)

Slope instability

- Moderate
- High

National landslide database

- Landslide record

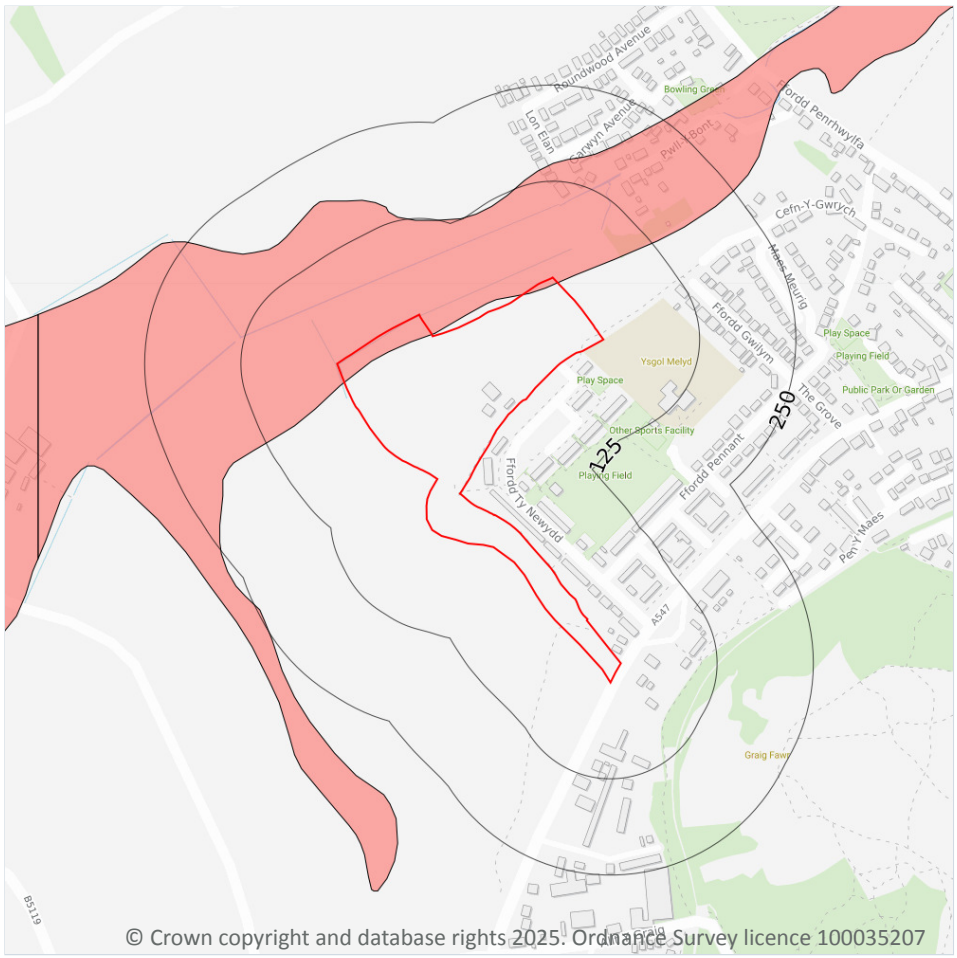
Landslides

The potential for landsliding (slope instability) to be a hazard assessed using 1:50 000 scale digital maps of superficial and bedrock deposits, combined with information from the BGS National Landslide Database and scientific and engineering reports.

Location	Hazard rating	Details
60m SE	Moderate	Slope instability problems are probably present or have occurred in the past. Land use should consider specifically the stability of the site.

This data is sourced from the British Geological Survey.

Ground stability / Compressible deposits



Site Outline

Search buffers in metres (m)

Moderate

High

Compressible deposits

The potential hazard presented by types of ground that may contain layers of very soft materials like clay or peat and may compress if loaded by overlying structures, or if the groundwater level changes, potentially resulting in depression of the ground and disturbance of foundations.

Location	Hazard rating	Details
On site	Moderate	Compressibility and uneven settlement hazards are probably present. Land use should consider specifically the compressibility and variability of the site.

This data is sourced from the British Geological Survey.

Ground stability / Natural cavities

Site Outline

Search buffers in metres (m)

Natural cavities (Polygon)

Natural cavities (Line)

Natural cavities

Industry recognised national database of natural cavities. Sinkholes and caves are formed by the dissolution of soluble rock, such as chalk and limestone, gulls and fissures by cambering. Ground instability can result from movement of loose material contained within these cavities, often triggered by water.

Location	Details
237m SE	Type: Vadose Cave x 1 Superficial Geology: None Bedrock Geology: Carboniferous Limestone Supergroup, Lower Carboniferous Limestone, Upper Carboniferous Limestone

This data is sourced from Stantec UK Ltd.

Ground stability / Infilled land

Site Outline

Search buffers in metres (m)

Active landfill sites

Historical landfill (LA/mapping)

Infilled Land

Historic landfill sites

Infilling from historical mapping

These are records of areas of land that have been potentilly infilled with unknown materials. Groundsure have identified these areas from our comprehensive collection of historical maps. Depending on the nature of the materials that have been used for infilling there is the potential for these areas to settle over time. As such, any buildings situated on these areas could be at risk from ground instability or subsidence.

Location	Year of mapping	Land Use	Mapping scale
On site	1938	Disused Lead Mine	10560
On site	1898	Unspecified Disused Mine	10560
6m SE	1949	Unspecified Ground Workings	10560
6m SE	1949	Unspecified Ground Workings	10560

Location	Year of mapping	Land Use	Mapping scale
7m SE	1871	Lead Mine	10560
9m E	1959	Unspecified Heap	10560
14m SE	1959	Unspecified Ground Workings	10560
17m SW	1959	Unspecified Disused Mine	10560
17m S	1911	Unspecified Ground Workings	10560
21m SW	1949	Disused Lead Mine	10560
21m SW	1949	Disused Lead Mine	10560
21m SW	1911	Disused Lead Mine	10560
45m SW	1898	Unspecified Heap	10560
49m SE	1871	Unspecified Shaft	10560
50m SW	1871	Unspecified Heap	10560
52m SW	1959	Unspecified Heap	10560
55m SW	1938	Unspecified Heap	10560
57m SW	1911	Unspecified Heap	10560

This data is sourced from Groundsure.

Historical landfill (from Local Authority and historical mapping records)

These are records of former areas of landfill. These areas of land are likely to have been redeveloped for other uses since the landfill closed. Depending on the nature of the waste these landfill sites accepted, they may still pose a risk of contamination (including from landfill gases). Former landfill sites can also cause issues with ground instability.

Location	Site address	Source	Data type
68m SW	Refuse Tip	1962 mapping	Polygon

This data is sourced from Groundsure.

Datasets searched

This is a full list of the data searched in this report. If we have found results of note we will state "Identified". If no results of note are found, we will state "Not identified". Our intelligent filtering will hide "Not identified" sections to speed up your workflow. Please note: if a GeoRisk + report, the CON29M and Cheshire Salt Search content is not covered in the below.

Mining features	
Mine entries	Not identified
Mineralised veins	**Identified**
Surface workings	Not identified
Surface features	**Identified**
Underground mine workings	Not identified
Reported subsidence	Not identified
Mine waste tips	**Identified**
Secured features	Not identified
Licence boundaries	Not identified
Researched mining	**Identified**
Mining Record Office plans	**Identified**
BGS mine plans	**Identified**

Mining records	
BritPits	**Identified**
Mineral Planning Areas	**Identified**
Non-coal mining areas	**Identified**
Mining cavities	**Identified**
Coal mining areas	Not identified
Brine areas	Not identified
Gypsum areas	Not identified
Tin mining areas	Not identified

Historical Features	
Non-coal mining	**Identified**
Coal and associated mining	Not identified
Industry associated with mining	**Identified**

Geological features	
Artificial and made ground (10k)	Not identified
Linear features - mineral veins (10k)	Not identified
Artificial and made ground (50k)	Not identified
Linear features - mineral veins (50k)	**Identified**

Oil and gas	
Oil or gas drilling well	**Identified**
Proposed oil or gas drilling well	Not identified
Licensed blocks	Not identified
Potential future exploration areas	Not identified

Natural instability	
Property shrink-swell assessment	Not identified
Shrink-swell clays	Not identified
Landslides	**Identified**
National landslide database	Not identified
Running sands	Not identified
Compressible deposits	**Identified**
Collapsible deposits	Not identified
Dissolution of soluble rocks	Not identified

Natural instability	
Natural cavities	**Identified**

Coastal Erosion	
Complex cliffs	Not identified
Projections with intervention measures in place	Not identified
Projections with no active intervention	Not identified

Infilled land	
Infilling from historical mapping	**Identified**
Active landfill sites	Not identified
Historical landfill (from Environment Agency records)	Not identified
Historical landfill (from Local Authority and historical mapping records)	**Identified**

Sinkholes	
Reported recent incidents	Not identified
Recorded incidents (Stantec)	Not identified
Historical incidents	Not identified

Methodologies and limitations

Groundsure's methodologies and limitations are available here: knowledge.groundsure.com/methodologies-and-limitations ↗.

Data providers

Groundsure works with respected data providers to bring you the most relevant and accurate information in your Georisk Commercial report. To find out who they are and their areas of expertise see www.groundsure.com/sources-reference ↗.

Conveyancing Information Executive and our terms & conditions

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- normally deal with it fully and provide a final response, in writing, within 20 working days of receipt
- liaise, at your request, with anyone acting formally on your behalf

Complaints should be sent to:
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