

TREVOR BASIN AREA SITE ARRIVAL & CAR PARK

Coal Mining Risk Assessment

Document Ref: 10054502-ARC-XX-XXX-RP-GE-01002

Revision: 01

MAY 2024

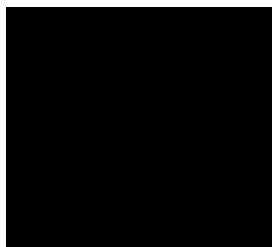
For development at: Pontcysyllte Aqueduct & Canal World Heritage Site,
Wrexham

For proposal: New arrival point to Pontcysyllte Aqueduct & Canal World
Heritage Site including parking; hard and soft landscaping; pathways for
vehicles and active travel and drainage ponds.

Assessment Summary

Assessment Result	HIGH RISK
Recommended Further Work	INTRUSIVE GROUND INVESTIGATION

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Coal Mining Risk Assessment

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Document Ref. 10054502-ARC-XX-XXX-RP-GE-01002

Date MAY 2024

Version Control

Version	Date	Author	Reviewer	Approver	Changes
01	May 24	JLA	EY	PW	N/A – Initial Issue

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1 Introduction

1.1 Background

Arcadis Consulting (UK) Limited was commissioned by Wrexham County Borough Council to complete a Coal Mining Risk Assessment (CMRA) for the Trevor Basin Area Site Arrival and Car Park development in order to provide the Local Planning Authority with information on coal mining and an assessment of its impact on land stability.

1.2 Proposed Development

The proposed development comprises the construction of a new arrival point to Pontcysyllte Aqueduct & Canal World Heritage Site (WHS), Wrexham, LL14 3NP (the “site”). This is to include car, coach and cycle parking; hard and soft landscaping; pathways for vehicles and active travel; a recreational walking and cycle route to the Aqueduct; woodland enhancement with additional planting and amenity green space; signage and wayfinding; drainage ponds; and additional fencing. A General Arrangement Plan for the proposed scheme is included in Appendix B.

The proposed development of the site is part of the wider Trevor Basin and Surrounding Area Masterplan 2021 and aims to consolidate parking for visitors to the Pontcysyllte Aqueduct & Canal World Heritage Site.

1.3 Objectives and Scope of Work

As the site lies partially within a Coal Authority Development High Risk Area, a Coal Mining Risk Assessment is required in support of the application. The purpose of this Coal Mining Risk Assessment Report is to:

- Present a desk-based review of all available information on the coal mining issues which are relevant to the application site.
- Use that information to identify and assess the risks to the proposed development from coal mining legacy, including the cumulative impact of issues.
- Set out appropriate mitigation measures to address the coal mining legacy issues affecting the site, including any necessary remedial works and/or demonstrate how coal 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 regard to development on unstable land.

Any works that intersect coal mine workings, mine entries or coal seams may have implications for mine gas, spontaneous combustion and surface collapse. Coal Authority permission is required prior to any such works taking place.

The Coal Authority's adopted policies regarding building over or close to mine entries and managing gas risks can be viewed at:

www.gov.uk/government/publications/building-on-or-within-the-influencing-distance-of-mine-entries

www.gov.uk/government/publications/guidance-on-managing-the-risk-of-hazardous-gases

The purpose of this risk assessment is to review available site-specific data relating to ground conditions and to assess the potential significance of mining related hazards, to confirm what additional assessment or mitigation measures are required.

The scope of work carried out in the production of this report includes:

- Review of historical Ordnance Survey mapping (Appendix C).
- Review of Enviro and Geo Insight Report prepared by Groundsure (Appendix D).
- Review of a Coal Authority (CA) Consultants Coal Mining Report (Appendix E).
- Review of Coal Authority online resources.
- Review of other mining records including abandonment plans (Appendix F).
- Review of British Geological Survey maps and online resources (GeoIndex).
- Completion of a risk assessment.

There are no existing site investigation reports available for the site.

The redline boundary has been amended slightly following procurement of some of the above documents. The current site boundary is shown on Figure 2-1 in the following section.

1.4 Reliability of Information / Limitations

Arcadis warrants that the services performed were conducted in a competent and professional manner in accordance with sound consulting practices and procedures.

Arcadis cannot warrant the actual property conditions described in this report beyond matters amenable to confirmation within the limits of this report. The reader is referred to the Study Limitations, presented in Appendix A.

2 Site Setting

2.1 Site Location

The site is located to the west of the village of Cefn-mawr, approximately 7 miles southwest of Wrexham. The site is to the south of the A539, north of the A5 and centered around National Grid Reference SJ 27578 42545. A site location plan is presented in Figure 2-1 below.



Figure 2-1: Site Location Plan © OpenStreetMap

The site is approximately 4.5 hectares and comprises parcels of land to the east and west of Queen Street carriageway. Figure 2-2 below shows the current site layout.



Figure 2-2: Site Layout © Google Maps 2024

2.2 Site Description

A site walkover was completed by Arcadis in February 2023 during the preparation of a Phase 1 Geo-Environmental Desk Study Report (10054502-ARC-XX-XXX-RP-GE-01001; Jan 2024).

The walkover identified the site to be predominantly covered in hardstanding in the form of concrete and macadam, with areas of scrub vegetation and mature / semi-mature trees (birch and conifers). No structures were identified during the walkover; however, traces of former industrial uses such as tank bases, concrete loading bay areas, and services (drainage and sewerage) were noted across the site. Large areas of the site have been benched into the surrounding landscape to create level platforms which are assumed to have been used for car parking or former industrial processing areas. A visual assessment of the site appears to show that above ground demolition has taken place on the site, but it is likely that any subsurface features or structures will remain in-situ.

2.3 Surrounding Land Use

The current land uses surrounding the site are described below:

- North – The current Pontcysyllte Aqueduct & Canal World Heritage Site car park and the Cefn cemetery, with the A539 and residential properties beyond.
- East – Disused former industrial land comprising roads, concrete slabs and remnant structures, with residential housing beyond.
- South – Area of mixed agricultural land and residential housing, with a sewage treatment plant beyond.
- West – Trevor Basin, with residential properties beyond.

3 Site History

3.1 On-site History

The history of the site relevant to past mining has been based on a review of historical Ordnance Survey maps (presented in Appendix C) and is summarised below.

Table 3-1: Site History

Year	On site	Surrounding area
1873-1875	Canal running northeast to southwest along the north of the site. Plas-Kynaston Chemical works found within the east of the site. An old shaft is noted at the south-eastern boundary. Tref-y-nant brook runs through the site area which is noted to be marshy.	Tracks (railway/tramway) run southwest to northeast adjacent to the site. The Plas-kynaston (Iron) Foundry is mapped 50m northeast of the site, with a gas works and gasometer beyond approximately 200m to the northeast. Two <i>old shafts</i> are noted ~75-175m south of the site, and one is labelled ~300m north. A fire clay works, mine shaft, and associated tracks are mapped approximately 300m north of the site.
1898-1899	An old shaft is noted towards the centre of the site area.	Additional shafts, air shafts and old shafts are now mapped 200-250m to the northeast of the site, ~200m west and ~50m south. The tracks have also been expanded to the north and now connect to shafts found approximately 250-300m north of the site. Several quarries / old quarries are mapped approximately 400m to the east of the site. The foundry and chemical works to the north and east have expanded.
1959-1963	Canal has been partially backfilled. Much of the site area is now classed as works, with an expansion of industrial buildings associated with the chemical works including pipework and tanks.	An unnamed industrial building has been constructed to the north of the western site area. A sewage works has been constructed approximately 200m southwest of the site.
1977	Canal is now completely backfilled.	The former fireclay works to the northwest of the site is no longer mapped. The quarry 400m east of the site is now noted to be disused.
1985	The brook running through the site has been diverted and appears to run along Queen Street.	No significant changes.
2016	Former chemical works now demolished with remnant concrete pads and roads remaining in place. No structures are mapped on the site.	The buildings associated with the chemical works have been demolished.

4 Site Geology

4.1 Published & Local Geology

The regional geological information pertaining to the site was gained from a review of the BGS 1:50,000 scale map (Wrexham, Sheet 121, 1993), BGS online GeoIndex website, a site-specific Groundsure Insight report (Appendix D) and a Consultant's Coal Mining Report (Appendix E). This was supplemented where possible by archived borehole records available through the BGS GeoIndex.

Table 4-1: Summary of Published Geology

Unit	Published Information	Borehole Record Information
Superficial Deposits		
Artificial	Published records do not indicate the presence of any artificial ground, however Made Ground is likely to be present given the development history of the site.	No boreholes present within close proximity which would accurately represent any Made Ground present on the site.
Superficial	Devensian Till – characterised by a mixture of sediment sizes from clay-boulders which vary in shape and size.	Twelve records (SJ24SE676 - SJ24SE687) are mapped within the Till deposits approx. 300m northeast of the site. All holes were completed using rotary open hole methods in 2007. All recorded the Till as a firm to stiff yellow brown and grey silty CLAY, to a maximum depth of 6.9m bgl.
Bedrock		
Bedrock	Pennine Lower Coal Measures Formation and Pennine Middle Coal Measures (Undifferentiated) (PLMC) - interbedded mudstone, siltstone and sandstone, commonly with coal seams.	Twelve records (SJ24SE676 - SJ24SE687) are mapped within the PLMC deposits approx. 300m northeast of the site. Eleven were terminated at 30m bgl, with one extended to 34 m bgl (SJ24SE676). The eleven boreholes terminated at 30m bgl identified mudstone from 4-6.9 m bgl to the base of the holes at 30 m bgl. All identified a single band of coal (ranging in thickness from 0.15-0.2m) at depths between 14.6-16.65 m bgl. SJ24SE676 was extended to 34m bgl. This hole identified mudstone to 32m bgl, with two bands of coal at 16.5 m bgl (0.15m thick) and 31.5m bgl (0.25m thick). Sandstone was identified at 32m bgl to the base of the hole at 34m bgl. SJ24SE5B (~390m northeast of the site) is mapped within the PLMC deposits and shows a section through Engine Pit in Caegle Colliery. The section identifies 15 coal seams at depths ranging from 0.91-171.6 m bgl. Four records (SJ24SE498- SJ24SE501) are mapped 375m southwest of the site. All were completed in 1989 and drilled using rotary techniques. All found variable bands of sandstone / siltstone / mudstone to a maximum depth of 23.1m bgl. Coal bands were identified in SJ24SE498 at 4.3m bgl (0.47m thick) and SJ24SE501 at 1.36 and 19.94m bgl (0.39m and 0.16m thick respectively).

Unit	Published Information	Borehole Record Information
Coal seams	Three coal seams are mapped by the CA as sub cropping beneath the site. One seam is mapped to the west (labelled Premier seam on BGS map Fig 4-1 below), one through the central site area, and the third through the eastern edge of the site. The easternmost seam is not displayed on BGS mapping.	
Faults	A fault trending northwest to southeast is located to the north of the site boundary and a second major fault is located to the southeast trending northeast - southwest. No indication of the fault displacement is mapped.	

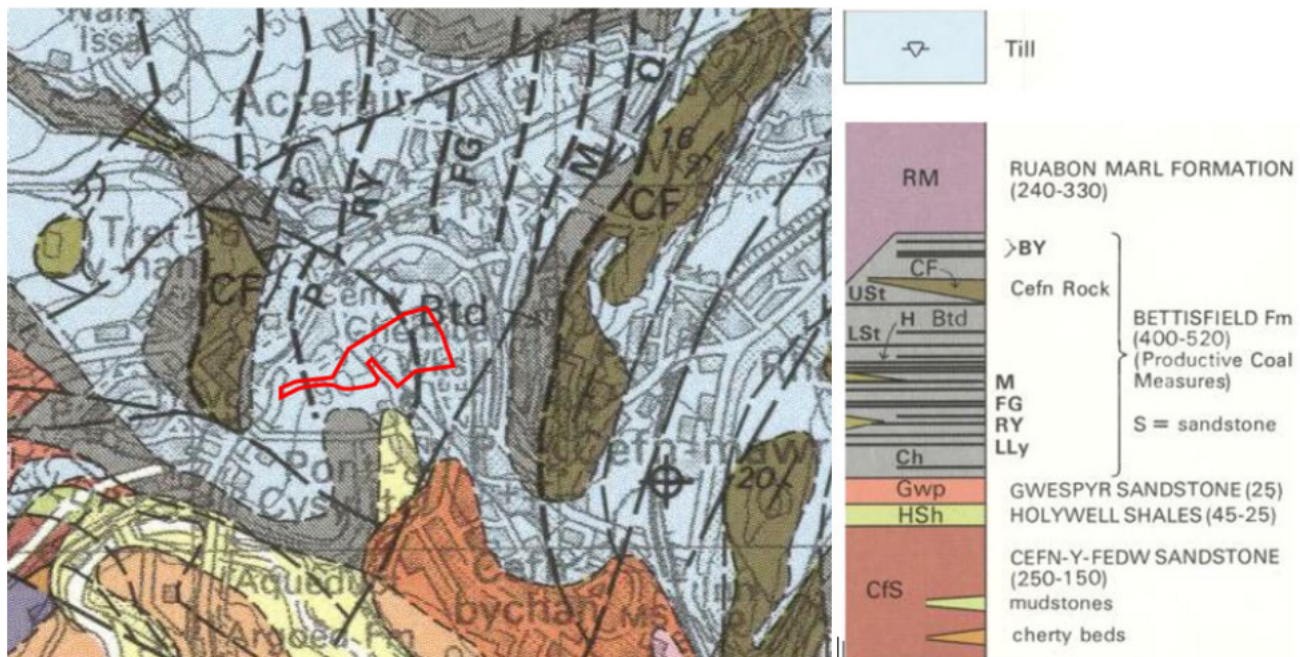


Figure 4-1: Map of Published Geology. Extract of BGS 1:50,000 Series, Sheet 121, Wrexham, Solid and Drift Geology, 1993

Light Blue – Till, Grey - Pennine Lower Coal Measures Formation and Pennine Middle Coal Measures (Undifferentiated) (PLMC). Thin Dashed Line – fault. Thick dashed line – coal outcrop.

4.2 Coal Mining Data

The Groundsure report (Appendix D) has identified the site as being within an area which may be affected by coal mining activity and the Coal Authority interactive map viewer shows approximately 50% of the site is located within a Development High Risk Area. This appears to relate to probable shallow mine working of the coal seam indicated to subcrop in the west of the site (labelled Premier seam by BGS mapping Fig 4-1 above) and recorded shallow underground workings and mine entries in the east of the site.

A Consultants Coal Mining Report (ref: 51003316425001) was obtained as part of the Phase 1 Desk Study and is presented in Appendix E. It should be noted that the site redline boundary has been amended slightly as per Figure 2-1. The report indicates three seams of coal outcrop on the site, bearing 155 - 195° and dipping roughly 9° to the east / southeast. These include the Stone, Ruabon Yard and Wall and Bench seams, all of which are noted to be workable.

Past underground mining has been recorded across multiple coal seams at variable depths beneath the site. These have been summarised in Table 4 below.

Table 4-2: Summary of Worked Coal Seams Beneath the Site

Seam	Depth (m bgl)	Dip rate of seam (degrees)	Dip direction of seam	Extraction Thickness (cm)	Year last worked	Seam Code
Stone	6	9	East	200	1860	LB025D
Nant (Soft 5 Qtrs)	10	9.5	East	160	1862	LC020D
Ruabon Yard (Soft 5 Qtrs)	11	9	East	110	1862	LD020D
Ruabon Yard (Soft 5 Qtrs)	17	9	East	110	1862	LD020D
Half Yard / Queen	26	9	East	50	1860	-
Wall and Bench	31	9	South-East	110	1860	KE060D
Wall and Bench	55	9	South-East	110	1860	KE060D
Wall and Bench	140	9	South-East	110	1860	KE060D

Four mine abandonment plans (dated 1949) were obtained from the Coal Authority for shallow workings beneath the site, these are included in Appendix F. Figure 4-2 below shows the outlines of the recorded workings beneath the site in relation to the site boundary. These are labelled with the seam names provided on the abandonment plans.

The Coal Mining Report also suggests that there are 'probable' unrecorded workings (shallow and moderate depths) beneath the site. The Coal Authority viewer indicates this may include the remaining areas of the site outside of the area of recorded workings shown in Figure 4-2.

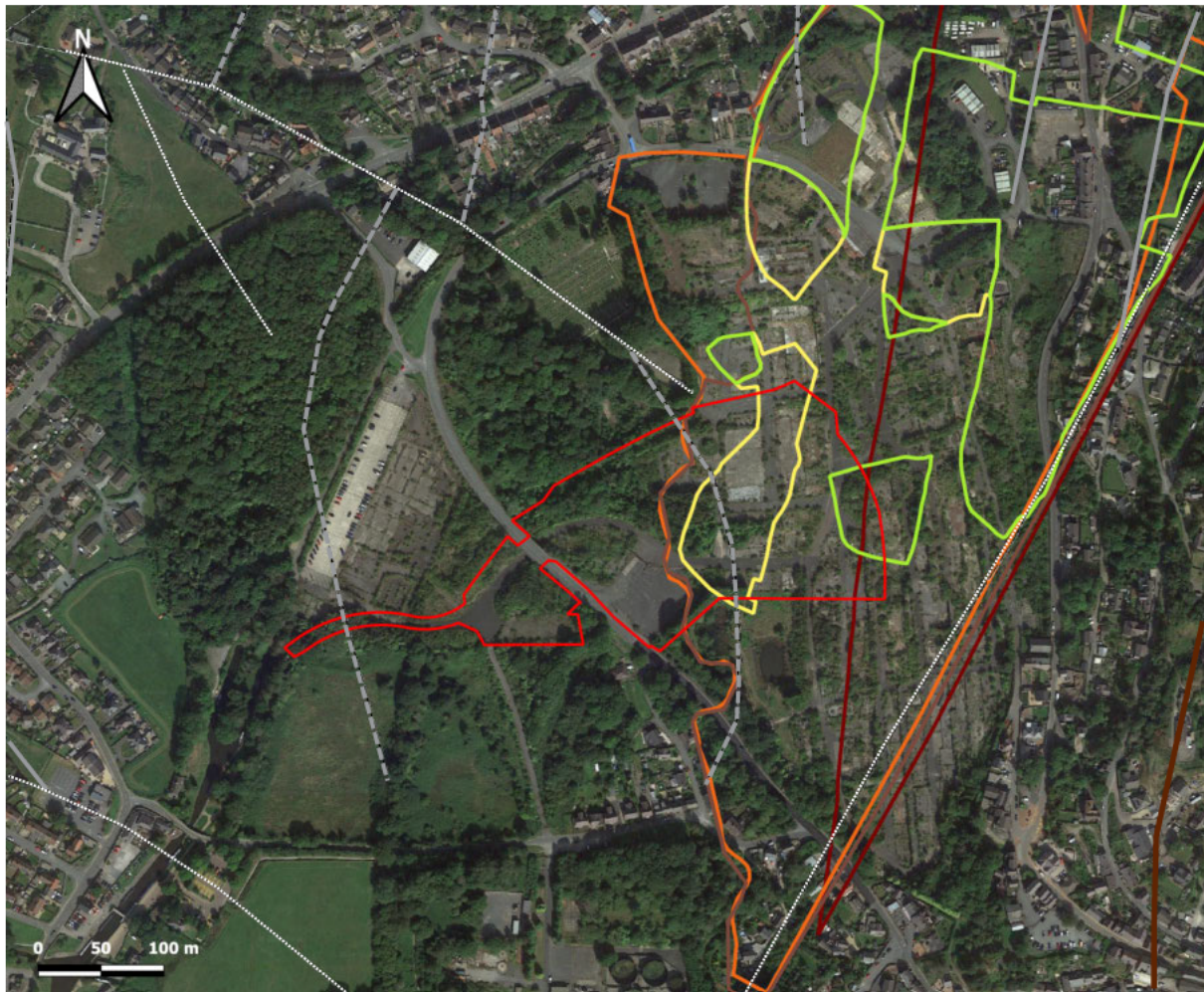


Figure 4-2: Recorded workings obtained from Coal Authority mine abandonment plans. Seam Outcrop and Faulting obtained from BGS mapping © Google Satellite 2024

Red line – site boundary, dark brown line – recorded workings of Stone coal seam, light brown line – recorded workings of Two Yard coal seam, orange line – recorded workings of Lower Yard coal seam, yellow and green lines – recorded workings of Wall coal seam. Thin white line – fault. Grey dashed line – coal outcrop.

The Coal Mining Report provides details of numerous mine entries within 100m of the site boundary. Three of these appear to be located within the site boundary, with a further four shown to be within a 20m of the site; these are illustrated in Figure 4-3 and any available details are summarised in Table 4-3.

There are no details relating to remediation or capping of the on-site coal shafts within the Coal Authority information. Although there has been subsequent development in the areas of these mine entries, there is no evidence to show that they have been suitably remediated. There remains a potential risk of collapse of abandoned mine shafts in these areas.

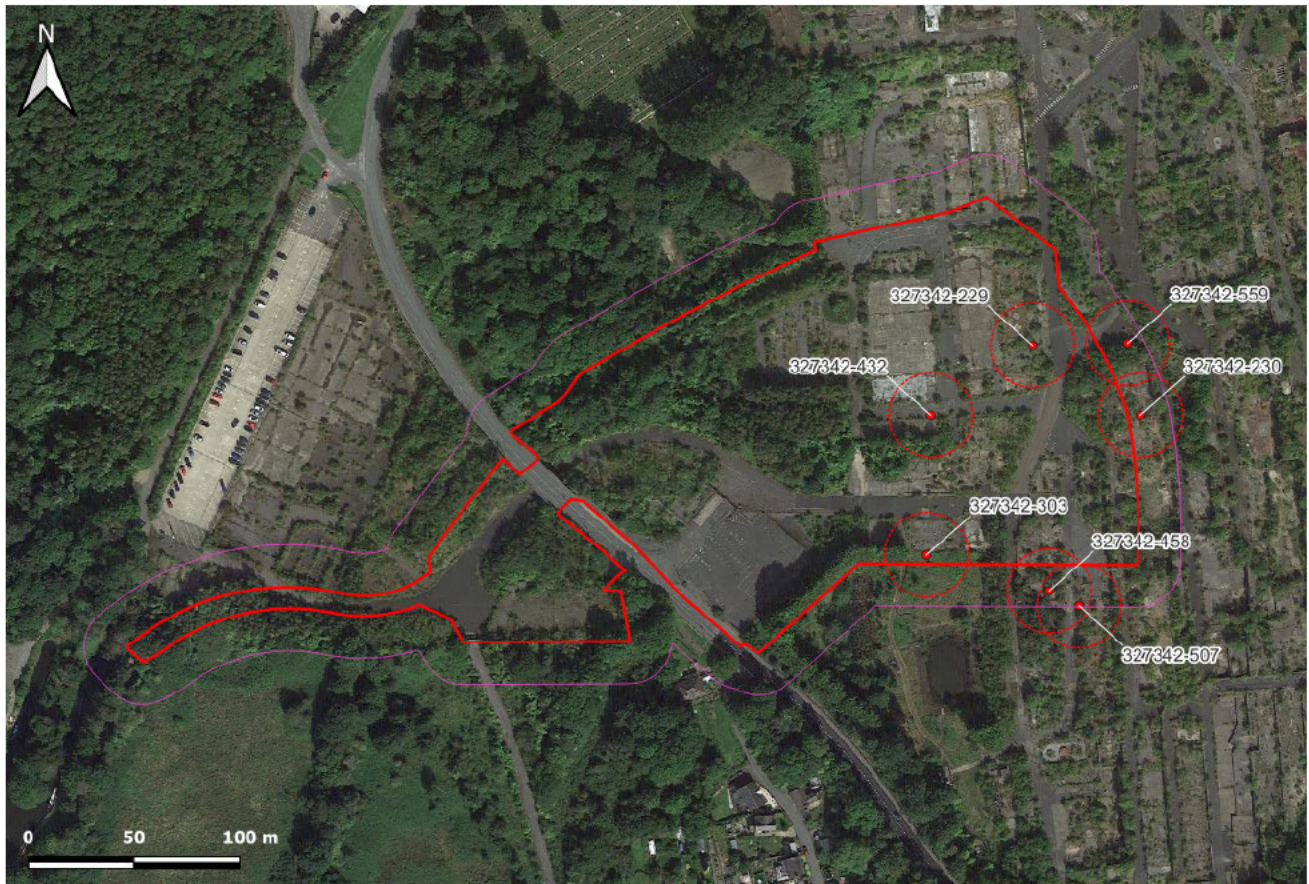


Figure 4-3: Recorded mine entries within 20m of the site boundary © Google Satellite 2024

Table 4-3: Summary of Mine Entries Recorded Within 20m of the Site Boundary

Shaft reference	Grid Reference	Shaft Name	Recorded Shaft Depth (m)	Treatment Details
On-site				
327342-229	327683 342606	Canal Pit	36.58	-
327342-303	327633 342507	No.7 Pit	26.52	-
327342-432	327635 342573	North Wales	-	-
Within 20m				
327342-458	327691 342490	Plas Kynaston Colliery No.3 Shaft	-	-
327342-507	327705 342483	North Wales	-	-
327342-230	327734 342573	North Wales	--	-
327342-559	327728 342607	North Wales		-

The Coal Authority report states that there are no records of mine gas emissions within 500m of the site boundary and the Coal Authority has not received a damage notice or subsidence claim for any property within 50m of the site boundary.

4.3 Coal Mining Conceptual Site Model

The information detailed above has been used to create an indicative sketch coal mining conceptual site model for the site, highlighting the extent of known underground coal workings taken from the mine abandonment plans (Figure 4-4).

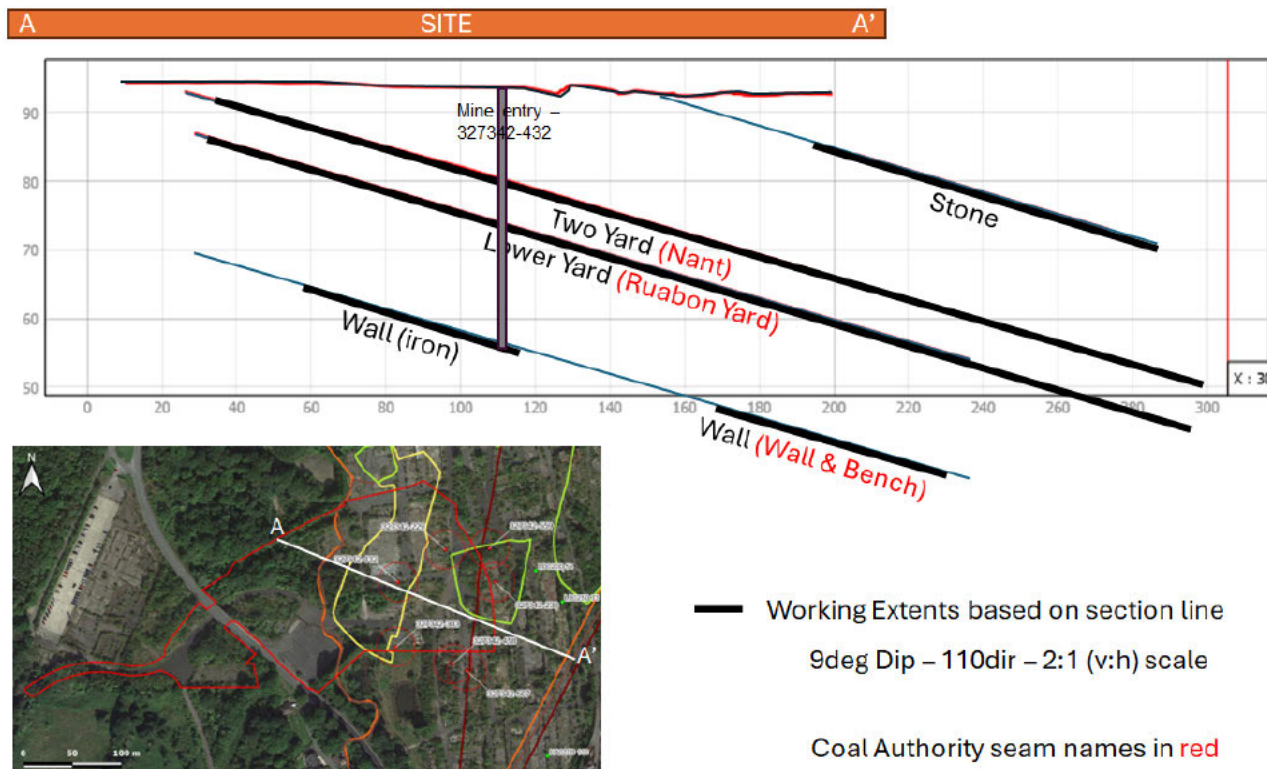


Figure 4-4: Indicative Sketch Coal Mining Conceptual Site Model

The seam names used in Figure 4-4 are taken directly from the mine abandonment plans. One of the plans also featured a vertical stratigraphic section, this has been compared with generalized vertical sections provided on the BGS 1:10,000 and 1:50,000 geological maps, and the log for the Bye Pit at Cae Glo Colliery approximately 390m northeast (provided in Appendix G). The seam nomenclature across the data sources are detailed in Table 4-4 below.

Table 4-4: Coal Seam Nomenclature

Abandonment Plans	BGS Mapping	Coal Authority
Stone	Stone	Stone
Two Yard	Nant	Nant
Lower Yard	Ruabon Yard	Ruabon Yard
Wall	Premier	Wall and Bench

5 Site Specific Coal Mining Risks

Based on the review of available data, an assessment of potential risks to the site associated with historic mining has been carried out and is summarised below.

Table 5-1: Potential Coal Mining Risks

Coal Mining Issue	Yes	No	Risk Assessment
Underground coal mining (recorded by Coal Authority at shallow depths)	X		High risk – underground working recorded at shallow depths in several coal seams
Underground coal mining (possible at shallow depths)	X		Medium risk - potential for unrecorded shallow mine workings in the Wall and Bench seam in western site area
Mine entries (shafts and adits)	X		High risk – three mine entries recorded onsite with no treatment details available
Coal mining geology (fissures)		X	Low risk – none recorded
Record of past mine gas emissions		X	Medium risk – all mine workings pose a potential gas risk which should be considered in any future investigations and development
Recorded coal mining surface hazard		X	Low risk – none recorded
Surface mining (opencast workings)		X	Low risk – none recorded

A desk-based study of the coal mining information has been used to assess the risk from the coal mining features above. Based on guidance provided by the Coal Authority, for those coal mining issues identified as “yes” a more detailed discussion and assessment should be made of the risks, both individually and cumulatively, to the site and the proposed development.

5.1 Underground Coal Mining (recorded at shallow depths)

Coal mining at shallow depths can pose challenges to ground stability at the surface. The magnitude of this effect depends upon the exact depth of any workings, the thickness of competent rock cover and the extraction thickness of any coal mine workings.

Workings have been recorded within several shallow seams beneath the site, including the Stone, Nant, Ruabon Yard and Wall and Bench seams. The CA Coal Mining Report indicates the shallowest workings (Stone seam) may be approximately 6m bgl, with an extraction thickness of 200cm. The Coal Mining Conceptual Site Model in Figure 4-4 illustrates the approximate depth below surface of the various seams.

Given the dates the seams were last worked (1860-1862) and considering the development that has taken place on the site in the intervening time, the risks from these voids may have previously been mitigated, however, there are no available records to confirm this, and therefore at this stage the risk to the proposed development is considered to be high.

5.2 Underground Coal Mining (probable at shallow depths)

Areas of probable shallow coal mine workings are identified as part of the Development High Risk Area for which no recorded plan exists, but where it is likely that workable coal at shallow depths has been mined before records were kept. The data has been estimated from available mining records by qualified mining surveyors. Since 1872 there has been a law that requires all coal mine operators to deposit working plans of the mine with the government following the cessation of operations. Prior to this date the plans were often destroyed or kept in private ownership.

Where the extraction of coal has occurred, there is the potential for voids to remain long after mining has ceased. The depth of workings generally dictates the length of time that significant voids may remain, but other factors including the size of mine roof supports and the competency of overlying strata can influence the time for natural consolidation to occur. Waste material produced during mining was sometimes used to backfill abandoned sections of mine workings, therefore reducing the volume of open cavities or voids that remain. The method of backfilling workings is typically not recorded and cannot be relied upon as a satisfactory form of remediation.

The CA Coal Mining Report states that the site is in an area of probable shallow coal mine workings. The Coal Authority viewer indicates this may include the remaining areas of the site outside of the area of recorded workings, including potential unrecorded working of the Wall and Bench seam from its conjectured subcrop in the west of the site. The Wall and Bench seam is noted to be 'workable' in the Coal Authority report, with an extraction thickness of 110cm.

If the Wall and Bench seam was worked in the western site area, this would have been at shallow depth given it is mapped as sub-cropping within the site boundary. Accordingly, the risk to the proposed development from unrecorded shallow mine workings is considered to be medium.

5.3 Mining Entries (shafts and adits)

Three mine entries are recorded onsite and a further four are indicated within a 20m buffer of the site boundary: no treatment details available for these. The risk from potential collapse of mine entries is therefore high at this stage.

5.4 Record of Past Mine Gas Emissions

There are no recorded past gas emissions recorded in the surrounding area, however, coal seams and coal mine workings pose a potential gas risk which should be considered in any future investigations and development. At development sites with shallow coal workings, probable shallow coal mine workings, or pathway features such as mine entries and geological disturbances on or nearby the site, the Coal Authority recommends that a more detailed gas risk assessment to be undertaken in accordance with relevant guidance.

6 Proposed Mitigation Strategy

6.1 Summary

The Stone, Nant, Ruabon Yard and Wall and Bench coal seams are indicated to subcrop beneath the site, and dip approximately 9° to the east / southeast. Shallow underground working of these coal seams is recorded beneath the eastern site area, and 'probable' unrecorded shallow working of the Wall and Bench seam is indicated beneath the western site area.

Three mine entries are also recorded to be located within the site boundary, with a further four indicated within 20m of the site.

6.2 Mitigation Proposals

Due to the recorded shallow workings beneath the eastern site area, and the potential for unrecorded shallow mine workings in the western site area, an intrusive ground investigation will be required to confirm the depth and thickness of below ground voiding and investigate the extent of workings. The investigation should also attempt to locate the mine entries indicated to be present onsite.

The ground investigations will need to be carried out by a competent contractor, taking into account the findings of this report. The results should then be interpreted by a qualified and competent person so that an appropriate remedial strategy can be developed.

Any intrusive activities, including initial ground investigation and any subsequent treatment of coal mine workings / coal mine entries for ground stability purposes require prior authorisation of the Coal Authority via a permit to 'deal with coal or coal mines'.

Guidance on managing the risk of hazardous gases when drilling or piling through coal can be found at:

www.gov.uk/government/publications/guidance-on-managing-the-risk-of-hazardous-gases

Due to the difficulties in identifying coal related gas hazards, it may be prudent to consider completing a gas risk assessment for the development site. This may recommend basic gas protection measures within the foundation design for any proposed future structures.

Appendix A

Study Limitations

IMPORTANT. This appendix should be read before reliance is placed on any of the information, opinions, advice, recommendations or conclusions contained in this report.

1 This report has been prepared by Arcadis Consulting (UK) Limited ('Arcadis'), with all reasonable skill, care and diligence within the terms of the Appointment and with the resources and manpower agreed with Wrexham County Borough Council (the 'Client'). Arcadis does not accept responsibility for any matters outside the agreed scope.

2 This report has been prepared for the sole benefit of the Client unless agreed otherwise in writing. otherwise in writing. The contents of this report may not be used or relied upon by any person other than this party without the express written consent and authorisation of Arcadis.

3 Unless stated otherwise, no consultations with authorities or funders or other interested third parties have been carried out. Arcadis is unable to give categorical assurance that the findings will be accepted by these third parties as such bodies may have unpublished, more stringent objectives. Further work may be required by these parties.

4 All work carried out in preparing this report has used, and is based on, Arcadis' professional knowledge and understanding of current relevant legislation. Changes in legislation or regulatory guidance may cause the opinion or advice contained in this report to become inappropriate or incorrect. In giving opinions and advice, pending changes in legislation, of which Arcadis is aware, have been considered. Following delivery of the report, Arcadis has no obligation to advise the Client or any other party of such changes or their repercussions.

5 This report is only valid when used in its entirety. Any information or advice included in the report should not be relied upon until considered in the context of the whole report.

6 Whilst this report and the opinions made are correct to the best of Arcadis' belief, Arcadis cannot guarantee the accuracy or completeness of any information provided by third parties. provided by third parties. Arcadis has taken reasonable steps to ensure that the information sources used for this assessment provided accurate information, and has therefore assumed this to be the case.

7 This report has been prepared based on the information reasonably available during the project programme. All information relevant to the scope may not have been received.

8 This report refers, within the limitations stated, to the condition of the site at the time of the inspection. No warranty is given as to the possibility of changes in the condition of the site since the time of the investigation.

9 The content of this report represents the professional opinion of experienced environmental consultants. Arcadis does not provide specialist legal or

other professional advice. The advice of other professionals may be required.

10 Where intrusive investigation techniques have been employed they have been designed to provide a reasonable level of assurance on the conditions. Given the discrete nature of sampling, no investigation technique is capable of identifying all conditions present in all areas. In some cases the investigation is further limited by site operations, underground obstructions and above ground structures. Unless otherwise stated, areas beyond the boundary of the site have not been investigated.

11 If below ground intrusive investigations have been conducted as part of the scope, safe location of exploratory holes has been carried out with reference to the Arcadis ground disturbances procedure. No guarantee can be given that all services have been identified. Additional services, structures or other below ground obstructions, not indicated on the drawing, may be present on site.

12 Unless otherwise stated the report provides no comment on the nature of building materials, operational integrity of the facility or on any regulatory compliance issues.

13 Unless otherwise stated, an inspection of the site has not been undertaken and there may be conditions present at the site which have not been identified within the scope of this assessment.

14 Unless otherwise stated, samples from the site (soil, groundwater, building fabric or other samples) have not been obtained.

15 Arcadis has relied upon the accuracy of documents, oral information and other material and information provided by the Client and others, and Arcadis assumes no liability for the accuracy of such data, although in the event of apparent conflicts in information, Arcadis would highlight this and seek to resolve.

16 Unless otherwise stated, the scope of works has not included an environmental compliance review, health and safety compliance review, hazardous building materials assessment, interviews or contacting Local Authority, requests for information to the petroleum officer, sampling or analyses of soil, ground water, surface water, air or hazardous building materials or a chain of title review.

17 Unless otherwise stated, this assessment has considered the ongoing use of the site and has not been prepared for the purposes of redevelopment which may act as a trigger for site investigation and remediation works not needed for ongoing use.

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Appendix F

Abandonment Plans

Appendix G

Vertical Sections

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