

## Application Site Condition Report EPR/GB3490HG/A001

---

Nine Mile Point Waste Processing Facility  
for:

**Hazrem Environmental Limited**

CRM 083 002



## Contact Details:

Enzygo Ltd.  
The Byre  
Tortworth Estate  
Woodend Lane  
Cromhall  
Gloucestershire  
GL12 8AA

tel: 01454 269237  
fax: 01454 269760  
email: [peter.cumberlidge@enzygo.com](mailto:peter.cumberlidge@enzygo.com)  
www: [enzygo.com](http://enzygo.com)

## Application Site Condition Report - CRM 083 002 PE R 004 SCR

Project:	Nine Mile Point Waste Processing Facility
For:	Hazrem Environmental Limited
Status:	FINAL
Date:	September 2015
Author:	Jane Hall, Principal Consultant
Reviewer:	Peter Cumberlidge, Director

### Disclaimer:

This report has been produced by Enzygo Limited within the terms of the contract with the client and taking account of the resources devoted to it by agreement with the client.

We disclaim any responsibility to the client and others in respect of any matters outside the scope of the above.

This report is confidential to the client and we accept no responsibility of whatsoever nature to third parties to whom this report, or any part thereof, is made known. Any such party relies on the report at their own risk.

## Contents

---

Contents.....	i
1.1. <i>Background</i> .....	1
1.2. <i>Report Context</i> .....	1
1.3. <i>Site Location</i> .....	1
1.4. <i>Permitted Activities</i> .....	2
1.5. <i>Non-permitted Activities</i> .....	2
2.0 Objectives of Site Condition Report .....	4
2.1 <i>Objectives</i> .....	4
3.0 Application Site Condition Report .....	5
3.1. <i>Site Condition Report Summary</i> .....	5
4.0 Condition of Land at Time of Permit Application .....	7
4.1. <i>Site Setting and Sources of Desk Study Information</i> .....	7
4.2. <i>Geology</i> .....	7
4.3. <i>Hydrogeology</i> .....	7
4.4. <i>Hydrology</i> .....	9
4.5. <i>Statutory Designated Sites</i> .....	10
4.6. <i>Authorised and Historical Landfill and other Waste Activities</i> .....	11
4.7. <i>Environmental Permits, Dangerous Substances Inventory sites and Discharge Consents</i> .....	11
4.8. <i>Pollution History</i> .....	12
4.9. <i>Evidence of Historical Contamination and Contaminated Land</i> .....	13
4.10. <i>Summary of Baseline Conditions</i> .....	13
5.0 Operational Phase Of Site Condition Report .....	15
5.1. <i>Operational Phase</i> .....	15
6.0 Surrender Site Condition Report .....	17

6.1. Surrender Phase.....	17
7.0 Conclusions .....	19
7.1. Operational Phase .....	19
Appendices .....	20
Appendix A - GroundSure EnviroInsight Report.....	21
Appendix B - GroundSure GeoInsight Report .....	22
Appendix C - GroundSure Historical Maps .....	23
Appendix D - Phase 1 Environmental and Mining Report.....	24
Appendix E – Geo Environmental Report.....	25

## Tables & Figures

Figure 1.3.1: Site Location .....	1
Table 1.4.1: Permitted Activities .....	2
Table 3.1.1.A: Site Details .....	5
Table 3.1.1.B: Conditions of the Land at Permit Issue .....	5
Table 3.1.1.C: Permitted & Non-permitted Activities.....	6
Figure 4.3.1A: Superficial Deposits Aquifer Map .....	8
Figure 4.3.1B: Bedrock Aquifer Map.....	8
Figure 4.3.3: Groundwater Vulnerability Zone .....	9
Figure 4.4.1: Flood Map.....	9
Figure 4.4.4: Ecological Quality.....	10
Table 4.6.2: Historical Landfill Sites .....	11
Table 4.7.2: Sites with Discharge Consents .....	11
Table 4.8.2: Historical Land Use.....	12
Table 5.1.1.A: Changes to the Activity .....	15

Table 5.1.1.B: Measures to be taken to protect the land .....	15
Table 5.1.1.C: Pollution Incidents .....	16
Table 5.1.1.D: Soil, Gas and Water Quality Monitoring.....	16
Table 6.1.1.A: Decommissioning and Removal of Pollution Risk.....	17
Table 6.1.1.B: Reference Data and Remediation .....	17
Table 6.1.1.C: Statement of Site Condition .....	18



## 1.0 Introduction

---

### 1.1. Background

1.1.1. This document provides information to support an application for a bespoke Installation Environmental Permit to operate a Waste Processing Facility at Nine Mile Point Industrial Estate, just off the B4251 between the villages of Wattsville and Cwmfelinfach, approximately 4.3km North East of Caerphilly South Wales, applied for by Hazrem Environmental Limited.

### 1.2. Report Context

1.2.1. This Site Condition Report (SCR) describes and records the condition of the land included within this Permit at the time of Permit application. In accordance with Environment Agency Guidance H5: Site Condition Report – Guidance and Templates, Version 3.0 April 2013 Section 3 of this report contains the completed SCR template parts 1-3 with further detail and supporting information on the condition of the land and activities on the site included in sections 4 and 5.

1.2.2. This SCR will be updated to include any changes to the activities on the Site, the measures to be taken to protect the land and details of any pollution incidents that may have impacted on the land including their remediation, throughout the operational life of the site.

### 1.3. Site Location

1.3.1. The Facility is located at:

Nine Mile Point Industrial Estate  
Ynysddu  
Cwmfelinfach  
Caerphilly  
South Wales  
NP11 7HZ

Figure 1.3.1: Site Location



- 1.3.2. The site is located on currently undeveloped land comprising open mown grass and some trees on the Nine Mile Point Industrial Estate. The size of the application site is approximately 1.09 ha and is located at NGR ST 19235 91305.
- 1.3.3. The site is bordered by an industrial unit and car park to the East, roads to the South and West and woodland to the North. The western boundary is planted with trees with a road beyond and a number of further industrial units and car park. There is more woodland beyond the road to the South of the site and the Sirhowy River runs parallel to the Southern boundary of the site in the woodland.
- 1.3.4. The nearest residential properties are on New Road, approximately 470m North East of the eastern edge of the site boundary and William Street, approximately 478m West of the western edge of the site; the 'Ynys Hywel Countryside Centre' is approximately 640m South West and there is a farm approximately 740m North East of the site.
- 1.3.5. The western edge of the site containing trees is raised upon a bank, the rest of the site is relatively flat with small undulations, at approximately 100m AOD, located in the river valley.

#### 1.4. Permitted Activities

- 1.4.1. The operator is applying for a bespoke Installation Environmental Permit to carry out a waste operation pre-treating over 75 tonnes/day of non hazardous waste to produce Refuse Derived Fuel and Solid Recovered Fuel under section 5.4 of the Environmental Permitting Regulations, Part A(1)(b). The total quantity of feedstock that can be accepted at the site will be 100,000 tonnes per annum. Table 1.4.1 below lists the activities to be permitted.

**Table 1.4.1: Permitted Activities**

Schedule 1 Activity	Description of Activity	Annex IIA or IIB	Treatment Capacity
Part A(1) Section 5.4 Part A(1)(b)	<i>Recovery or a mix of recovery and disposal of non-hazardous waste with a capacity exceeding 75 tonnes per day involving (ii) pre-treatment of waste for incineration or co-incineration.  Bulking of recyclable wastes recovered as an incidental part of production of SRF/RDF</i>	R3: Recycling/reclamation of organic substances which are not used as solvents (including composting and other biological transformation processes)  R4: Recycling/reclamation of metals and metal compounds  R5: Recycling/reclamation of other inorganic materials  R13: Storage of wastes pending any of the operations numbered R1 to R12 (excluding temporary storage, pending collection, on site where it is produced)	Total capacity of 100,000 tonnes per annum.  Daily treatment capacity of 75 tonnes per day.

- 1.4.2. Permitted wastes will be restricted to waste types listed within the Environmental Permit. Operating techniques are detailed in the Operating Techniques and Monitoring Plan document reference CRM 083 002 PE R 006.

#### 1.5. Non-permitted Activities

1.5.1. The operator is not proposing to undertake any activities at the site other than those which will be included in the Environmental Permit. All activities will be carried out within the permit boundary.

## 2.0 Objectives of Site Condition Report

---

### 2.1 Objectives

- 2.1.1. A Site Condition Report is required under the Environmental Permitting (England and Wales) Regulations 2010 (as amended) where there may be a potentially significant risk to land or groundwater.
- 2.1.2. The objectives of the SCR are to:
- Describe and record the condition of the additional land, water and groundwater at the point at which the application for an additional piece of land/water is to be included within the existing Permit;
  - Identify the environmental setting and land pollution history of the site;
  - Identify any additional activities that will be undertaken at the site that may lead to pollution; and
  - Identify and assess the preventative measures that will be in place to protect the additional land.
- 2.1.3. This SCR will act as a baseline point of reference at the start of operational use of the land associated with this new Permit, so that at the time of Permit surrender a decision can be made as to whether there has been any incidents or site contamination caused during the operational phase of activities.
- 2.1.4. The Operator shall ensure that procedures are implemented in order that the operational phase of the SCR can be completed and that the necessary data is collected to demonstrate the land is in a 'satisfactory state' at time of Permit variation following the 'lifetime approach'.

## 3.0 Application Site Condition Report

### 3.1. Site Condition Report Summary

**Table 3.1.1.A: Site Details**

Site Details	
Name of the Applicant	Hazrem Environmental Limited
Activity Address	Nine Mile Point Industrial Estate, Ynysddu, Newport, South Wales, NP11 7HZ
National Grid Reference	ST 19235 91305
Document reference and dates for Site Condition Report at permit application and surrender	CRM 083 002 PE R 004 Application Site Condition Report
Document references for site plans (including location and boundaries)	CRM 083 002 PE D 01 Site Location Plan CRM 083 002 PE D 02 Installation Boundary Located in the Drawings Section of this Application.

**Table 3.1.1.B: Conditions of the Land at Permit Issue**

Conditions of the land at Permit Issue	
Environmental setting including: <ul style="list-style-type: none"> <li>• Geology;</li> <li>• Hydrogeology;</li> <li>• Surface Waters</li> </ul>	Details on the geology, hydrogeology and hydrology are provided in section 4.2, 4.3 and 4.4 of this SCR.
Pollution history including: <ul style="list-style-type: none"> <li>• pollution incidents that may have affected land</li> <li>• historical land-uses and associated contaminants</li> <li>• any visual/olfactory evidence of existing contamination</li> <li>• evidence of damage to pollution prevention measures</li> </ul>	Details of the Pollution History are provided within Section 4.8 of this SCR.
Evidence of historic contamination, for example, historical site	Details are in section 4.8 and 4.9 of this SCR.

Conditions of the land at Permit Issue	
Investigation, assessment, remediation and verification reports (where available)	N/A
Baseline soil and groundwater reference data	N/A
Supporting information	N/A

**Table 3.1.1.C: Permitted & Non-permitted Activities**

Permitted Activities	
Permitted Activities	Details are provided within Section 1.4 of this SCR.
Non-permitted Activities	Details are provided within Section 1.5 of this SCR.
Document references for: <ul style="list-style-type: none"> <li>• plan showing activity layout; and</li> <li>• environmental risk assessment</li> </ul>	CRM 083 002 PE D 03 Site Layout

## 4.0 Condition of Land at Time of Permit Application

---

### 4.1. Site Setting and Sources of Desk Study Information

4.1.1 The site setting was established using the following sources of desk study information:

- GroundSure GeolInsight Report dated 20 April 2015;
- GroundSure EnviroInsight Report dated 20 April 2015;
- GroundSure historical mapping information;
- MAGIC database;
- Natural Resources Wales Nature and Heritage Conservation On-line Screening Tool;
- Enzygo Phase 1 Environmental and Mining Report, April 2015.

### 4.2. Geology

4.2.1 Geological information was obtained from the 1:50,000 scale BGS Digital Geological map, sheet 249, as summarised in the GroundSure reports.

4.2.2 According to the Groundsure GeolInsight report there are no records of artificial or made ground within 500m of the application site. However, the Enzygo Phase 1 Environmental and Mining Report notes that re-grading was encountered across the site which was thought likely to be associated with spoil heaps from the nearby Nine Mile Point Colliery which closed in 1964, and that substantial Made Ground is likely to be present across the site.

4.2.3 Superficial Deposits are recorded as sand and gravel Devensian glaciofluvial deposits across the northern part of the site and clay, silt, sand and gravel Alluvium across the southern part of the site. The maximum - minimum permeability of these superficial layers on site are designated as 'Very High' - 'Very Low' (Intergranular flow). There are no records of landslips on or within 500m of the application site.

4.2.4 The solid geology beneath the application site is summarised in the Groundsure GeolInsight report as being Brithdir Member Sandstone (with mudstone and coal bands at depth) of a 'Westphalian D' rock age. The maximum and minimum permeability of the bedrock is designated as 'High' to 'Moderate' with a fracture flow type designation.

4.2.5 The Groundsure report shows a fault running across the site in a North East - South West direction with unknown displacement. The Enzygo report notes that it has been recorded in the shaft records for the Nine Mile Point colliery.

### 4.3. Hydrogeology

4.3.1 The Groundsure EnviroInsight report confirms that the superficial layers and the bedrock beneath the application site are designated as a 'Secondary 'A' Aquifer', permeable layers capable of supporting water supplies at a local rather than strategic scale, and in some cases forming an important source of base flow to rivers. This is illustrated in Figures 4.4.1A and B below.

Figure 4.3.1A: Superficial Deposits Aquifer Map

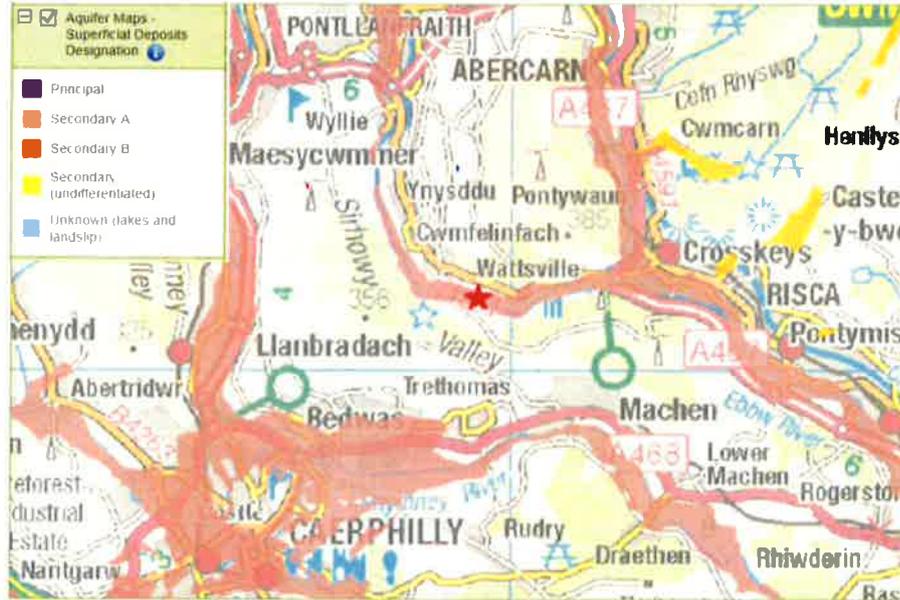


Image obtained from EA's 'What's in your backyard?' database  
The site location is indicated with a red star.

Figure 4.3.1B: Bedrock Aquifer Map

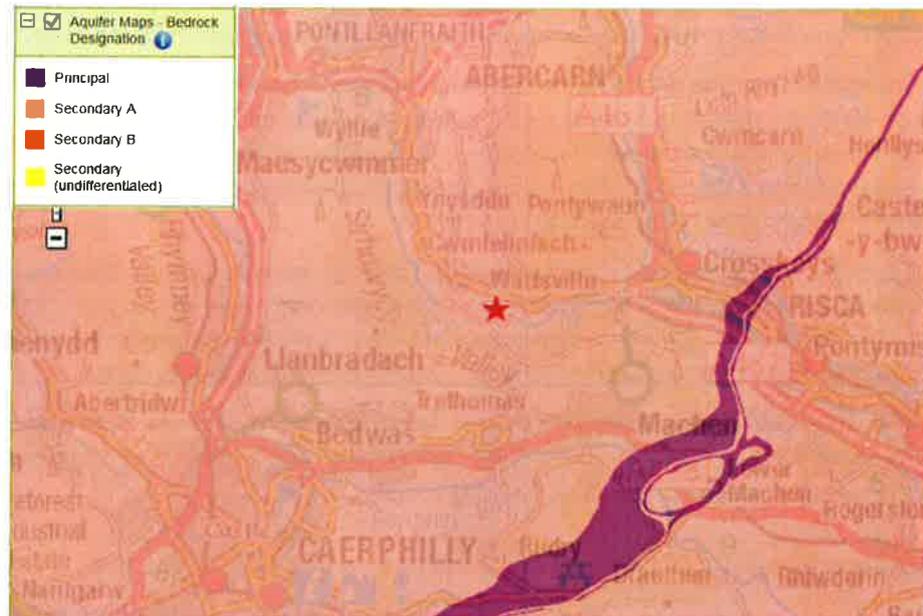


Image obtained from EA's 'What's in your backyard?' database  
The site location is indicated with a red star.

4.3.2 The application site is not within a Source Protection Zone.

4.3.3 The Groundwater vulnerability zone for the application site is shown as Minor Aquifer with High Leaching Potential, as illustrated in Figure 4.4.3 below. These are soils from restored mineral workings that are assumed to be highly permeable as there is no site-specific

information available; also, coarse textured or moderately shallow soils which readily transmit non-adsorbed pollutants and liquid discharges but have some ability to attenuate adsorbed pollutants because of their clay or organic matter content.

**Figure 4.3.3: Groundwater Vulnerability Zone**

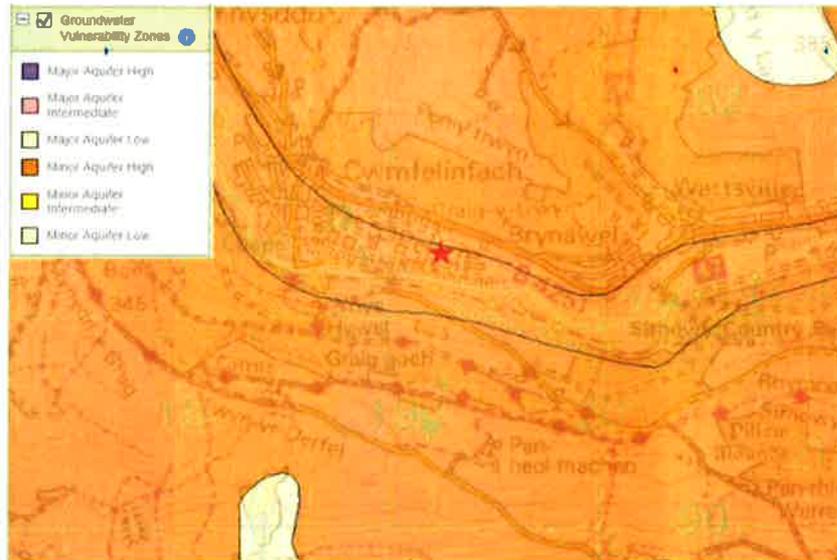


Image obtained from EA's 'What's in your backyard?' database  
The site location is indicated with a red star.

#### 4.4. Hydrology

4.4.1 A review of the flood maps indicate that the application site is not within any designated flood zone. However, there are Zone 2 (annual probability of flooding occurring from rivers between 0.1% and 1%) and Zone 3 (a 1% or greater annual probability of flooding occurring from rivers) flood zones associated with the Sirhowy river approximately 50m South of the site, as illustrated in Figure 4.5.1 below.

4.4.2 There are no flood defences, no areas benefitting from flood defences or areas used for flood storage within 250m of the application site.

**Figure 4.4.1: Flood Map**

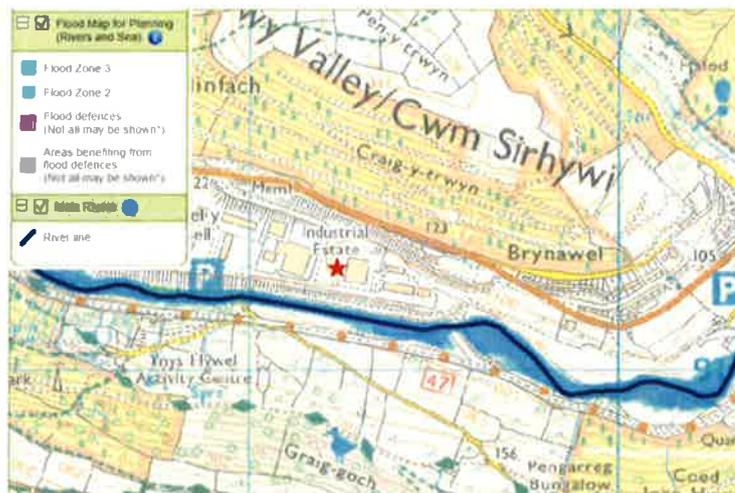


Image obtained from EA's 'What's in your backyard?' database.  
The site location is indicated with a red star.

- 4.4.3 British Geological Survey data shows an area with limited potential to be susceptible to groundwater flooding associated with the unconfined aquifer, i.e. Clearwater Flooding, within 50m of the site, as reported in the GroundSure EnviroInsight Report. This area could be susceptible to groundwater flooding at the ground surface (rated with a 'Low' confidence by BGS).
- 4.4.4 The river Sirhowy to the south of the site is currently on Natural Resources Wales's monitored network for Ecological quality. It is currently designated as 'Moderate' Ecological quality, as illustrated in Figure 4.5.4 below, and is not currently monitored for chemical quality.

**Figure 4.4.4: Ecological Quality**



Image obtained from EA's 'What's in your backyard?' database.  
Site location is indicated with a red star

- 4.4.5 There are no Groundwater Abstraction Licences, Surface Water Abstraction licences or Potable Water Abstraction Licences listed within 2km of the application site.

#### **4.5. Statutory Designated Sites**

- 4.5.1 There are no Statutory Designated Sites on the application site.
- 4.5.2 The application site is surrounded by areas of Ancient and Semi-Natural and Ancient/Replanted Woodland, as designated by Natural England/Natural Resources Wales. At its closest point, a designated environmentally sensitive area of Ancient and Semi-Natural Woodland is present on the Northern boundary of the site. This data is summarised in the Groundsure EnviroInsight report.
- 4.5.3 There is one Local Nature Reserves within 500 m of the site. Graig Goch (an area of Ancient replanted woodland) approximately 275m South of the proposed facility.

4.5.4 Natural Resources Wales Nature and Heritage On-line screening tool did not identify any statutory designated sites within 2km of the proposed facility.

**4.6. Authorised and Historical Landfill and other Waste Activities**

4.6.1 There are no current licenced Landfill Sites, or Local Authority refuse tips within 1.5km of the application site according to the GroundSure Envirolnsight report.

4.6.2 There is one record of a historic landfill within 1500m of the site according to the Groundsure Envirolnsight report, as summarised in Table 4.7.2 below.

**Table 4.6.2: Historical Landfill Sites**

Site Name	Site Address/details	Last Waste Received	Distance and direction from Site (m)
<b>Historical</b>			
Graig-Yr-Trwyn	Duffryn Road, Brynawel - Inert, Industrial, Commercial, Household, Special	Not known	588 E

4.6.3 There are no current, historic or planned waste treatment, transfer or disposal sites within 500m of the application site.

**4.7. Environmental Permits, Dangerous Substances Inventory sites and Discharge Consents**

4.7.1 There are no sites with historic IPC Authorisations, Environmental Permits for Part A(1), A(2) or Part B processes, Red List discharge consent sites, List 1 or List 2 Dangerous Substances sites, Water Industry Referral sites or IPPC Authorised Activities identified within 500m of the application site.

4.7.2 There are two records of sites with Discharge Consents within 500m of the application site, as summarised in Table 4.8.2 below.

**Table 4.7.2: Sites with Discharge Consents**

Reference No.	Discharge Type/Purpose	Receiving Water	Distance and direction from site (m)
<b>Historical</b>			
AD0004806 - revoked 4/3/1994	Unspecified	Sirhowy River	152 SE
<b>Current</b>			
AD0009508	Storm Sewage Overflow	Sirhowy River	326 W

4.7.3 There are no records of Planning Hazardous Substance Consents and Enforcements or sites with COMAH/NIHHS Authorisations within 500m of the site.

#### 4.8. Pollution History

##### Historical Land Uses

- 4.8.1 The Groundsure Geolnsight report has identified coal mining activities associated with the site. This is discussed in more detail in the *Enzygo Phase 1 Environmental and Mining Report, April 2015*, attached as Appendix D to this report. In summary, Nine Mile Point Colliery was located to the North of the site to work the underlying coal seams at depths ranging from 150m - 410m last worked in 1962 and to 250m also last worked in 1962. The colliery itself closed in 1964. There are two coal mine entries/shafts within 20m of the site which are up to 6.4m diameter. Records indicate that both shafts were backfilled with shale and covered with a reinforced concrete cap in 1970.
- 4.8.2 Table 4.9.2 below summarises the historical land use for the site as discussed in the 'Site History' section of the *Enzygo Phase 1 Environmental and Mining Report, April 2015*, and the Groundsure historical maps attached as Appendix C to this report.

**Table 4.8.2: Historical Land Use**

Historical Map Dates	Details
1875, 1879,1899, 1901	The northern part of the site is shown as woodland. A Tramway is shown dissecting the site from west to east. The southern part of the site and to the south of the tramway is open fields with four drains draining south into a further drain which drains south into the River Sirhowy located on the southern boundary of the site. A footpath is shown crossing the site west - east near the southern boundary. There is an unreferenced Road 50m North. Glan-yr-Afon Farm 20m south. Open fields surround the site. Railway shown 120m south of the site.
1916, 1920	The site comprises Nine Mile Point Colliery shown in the north of the site. The main Nine Mile Point Colliery buildings are shown within the site and to the north and east adjacent to the site. A mine shaft is shown in the northern part of the site. Two further shafts are shown 10m East and 80m East of the site. Railway sidings are shown to the south of the colliery buildings and central part of the site and spoil heaps to the south. A water reservoir is shown 100m north west associated with the mine. Tanks are shown 50m north west.
1922	No significant changes.
1938, 1948	Spoil heaps are shown to the south west of the site, supplied by an aerial ropeway from the mine. The tanks and reservoir and still marked in both maps.
1961, 1965	An additional building associated with the railway siding is shown in the central western part of the site. A drain is shown in the north western part of the site flowing to the east. Numerous spoil heaps and Made Ground are shown to the south of the site in-between the main railway siding and building to the north and the river to the south. Pylons are shown coming into the site from the west. Google records indicate that the colliery closes in 1964. Further spoil heaps are shown on the former open field and Glan-yr Afon farm to the south of the site and are connected to the mine by aerial conveyors. The entire area to the south of the mine buildings up to 250m is shown as spoil heaps. By 1961 the water reservoir is still shown, but the tanks are not.
1974	No mine or shafts are shown. The entire site has been re-graded and is shown as a level site with a road embankment to the north and the stepped embankment to the south with track running west to east. The River Sirhowy has been diverted to be 50m south of the site. A

Historical Map Dates	Details
	track is shown to dissect the site from the north west to the east. The whole area surrounding the site has been re-graded to form a plateau between the road to the north and the newly diverted river to the south.
1982	The western and southern boundaries of the site are shown by roads. The previous track is no longer shown. The undeveloped parcel of land to the west of the site which was also re-graded as part of the redevelopment works is now occupied by three factories.
1988	The site is shown as part of the Nine Mile Point Industrial Estate. The western road is shown as Green Meadow Road and the southern road shown as Heol Tir Ton, leading to Heol Glan-Yr-Afon. A new Industrial building with associated car parking to the north is shown 50m east of the site. An electrical substation is shown 50m south east of the site. Further industrial units are shown 100m east.
1993	The industrial unit to the east has enlarged and now extends to the eastern boundary of the site. The Industrial unit to the west has also enlarged to the south and west.
2002	A small area of land on the eastern boundary of the site has been cornered off opposite the access road to the adjacent industrial estate on the western boundary of the site. Google images indicate the re-graded land for the site has been subject to the drainage system which drains the site into a drain running down the eastern boundary of the site. Google images of the 2010 also show clearly differing vegetation growth indicating the possible position of a mine shaft cap underneath.
2010, 2014	The small area of land shown on the western boundary of the site is not shown.

#### Pollution Incidents

- 4.8.3 No pollution incidents have been recorded at the application site itself according to the Environment Agency's 'What's in Your Backyard?' database and the National Incidents Recording System (NIRS). There have been no NIRS List 1 incidents recorded within 500m of the application site. There have been two NIRS List 2 incidents within 500m of the application site, occurring in 2002 and 2005. They were both a discharge of 'Inorganic Chemical Wastes' approximately 207m east of the application site and they caused a significant impact to water and land and no impact to air. Summary information on these incidents can be found in the Groundsure EnviroInsight report attached as Appendix A.

#### 4.9. Evidence of Historical Contamination and Contaminated Land

- 4.9.1 The Groundsure EnviroInsight report listed zero sites determined as Contaminated Land (under Part 2 of the EPA 1990) on the application site or within 500m of it. Records of background soil chemistry do not show any elevated concentrations, however this does not take into account the presence of Made Ground on the site. Background estimated soil chemistry (taken from the GroundSure GeoInsight Report supplied in Appendix B) lists the following ranges for soil data ('sediment' sample type): arsenic 15 - 25mg/kg, cadmium <1.8mg/kg, chromium 60 - 90mg/kg, nickel 15 - 30mg/kg and lead <100mg/kg, based on four locations within the application site.

#### 4.10. Summary of Baseline Conditions

- 4.10.1 In reviewing the condition of the ground prior to operation of the waste treatment facility based on a desk study information, the presence of made ground indicates that there may be the potential for contamination sources. Enzygo's report 'Phase 1 Environmental and Mining Report', April 2015 referenced CRM.414.002.GE.R.001 concludes in section 7.12 'It is

*considered that given the low/negligible risk from potential contamination. Appropriate environmental sampling should be undertaken to determine the soil quality.'* This report is included in Appendix D.

- 4.10.2 A '*Geo-environmental Report*' was undertaken by Enzygo in May 2015 referenced CRM.083.001 GE.R 002 which includes the results of intrusive investigation. This report is included in Appendix E. Section 9 of report states '*The soil quality analysis does not show any exceedances of the reference values for commercial end use. No asbestos fibres were detected.*' Chemical analysis is included in Appendix D: Chemical Testing which comprises the baseline data upon which to base comparison of the ground conditions at the time of site surrender.
- 4.10.3 From the chemical analysis undertaken the report concludes: '*It is considered that there is a negligible to low risk associated with land quality issues at the site. Given the proposed industrial usage of the site no remediation is expected.*'
- 4.10.4 Given the pollution prevention measures to be installed by the Operator as described in this report, particularly that the whole facility is situated upon a concrete slab, pollution of the ground, groundwater or other nearby receptors is unlikely. Should any pollution occur, records will be maintained and remediation will be carried out.

## 5.0 Operational Phase Of Site Condition Report

### 5.1. Operational Phase

5.1.1 During operational phase of the Permit, the following sections of the SCR template (EPR: H5) will be maintained for the whole site so that the operator can demonstrate that the land is in a 'satisfactory state' at time of Permit surrender. Relevant information, as identified within the template below, will be collected and recorded throughout the operational phase as part of the 'lifetime records approach'. In addition, relevant procedures will be reviewed, to ensure sufficient data is available when the operator seeks to cease the permitted activities at the site.

**Table 5.1.1.A: Changes to the Activity**

CHANGES TO THE ACTIVITY	
Have there been any changes to the activity boundary?	<ul style="list-style-type: none"> <li>If yes, provide a plan showing the changes to the activity boundary.</li> </ul>
Have there been any changes to the permitted activities?	<ul style="list-style-type: none"> <li>If yes, provide a description of the changes to the permitted activity.</li> </ul>
Have any 'dangerous substances' not identified in the application SCR been used or produced as a result of the permitted activities	<ul style="list-style-type: none"> <li>If yes, list them.</li> </ul>
Checklist of supporting information	<ul style="list-style-type: none"> <li>Plan showing any changes to the boundary (where relevant);</li> <li>Description of the changes to the permitted activities (where relevant); and</li> <li>List of 'dangerous substances' used/produced by the permitted activities that were not identified in the Application Site Condition Report (where relevant).</li> </ul>

**Table 5.1.1.B: Measures to be taken to protect the land**

MEASURES TO BE TAKEN TO PROTECT THE LAND	
Use records collected during the life of the Permit to summarise whether pollution prevention measures worked. If this is not possible, collect land and/or groundwater data to assess whether the land has deteriorated.	
Checklist of supporting information	<ul style="list-style-type: none"> <li>Inspection records and summary of findings of inspections for all pollution prevention measures; and</li> <li>Records of maintenance, repair and replacement of pollution prevention measures.</li> </ul>

**Table 5.1.1.C: Pollution Incidents**

POLLUTION INCIDENTS THAT MAY HAVE HAN AN IMPACT ON LAND, AND THEIR REMEDIATION	
Summarise any pollution incidents that may have damaged the land. Describe how these were investigated and remedied. If this is not possible, collect land and /or groundwater reference data to assess whether the land has deteriorated while you've been there.	
Checklist of supporting information	<ul style="list-style-type: none"> <li>• Records of pollution incidents that may have impacted on land; and</li> <li>• Records of their investigation and remediation.</li> </ul>

**Table 5.1.1.D: Soil, Gas and Water Quality Monitoring**

SOIL GAS AND WATER QUALITY MONITORING (WHERE UNDERTAKEN)	
Provide details of any soil gas and/or water monitoring undertaken. Include a summary of the findings. State whether it shows that the land deteriorated as a result of the permitted activities. If it did, outline how this was investigated and remedied.	
Checklist of supporting information	<p>Description of soil gas and/or water monitoring undertaken; and</p> <p>Monitoring results (including graphs).</p>

## 6.0 Surrender Site Condition Report

### 6.1. Surrender Phase

6.1.1 At Permit surrender, the following sections of the SCR template (EPR: H5) will be completed and submitted to NRW as part of the Permit Surrender Application. Information that has been gathered during the operational phase of the Permit following the 'lifetime approach' will be used to identify whether the land is in a satisfactory condition. Site surrender reference data will be collected if required.

**Table 6.1.1.A: Decommissioning and Removal of Pollution Risk**

DECOMMISSIONING AND REMOVAL OF POLLUTION RISK	
Describe how the site was decommissioned. Demonstrate that all sources of pollution risk have been removed. Describe whether the decommissioning had any impact on the land. Outline how this was investigated and remedied.	
Checklist of supporting information	<ul style="list-style-type: none"> <li>• Site Closure Plan;</li> <li>• List of potential sources of pollution risk; and</li> <li>• Investigation and remediation reports (where relevant)</li> </ul>

**Table 6.1.1.B: Reference Data and Remediation**

REFERENCE DATA AND REMEDIATION (WHERE RELEVANT)	
State whether land and/or groundwater data was collected or whether it wasn't required because the information within the Surrender Site Condition Report shows that the land has not deteriorated.	
If any land and/or groundwater reference data was collected, summarise what this entailed, and what the data found. State whether the data shows that the condition of the land has deteriorated, or whether the land at the site is in a "satisfactory state". If it isn't, a summary of what has been done to remedy this should be provided. Confirm will be required that the land is now in a "satisfactory state" at surrender.	
Checklist of supporting information	<ul style="list-style-type: none"> <li>• Land and/or groundwater data collected at application (if collected);</li> <li>• Land and/or groundwater data collected at surrender (where needed);</li> <li>• Assessment of satisfactory state; and</li> <li>• Remediation and verification reports (where undertaken)</li> </ul>

**Table 6.1.1.C: Statement of Site Condition**

**STATEMENT OF SITE CONDITION**

Provide a statement about the condition of the land at the site. This should confirm that:

- the permitted activities have stopped;
- decommissioning is complete, and the pollution risk has been removed; and
- the land is in a satisfactory condition.

## 7.0 Conclusions

---

### 7.1. Operational Phase

- 7.1.1 The primary purpose of this report is to provide baseline information to NRW in relation to land to be included within the proposed Waste Processing facility. This information will be used as a framework against which any potential future contamination issues will be assessed. The report has been structured in accordance with the Environment Agency's Horizontal Guidance Note H5: Site Condition Report Guidance and Template.
- 7.1.2. The site is surrounded by areas of Ancient and Semi-Natural and Ancient/Replanted Woodland.
- 7.1.3. There are also two Local Nature Reserves within 2km of the site. It is not anticipated that these sites will be impacted by activities on the application site due to their distance from the site.
- 7.1.3 The site overlies a Secondary 'A' Aquifer. The Groundwater Vulnerability Zone for the area is designated as a Minor Aquifer with high leaching potential. The site is not within a Source Protection Zone or a Nitrate Vulnerable Zone.
- 7.1.4 The nearest river on the NRW monitored network is the River Sirhowy which is classified as 'Moderate' ecological quality by NRW and is not monitored for chemical water quality.
- 7.1.5 The site is not within a designated Flood Zone. There are Zone 2 and Zone 3 flood zones associated with the river Sirhowy approximately 50m south of the site. However, the site has been subject to substantial land raising post mine closure and it is not considered that flooding will be an issue. There are no flood defences or areas used for flood storage within 250m of the site.
- 7.1.6 From the information considered in compiling this report, it is considered that there is negligible - low risk associated with land quality issues at the site. Any soil quality samples collected as part of the proposed ground investigation work (see *Enzygo Phase 1 Environmental and Mining Report, April 2015 Recommendations*) will be used as part of the baseline site condition for the site.
- 7.1.7 The operator proposes to implement the Environment Agency's 'lifetime approach' to their operations, and continuously record reference data to ensure that the operator can demonstrate that the land has not deteriorated during the operational lifetime of the Permit.

## APPENDICES

---

## **Appendix A - GroundSure EnviroInsight Report**

---



## **Appendix B - GroundSure GeoInsight Report**

---



## Appendix C - GroundSure Historical Maps

---



## **Appendix D - Phase 1 Environmental and Mining Report**

---

Supplied on a CD



## Appendix E – Geo Environmental Report

---

Supplied on a CD







**Enzygo specialise in a wide range of technical services:**

- Property and Sites**
- Waste and Mineral Planning**
- Waste Technologies and Renewables**
- Landscape and Visual Impact**
- Environmental Assessment Co-ordination**
- Hydrology and Flood Risk**
- Waste Contract Procurement**
- Noise and Vibration**
- Environmental Permitting and Regulation**
- Development Planning & Policy**
- Ecology Services**
- Contaminated Land and Geotechnical**
- Traffic and Transportation**

---

**BRISTOL OFFICE**

The Byre,  
Woodend Lane,  
Cromhall,  
Gloucestershire GL12 8AA  
Tel: 01454 269 237

**SHEFFIELD OFFICE**

STEP Business Centre  
Wortley Road  
Deepcar  
Sheffield S36 2UH  
Tel: 0114 290 3677

**MANCHESTER OFFICE**

76 King Street,  
Manchester,  
M2 4NH  
Tel: 0161 413 6444

---

Please visit our website for more information.

[enzygo.com](http://enzygo.com)