

**PROPOSED HOUSING  
AT  
100 NEATH ROAD  
RESOLVEN**

**SITE INVESTIGATION  
REPORT**

**MARCH 2022**

***ateb*Consult**

**42 Gurnos Road**

**Ystalyfera**

**Swansea**

**SA9 2HY**

**☎ 01639 849279**

**PROPOSED HOUSING ON LAND AT 100 NEATH ROAD RESOLVEN**  
**SITE INVESTIGATION PHASE 1 STUDY REPORT -MARCH 2022**

**MARCH 2022**

**22/007**

**INDEX**

- 1.0      Brief**
- 2.0      Basis of Report**
- 3.0      Site Characteristics and Review of Existing Data**
- 4.0      Preliminary Human Health and Environmental Risk Assessment**
- 5.0      Mining History and Risk Assessment**
- 6.0      Site Drainage Matters**
- 7.0      Initial Engineering Recommendations**
- 8.0      Recommended Site Investigations**
- 9.0      Conclusions & Recommendations**
  
- Appendices**
  
- A      Mining Report and Mining Investigations Report**
- B      Geosure Enviro Report**
- C      Radon Report [BGS]**

# **PROPOSED HOUSING ON LAND AT 100 NEATH ROAD RESOLVEN**

## **SITE INVESTIGATION PHASE 1 STUDY REPORT -MARCH 2022**

### **1.0 Brief**

The brief for the study, as instructed by the site owners and proposed Developers Crynant Plant Ltd of Neath in January 2022 was,

- 1.01** To review the available site investigation, mining reports and existing hydrological and drainage information on the land at 100 Neath Road Resolven SA11 4AN, where housing development is proposed, in order to
- 1.02** Provide information on the past and current uses of the site and surrounding area
- 1.03** Provide information on the nature of any potential hazards and constraints to development
- 1.04** Provide information on ground conditions at the site and any contamination and environmental issues that may need to be addressed
- 1.05** Research into the mining history of the site and area and identify any risk that may need to be allowed for and mitigate against, including risk of potential gaseous emissions from the site and surrounding areas
- 1.06** Review site drainage and develop an outline drainage strategy for the proposed development of the site
- 1.07** Assess the risk to the site from flooding.
- 1.08** Prepare a human health and environmental risk assessment for the land
- 1.09** Review the study results and develop proposals for any intrusive site investigations needed and advice on any remediation requirements
- 1.10** Provide initial engineering recommendations for foundation slabs and infrastructure that will be needed to develop the site for housing use
- 1.1** Produce a site investigation report on the site.

# **PROPOSED HOUSING ON LAND AT 100 NEATH ROAD RESOLVEN**

## **SITE INVESTIGATION PHASE 1 STUDY REPORT -MARCH 2022**

### **2.0 Basis of Report**

The basis of this report is a site investigation study undertaken on the land at 100 Neath Road Resolven SA11 4AN by ateb Consult in February 2002

- 2.1** The desk study encompassed a review of available hydrological and flood risk mining reports [Appendix A] already prepared on the land, as provided by the client /site owner and including a review of available historic data and archive data held by atebConsult on the area in general and readily available historic plans and record data.
- 2.2** Procurement of a Ground Sure Enviro and Geo Insight report on the site and its subsequent review [ Appendix B]
- 2.3** Review of Dwr Cymru [ DCWW] [the area Statutory Drainage undertakers] documentation and record plans on the location of existing drains, any watercourses and water related features in the area.
- 2.4** Review of the planning history of the site
- 2.5** Consideration of the results of the study works and drafting of risk assessments conclusions and recommendations for the site redevelopment, with the results and proposals presented in report format.

# **PROPOSED HOUSING ON LAND AT 100 NEATHROAD RESOLVEN**

## **SITE INVESTIGATION PHASE 1 STUDY REPORT -MARCH 2022**

### **3.0 Site Characteristics and review of existing data**

#### **3.1 Location**

The development site comprising of a roughly rectangular parcel some 0.16Ha in extent, that lies to the north of the B4434 highway [ Neath road] through Resolven, as shown on fig 1,2. The site centre grid reference being 282331,202109

#### **3.2 Land Ownership**

At the time of the study the site is in the ownership of the proposed Developer  
- Crynant Plant ltd of Neath

#### **3.3 Topography & Present Usage**

The site area is undeveloped and consists of rough pasture and low scrub and falls away slightly from the main road to the North  
Existing site topographical levels vary between 31.4 m AOD along eth road boundary and 27.0mtrs AOD on the rear site boundary [ fig 3]

#### **3.4 Access**

There is no formal access to the land but ready access for proposed housing could be formed directly off the back of the highway and footpath

#### **3.5 Site History**

A review of available historic Ordnance Survey and geological plans of the area indicates that the site has not been subject to development, as illustrated in the historic plans included in the Groudsure report in Appendix A]

## **PROPOSED HOUSING ON LAND AT 100 NEATH ROAD RESOLVEN**

### **SITE INVESTIGATION PHASE 1 STUDY REPORT - MARCH 2022**

#### **3.6 Adjacent Land Use**

The current adjacent land use is generally a mix of residential property to the South, East and West of the site, with open grassed area and a cemetery to the North as can be seen on the site plans.

The historic plans of the area show [Appendix A] show that the Cemetery to the North dates back to circa 1876 and that there has been past industrial activity, mainly related to colliery and railway activities in this area of Resolven, but these are generally over 500m from the site, with the site unaffected. These activities have now also long ceased.

The historic plans also show that there are records of historic landfill in the area, but these are some 200 -250m + to West and activity has ceased in the 1960s some 60 years ago, with the site is unaffected from past shallow workings.

#### **3.7 Ground Conditions**

##### **3.7.1 Superficial Strata & Geology**

From a walk over survey of the site and from a review of the past site geological study reports undertaken for the site owners /client including the result of a borehole sunk in March 1994 on the South west corner of the site [ Appendix A] the general natural superficial strata is considered to be to be significant deposits of glacial drift material, to some 16.25m depth over sandstones and mudstones of the South Wales coalfield that extended to depths of over 32mtrs The data available to date indicates that this glacial drift is mainly sands and gravels under topsoil's , subsoils and clay.

The borehole of 1994 shows firm silty gravelly clays under some 100mm topsoil to 3,2m and then dense sandy fine to coarse sands and gravels at 3.2 m depth and below

##### **3.7.2 Solid Geology**

The site is located in an area of South Wales Bristol where the geological plans (as shown in Fig 4), show the solid strata under the site as being the siltstones, sandstones and coal measures of the South Wales Coal measure series. [Appendix A,]

## Recent aerial photograph



Aerial photography supplied by Getmapping PLC. © Copyright Getmapping PLC 2022. All Rights Reserved

Capture Date: 14/04/2020

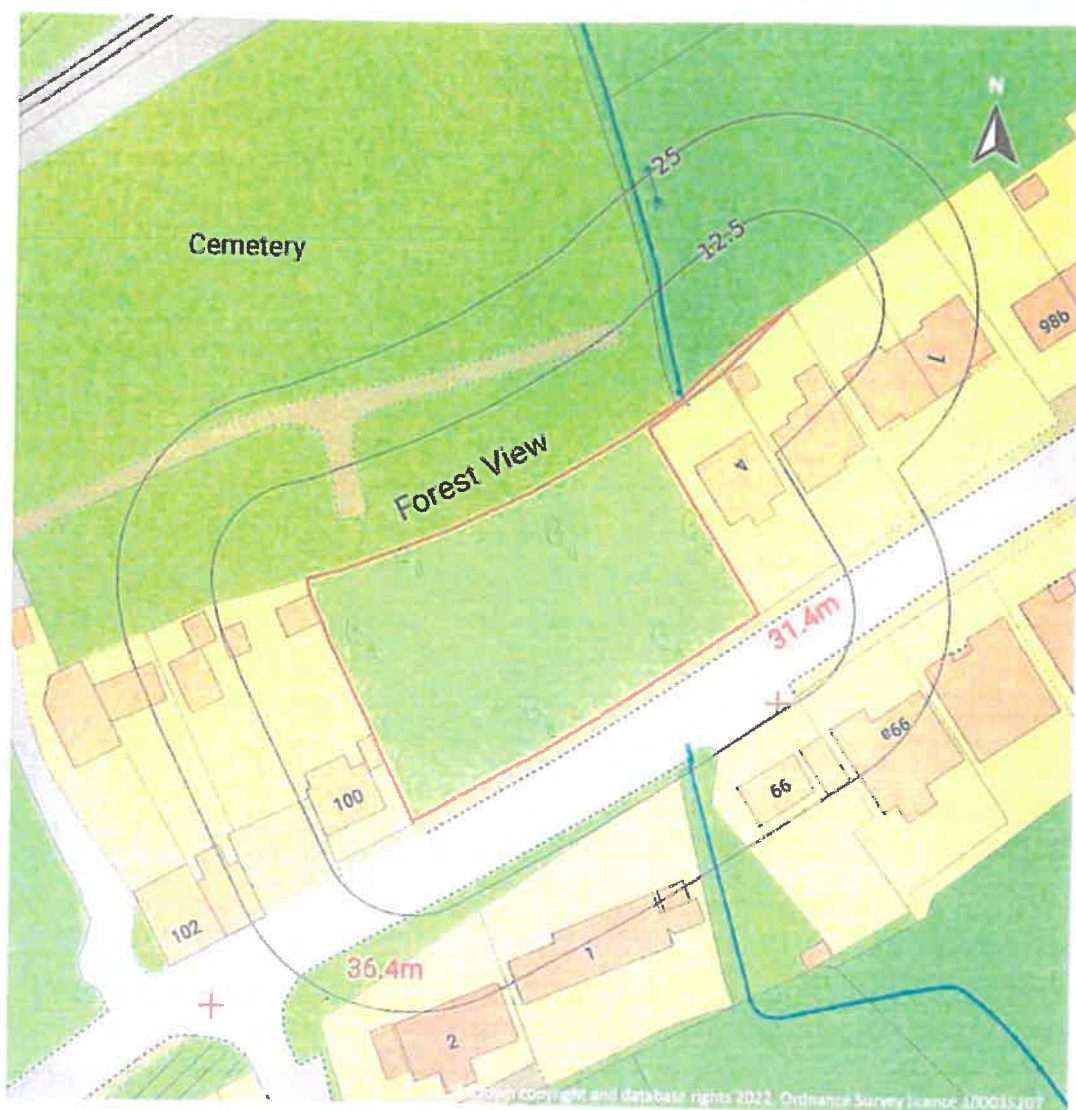
Site Area: 0.16ha



Contact us with any questions at:  
[info@groundsure.com](mailto:info@groundsure.com)  
08444 159 000

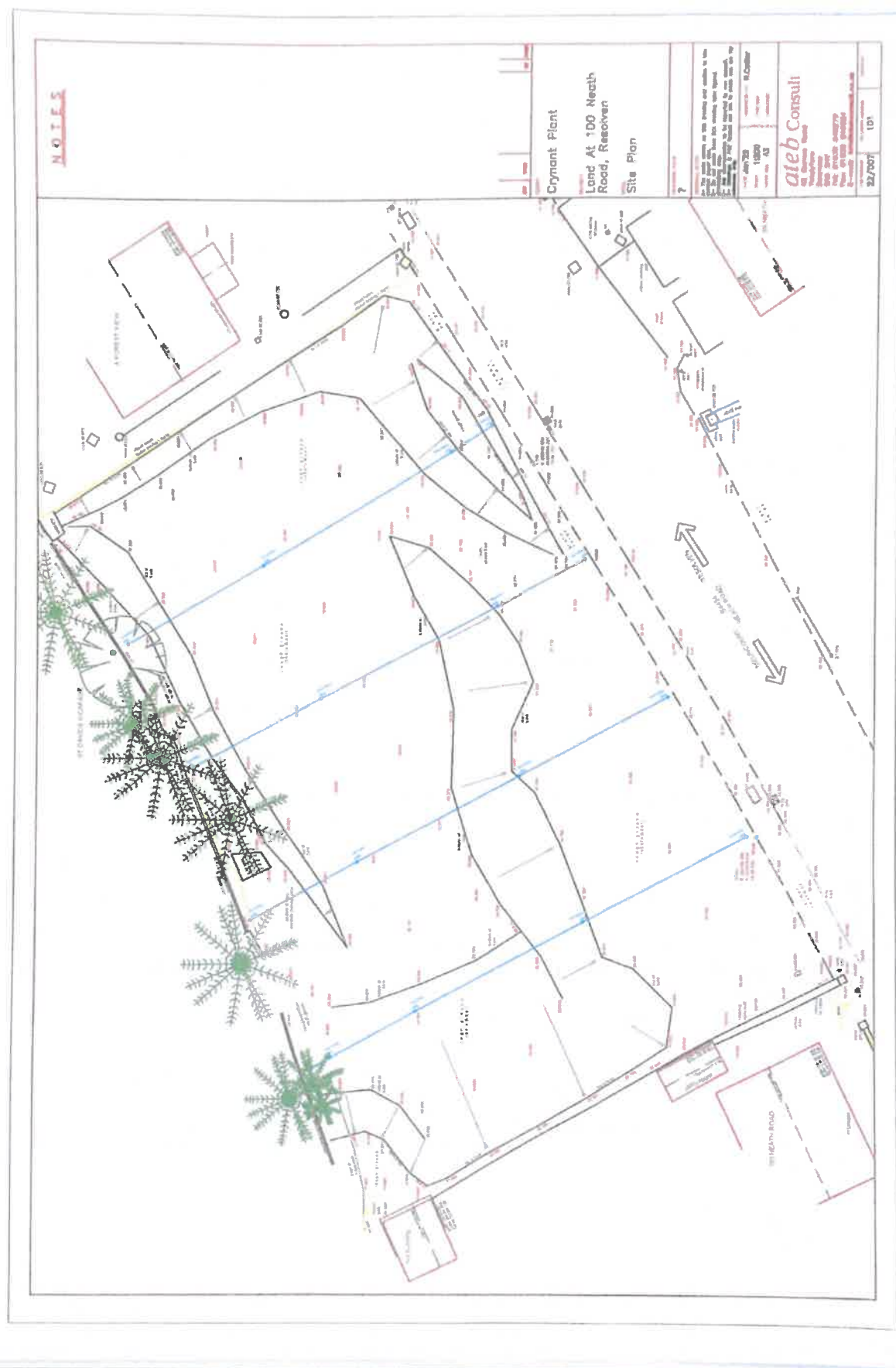
Date: 9 February 2022

## OS MasterMap site plan



Site Area: 0.16ha





# **PROPOSED HOUSING ON LAND AT 100 NEATH ROAD RESOLVEN**

## **SITE INVESTIGATION PHASE 1 STUDY REPORT -MARCH 2022**

### **3.8 Surface Water Features**

There are no surface water features on the site. The historic 1877 OS plan does however show a surface water feature running along the southeast corner of the site running to the North. It is believed this is now culverted along the site east boundary at this location.

### **3.9 Hydro geology**

There are no surface water features on the site area as noted above. The record plan does show surface water features in the area, but these are away from the site area, there is one water abstraction point recorded as being some 200mtrs to the east of the site and would not be affected. The geological plans of the area show the underlying rocks as being of a secondary aquifer only, with the superficial strata also being a secondary aquifer, potentially supporting water at a local level.

### **3.10 Existing Buildings**

**3.10.1** There are no buildings on the site and the historic plans that go back to 1877 show the site has not been developed

### **3.11 Existing Drainage Regime**

#### **3.11.1 General**

From site inspections and review of available record data it appears there are storm water sewers in the road at site frontage and also one storm sewer crossing the site that runs into the culvert on the eastern site boundary  
Foul sewers are present in the highway and on the residential developments either side of the land

### **3.12 Radon**

A British Geological Survey report has been commissioned [ Appendix C] and as stated in the report the site is not in a Radon gas risk area.

## **PROPOSED HOUSING ON LAND AT 100 NEATH ROAD RESOLVEN**

### **SITE INVESTIGATION PHASE 1 STUDY REPORT -MARCH 2022**

#### **3.13 Flooding**

A review of the NRW flood risk maps of the area indicate the site not at risk from flooding

#### **3.14 Pollution and Sensitive land Use**

No significant pollution incidents have been reported within 250mtrs of the site. Minor water pollution incidents [4number] were recorded between 150 and 400mtrs downstream and downslope of the site in 2002 but were recorded as category 3 [minor]

#### **3.15 Industrial Land Use**

There is no significant current industrial land use in the area,  
The Geosure report records that the following lie within 250mtrs of the site,  
1] hoppers and silos related to farming located 146m to the NW  
2]a tank located some 147m NW again farming related  
3]a vehicle components supplier outlet/ unit located some 200m to the North

It is considered these would not affect or pose significant risk to the site

#### **3.16 Other Land Use**

There is a long-established cemetery located some 70mtrs off the site North boundary, with grassed area between. This cemetery is shown on the 1877 plans of the area and remains in active use. The cemetery is however both downslope and below the proposed developments site and also downstream of the site, and is thus considered very unlikely to affect the site

# **PROPOSED HOUSING ON LAND AT 100 NEATH ROAD RESOLVEN**

## **SITE INVESTIGATION PHASE 1 STUDY REPORT -MARCH 2022**

### **4.0 Preliminary Human Health and Environmental Risk Assessment**

#### **4.1 General**

A preliminary human health and environmental risk assessment has been undertaken aimed at arriving at a qualitative evaluation of any unacceptable risks to human health or the environment from potential contamination on site, based on the review of information reported on above.

For contaminated land to exist as defined in part 2A of the environmental protection act 1990 a pollutant linkage needs to be identified. Pollutant linkages are defined as having a valid source -pathway [receptor mechanism, as established in the preliminary conceptual site model

Potential Pollution linkages have thus been considered for a proposed residential development with gardens on the site

#### **4.2 Potential Sources of Contamination**

Potential sources of contamination based on the site history and current use are as summarized in the below table 1

#### **4.3 Contaminated Soils**

Whilst the site has not been subject to development, industrial development has occurred in Resolven in the past, notably coal mining and railway infrastructure and local heavy metal industry

Contamination may thus be present due to airborne deposition, or unrecorded local tipping of waste giving rise to pockets of made ground

#### **4.4 Contaminated Groundwaters**

Whilst unlikely local contamination of groundwater on site could have occurred due to past industry and risk should be evaluated

Potential sources of contamination table

| Ref | Source                                                        | Contaminant                                                                  |
|-----|---------------------------------------------------------------|------------------------------------------------------------------------------|
| S1  | Contaminated land ( made ground<br>Tipped material past use ) | Asbestos, metals , metalloids,PAH,petroleum hydrocarbons,PCBs<br>Fertilisers |
| S2  | Contaminated groundwaters                                     | Metals, metalloids,PAH,petroleum hydrocarbons,VOCs,SVOCs,ethylene,BTEX,MT    |
| S3  | Aggressive ground conditions                                  | Soil,phand sulphate levels affecting construction concrete                   |
| S4  | Past mine workings and operations                             | Ground gasses                                                                |

## **PROPOSED HOUSING ON LAND AT 100 NEATH ROAD RESOLVEN**

### **SITE INVESTIGATION PHASE 1 STUDY REPORT -MARCH 2022**

#### **4.5 Ground gasses**

No potential sources of ground gases have been identified in the desk study and in the review of the past mining reports and results. Coal mining ceased in the area many years ago and with over 16m of superficial drift material over at least 20m of competent solid sandstones mine risk can be discounted, with regards to Radon there is no risk, and there are no past landfill sites near the site proximity. With local sites in Resolven all closed some 60 years ago. the risk is thus considered negligible.

#### **4.6 Potential Pollution Pathways**

Potential contaminant pathways associated with residential land use and plant uptake are as follows

- P1 – direct soil ingestion*
- P2- Dermal contact with soil*
- P3 -Inhalation and ingestion of soil dust*
- P4-Consumption of home grown produce*
- P5-inhalation of asbestos fibres*
- P6-Horizontal and vertical migration of vapours and inhalation*
- P7-Dermal contact with groundwaters*
- P8-Absorption of contaminants into potable water supply pipes*
- P9-surface runoff*
- P10-Vertical migration of leachate*
- P11-Horizontal and vertical migration of groundwater*
- P12-Direct contact with construction materials*

#### **4.7 Pollution Pathway Influences and Factors**

Within this risk assessment pollution influence factors have been reviewed, and the following factors identified, meteorological conditions, atmospheric pressures, frozen ground and soil permeability /geology. Other influence factors such as past basements old drains and foundations and service entries can probably be discounted as the site has not been developed

Preliminary Conceptual site model for 100 North Road site visit

| Source of pollution         | Pathway                                               | Receptor                             | Consequences | Probability | Risk                                                                                                                  |
|-----------------------------|-------------------------------------------------------|--------------------------------------|--------------|-------------|-----------------------------------------------------------------------------------------------------------------------|
| Contaminated soils<br>S1    | Direct ingestion P1                                   | Construction and Maintenance workers | Medium       | High        | Medium-High. Chronic dusts and asbestos fibres inhaled. Soil and other exposure by site visit. Site hygiene measures. |
|                             | Dermal contact P2                                     |                                      |              |             |                                                                                                                       |
|                             | Inhalation of dust P3                                 |                                      |              |             |                                                                                                                       |
|                             | Inhalation of asbestos P4                             |                                      |              |             |                                                                                                                       |
| Contaminated Groundwater S2 | Inhalation of vapours P6                              | Construction and Maintenance workers | Medium       | Low         | Low                                                                                                                   |
|                             | Dermal contact P8                                     |                                      |              |             |                                                                                                                       |
| Contaminated soils<br>S1    | Inhalation of vapours P6                              | Passers by or ad site users          | Medium       | Low         | Low                                                                                                                   |
|                             | Inhalation / ingestion of dust P3                     |                                      |              |             |                                                                                                                       |
| Contaminated soils<br>S1    | Inhalation of asbestos fibres P5                      | Future site users R3                 | Medium       | High        | Medium                                                                                                                |
|                             | Direct ingestion P1                                   |                                      |              |             |                                                                                                                       |
|                             | Dermal contact with soil P2                           |                                      |              |             |                                                                                                                       |
|                             | Inhalation / ingestion P3                             |                                      |              |             |                                                                                                                       |
| Contaminated Groundwater S2 | Consumption of home produce P4                        | Future site users                    | Medium       | Low         | Low                                                                                                                   |
|                             | Inhalation of fibres P5                               |                                      |              |             |                                                                                                                       |
|                             | Inhalation of vapours P6                              |                                      |              |             |                                                                                                                       |
|                             | Absorption into water pipes P8                        |                                      |              |             |                                                                                                                       |
| Aggressive ground<br>S3     | Dermal contact with groundwater P7                    | Construction workers                 | Medium       | Low         | Low                                                                                                                   |
|                             | Inhalation of vapours P6                              |                                      |              |             |                                                                                                                       |
| Contaminated soils<br>S1    | Direct contact with materials P12                     | Groundwater R4                       | Medium       | Low         | Low                                                                                                                   |
|                             |                                                       |                                      |              |             |                                                                                                                       |
| Contaminated Groundwater S2 | Vertical migration of Leachate P10                    | Surface waters R5                    | Medium       | Low         | Low                                                                                                                   |
|                             | Surface runoff P9                                     |                                      |              |             |                                                                                                                       |
|                             | Horizontal and vertical migration of Contaminants P11 |                                      |              |             |                                                                                                                       |

Aquatic environment

## **PROPOSED HOUSING ON LAND AT 100 NEATH ROAD RESOLVEN**

### **SITE INVESTIGATION PHASE 1 STUDY REPORT -MARCH 2022**

#### **4.8 Potential Receptors**

Potential receptors are

*R1- Construction and maintenance workers*

*R2- Future site users [ residents]*

*R3-Passers-by and adjunct site users*

*R5 -Groundwaters and secondary aquifers*

*R6- Surface waters*

*R7-Construction materials [ concrete /water supply pipes]*

#### **4.9 Preliminary Conceptual Model**

A preliminary conceptual model has been established for the site as given in table 2 below, with where pollution linkages are identified, and assessment of risk undertaken

This conceptual model will now be used as the basis of a design and implantation of a site investigation program, with areas of potential pollution and contamination targeted and investigated

Following an intrusive SI and derivation of result data the Conceptual risk model a then be revised and redefined and use for detailed design

## **PROPOSED HOUSING ON LAND AT 100 NEATH ROAD RESOLVEN**

### **SITE INVESTIGATION PHASE 1 STUDY REPORT -MARCH 2022**

#### **5.0 Mining History and Risk assessment**

**5.1** The land at 100 Neath Road has been the subject of detailed mining studies undertaken for the client/owner and mining reports have been produced as follows

- 1] Mining study on land at Resolven -GeoAnalysis 29 March 1994
- 2] Coal Mining Risk Assessment for land at SA11 4AN -C Meredith MICE - January 2019
- 3] Coal Authority Report March 2019
- 4] Land adjacent to 1000 Neath Road Coal Mining Risk Assessment March 2019- Earth Since Partnership [ ESP]

These reports are reproduced in Appendix A

**5.2** With regards to these studies it is noted the Mining study of 1994 also included a rotary borehole sunk at the Southwest corner of the site to a depth of 35mtrs. The bore found superficial glacial drift deposits to 16.25m with competent sandstones and mudstones to 35m. No coal seams were found with the exception of a lens of coal some 250mm thick at 30mtrs below ground level.

#### **5.3 Mining Study Results and Conclusions**

##### **1] Desk study Results**

With reference to the three-desk study mining study report conclusions [Appendix A] it is noted that the studies show that there is no evidence of deep mining under the site, and that there are no mine entries within 100mtrs of the land. The studies do show however that the Rhondda No1 Coal seam is shown on the Geological plans as sub cropping under the site near the North boundary. The geological strata dip to the Southeast in this area, and thus this would appear to indicate that the Rhondda No1 Seam may be at shallow depth under the site.

# **PROPOSED HOUSING ON LAND AT 100 NEATH ROAD RESOLVEN**

## **SITE INVESTIGATION PHASE 1 STUDY REPORT -MARCH 2022**

### **2] Intrusive Study Results**

The 1994 Geo-analysis Study did however encompass a borehole investigation at the southwest corner of the site, which did not encounter the Rhondda No1 Seam, and that the thin coal found at some 30m was the thin coal lens shown to be on geological records and record section as being 16m below the Rhondda Seam. Thus, as the strata dips to the south -southeast this Rhondda No 1 Seam was proven not to exist under the site  
Further the depth of superficial start found would preclude any risk form local bell pits as depth to rock was too great

### **5,4 Mining Study Conclusion and Risk Assessment**

Following the review of all the past mining studies undertaken and detailed consideration of the 1994 Geo -analysis Intrusive Report it is concluded that the site is not at risk from past shallow mine workings and related activities and no special precautions are required for site development., as the Rhondda No1 seam actually subcrops to the South of the site as indicted in the 1994 borehole report.

# **PROPOSED HOUSING ON LAND AT 100 NEATH ROAD RESOLVEN**

## **SITE INVESTIGATION PHASE 1 STUDY REPORT -MARCH 2022**

### **6.0 Site Drainage**

#### **6.1 Storm Drainage**

There are no open watercourses in the area, but there are storm sewers that lie adjoin the site and a storm culvert on the East boundary

The underlying strata is of clay and soils over gravels and superficial glacial drift deposits

Therefore, with regards to storm drainage from proposed dwellings it is considered the Sustainable drainage systems [SUDS] can be provided on site taken to soakaway systems in the superficial deposits. To design these systems porosity tests will be needed on site and these could be carried out as part of the site intrusive study phase,

Should the porosity tests be poor then attenuation can be used to limit flow rates and storm drainage taken at Greenfield runoff rate to the existing storm culvert on the East side of the site.

#### **6.2 Foul Drainage**

Foul Drainage from the site can be taken to the existing adopted DCWW sewers in the area

# **PROPOSED HOUSING ON LAND AT 100 NEATH ROAD RESOLVEN**

## **SITE INVESTIGATION PHASE 1 STUDY REPORT -MARCH 2022**

### **7.0 Initial Engineering recommendations**

**7.1** Following the desk study works and research and with due regards to the proposed plans for the residential dwellings, the following recommendations are made,

### **7.2 Site Clearance**

Site clearance works to remove existing vegetation, scrub and roots should be undertaken with the ground then reprofiled to suit the proposed site layout and final levels.

Subject to contamination testing and grading / testing for suitability all topsoil arising from the clearance operation can be stockpiled and kept on site for reuse on gardens and open spaces.

### **7.2 Foundations**

Based on the study to date it would appear that conventional mass concrete foundations would be feasible for the domestic type housing proposed. The foundations would need to be taken down to competent strata and bearing pressures of 100-125 KN/m<sup>2</sup> should be achievable on the dense glacial drift at depths of some 2- 3.2 mtrs under the site

No special precautions against past mining are considered necessary

Alternatively piled foundations and reinforced ring beams could be used with the piles driven into the dense glacial drift where allowable loads of some 250 kn/pile should be achievable.

### **7.3 Ground slabs**

Dependant on site levels and design either simple mesh reinforced ground slabs or suspended slabs in concrete or beam and block appear suitable taken off the foundation strips

### **7.4 Roads and Hardstanding**

Conventional design for roads on site and hardstanding should be achievable with consideration given for porous paving systems as part of a sustainable drainage systems. No frost susceptible material should be used within 450mm of final road levels

**PROPOSED HOUSING ON LAND AT 100 NEATH ROAD RESOLVEN**  
**SITE INVESTIGATION PHASE 1 STUDY REPORT -MARCH 2022**

**7.5 Materials and pipes**

On site investigations and soil testing is required to ascertain if there are need for any special precautions in respect of concrete mix design or water supply pipes. The need for special precautions is considered possibly unlikely but until on site testing is undertaken the use of special concrete mix design and barrier type water supply pipes cannot be discounted

# **PROPOSED HOUSING ON LAND AT 100 NEATH ROAD RESOLVEN**

## **SITE INVESTIGATION PHASE 1 STUDY REPORT -MARCH 2022**

### **8.0 Recommended Site Investigations**

#### **8.1 Design**

An intrusive site investigation is proposed for the land based on the guidance given in BS10175:2011+A2 ;2017 and BS 5930;2015

The aim of this investigation is to

- 1]confirm ground strata and identify any environmental liabilities and contamination present both in the soil and groundwaters
- 2]allow the conceptual site model given in this document to be developed and enhanced.
- 3] establish and confirm allowable bearing pressures for foundations design
- 4] In parallel site investigation should be undertaken to determine ground porosity and suitability for sustainable drainage systems for the development

#### **8.2 Proposed on Site Investigations**

1]A trial pit excavation program is recommended to allow investigation of the superficial strata and to record its nature

2]In addition the soils and superficial deposits can be assessed and sampled for chemical /laboratory analysis and also for geotechnical analysis.

3]Trial pits should also be excavated at potential soakaway locations and porosity tests undertaken to determine ground suitability for soakaways in accordance with current SUDS drainage criteria

4] Following the initial trial pit excavations the on-site start and bearing capacity should be reviewed against proposed design and layout and levels'. If at this stage piled foundations are considered the four shell and auger /core boreholes should be sunk to confirm the strata at depth , with the bores taken down to some 5 mtrs below potential bottom of pile depth [ say some 15mtrs from ground level.

## **PROPOSED HOUSING ON LAND AT 100 NEATH ROAD RESOLVEN**

### **SITE INVESTIGATION PHASE 1 STUDY REPORT -MARCH 2022**

#### **8.3 Soil sampling and Analysis**

A Soil sampling program should be undertaken in accordance with LCRM -and Contamination Risk Management documentation

With regards to analysis as no specific pollutants or contamination sources have been identified in this desk study a broad range of determinants should be tested for as follows

Metals and Metalloids – *arsenic, cadmium, chromium III chromium IV, copper, lead, mercury, nickel, selenium, zine*

In -organics – *cyanide, sulphate*

Organics – *PAH, VOCs, SVOCs, phenols, petroleum hydrocarbons, BTEX*

General other – *asbestos, PH, ethylene glycol, MTBE*

Should groundwaters be encountered samples should also be taken and tested

# **PROPOSED HOUSING ON LAND AT 100 NEATH ROAD RESOLVEN**

## **SITE INVESTIGATION PHASE 1 STUDY REPORT -MARCH 2022**

### **9.0 Conclusions and Recommendations**

#### **9.1 General**

- 9.1.1** As a result of the site investigation desk study undertaken conceptual site model has been developed and the conclusion drawn the site is suitable generally for a residential development
- 9.1.2** Initial site design and foundation design parameters have also been drawn up for the end development as noted above, with conventional foundations and floor slabs possible subject to on site confirmation by trial pit investigations.
- 9.1.3** To further enhance the site model evaluate and mitigate any residual environmental risk and confirm design strategy and site development strategy an intrusive site investigation is now recommended as noted in section 8.0 above