

HEOL TABOR, CWMAVON

PORT TALBOT, SA12 9PR

REMEDIATION STRATEGY REPORT

Report No. Q1218/RS

July 2025

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CONTENTS

0.0	FOREWORD	3
1.0	INTRODUCTION	4
1.1	General	4
1.2	Aims & Objectives of Report	4
2.0	BACKGROUND	5
2.1	Overview of Proposed Scheme.....	5
2.2	Site Location and Description	5
2.3	Past Studies.....	6
3.0	REMEDIATION STRATEGY & VERIFICATION PLAN	11
3.1	Derivation of Remediation Strategy	11
3.2	Summary of Risks	12
3.3	Remediation Design.....	14
3.4	Verification of Remediation Works	16
4.0	GENERAL CONSIDERATIONS FOR REMEDIATION WORKS.....	17
4.1	General	17
4.2	Health and Safety Requirements	17
4.3	Environmental Requirements	17
5.0	REFERENCES	18

APPENDICES

APPENDIX I – PROPOSED DEVELOPMENT PLANS	I
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0.0 FOREWORD

The following Report is based on information gained from previous studies undertaken in relation to the site, supplemented by information and data provided by the Client in support of this Remediation Strategy Report.

Spencer Quantum Ltd have provided the Client with Consultancy support during these works, relating to the Intrusive Ground Investigation Interpretive Reports. Where referenced, past studies in relation to the site should be read in conjunction with this Report.

1.0 INTRODUCTION

1.1 General

Upon the instructions of Iplan Architecture, the Project Architect, on behalf of Mr Wayne Goodridge, the Client, SpencerQuantum Limited (SQL) has been commissioned to undertake a Remediation Strategy Report in relation to the proposed residential development at Heol Tabor, Cwmavon, Port Talbot.

The proposed development comprises 6 two storey houses with driveways and front and rear gardens.

The following Report provides an overview of any past studies undertaken, and the methods or mechanism by which to either remove or reduce these risks to acceptable levels for the end-use receptors of the premises.

1.2 Aims & Objectives of Report

This Remediation Strategy updates the conceptual site model produced in the 2024 intrusive ground investigation report (SQL Report Ref: Q1218/GIR and outlines the proposed remedial measures to be implemented as the basis for a Remediation Method Statement.

The Remediation Strategy should be read in conjunction with the documents listed which are summarised in Section 2.3 of this Report.

2.0 BACKGROUND

2.1 Overview of Proposed Scheme

At time of writing, development proposals include the construction of 6 No. residential houses with hardstanding driveways and front and rear gardens. A development proposal plan is presented within Appendix I.

2.2 Site Location and Description

The area under review is currently un-used scrubland adjacent to the road Heol Tabor. The majority of the site is level and at the elevation of the adjacent road. The ground level towards the northern site boundary rises up. The surrounding area is occupied by residential dwellings with an area of immature woodland to the north. The development plans are for a proposed new residential development.

The approximate National Grid Reference of the site is SS 78212 92729 with a nearby postcode of SA12 9PR.

An Ordnance Survey extract of the site from current on-line mapping is presented below.

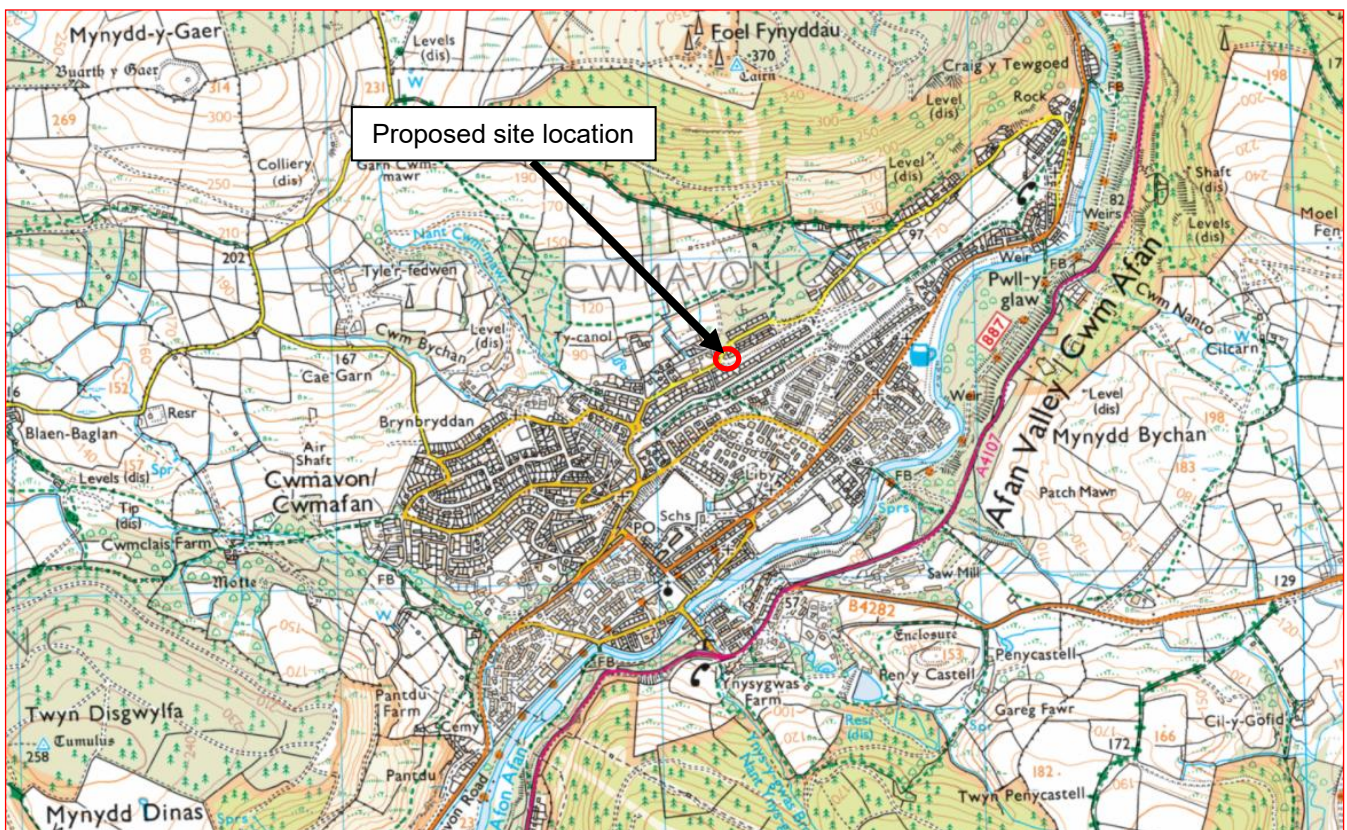


Figure 1: Proposed site location ©Ordnance Survey

2.3 Past Studies

Preliminary Risk Assessment / Desk Study – Ref: Q0353/PRA

Quantum Geotechnic Ltd (QGL) undertook a Preliminary Risk Assessment / Desk Study (Ref: Q0353/DS) for the site / development. The

A Phase I Preliminary Risk Assessment (PRA) has been undertaken prior to the intrusive investigation (Report Ref: Q0353/DS, October 2020). The PRA concluded:

Environmental Summary:

- Historical mapping does show mining legacy on the site study area in the form of a mine adit and associated railway connection to sidings directly south of the site.
- Potentially contaminative historical land uses have been recorded in the surrounding area.
- The Enviro+Geo Insight report indicates Low Risk of flooding for the site.
- Radon levels are estimated to be between 3 and 5%. This indicates that basic radon protective measures are required.
- South Wales Lower Coal Measures bedrock is mapped below the site and classified as a 'Secondary A' aquifer.

Geotechnical Summary:

- British Geological Survey shows there to be no Superficial Deposits on site. The Solid Geology of the area can be summarised as coal bearing mudstones/ siltstones with seatearths and minor sandstones with thin coal seams.
- Buried foundations and structures are not anticipated on the site
- Shrink Swell Clays -Very Low (On-Site)
- Running Sands – Very Low (On-Site)
- Compressible Deposits – Negligible (On-Site)
- Collapsible Deposits – Very Low (On-Site)
- Landslides – Very Low (On-Site)
- Ground Dissolution of Soluble Rocks – Negligible (On-Site)
- High Risk from recorded mine workings and recorded mine entries
- High risk from unrecorded shallow coal mine workings (On-Site)

Ground Investigation Report – Ref: Q1218/GIR

The Ground investigation was scoped / designed by Spencer Quantum Ltd and delivered by Spencer Quantum Ltd in November 2023. The Ground Investigation comprised Windowless Sample Boreholes with Standard Penetration Testing and Machine Excavated Trial Pits with Soakaway Testing to provide information for foundation design and to allow sampling for Geo-Environmental assessment. Geotechnical and Geo-Environmental Laboratory tests were also undertaken. Rotary Probe holes were drilled across the

site to provide information to assess the risk from unrecorded shallow mine workings and Trial Trenches were undertaken to investigate the presence of a recorded mine entry.

Ground Conditions

The ground investigation works revealed that the site study area is overlain by variable Made Ground to depths of between 0.8 and 4.0mbgl over cohesive Glacial Till and granular Glacial Deposits. The depth of Made Ground was greatest in the central and northern areas of the site. Bedrock was proven at depths between 6.25m and 10.00m in the rotary boreholes. Voids, anticipated to be associated with historic shallow mine workings were located at depths of 10.25-12.00mbgl and 11.00-12.25mbgl below the central area of the site.

Groundwater was encountered locally within Superficial Deposits; during the intrusive investigation within BH01 at 1.2mbgl, BH06 at 4.5mbgl, TP04 at 1.7mbgl and TP05 at 1.9mbgl, and during the post fieldwork monitoring within WS03 at depths of between 2.0 and 2.41mbgl. Groundwater was measured during the post fieldwork monitoring in BH01 between 24.2 and 26.54mbgl, and in BH06 between 21.52 and 22.53mbgl.

All other exploratory holes and monitoring standpipes were dry.

Contamination

The Made Ground was found to contain potentially significantly elevated Arsenic concentrations, which may pose a risk to future site users. The elevated Arsenic concentrations are assumed to be within the Made Ground site wide.

To remove / reduce the risk to future site users, it is recommended the potentially contaminated Made Ground is excavated in areas of proposed soft landscaping and disposed of off-site, or a suitably designed capping layer installed above the potentially contaminated material to remove the potential contamination pathway. Remedial measures should be undertaken in accordance with a suitable remediation strategy and a Validation report completed.

A single sample of Made Ground was found to contain potentially mobile contaminations at potentially significant concentrations. Due to the industrial history of the area, the absence of a significant groundwater body below the site and the proven relatively impermeable nature of the soils on-site, the risk to controlled water bodies is considered to be negligible. Although soakaway testing found the soils to not be suitable for soakaway testing, it is still recommended soakaway drainage is not used for the scheme as it would increase the potential for contaminant mobilisation.

The investigation to date revealed a low-risk potential for elevated gas generation. From monitoring a characteristic situation of CS₂ is indicated, with protective measures recommended to suit. Based on the

relevant guidelines, it is recommended that the ground gas monitoring regime be extended by a minimum of 3 months to confirm the gas screening value and characterisation of the site.

Additional Gas Monitoring – Ref: Q1218 – TAN01

Following identification of elevated ground gas concentrations within the GIR, additional monitoring has been undertaken to confirm the nature of the ground gas regime.

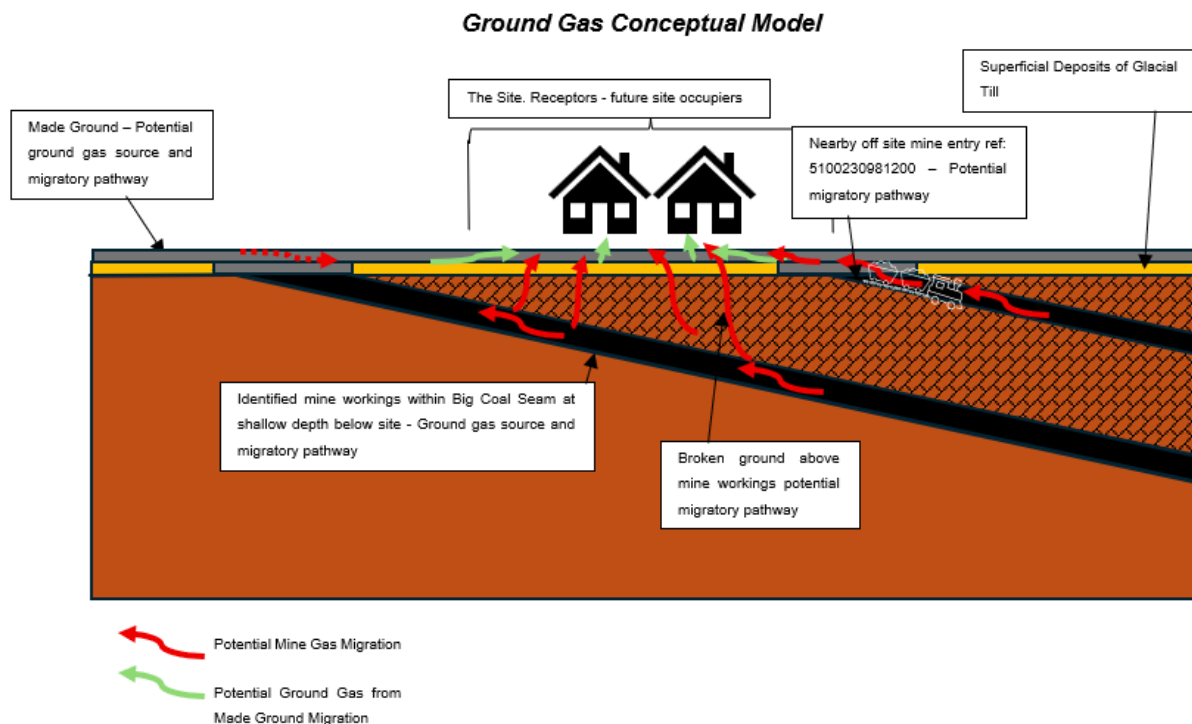
The results from all monitoring rounds are summarised below:

Table 1: Gas Monitoring Summary

Exploratory Hole	Flow / Gas Concentration Range					
	Flow (l/hr)	CH ₄ (%)	CO ₂ (%)	O ₂ (%)	CO (ppm)	H ₂ S (ppm)
BH01	-0.2 – 0.2	0 – 0.4	0.1 – 4.9	9.6 – 21.1	0 – 1	0
BH02	-0.1 – 0.6	0 – 0.4	0.1 – 6.9	8.5 – 21.2	0 – 3	0 – 1
BH06	-0.2 – 0.2	0 – 0.4	0.1 – 3.3	8.9 – 20.7	0	0
WS01	-0.1 – 0	0 – 0.4	0.0 – 6.7	8.6 – 20.7	0 – 2	0
WS02	-0.1 – 0.1	0 – 0.4	0.1 – 3.3	13.4 – 20.8	0 – 1	0

The ground gas monitoring undertaken measured potentially significantly elevated concentrations of Carbon Dioxide during periods of low atmospheric pressures within both the bedrock, including mine workings, and the superficial deposits below the site. This indicates a potential source of ground gas to be within the bedrock, likely to be the historic mine workings and the Made Ground deposits at the site or, a pathway exists between the ground gas source at depth and the superficial deposits.

The Ground Gas related Conceptual Model is presented overpage:



Given a gaseous phase pathway from shallow mine workings to the superficial / Made Ground deposits may exist, and the Made Ground itself may potentially be a ground gas source, the worst case monitoring data from the monitoring programme is considered to be an appropriate basis for assessing the requirement of gas protection measures for the proposed development.

Based on the measured ground gas concentrations, the potential risks posed by any recorded presence of potentially harmful gases can be assessed on a semi-quantitative basis by reference to the guidance in documents CIRIA 665 and BS8485. The assessment comprises multiplying the maximum measured steady gas flow rate (expressed as litres per hour) by the maximum steady gas concentration (expressed as percentage-by-volume; divided by 100) to derive a Gas Screening Value (GSV). Where no flow is found, the detection limit of the instrument can be used to derive a GSV. The GSV calculated using this approach is 0.04l/hr, i.e., characteristic situation 1. However, as the peak gas concentration for CO₂ is in excess of 5%, guidance within BS8485 recommends increasing the characteristic situation by one, giving a characteristic situation of CS2 for the development.

As the shallow mine workings will require stabilisation in the form of drilling and grouting to fill the voids present, the behaviour and migratory routes of mine gas below the site may change following stabilisation. Therefore post grouting monitoring should be undertaken to establish the nature of any changes in ground gas concentrations and behaviour. It is recommended the installation of gas monitoring standpipes and further monitoring should be incorporated into the grouting contract. The installation and monitoring regime should be detailed in the associated Remediation Strategy / Grouting Plan.

The extent of the protective measures should be confirmed post Grouting works.

Note: To further minimise the risks associated with ground gases, monitoring boreholes should be decommissioned prior to / during construction to remove the associated potential gas migration pathway.

3.0 REMEDIATION STRATEGY & VERIFICATION PLAN

3.1 Derivation of Remediation Strategy

The past studies have revealed that remediation is required in relation to contaminated land and contaminated land related issues. The revised Conceptual Model following the intrusive ground investigations is presented below:

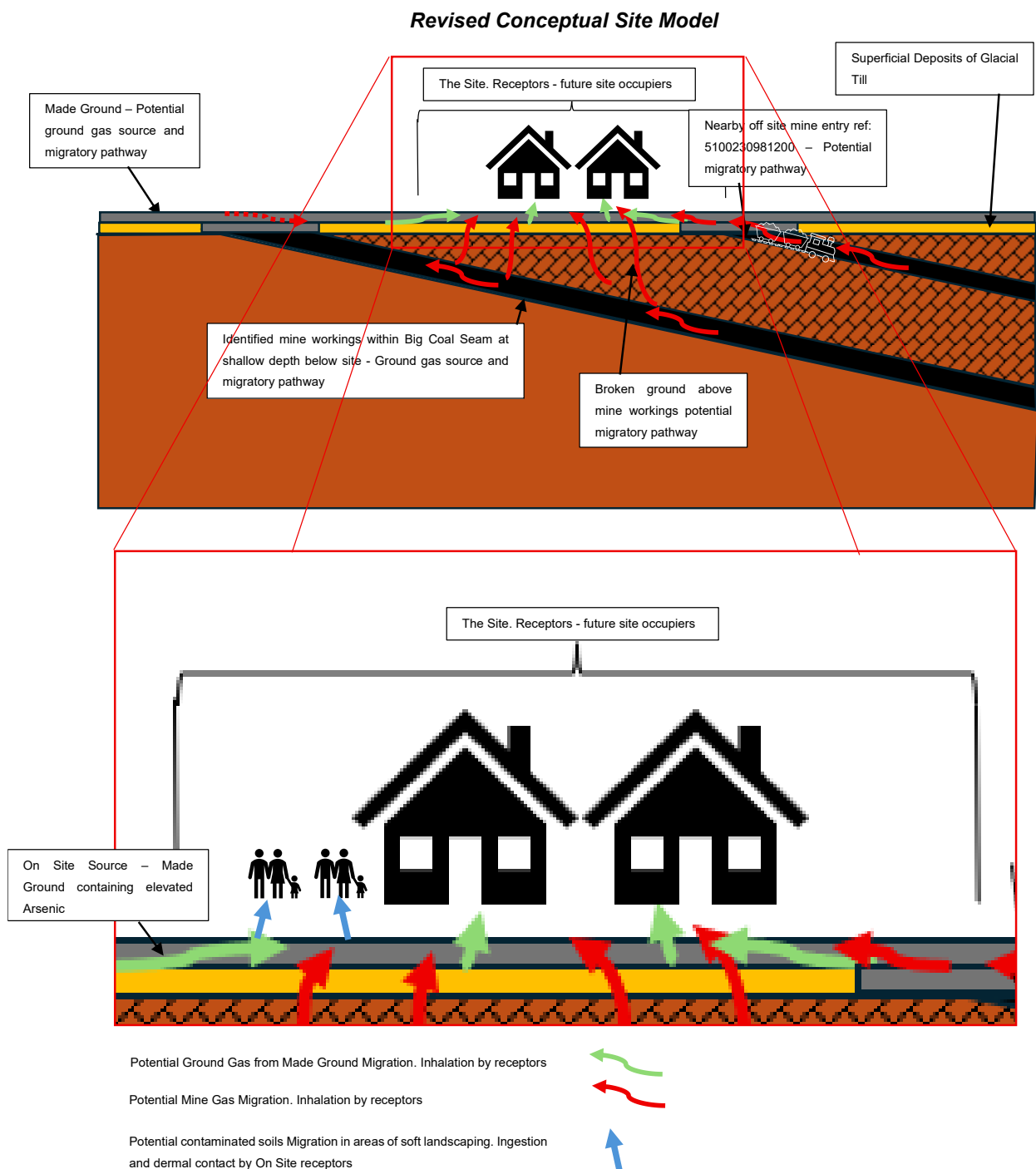


Table 2: Site Conceptual Model

Sources		Assessed Current Risk Level	
S1	Soils on Site	Made Ground present on site containing elevated Arsenic.	Any potentially contaminated soils may pose a risk
S2	Mine & Ground Gases	The potential for mine gas and ground gas generation	May pose a risk to future site users
S3	Mobile contaminants within On-site soils	Any potential Made Ground present on site.	Will not become mobile if additional water is not introduced into the soils
Pathways			
P1	Direct Contact and Ingestion	Direct contact with soils will possibly occur during any development of the site by Groundworkers and post construction with residents within areas of soft landscaping	Appropriate PPE and welfare facilities should be provided during construction Capping in areas of soft landscaping will remove pathway
P2	Ground Gases	Migration of potentially harmful ground gases could affect the site.	Ground gas protective measures required to remove pathway
P3	Aqueous Phase Migration	Movement of potentially mobile contaminants within Groundwater	Will not become mobile if additional water is not introduced into the soils
Receptors			
R1	Site Workers	Workers may come into contact with the soils on site.	Correct PPE, good practice H&S methodology and adequate welfare facilities will mitigate any risk.
R2	Future site users / residents	May come into contact with contaminated soils on site. May inhale ground gases	Protective / mitigative measures to be installed in accordance with Remediation Strategy and Verification plan to reduce risk
R3	Secondary A Aquifer	Mobile contaminants may migrate to controlled waters on and off site	Not considered to be at risk if no additional water is introduced at source

It is important to note, a programme of drilling and grouting is to be undertaken to stabilise shallow mine workings identified below the western area of the proposed development. It is possible this may affect ground gas behaviour below the site and therefore, additional gas monitoring post grouting works is to be undertaken, to confirm ground gas related risks.

3.2 Summary of Risks

The investigation identified the following risks:

Risk 1: Land Gas Emissions

The SpencerQuantum Ltd investigation identified a Low risk from ground gases within the Made Ground, Superficial Deposits and Shallow Mine workings / Bedrock (Characteristic Situation 2) requiring gas protection remediation measures to be incorporated into any new build on site, based on CIRIA Report C665 and BS8485.

The results show a maximum recorded Methane CH₄ level of 0.4 %v/v and maximum Carbon Dioxide CO₂ concentration of 6.9 %v/v. A maximum measured flow rate was recorded as 0.6l/hr whilst Oxygen O₂ levels ranged between 8.5 and 21.5%v/v. A maximum Hydrogen Sulphide H₂S reading of 1ppm and Carbon Monoxide CO of 3ppm was recorded.

The potential risks posed by any recorded presence of potentially harmful gases can be assessed on a semi-quantitative basis by reference to the guidance in documents CIRIA 665 and BS8485. The assessment comprises multiplying the maximum measured steady gas flow rate (expressed as litres per hour) by the maximum steady gas concentration (expressed as percentage-by-volume; divided by 100) to derive a Gas Screening Value (GSV). The GSV can then be used to determine a risk classification and a Characteristic Situation for the site as defined in the Table below.

Table 3: Gas Screening Value and Characteristic Situation Classification

Characteristic Situation	Risk Classification	Gas Screening Value (l/hr) – GSV
1	Very low	<0.07
2	Low	>0.07, <0.7
3	Moderate	>0.7, <3.5
4	Moderate to High	>3.5, <15
5	High	>15, <70
6	Very High	>70

Based on the measured ground gas concentrations, the potential risks posed by any recorded presence of potentially harmful gases can be assessed on a semi-quantitative basis by reference to the guidance in documents CIRIA 665 and BS8485. The assessment comprises multiplying the maximum measured steady gas flow rate (expressed as litres per hour) by the maximum steady gas concentration (expressed as percentage-by-volume; divided by 100) to derive a Gas Screening Value (GSV). Where no flow is found, the detection limit of the instrument can be used to derive a GSV. The GSV calculated using this approach is 0.04l/hr, i.e., characteristic situation 1. However, as the peak gas concentration for CO₂ is in excess of 5%, guidance within BS8485 recommends increasing the characteristic situation by one, giving a characteristic situation of CS2 for the development.

The general objective of gas protection measures is to break the source-pathway-receptor linkage by creating a barrier between the source and the receptor and forming a controlled pathway along which the gas can vent to the atmosphere. Such measures should be designed in accordance with British Standard BS8485: Code of Practice for the Characterisation and Remediation from Ground Gas in Affected Developments (BS 8485:2015). This standard uses a scoring system to rate the effectiveness of various construction techniques and specific gas protection measures. A combination of measures might be adopted to provide adequate gas protection.

Risk 2: Elevated Arsenic Concentrations within Made Ground

Several soil samples recorded raised Heavy Metal contaminants, all from the shallow lying Made Ground. Arsenic concentrations were found to be above the relevant generic assessment criteria for Residential end use with plant uptake, summarised in Table 3.

Table 4: Summary of elevated soil contaminants

Determinant	Results Range (mg/kg)	LQM/CIEH (2015) GAC (mg/kg) Residential with plant uptake End Use ⁽¹⁾	Exceedances
Arsenic	18 - 63	37	7 TP01 at 0.3mbgl TP01 at 0.5mbgl TP01 at 1.0mbgl TP02 at 2.0mbgl TP02 at 1.0mbgl TP03 at 0.6mbgl TP04 at 0.3mbgl

The Made Ground identified as containing the raised Heavy Metal concentrations is considered to be site wide.

3.3 Remediation Design

3.3.1 Risk 1: Land Gas Emissions Remediation Measures:

Based on BS 8485, the proposed development is classified as a Type A Building characterised as “*private ownership with no building management controls on alterations to the internal structure, the use of rooms, the ventilation of rooms of the structural fabric of the building. Some small rooms present. Probably conventional building construction (rather than civil engineering)*”. Given the site is determined to be Characteristic Situation 2 and the proposed building type is Type A, the gas protection score for the site is 3.5. Based on the proposed use and the gas protection score, additional levels of protection will be required such as high-performance ventilation or pathway intervention measures, and an associated sustainable system of management or maintenance of the gas control system.

Considering the determined Characteristic Situation of the site (CS2) and the gas protection score (3.5) the following protective measures will be required, based on BS 8485:

Table 5: Protective measures requirements / options

Type and Use of Building	Minimum Score	Structural Barrier (score)	Ventilation / Dilution (score)	Gas Membrane (score)	Total achieved score
Building Type A	3.5	Cast in-situ reinforced ground bearing raft or reinforced cast in situ suspended floor slab with minimal penetrations (1.5)	Not Required	Propriety gas resistant membrane installed to reasonable levels of workmanship/in line with current good practice under CQA with integrity testing and independent validation (2)	3.5 (pass)
Building Type A	3.5	Not Required	Passive sub floor dispersal layer. Media used to provide the dispersal	Propriety gas resistant membrane installed to reasonable levels of workmanship/in line with	3.5 (pass)

			layer are clear void, polystyrene void former blanket, geocomposite void former blanket, no-fines gravel layer with gas drains (1.5)	current good practice under CQA with integrity testing and independent validation (2)	
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Notes:

The Gas Resistant Membrane must comply with BS8485 (2015) + A1 (2019). Visqueen 'Gas Barrier' membrane is recommended

BS BS8485 (2015) + A1 (2019) may be consulted for guidance on possible alternative options.

The gas protection measures are to be installed by certified professionals (NVQ level 2) who should carry out appropriate integrity testing.

The passive venting system, if taken forward, should be designed in accordance with BS BS8485 (2015) + A1 (2019) with suitable side ventilation.

3.3.2 Risk 2: Elevated Arsenic Concentrations within Made Ground Remediation Measures:

Risk to be remediated through an effective capping system across the site.

It is determined that the new builds and hardstanding cover of the proposed car parking, where present, will form a comprehensive capping barrier between the raised Arsenic Concentrations within the Made Ground soils and the site end user.

Within the area of proposed soft landscaping / garden areas, a cover system with an appropriate thickness of clean soil should be installed. Based on BRE 465 'Cover Systems for Land Regeneration', the Cover System should be up to 600mm thick. This assessment is based on the Arsenic concentrations within the soil used within the cover system as being at the Soil Guideline Value. If the soil used within the cover system has an Arsenic concentration of <10mg/kg, the thickness can be reduced to 300mm. The thickness of the cover system may also be reduced by the installation of a suitable geotextile / membrane to reduce potential mixing of the soils and to act as a physical barrier against dermal contact, creating an Engineered Cover System.

Suppliers should be consulted to ensure suitability for use with the known contaminants.

The Geotextile / membrane should be covered with a suitable thickness of Topsoil to allow future plant growth. The geotextile / membrane should be installed in accordance with the manufacturer's instructions and may require treatment of the subgrade material (compaction, removal of debris etc).

A quality assurance programme should be followed, comprising a combination of quality control testing and observations to an agreed quality assurance plan. The quality assurance should contain elements that verify the proposed subgrade is acceptable (if required), materials used in construction are adequate and the methods of construction are acceptable.

3.4 Verification of Remediation Works

All remediation works completed at the site will be documented within a Verification Report. The Verification Report should detail the remediation works carried out; including any variation from the Clients / Principal Contractors approved remediation method statement, and also validation evidence to prove that remediation works had been successfully completed. Typical validation evidence to be included in the report should include photos, chemical analysis, logs, as-built drawings, delivery notes and import/ export soil audit trail.

Verification of the capping layer on this development will principally comprise evidence that the areas where raised contaminants were recorded are indeed capped by the proposed hardstanding and clean soil / geotextile / membrane in areas of soft landscaping, thereby forming a physical barrier between the Made Ground soils (source) and site end users.

Validation of the gas protection measures, in particular the membrane installation, floor slab installation and underfloor venting is required by a competent and independent third party. Validation should be undertaken in accordance with a suitable verification plan which it is recommended is prepared by the verifier. This should include inspection during and post installation / construction, a photographic record of completed installation, post completion verification gas monitoring in underfloor voids and performance testing. All membranes should be inspected immediately before they are covered up.

A verification report should be produced upon completion of installation / construction.

In terms of the identified risk to controlled waters in the environment, albeit low, from potential leaching of contaminants held within the Made Ground into the surrounding soils, soakaways to manage storm water should not be employed as this could contribute to focussed collection and dispersal of waters through the shallow soils and influence the rate at which any leaching of the soils could happen. The soakaway testing within the ground investigation did however reveal the shallow natural soils to have a very low permeability and as such soakaways may not be feasible.

Any additional contamination identified and remediation works carried out will be recorded in the Verification Report. The Verification Report will be required by the Client in order to discharge planning conditions.

4.0 GENERAL CONSIDERATIONS FOR REMEDIATION WORKS

4.1 General

The following points should also be considered during any works.

4.2 Health and Safety Requirements

Any Remediation Method Statement should consider health and safety for workers at the site, and suitable arrangements made to comply with contemporary health and safety legislation. All works will be carried out by suitably qualified and experienced staff including supervision by an Environmental Engineer / Site Manager.

4.3 Environmental Requirements

4.3.1 Soil Management

The Contractor should operate a soil audit during the works. Any waste materials generated during the works will be classified as waste and recovered/disposed at suitably licensed/declared sites. All waste classified as hazardous, leaving the site will be transported with Hazardous Waste Consignment Notes. All non-hazardous and inert waste will be transported with suitable waste transfer notes. All waste will be removed by a licensed waste carrier.

4.3.2 Pollution Control

The Contractor should consider and detail in their Remediation Method Statement the control measures for potential environmental pollution during the remediation works, including cross-contamination of soil, mud and silt, noise, dust, etc.

4.3.3 Environmental Management System

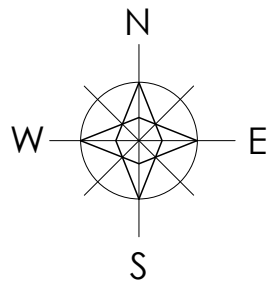
The Contractor should have an Environmental Management System in accordance with BS EN ISO14001 accreditation. The procedures and records contained should therein ensure all works are carried out in a manner that minimises impact on the environment and generates adequate and accurate records to demonstrate remediation works have been carried out to the required standard and in accordance with all applicable legislation.

5.0 REFERENCES

Past Studies:

- SpencerQuantum Ltd (2024) Heol Tabor, Cwmavon Ground Investigation Report, Ref: Q1218/GIR
- Quantum Geotechnic Ltd (2020) Heol Tabor, Cwmavon Assessment of Land Quality / Preliminary Risk Assessment, Ref: Q393/DS

APPENDIX I – PROPOSED DEVELOPMENT PLANS



plot areas

- plot 1 | 700.00m²
- plot 2 | 400.00m²
- plot 3 | 370.00m²
- plot 4 | 350.00m²
- plot 5 | 426.00m²

Station coordinates

Station	Easting	Northing	Level
3	278212.840	192676.583	70.615
4	278229.520	192705.489	72.575
5	278239.985	192722.440	73.779
6	278251.846	192734.088	74.614

ABBREVIATIONS

AV	Air valve	P	Post
B	Bollard	PS	Paving
BB	Belgian beacon	P/R	Post/raill fence
BH	Bore hole	P/W	Post/wire fence
BM	Site bench mark	RE	Rodding eye
BT	British telecom	RW	Retaining wall
B/W	Barbed wire fence	RS	Road Sign
CAM	Camera	SAP	Sapling
CB	Phone box	SC	Stop Cock
CDP	Cable draw pit	SE	Services entry point
CL	Cover level	SL	Stop Level
Conc	Concrete	SDF	Soffit level
C/B	Closed board fence	SP	Sign Post
C/I	Corrugated fence	SV	Stop Valve
DP	Down pipe	TAC	Tactile Paving
DK	Drop kerb	TH	Top of Wall
EIC	Electric inspection cover	T.O.W	Top of Wall
EL	Eaves level	TP	Telegraph Pole
EP	Electricity pole	TS	Traffic signal
ER	Earthing rod	TSC	Traffic signal cover
FL	Floor level	TV	Cable television
FH	Fire hydrant	UTL	Unable To Lift
FP	Flag pole	VP	Vent Pipe
G	Gully	WL	Water Level
G1.2	Tree girth (m)	WM	Water Meter
GV	Gas valve	Δ	Survey Station
IC	Inspection cover	Ø	Pipe Diameter(m)
IL	Invert Level		
I/R	Iron Railings		
JB	Junction box		
KO	Kerb outlet		
LB	Letter box		
LP	Lamp post		
Mkr	Utility marker		
NP	Street Name Plate		
OSBM	Ordinance Survey bench mark		
O/B	Open board fence		

LINE TYPES	
Buildings	—————
Kerbs, Walls	—————
Fences	—————
Iron railings	—————
Top of banks	—————
Bottom of banks	—————
Hedges	—————
Overhead Wires	—————
Change of surface	—————

Survey Details

- OS grid & datum determined by GPS
- North arrow indicates approximate North.
- Scale factor 1.00000
- Contour interval 0.5m
- All internal manhole details to be checked prior to site works



Catling's Land Surveys
A Passion for Mapping.

47 Heol Las, Ynysmeudwy, Pontardawe, Swansea, SA8 4PR
Tel / Mobile 07790 588323
email: adrian@catlingslandsurveys.co.uk

- grassed lawned areas
- permeable tarmacadam
- rainwater garden
- 2600x4800mm car parking spaces x 2
- concrete slab patio and paths
- 1800mm timber close boarded fencing
- 1200mm timber close boarded fencing
- location of wildlife tunnels
- boundary planting - max. height 600mm
- tree planting - max. height 4000mm

proposed site layout
scale | 1:250

revision

- a
- b
- c
- d
- e
- f
- g

project

LAND @ HEOL TABOR, CWMAVON, NEATH PORT TALBOT

drawing

PROPOSED SITE LAYOUT

date

JULY 2024

client

WAYNE GOODRIDGE

drawing no.

24.291.03

scale

1 | 250 @ A2

www.ipanarchitecture.co.uk

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07765 660189



IPLAN ARCHITECTURE

planning