Llysonnen Mill, Site Condition Report (EPR/EP3034GS)



CONFIDENTIAL

28 June 2023

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1 Introduction

1.1 Background

Stantec UK Limited (Stantec) have been commissioned by the Wynnstay Group P.L.C (Wynnstay) to prepare a Site Condition Report (SCR) for Llysonnen Mill (the 'Site'). The SCR is to be submitted to Natural Resources Wales (NRW) to satisfy the requirements of an Improvement Condition (IC) in the extant Environmental Permit (EP) for the Site (ref. EP3034GS/V004).

Wynnstay operate the Site (referred to in the EP as an 'installation'), located at Travellers Rest, Carmarthen, Carmarthenshire SA31 3SG that covers an area of approximately 1.6 hectares. The centre of the Site is located at National Grid Reference SN 38295 19579.

The installation utilises bulk raw materials of vegetable origin to produce pellets or blends of meals for animal feed. Raw materials are accepted at the Site in dry and liquid forms with dry materials being stored in bulk silos and liquids in storage tanks. Filters are used at the intake points to reduce the potential for atmospheric emissions during delivery.

The milling process blends, grinds, mixes, and extrudes into pellets (if required) the raw materials which are blended to specific formulas (steam, molasses and liquids are added if necessary).

Pelletising of the mixes into pellets, nuts or rolls occurs through one of two processing lines. After the feed has been formed in the presses, air is drawn down to cool the feed using one of two coolers. Air from each cooler is expelled through cyclone abatement systems which are monitored for particulate emissions on an annual basis. The finished product is transferred for bulk storage and subsequent sale. A small amount of finished feed is sold in 500kg tote bags.

The main process is also supported by ancillary activities which include steam generation, compressed air generation, effluent treatment, cleaning, and vehicle washing.

An Environmental Management System (EMS) has been produced for Llysonnen Mill. The EMS is presented in the Environmental Manual (latest version September 2020) (Appendix F). This document outlines the operational procedures taken to ensure compliance with the EP and is referenced throughout this report.

1.2 Report scope

Improvement Condition 6 (IC6) of the EP requires that:

"The Operator shall complete and submit for approval in writing by Natural Resources Wales:

- *A baseline report containing information necessary to determine the current state of soil and groundwater contamination; or*
- *Provide a summary report referring to information previously submitted where you are satisfied that such information represents the current state of soil and groundwater contamination; so as to enable a quantified comparison to be made with the state of soil and groundwater contamination upon definitive cessation of activity."*

Following our discussions with Wynnstay and NRW, the agreed scope of works is a desk-based

SCR using the contemporary NRW template for each site (Section 1.2.1). The SCR incorporates information from the existing SCR produced for the Site in 2017 (Appendix A), up to date 'Enviro Insight' report from Groundsure including historic mapping (Appendix C and B, respectively) and compliance evidence with the Site EP (Appendix D and E) recorded as part of the site's EMS (Appendix F). This desk-based SCR has been prepared as a 'summary report' as outlined in IC6 bullet 2 above, for the purpose of satisfying the requirement of IC6.

A revised submission deadline for this SCR of 4 July 2023 has been agreed in writing with NRW.

1.2.1 Key guidance

In preparing this report, reference is made to the following key NRW guidance:

- NRW Environmental Permitting Regulations: Guidance for applicants H5, Site condition report – guidance and templates, October 2014 (NRW, 2014).

1.3 Report structure

The structure of this SCR is centred around the SCR template provided by NRW as part of their guidance (NRW, 2014). This template is split into three sections for distinct parts during the lifetime of the EP.

The following sections of this SCR are therefore structured as follows:

- Section 1 'Site Details'. This section provides information of the Site's location and the nature of activities / waste facilities on the site. It also demonstrates locations of receptors, sources of emissions, drainage, and surfacing;
- Section 2 'Application Stage'. This section describes the condition of the land and groundwater at the point at which the EP was applied for; and
- Section 3 'Operational Stage'. This explains how Wynnstay ensure that land and groundwater are protected whilst the Site is operational.

These sections are followed by Section 4 'Conclusions'.

The SCR Template also includes a 'Surrender Stage'. This stage of the report has not been developed as Wynnstay currently have no intention of closing the Site and surrendering the associated EP. It is envisaged that an updated SCR will be produced eventually to support an application to surrender the EP.

The SCR Template is provided in a tabular format. As such, the sections of this SCR that relate to the Site Condition Report (Sections 2 and 3) include the corresponding table from the NRW SCR Template. Where relevant, further information is provided beneath each table.

2 Application stage

The original EP (EP3034GS) was issued to Wynnstay in July 2010. An 'Application Site Report' (ASR) was completed in August 2009 by ExCAL (ExCAL) (ExCAL, 2009a) in support of the EP application also prepared by ExCAL in September 2009 (ExCAL, 2009b). An SCR was subsequently produced in 2017 for Wynnstay by ExCAL to support an EP variation (Appendix A). The variation was to amend the permit boundary, due to the installation of a new drainage system, laid in part within a grass verge to the south/south east of the site, outside the EP boundary.

Details from previous reports form the "baseline conditions" at the Site, and where the required information is missing, details have been added retrospectively from historical mapping and the (2023) Groundsure Report (Appendix C).

The 2009 ASR and 2017 SCR are referenced throughout this report as supporting information to show the condition of the Site over time.

Historical ordnance survey maps are provided for 2010 in the Groundsure report and aerial imaging for 2010, which are reproduced as Figure 2-1. The mapping, in conjunction with the Site Reconnaissance below, provides an understanding of land use prior to and at the approximate time of the EP application.

Further historical mapping is included as Appendix B.

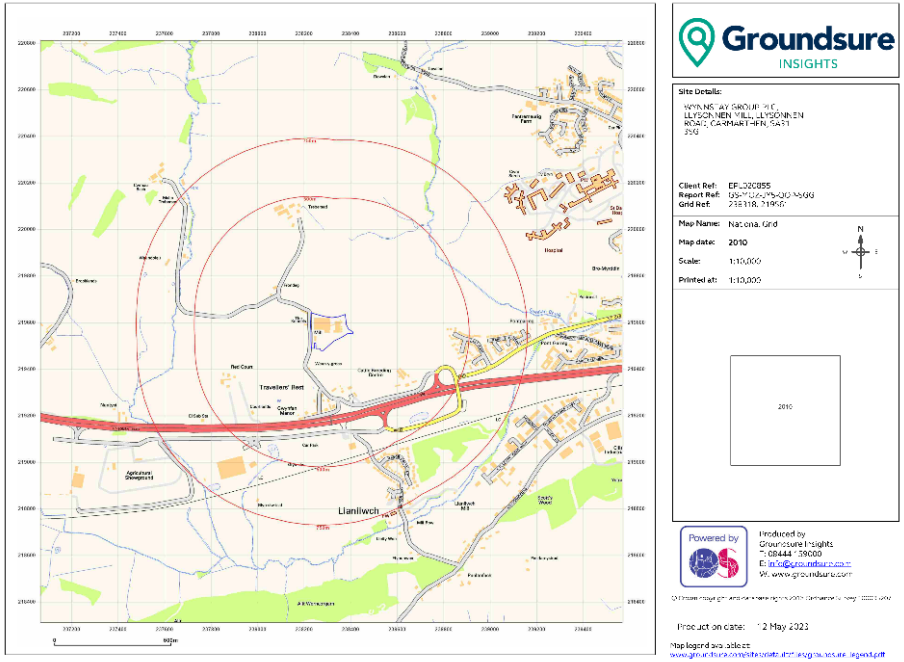




Figure 2-1 Historical Ordnance Survey Map (2010) and Aerial Imaging (2010)

2.1 Application

1.0 SITE DETAILS	
Name of the applicant	Wynnstay Group P.L.C
Activity address	Llysonnen Mill, Travellers Rest, Carmarthen, Carmarthenshire, SA31 3SG
National grid reference	SN 38249 19533

Document reference and dates for Site Condition Report at permit application and surrender	An ASR was completed in support of the EP application prepared by ExCAL in September 2009 (ExCAL, 2009a). An SCR was subsequently produced in 2017 for Wynnstay by ExCAL to support an EP variation (Appendix A).

Document references for Site plans (including location and boundaries)	'Historic Site Location Plan' (Figure 2-2) and 'Extant Site Location Plan' (Figure 2-3). The current EP boundary is shown as the green line boundary on Figure 2-3.

2.0 Condition of the land at permit issue	
Environmental setting including: • geology • hydrogeology • surface waters	**Geology** The Site is underlain by superficial glaciofluvial sheet deposits comprising sand and gravel, the permeability of which is categorized as Very High via intergranular flow. The bedrock on-site is classified as Tetragraptus beds – Mudstone. Made ground is recorded in the site investigation undertaken in 2003. Borehole records from the investigation indicate that the composition of the made ground varies across the site. Many areas consist of stone/gravel fill material beneath the site's concrete infrastructure with the occasional clay and sand matrix. Waste materials are also noted in the matrix. The thickness of the made ground is recorded as up to 1.7 metres. Sources: ASR, 2009 (ExCAL, 2009a); SCR, November 2017; Groundsure Enviro + Geo Insight, May 2023 **Hydrogeology** Data obtained for the Site shows that the north-eastern area of the Site underlain by a Secondary (A) Aquifer within the superficial geology, while all the bedrock underlying the Site is classified as a Secondary (B) Aquifer of undifferentiated layers. There are no records of groundwater abstractions within 500m of the site, the nearest active abstraction is some 1,736m east of the site for water bottling purposes. There are no groundwater Source Protection Zones (SPZs) within 500m of the Site. Sources: SCR, November 2017; Groundsure Enviro + Geo Insight, May 2023

	Surface Waters Several detailed river network records are available within 500m of the site, the closest of which includes two drains on site, the Tennant Canal 233m south east of the site and various secondary and tertiary rivers and culverts in between, primarily south east of the site. The Tawelan Brook runs to the north and east of the Site. The Tawelan Brook is a tributary of the river Towy. There are no records of surface water abstractions within 500m of the site, the nearest active abstraction is some 1,721m east of the site for effluent/slurry dilution. Source: SCR, November 2017 & Groundsure Enviro + Geo Insight, May 2023
Pollution history including: • pollution incidents that may have affected land • historical land-uses and associated contaminants • any visual/olfactory evidence of existing contamination • evidence of damage to pollution prevention measures	**Pollution Incidents** The 2009 ASR states that: *"A review of site and Environment Agency records indicated only one significant pollution event on site. This event occurred on 5th May 1997 in which a filling hose ruptured releasing fats into the perimeter ditches and subsequently the Tawelan Brook. Fats are now stored in a bunded tank away from watercourses."* There have been two on-site pollution incidents reported to NRW since the EP was issued in 2010: • The first occurred on 4th December 2015 and had a Category 3 (Minor) Land Impact, and a Category 4 (No Impact) Air Impact. The pollutant was not identified. • The second pollution incident occurred on 10th February 2016 and had a Category 3 (Minor) Land Impact, and a Category 4 (No Impact) Air Impact. The pollutant was identified as natural organic material and has been confirmed by Wynnstay as being three tonnes of molasses that entered the stream. Source: ASR, 2009 (ExCAL, 2009a); Groundsure Enviro + Geo Insight, May 2023

	Historical land uses Prior to Site development, the land use was agricultural, with roads, paths and/or tracks defining the northern, western and much of the eastern boundary and largely agricultural land beyond. Around 1968 a 'warehouse' was built on Site, and this was the only building marked on the Site until the 1975 mapping, by which time the 'warehouse' appears to have been substantially extended to the southeast, with the building label having been updated to 'factory'. An additional unnamed building is also shown in the area of the current site offices adjacent to a weighbridge. The 1987 map shows the construction of the current mill building in the east of the Site along with the external silos, with the overall site layout now resembling that of the modern-day Site. Residential properties and farms to the north and south of the Site, and kennels to the immediate east, have been present since at least 1877. The settlement of Traveller's Rest further to the south has developed from the 1970s, as shown in contemporary mapping, with the 'Cattle Breeding Centre' to the southeast redeveloped into a housing estate between the 2010 and 2023 mapping. There are records of a historical landfill site within 500m of the Site boundary (Glyn Siw, Llanllwach operated by Ffynnon Plant Crymuch), some 336m to the south. Records show that this site accepted inert, industrial, and household materials and the last recorded activity was the 31st of December 1992. No other historic, active, or inactive landfill sites lie within 1km of the Site boundary. There are no records of petrol or fuel sites, National Grid high pressure gas transmission pipelines or National Grid high voltage underground electricity transmission cables within 500m of the Site. Source: SCR, November 2017; Groundsure Enviro + Geo Insight, May 2023
Evidence of historic contamination, for example, historical Site investigation, assessment, remediation, and verification reports (where available)	Prior to being operated by Wynnstay, the mill has been previously operated by several other animal feed manufacturers including Welsh Feed Producers Ltd, ABN Limited and Dalgetty Agriculture Ltd. A previous site investigation report produced on behalf of ABN Ltd was provided dating from June 2003. This report presents a baseline assessment of the environmental site

	conditions. As part of the assessment a site investigation was carried out using window sampling and spike survey techniques. Soil samples were retrieved from window sample locations (up to 3 metres depth) and analysed for metals (As, B, Cd, Cr, Cu, Hg, Ni, Pb, Se and Zn) and Total Petroleum Hydrocarbons (TPH). Spike surveys were undertaken at depths of up to 1 metre. No groundwater strikes were reported during the investigations. A relatively elevated TPH value of 1702 mg/kg was encountered in the area of the red-diesel tank at the north-western corner of the site. This result was concluded to be below threshold levels. Further spike surveys and analysis of soil gas volatile organic compound (VOC) concentrations around this area indicated limited contamination. Source: ASR, 2009 (ExCAL, 2009a)
Baseline soil and groundwater reference data	See above from June 2003 investigation.
Supporting information	ASR, 2009 (ExCAL, 2009a) SCR, 2017 (Appendix A) Historical Ordnance Survey Plans (Appendix B) Groundsure Enviro + Geo Insight, May 2023 (Appendix C)

Site Reconnaissance Report – some sections completed retrospectively, where possible.	
Access arrangements	Access to the Site is via Llysonnen Road. The access point is located at Grid Reference SN 38238 19497. The Site boundary is protected by palisade fencing, gates, and a hedgerow.
Site layout including presence and condition of above and below ground buildings/structures etc.	The Site layout at the time of the EP issue is shown in Figure 2-2. None of the permitted activities are carried of the south of the Site, this is where the Site entrance and car park are located. The Process Mill, Boiler and Control Room are located in the north-eastern area of the Site. The Additives Store, Warehouse, and Finished Product Store are to the north of the Site, and the remaining Mill Office, Bulk Intake, and Bulk Loading Area are central to the installation boundary. Above ground buildings include the main operational buildings as mentioned above, and above ground storage tanks for fuel/oil. The heavy fuel oil tank for the boiler is located within a lined concrete blockwork bund on a concrete hardstanding. The road diesel tank located on concrete hardstanding. Storage of molasses and fats are in tanks within a sunken pit with concrete bunding. No underground storage tanks (USTs) are known to be currently or historically present within the installation. However, in-ground structures associated with the site's effluent drainage system exist within the installation. (ExCEL, 2009a). Additionally, there is an electrical substation on-site which has been present since 1987.
Evidence of disturbed land, discoloured soil or water, subsidence, above ground deposits etc.	No evidence at the time of the application. Historical mapping shows no evidence of the mentioned (Figure 2-1).
Vegetation type and signs of distress or absence where it might be expected	The vegetation mainly comprises tall grasses and hedgerows, none of which show any sign of distress (ExCEL, 2009a).

	Aerial imaging (Figure 2-1) suggests that there is an area of soft landscaping (grass cover) in the areas not in regular use, running from the north-east to the south-east edge of the Site. Additionally, alongside the Site boundary fence there is a hedgerow. The rest of the Site is covered by hardstanding.
Significant odours from the land	Activities associated with the operations of the wider Wynnstay activities may have generated some odours. All complaints are recorded using the Odour Complaint Form within the EMS. Once the odour has been identified, and remedial steps have been carried out, the complainant will be notified.
Liquid discharges from the Site	The 2009 ASR states that roof water and surface waters from the eastern area of the site discharge directly to the perimeter ditch to the north of the process mill. Surface water from the main service yard drains to a two chamber interceptor located adjacent to the intake pits. Roof waters from the main reception office and vehicle wash waters drain to a four chamber interceptor located south of the yard interceptor. Both interceptors drain east to another interceptor before discharge to the perimeter ditch. The Site's drainage discharges, under consent, to the southern perimeter drain. From here the drain flows eastwards to the Tawelan Brook. The emission point is included as W1 in the EP (see location marked in Figure 2-2).
Direction and flow of surface water run-off and presence of ponding	The Site's drainage discharges to the southern perimeter drain. From here the drain flows eastwards to the Tawelan Brook, which flows in a southerly direction approximately 500m east of the Site.
Land uses in the vicinity of the site	Land beyond the installation boundary comprises a variety of land uses as follows: • Farmland surrounding the Site. • A40 road to the south. • Residential properties located to the east and south. • Tawelan Brook is north and east of the Site. Additionally, within 2km of the Site there are three Sites of Special Scientific Interest (SSSI), one National Nature Reserve (NNR), and 24 Designated Ancient Woodlands.

Presence and condition of surface water features	Tawelan Brook runs to the north and east of the Site. At its closest point, it is approximately 500 metres from the installation boundary. Tawelan Brook is a tributary of the river Towy. The only information available on river biological quality within 1.5km of the Site is for the Tawelan Brook which is located approximately 500m from the Site. The Tawelan Brook was graded in 2016 as having a 'Good' chemical rating, 'Moderate' ecological rating, and a 'Moderate' overall rating. There is no risk of flooding from rivers or the sea to the Site and the surrounding area. Therefore, there are no flood defences in place for the Site. Source: Groundsure Enviro + Geo Insight, May 2023
Evidence of any accidental/uncontrolled releases at the site (previous or current)	The 2009 ASR states that: *"A review of site and Environment Agency records indicated only one significant pollution event on site. This event occurred on 5th May 1997 in which a filling hose ruptured releasing fats into the perimeter ditches and subsequently the Tawelan Brook. Fats are now stored in a bunded tank away from watercourses."* There have been two pollution incidents reported to NRW since the EP was issued in 2010. • The first occurred on 4th December 2015 and had a Category 3 (Minor) Land Impact, and a Category 4 (No Impact) Air Impact. The pollutant was not identified. • The second pollution incident occurred on 10th February 2016 and had a Category 3 (Minor) Land Impact, and a Category 4 (No Impact) Air Impact. The pollutant was identified as natural organic material and has been confirmed by Wynnstay as being three tonnes of molasses that entered the stream. Source: Groundsure Enviro + Geo Insight, May 2023

	There has also been a history of elevated biological oxygen demand (BOD) on the discharge from W1. The BOD has been non-compliant with the limits set out in the EP on a few occasions. The Site's drainage was improved in response to this non-compliance as stated in the Site's Compliance Assessment Report (CAR) forms (see Table 3-4 for further details). There has also been elevated Total Suspended Solids from emission point W1 recorded. This non-compliance with the EP has led to an action being issued by NRW in CAR_NRW0041191 *'Operator to submit plan detailing proposed upgrades to attenuation tank and reedbed system aimed at reducing incidences of permit exceedances at W1.'* This action was to be completed by 17/03/2023. The proposed drainage plan has been submitted to NRW. NRW have confirmed by email that they are happy for Wynnstay to proceed. A contractor has been identified to install the new drainage system and work is expected to start in the next few weeks.
Identity potential access constraints e.g. overhead cables, location of machinery, operations at the site.	Not identified. Historical mapping shows no evidence of the mentioned (Figure 2-1).
Evidence of historic contamination, for example, historical site investigation, assessment, remediation and verification reports (where available)	The 2009 ASR states that the results of a site investigation carried out in 2003 concluded that there was little contamination within the top 3 metres of soil beneath the site. A relatively elevated TPH value of 1702 mg/kg was encountered in the area of the red-diesel tank at the north-western corner of the site. This result was concluded to be below threshold levels. Further spike surveys and analysis of soil gas VOC concentrations around this area indicated limited contamination. The 2009 ASR concludes that: *"A study of the site has indicated several areas of containment which are in need of improvement. Provided these improvements are carried out immediately it is not likely that land pollution or leaks to the land will occur as result of the relevant activities carried out on site during the life of the installation. It is the consideration of this report that reference data for the site does not need to be collected provided that the necessary improvement works are undertaken."* The activities of concern identified were related to the diesel storage tanks and the bunding for the heavy fuel oil tank.

	Since the 2009 ASR, the diesel storage tanks have been relocated internally and the heavy fuel has been tank removed. Containment has been improved with new kerbing, concrete hardstanding and bund sealing works completed.
3.0 Permitted activities	
Permitted activities	The initial Environmental Permit (EPR/EP3034GS) was issued 5th July 2010 (Appendix D). The Site is currently on the fourth revision of the EP (EPR/EP3034GS/V004) (Appendix E). Permitted activities include treating and processing materials intended for the production of feed products from vegetable raw materials at a plant with a finished product production capacity of more than 300 tonnes per day (average value on a quarterly basis). Further details on the permitted activities are included in Section 3.2.
Non-permitted activities undertaken	N/A
Document references for: • plan showing activity layout; and • environmental risk assessment.	Plan showing activity layout: Figure 2-4 Llysonnen Mill Layout H1 Environmental Risk Assessment completed as part of EP Application – refer to ATMOSPHERIC DISPERSION MODEL DOCUMENT REF.: 129-01-01-08.EPR03 (ExCAL Limited, June 2009)

2.2 Permitted area

The Site Layout Plan from 2009 is reproduced as Figure 2-2 and includes a Site boundary shown by a green line. This is denoted as the permitted area in the original EP dated July 2010. There has since been a change to the permitted area since the initial EP was issued. The boundary area changed in 2018 as part of the third variation of the EP. Figure 2-3, EP boundary, shows the updated permitted area in green. The Site's current operational layout is shown in Figure 2-4. The figures also show the point source emissions to air (A1-A4) and water (W1). Note the location of W1 has changed slightly between that at the EP application in 2009 before the reed bed was constructed (Figure 2-2) and the current location (Figure 2-3) following construction of the reed bed. After investigation, the 'grinder emission' shown in Figure 2-3 is not considered a point source emission to air and the 'blend bins emission' and 'main dust unit emission' shown in the figure are subject to an EP variation application to incorporate these identified point source emissions to air within the EP.

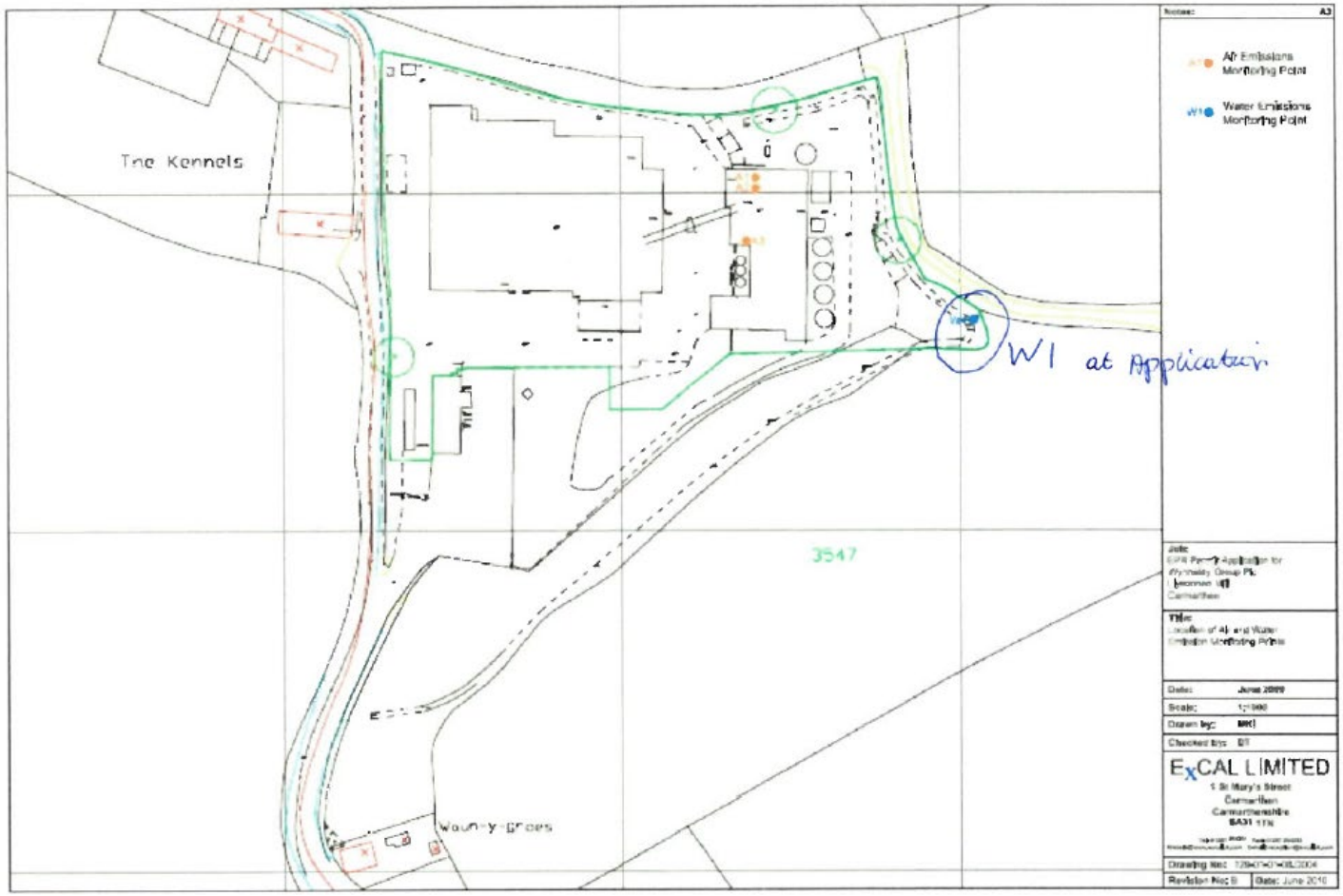


Figure 2-2 Site Layout Plan (2009)

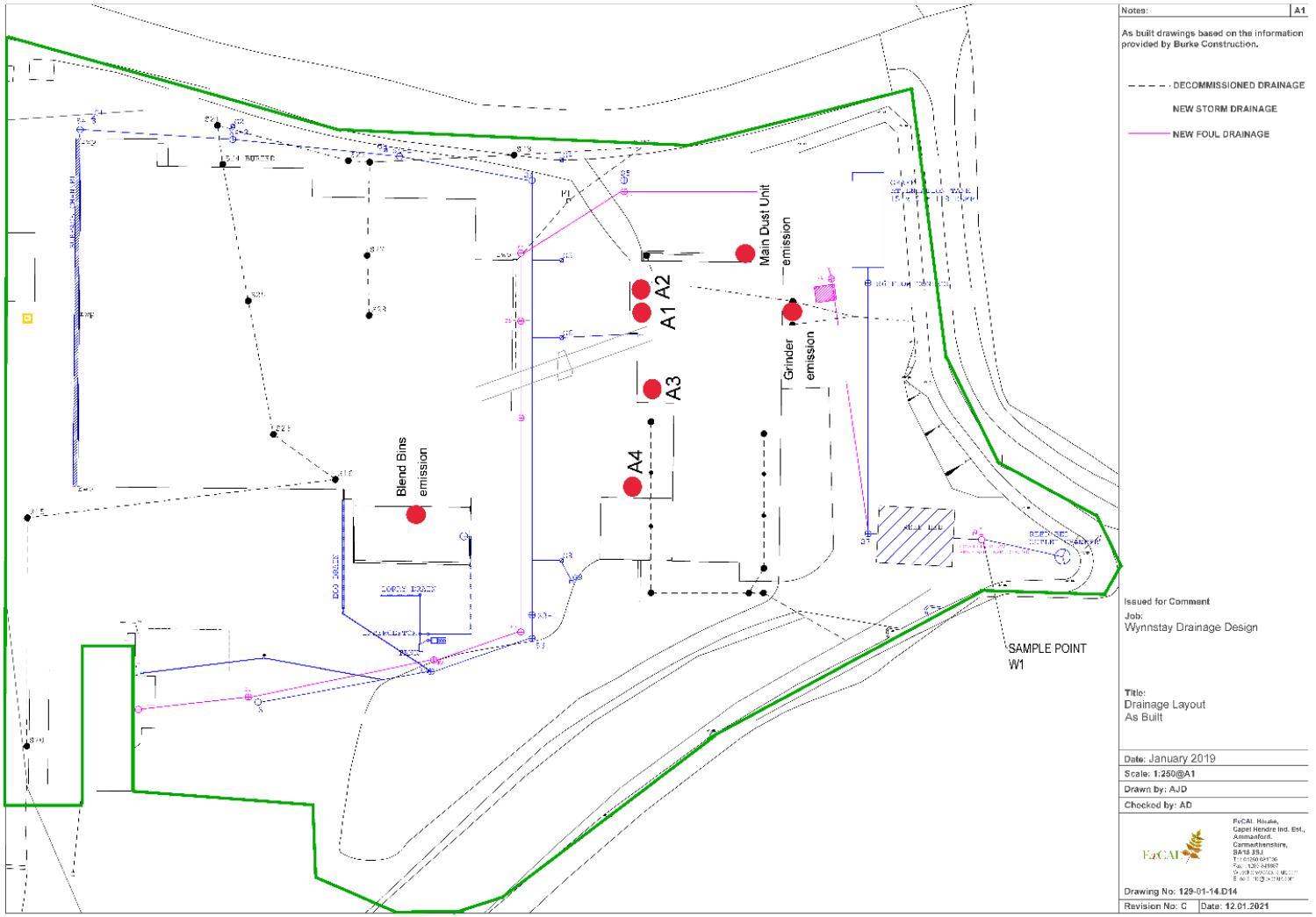


Figure 2-3 EP Boundary (in green)

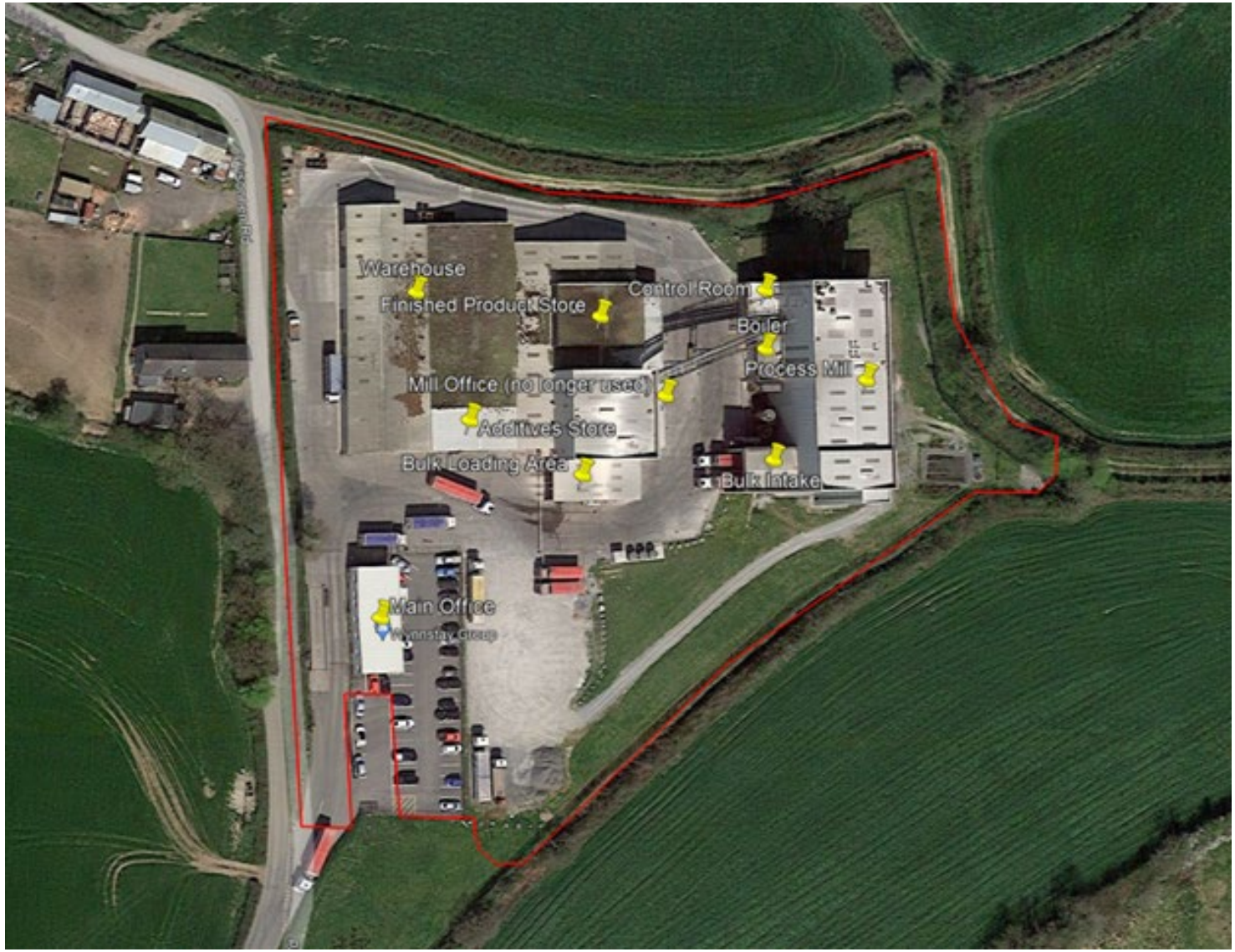


Figure 2-4 Llysonnen Mill Layout (imagery from Google Earth)

3 Operational stage

There have been three EP variations since the original EP was issued to Wynnstay in July 2010. A copy of the latest (V004, January 2022) variation is included as Appendix E.

This section of the SCR draws on the following information to outline the Site condition during its current operational stage:

- Documents associated with the EP;
- Correspondence between Wynnstay and NRW;
- Compliance records i.e. from CAR forms; and
- The EMS for the Site.

3.1 Operational stage SCR

4.0 Changes to the activity	
Have there been any changes to the activity boundary?	Yes. The initial activity boundary can be seen in Figure 2-2, the updated activity boundary can be seen in Figure 2-3, this is the extant boundary.
Have there been any changes to the permitted activities?	Yes. See Section 3.2 for the changes in permitted activities and EP variations. The location of the W1 emissions monitoring point has changed as described previously. In addition, new finished product storage is under construction to the north of the current warehouse, see photograph in Appendix G. Further works to improve the Site drainage system are also planned.

Have any 'dangerous substances' not identified in the Application Site Condition Report been used or produced as a result of the permitted activities?	Dangerous substances are any substances used or present at work that could, if not properly controlled, cause harm to people as a result of a fire or explosion or corrosion of metal. They can be found in nearly all workplaces and include such things as solvents, paints, varnishes, flammable gases, such as liquid petroleum gas (LPG), dusts from machining and sanding operations, dusts from foodstuffs, pressurised gases and substances corrosive to metal. Wynnstay have prepared a materials inventory (EAP05/SD01, latest version dated 2021, Appendix F) that identifies all materials stored or manufactured on site, their chemical nature/composition, hazard identification and toxicity. These include but are not limited to: diesel (fuel for vehicles); red diesel (for non-road going vehicles and plant); kerosene (fuel for mill operation) and feed cane molasses. Dust (particulate matter) is generated as part of the permitted activities and is subject to emissions abatement as described elsewhere in this report.
Supporting Information	Materials inventory (EAP05/SD01, latest version dated 2021). SITE PROTECTION AND MONITORING PROGRAMME FOR LLYSONNEN MILL, CARMARTHEN WYNNSTAY PLC Version 2 December 2021 EAP06 SD03

5.0 Measures taken to protect land

An EMS for Llysonnen Mill is in place which outlines some of the measures taken to protect the Site's permitted area. Further detail is provided in Site Operating Plans (SOPs) which are referenced throughout the EMS. Below is some of the information that is within the Site's EMS that outlines some of the measures Wynnstay takes to protect the land.

Training

The Company assumes the responsibility to ensure that any person working under its control and performing tasks that can impact on the environment are competent, i.e. holds the adequate training, skills, experience and knowledge. Additionally, the Company provides EMS Awareness training for all employees.

Operational Control

The operational control procedure is described in EAP04. All Permitted activities, including maintenance, are planned in order to ensure that they are carried out under controlled and specified conditions by:

- Use of a process control system with access restricted to authorised competent persons;
- Identification of Environmentally Critical Equipment (EAP04 SD01);
- Documented standard operating procedures which are defined to cover those operations and activities that are associated with the significant environmental aspects and impacts in line with policy objectives and targets;
- Planned preventative maintenance schedules for environmentally critical equipment (EAP04 SD02).
- A list of approved contractors for environmentally critical equipment (EAP04 SD03).

The main process activities at the site are controlled by the mill operators following the standard operating procedures defined for each process as listed below. This ensures that competent persons operate the plant using appropriate process control.

The Mill Manager is responsible for ensuring the operators are working to the defined procedures, and for reviewing the procedures annually.

Emergency Preparedness and Response

The Company has established an Environmental Incident Procedure (EAP05) to identify the potential for, and suitable response to, accidents, emergency situations, and for preventing and mitigating the environmental impacts that may be associated with them.

- Potential hazards are identified on a materials inventory and a risk assessment carried out as appropriate.
- A fugitive emissions analysis is carried out to demonstrate the use of Best Available Techniques to reduce the potential for environmental impact from fugitive emissions.
- The company has developed an accident management plan to provide effective incident response and an emergency response matrix identifies the emergency contacts.
- Proformas are used to record incidents and the results of any accident investigations.

A standard operating procedure for Control of Spills (SOP18) has been developed to describe the action to be taken in the event of spillage in normal operation. A standard operating procedure for emergency response (SOP25) has been developed to describe the action to be taken in the event of an incident or abnormal operation to prevent or mitigate environmental impacts.

Monitoring, Measurement, Reporting and Notification

Wynnstay has established a Monitoring and Measurement Procedure (EAP06) to monitor and measure on a regular basis those operations that have aspects that may lead to significant environmental impacts. It details routine reporting of data and includes the reporting of monitoring data, annual performance data and reviews of plans.

The process to be followed when a notification to NRW is required, following an unauthorised emission or other breach of permit conditions, is also detailed. Monitoring methods of environmentally critical equipment and activities are described in a standard operating procedure SOP31.

Non-conformance, and Corrective and Preventative Action

The recording of non-conformance is detailed in the Non-conformance and Corrective and Preventive Action Procedure (EAP09). Any changes to the EMS that are appropriate following the investigation of the event will be proposed for acceptance to the senior management.

Hardstanding Area Monitoring

The areas of hard standing around the site are monitored on a weekly basis by the QC & Compliance Officer. Areas to be monitored are indicated on the site map SOP31 Map 2 and the information is recorded on SOP31 form 2. Comments regarding the condition of the hard standing to include cleanliness, presence of any cracking, damage or potholes are recorded on the sheet.

Site Effluent Monitoring

Site effluent is discharged via the reed bed system as described in SOP 17 Reed bed maintenance. Monitoring of site effluent is required to ensure that the quality of the effluent discharged from the site meets the requirements of the permit.

Daily, weekly, and monthly checks are undertaken and are outlined in SOP 31 Carmarthen Site Monitoring. Samples are taken from the water emission points to check the appearance and odour. Any raw material spills or the presence of rainwater in bunds is noted. If water levels are near the top of bunds, Siddell Environmental will be engaged to pump the water out.

Once a week, the bridleway which runs along the north and east sides of the site is walked, with a visual inspection made of Tawelan Brook, starting from where W1 discharges. The brook is inspected downstream to just beyond the point that it crosses underneath the bridleway and

emerges again on the north side of the path. Any sources of potential pollution including those from surrounding fields is noted.

If any abnormal odours or if visual pollution is observed at any of the monitoring points the Mill Manager and QC & Compliance manager are informed immediately. An investigation into the cause will commence and a record is kept on form EAP09 SD01 Non-conformance and Corrective action form. NRW will be notified if there has been a breach of permit conditions as described in SOP 26 reporting and notification.

Emissions to Surface or Groundwater

Emissions to surface or groundwater are prevented by monitoring site infrastructure as detailed in SOP28 Safe storage of liquids. Monitoring of bunds, hardstanding and tanks is recorded on appropriate record sheets.

Storage of Materials

The following liquids are stored on-site (as outlined in SOP28 Safe storage of liquids):

- There are four fuel tanks on-site:
    1. Kerosene Tank – a 2,000 litre capacity, double skinned, external tank for storage of kerosene for the office boiler. Situated adjacent to the office building;
    2. Kerosene tank, 10,000 litre capacity, double skinned with integral bund (but also sited within a drip-tray with run-off in to concrete bund), external, serving mill boiler. Situated adjacent to Mill;
    3. White Diesel tank, 10,000 litre capacity, double skinned with integral bund, internal. For use in road-going vehicles. Situated in warehouse, surrounded by metal barriers; and
    4. Red Diesel tank, 3,000 litre capacity, single skinned, sited within a concrete bund, internal. For use in non-road going vehicles/plant. Situated in warehouse.
- AdBlue is stored in a plastic IBC (1000 litre capacity), sited on a plastic bund, internal, situated in the warehouse.
- There are two liquid raw materials stored in tanks on site as described in the Aspects and Impacts register EAP01/SD01:
    - Vegetable fat
    - Molasses

Supporting information	EM01 ENVIRONMENTAL MANUAL v5 Sep 2020 (Appendix F) SOP31 Carmarthen Site Monitoring V2 290621

6.0 Pollution incidents that may have had an impact on land, and their remediation

There have been two pollution incidents reported to NRW since the EP was issued in 2010. The first occurred on 4th December 2015 and had a Category 3 (Minor) Land Impact, and a Category 4 (No Impact) Air Impact. The pollutant was not identified. The second pollution incident occurred on 10th February 2016 and had a Category 3 (Minor) Land Impact, and a Category 4 (No Impact) Air Impact. The pollutant was identified as natural organic material and has been confirmed by Wynnstay as being three tonnes of molasses that entered the stream.
In the event of any polluting leak or spillage the following actions are taken (SOP 18);

- Minor spills will be cleaned up immediately using sand or proprietary absorbents/ spill kits. Resulting materials are placed in alternative containers and disposed of accordingly.
- Immediate action is taken to contain a major spillage and prevent liquid entering surface water drains.
- Major spillages are cleaned immediately and contained appropriately before onward disposal.
- NRW shall be informed immediately if the incident is causing significant pollution or is likely to cause significant pollution.

Supporting information	Groundsure Enviro + Geo Insight, May 2023 (Appendix C)

7.0 Soil gas and water quality monitoring (where undertaken)	
No soil gas monitoring has been undertaken during the lifetime of the Permit. With regard to water quality monitoring, monthly samples are taken from the reed bed discharge point (monitoring point W1, when flowing) and tested for total suspended solids, BOD and pH. Results are submitted annually to NRW, or via Schedule 5 notification if a permit limit is breached. An investigation was undertaken by Listers Geotechnical Consultants (Listers Geo) in 2022 to provide an assessment of the geotechnical engineering properties of the ground with relation to the proposed development (the new finished products stores described previously). The investigation was carried out in August 2022 and included four machine excavated trial pits and three boreholes. There was no visual or olfactory evidence of contamination recorded in the exploration logs seen by Stantec and the investigation report states that no obvious signs of contamination were noted by Listers Geo during the site walkover associated with the investigation. Soil samples were taken as part of the investigation for geotechnical analysis and two waste soil samples from the investigation were classified by Listers Geo as 'non-hazardous waste'. A monitoring standpipe was completed in one of the boreholes (CT03) with a standing water level of 2.9 m below ground level noted, but no groundwater quality samples appear to have been taken.	
Supporting information	SITE PROTECTION AND MONITORING PROGRAMME FOR LLYSONNEN MILL, CARMARTHEN WYNNSTAY PLC Version 2 December 2021 EAP06 SD03 Whitland Engineering Geotechnical Investigation Llysonnen Mill. Report No. 22.07.020. Listers Geotechnical Consultants, 1 March 2023 (Final Report).

3.2 Permitted activities

The installation utilises bulk raw materials of vegetable origin to produce pellets or blends of meals for animal feed. Raw materials are accepted at the Site in dry and liquid forms with dry materials being stored in bulk silos and liquids in storage tanks. Filters are used at the intake points to reduce the potential for atmospheric emissions during delivery.

The milling process blends, grinds, mixes, and extrudes into pellets (if required) the raw materials which are blended to specific formulas (steam, molasses and liquids are added if necessary).

Pelletising of the mixes into pellets, nuts or rolls occurs through one of two processing lines. After the feed has been formed in the presses, air is drawn down to cool the feed using one of two coolers. Air from each cooler is expelled through cyclone abatement systems which are monitored for particulate emissions on an annual basis. The finished product is transferred for bulk storage and subsequent sale. Small amount of feed is bagged into 500kg tote bags.

The main process is also supported by ancillary activities which include steam generation, compressed air generation, effluent treatment, cleaning, and vehicle washing.

There has been three variations to the permit since issue in 2010 as outlined in Table 3-1.

Table 3-1 Permit Variations

Permit Ref.	Permit Issued	Change in permitted activities
EPR/EP3034GS	05/07/2010	Permit issued.
EA/EPR/EP3034GS/V002	05/10/2010	Administrative change, reporting conditions that were omitted upon issue added to the existing EP.
EPR/EP3034GS/V003	19/02/2018	Installation of a new drainage system and change to the existing EP boundary.
EPR/EP3034GS/V004	26/01/2022	Best Available Techniques (BAT) review.

All processes which are likely to produce dust and noise emissions are undertaken in buildings or sheltered units fitted with dust suppression systems where appropriate. A management system is in place that covers all aspects of site operations which could impact on the environment.

Table 3-2 provides the specified permitted activities as outlined in the Site's EP.

Table 3-2 Specified permitted activities

Activity Reference	Activity listed in Schedule 1 of the EP Regulations	Description of specified activity	Limits of specified activity
A1	Section 6.8 Part A(1) (d) (ii) Treatment and processing other than exclusively packaging, of the following raw materials, whether previously processed or unprocessed, intended for the production of food or feed (ii) only vegetable raw materials with a finished product production capacity greater than 300 tonnes per day	Production of animal feeds	From receipt of raw materials to despatch of final product. Maximum capacity limited to the agreed figure provided in response to part (b) of Improvement Condition 10.
Directly Associated Activity			
A2	Operation of abatement systems	Operation of abatement systems for the control of emissions to air	Operation, maintenance and control of abatement
A3	Steam generation	Boiler fuelled on kerosene used to generate steam on-site	From receipt of water to generation of steam and emissions of combustion gases
A4	Fuel/oil storage	3,000 litre red diesel storage tank 10,000 litre road diesel storage tank 10,000 litre kerosene storage tank	Includes fuel/oil receipt, storage and off-loading
A5	Air compression	Generation of compressed air on-site to deliver powder meal products via overhead pneumatic blow lines	From receipt of air to discharge of compressed air to feed mill

Activity Reference	Activity listed in Schedule 1 of the EP Regulations	Description of specified activity	Limits of specified activity
A6	Vehicle cleaning	Provision of vehicle cleaning facilities	Operation of vehicle cleaning facilities and discharge of wash water to underground storage tank
A7	Effluent Treatment	Operation of effluent treatment plan to treat all process and foul effluent	From generation of process and foul effluent at the installation to discharge of treated effluent to surface water
A8	Waste handling and storage	Storage and handling of wastes produced at the site	From generation of waste to despatch of waste materials from site

3.3 Site management

The Environmental Manual presents the EMS operated by Wynnstay. It is a statement of Wynnstay Group's responsibilities, together with the processes and controls that are implemented and maintained to minimise the impacts of activities on the environment and to fulfil the requirements of the EP (listed below). A copy of the Environmental Manual is included as Appendix F.

Condition 1.1.1 of the installation EP requires the activities to be managed and operated:

- *In accordance with a written management system that identifies and minimises risks of pollution, including those arising from operations, maintenance, accidents, incidents, non-conformances, closure and those drawn to the attention of the operator as a result of complaints; and*
- *Using sufficient competent persons and resources.*

Records demonstrating compliance with condition 1.1.1 shall be maintained.

The EMS adopts a 'Plan-Do-Check-Act' approach and incorporates a continual process of review and improvement performance. Documents have been developed, implemented, and maintained to ensure the EMS is adequately understood and effectively and efficiently operated. The environmental procedures and the management system manual are maintained in paper and/or electronic format.

The Environmental Manual presents the EMS operated by Wynnstay. It is a statement of Wynnstay Group's responsibilities, together with the processes and controls that are implemented and

maintained so as to minimise the impacts of activities on the environment and to fulfil the requirements of the EP issued. The EMS is based on:

- NRW guidance: How to Comply with your Environmental Permit October 2014;
- Environment Agency's Additional Food and Drink guidance;
- Compliance requirements with UK legislation;
- Industry best practice and guidance from regulators;
- Findings of internal assessments including environmental risk assessments.

The EMS adopts a 'Plan-Do-Check-Act' approach and incorporates a continual process of review and improvement of performance. Documents have been developed, implemented, and are maintained to ensure the EMS is adequately understood and effectively and efficiently operated. The environmental procedures and the management system manual are maintained in paper and/or electronic format. The EMS structure for Llysonnen (Carmarthen) Mill is shown in Figure 3-1.

Information included is as follows:

- Manufacturing operations;
- Permitted activities;
- Hours of operations;
- Engineering site surface and drainage systems;
- Engineered containment;
- Leaks and spills;
- Site security;
- Training; and
- Control of emissions.

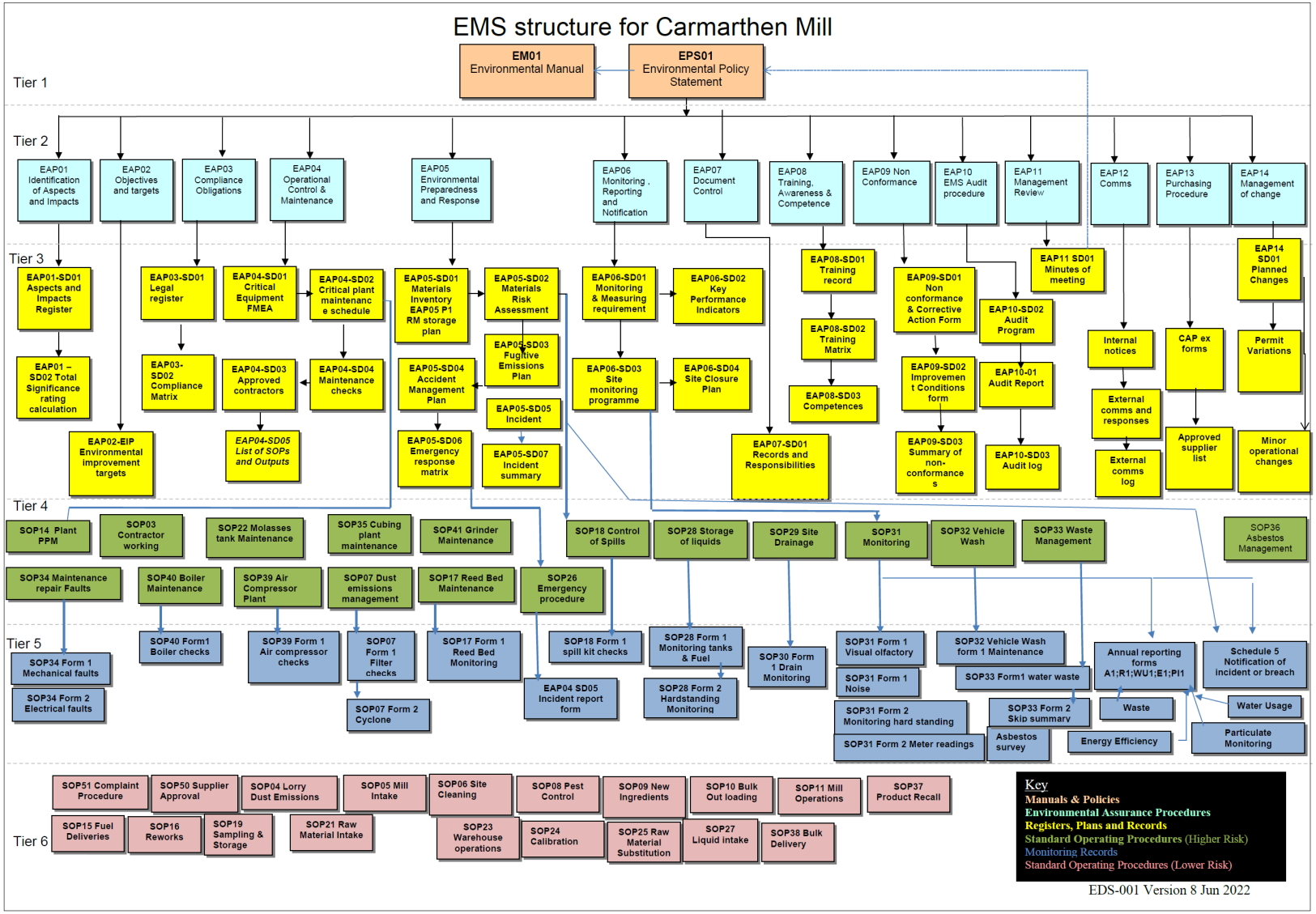


Figure 3-1 Outline EMS documentation structure

Wynnstay review their procedures on an annual basis or when there are changes to processes/raw materials or following complaints or incidents. The EMS is periodically reviewed to ensure its continuing suitability, adequacy, and effectiveness. The review also aims to identify any opportunities for improvement and/or the need for changes to the management system.

The Company assumes the responsibility to ensure that any person working under its control and performing tasks that can impact on the environment are competent, i.e., holds the adequate training, skills, experience, and knowledge. Additionally, the Company provides EMS Awareness training for all employees.

3.3.1 Waste types, raw materials and fuels accepted on the Site

No wastes are accepted on Site.

Raw materials are selected following the new ingredients procedure (SOP 9 of the EMS). Potential environmental impacts of the raw materials are assessed using specified forms (EAP05 SD01 and SD02) considering chemical composition, storage method and capacity, and risk phrases from material safety data sheets.

Where waste is produced by the activities occurring on Site (i.e., wastes from a boiler clean out), they are sent to a relevant waste operation in line with the requirements of the permit. Waste disposal and/or recovery in addition to waste production are performance parameters and are assessed annually. Waste returns are also submitted to NRW annually. A standard operating procedure for Waste Management (SOP33) covers duty of care, waste handling and storage locations, waste removal and disposal by listed waste carriers, with allocation of responsibilities at each step, supported by suitable referenced records.

All waste produced at the site is removed by approved contractors in accordance with the appropriate legislation and exported either to landfill or where possible will be sent for further treatment/ processing. Waste contractors are responsible for providing waste transfer notes for all wastes leaving the site which are held by the mill manager.

3.3.2 Compliance history

It is important to consider the compliance history of the Site to identify any potential sources of contamination or pollution throughout the ‘lifetime’ of the EP as a result of observations by NRW or incidents on-site.

The compliance history of the Site is recorded by NRW on Compliance Assessment Report (CAR) Forms, which record details from NRW site visits. Non-compliances are recorded on the CAR Forms and are indicated by categories of non-compliance (CCS categories). Table 3-4 shows all the CAR Forms received by the Site during the EP’s lifetime.

Table 3-3 NRW CAR form, CCS Categories

CCS Category	Description	Score
C1	A non-compliance which has a potentially major environmental effect.	60
C2	A non-compliance which has a potentially significant environmental effect.	31
C3	A non-compliance which has a potentially minor environmental effect.	4
C4	A non-compliance which has no potential environmental effect.	0.1

Since 2018, Wynnstay have had a good compliance history for the Site with a total of just 16.1 CCS points scored. An overview of the CAR forms issued to Wynnstay along with compliance scores and a summary of comments raised by Wynnstay are included in Table 3-4.

The highest scoring visit was in 2016, with a total of 35.2 CCS points. Numerous actions were outlined, including satisfying improvement conditions in Permit, producing a Site-specific EMS, and carrying out review as described in Permit conditions. The EMS was subsequently rectified (following an external gap analysis) and focuses on specific site operations. The outstanding improvement conditions from the Permit are in the process of being addressed.

Table 3-4 Llysonnen Mill's CAR Forms Summary

CAR Form Ref.	Date of CAR Form	Compliance Score	Summary of NRW Comments
CAR_NRW0041503	14/02/2023	0	Add unpermitted emission points to air to the permit through a variation applied for by the operator.
CAR_NRW0041191	31/12/2022	8.1	Operator to submit plan detailing proposed upgrades to attenuation tank and reedbed system aimed at reducing incidences of permit exceedances at W1. The operator to ensure that any Schedule 5 notifications are submitted to the timescales specified in the permit.
CAR_NRW0039409	31/12/2021	4	The grinding process emission point will need to be added to the permit through a variation applied for by the operator.

CAR_NRW0036754	31/03/2020	4	Comply with emission limits stipulated in permit. Continue to explore measures that can be implemented to prevent exceedances and provide a contingency plan for managing effluent if short term fixes are unavailable.
CAR_NRW0035967	21/10/2019	0	No actions – NRW response to submitted Improvement Conditions.
CAR_NRW0033797	23/05/2018	0	No actions – soft and hard improvement actions outlined.
CAR_NRW0026936	14/12/2016	4	Numerous actions outlined, including producing a Site-specific EMS and submitting an Environmental Permit variation application.
CAR_NRW0020617	27/05/2016	0	To assess progress made against the actions and recommendations described in CAR_6128.
CAR_6128	29/02/2016	35.2	Numerous actions outlined, including satisfying improvement conditions in Permit, producing a Site-specific EMS, and carrying out review as described in Permit conditions.
CAR_5676	30/06/2014	0.2	Numerous actions outlined, including reference to previous CAR Forms actions, re-submission of monitoring returns, and an investigation into the on-going high BOD discharge.
CAR_5265	24/09/2013	8.1	Numerous actions outlined, including EMS implementation timeline, investigation into high BOD in the discharge in W1, and submission of a revised drainage plan.
CAR_4807	21/09/2012		Recommendation to quantify any fugitive releases from the site as part of investigation into allegations of dust.
CAR_4304	22/11/2011		Numerous actions outlined, including putting operating procedures from the permit application in place, and provide the outstanding detail for the improvement conditions.

3.4 Statement of Site condition

3.4.1 Site visit findings

A Site visit was carried out on 14 February 2023. Photographs from this visit are included in Appendix G to further demonstrate the overall status and condition of the land. It was evident from this visit that the site is well maintained and in good condition. There was no evidence of pollution or site degradation resulting from the operations.

10.0 Statement of site condition
This SCR is based on a desk study review of the historical land uses, associated EP documents including the EP and the EMS, the ASR from 2009, a previous SCR from 2017, a Groundsure report, a geotechnical investigation report and observations made during the Site visit in February 2023. The SCR has confirmed the following Site conditions; • A range of pollution prevention and containment methods are being used during the lifetime of the Site which has limited the potential for spills of possible leaching pollutants directly. • The Site's compliance history provides additional evidence of the minimal risk to the environment throughout the lifespan of the EP. This is reflected by the recent site visits carried out by NRW and Stantec. • Given the data available and discussed throughout this report, it is not necessary to carry out intrusive ground investigations to understand the current state of soil and groundwater conditions.

4 Conclusions

This report has been produced in response to IC6 of the EP to provide a 'summary report' of Llysonnen Mill's site condition.

This summary report is based on a desk-based study review of the historical land uses, associated permit documents including the EMS and EP and observations made during the Site visit by Stantec in May 2023.

This summary report confirms the following, with regard to Site condition:

- A range of pollution prevention and containment methods are being used during the lifetime of the Site which has limited the potential for spills of possible leaching pollutants directly.
- The Site's compliance history provides additional evidence of the minimal risk to the environment throughout the lifespan of the EP. This is reflected by the recent site visits carried out by NRW and Stantec.
- Given the data available and discussed throughout this report, it is not necessary to carry out intrusive ground investigations to understand the current state of soil and groundwater conditions.

This SCR will be reviewed and updated if there is a major change in Site activities, or if the EP is to be surrendered.

References

ExCAL (2009a). Wynnstay Group PLC, Llysonnen Mill, Travellers Rest, Carmarthen. EPR Application EP3034GS: Application Site Report. Wynnstay/129-01-01-08.EPR02/KKE. ExCAL Limited, August 2009.

ExCAL (2009b). Wynnstay Group PLC, Llysonnen Mill, Travellers Rest, Carmarthen. EPR Application EP3034GS. Wynnstay/129-01-01-08.EPR01/KKE. ExCAL Limited, September 2009.

NRW (2014). NRW Environmental Permitting Regulations: Guidance for applicants H5, Site condition report – guidance and templates, October 2014.

APPENDICES

Appendix A

Site Condition Report (2017)



WYNNSTAY LLYSONNEN MILL

SITE CONDITION REPORT

NOVEMBER 2017

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DOCUMENT CONTROL SHEET

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PREPARED BY:

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Original	November 2017	

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WYNNSTAY LLYSONNEN MILL

SITE CONDITION REPORT

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1.0 INTRODUCTION

1.1 Scope

ExCAL Limited has been commissioned by Wynnstay to undertake a land contamination desk top study of their Llysonnen Mill site in Travellers Rest, Carmarthen. The report will support an Environmental Permit Variation application.

The permit variation is to install a new drainage system for the site, which will be laid, in part, within a grass verge to the south/south east of the site, which currently falls outside the permit boundary.

The variation application will therefore include a proposal to amend the permit boundary to include areas of the site outside the current boundary, within which the new drainage will be installed.

The proposed drainage design and existing permit boundary are shown in drawing 129-01-10.d01 in Appendix A.

For the purpose of this report, the study area has been taken as the site ownership boundary, although the permit boundary will lie within this area.

The purpose of this report is to conduct a desk based review of historical information regarding potential sources of contamination that may be present in the area which currently lies outside the permit boundary.

A summary of the data found during the study is provided in this report.

2.0 THE SITE

2.1 Site Location

The approximate boundary of the Wynnstay site can be seen on Figure 1 below marked by a blue line. The permit boundary for the site lies within this ownership boundary.

The site address is: -

Wynnstay Group PLC,
Llysonnen Mill,
Llysonnen Road,
Travellers Rest,
Carmarthen,
SA31 3SG
The grid reference for the approximate centre of the site is 238376,219559.

Figure 1 – Wynnstay Site Location



2.2 Site Use

The site is currently operating as an animal feed mill is predominantly bounded by fields, with a residential dwelling to the east and south and a larger residential development to the south east.

Figure 2 below shows an aerial photograph of the site, displaying the immediate surroundings.

Figure 2 – Wynnstay, Llysonnen Mill Aerial Photograph



3.0 DESK STUDY & DATA REVIEW

3.1 Sources

The desk study data has been collected from three main sources, namely: -

1) Groundsure Enviro Insight (Appendix B);
2) Groundsure Geo Insight (Appendix C);
3) Historical Mapping (Appendix D).

3.2 Site History

A review of the available historical maps indicates that the first development to be constructed was a warehouse between 1963 and 1968.

By 1975, the warehouse now resembles the structure of the existing warehouse building on site, with the building label having been updated to factory. An additional unnamed building is also shown in the area of the current site offices adjacent to a weighbridge.

The 1987 map shows the construction of the current mill building to the east of the site along with the external silos, with the overall site layout now resembling the modern day footprint.

The housing developments to the south and south west of the site have been present since at least 1877, with the eastern development commencing prior to 1963.

3.3 Identification of Potentially Polluting Industries, Landfill and Permitted Sites

3.3.1 Industrial Units

Searches of information provided by the Environmental Agency, Natural Resources Wales and Local Authorities reveal the following information.

The only permitted activities within 500m of the study site are associated with Wynnstay's licenses which are either still effective or superceded. This includes licensed discharge consents

There are no recorded pollution incidents within 500m of the site.

3.3.2 Landfill and Other Waste Sites

There are three records of historic landfill sites within 1500m of the boundary, the nearest of which is located 329m to the south of the site. Records show this accepted inert, industrial and household materials and the license was successfully surrendered on 31st of December 1992.

No other historic, active or inactive landfill sites lie within 1000m of the site boundary.

3.3.3 Potentially Contaminative Industrial Sites

Records show there are several other waste treatment, transfer or disposal sites in the area, however none of these lie within 500m of the site.

There are no records of petrol or fuel sites, National Grid high pressure gas transmission pipelines or National Grid high voltage underground electricity transmission cables within 500m of the site.

3.4 Geology

The site is underlain by superficial glaciofluvial sheet deposits comprising sand and gravel, the permeability of which is categorized as Very High via intergranular flow.

The bedrock on site is classified as Tetragraptus beds – Mudstone.

There are no records of artificial or made ground within the site or within 50m of the site boundary.

3.5 Hydrogeology and Hydrology

3.5.1 Aquifers

Data obtained for the site shows that the north eastern area of the site underlain by a secondary (A) aquifer within the superficial geology, while all the bedrock underlying the site is classified as a secondary (B) aquifer of undifferentiated layers.

3.5.2 Abstraction Licenses

Four groundwater abstraction license exist within 2000m of the study site, however all lie in excess of 1500m from the site.

One active surface water abstraction license and two active potable water extraction license are found to be within 2000m of the study site, however again these are located in excess of 1500m from the site.

The site does not lie within a Source Protection Zones (SPZ).

3.5.3 Groundwater Vulnerability and Soil Leaching Potential

The soil vulnerability is categorised as I1 with a description as follows;

I3 – Soils which can possibly transmit a wide range of pollutants.

3.5.4 River Quality

The only information available on river biological quality within 1500m of the site is for the Tawelan Brook which is located 892m from the site based on the Hydrology Map data.

The Tawelan Brook is graded as B for Biological Quality Grade between 2005 and 2009 and has a chemical quality grade of A (Very Good) between 2005 and 2008.

3.5.5 River Networks

Several detailed river network records are available within 500m of the site, the closest of which includes two drains on site, the Tennant Canal 233m south east of the site and various secondary and tertiary rivers and culverts in between, primarily south east of the site.

3.5.6 Surface Water Features

The only river entry within the data is for a currently undefined tertiary river located 321m north of the site.

3.6 Risk of Flooding

The site does not lie on a floodplain and the Risk of Flooding from Rivers and the Sea (RoFRaS) flood rating is Very Low.

There are no flood defences within 250m of the site and no areas are used for Flood Storage within 250m of the site.

British Geological Survey data for the site indicates that there are areas within 50m of the site that are susceptible to groundwater flooding although this has limited potential.

3.7 Nearby Sensitive Designations

There are 5 records for SSSI's (Sites of Special Scientific Interest) within 2000m of the site. Four of these designations are associated with the Maesyprior SSSI to the West/Northwest of the site.

The fifth designation is for the Cors Goch, Llanllwch SSSI to the south of the site, which is also designated as a NNR (National Nature Reserve.
All of the sensitive designations lie over 750m from the site.

There are also several records for restored and replanted ancient woodland around the site. All records lie in excess of 900m from the site.

No further sensitive designations have been reported.

3.8 Mining History

There are no coal mining areas recorded within 50m of the site boundary.

A record for non-coal mining has been reported for “vein material” found on site. This designation is explained as: -

“Past underground mine workings may occur. The rock types present in these areas are such that small mineral veins may be present on which it is possible that small scale mining has been undertaken and/or it is possible that limited underground extraction of other materials may have occurred. All such occurrences are likely to be of minor localised extent and infrequent.”

There are no records of any shafts or adits within the site boundary.

3.9 Summary

Wynnstay are applying for a permit variation to install a new drainage system, which are located partially outside of the current permit boundary.

The variation application will request that the permit boundary be amended to include the additional areas within which the new drainage scheme has been proposed.

The purpose of this report was to review historical data to identify potential sources of contamination that could be associated with the area to be included within the permit boundary.

Review of the data has not highlighted any potential contamination sources on, or within the immediate vicinity of the site.

There are no records of any recorded pollution events within or adjacent to the site boundary.

There are no records of artificial or made ground within or adjacent to the site.

Review of historical maps for the site do not show any development within the site boundary other than the warehouse buildings which are shown to be extended and added to, to form the Wynnstay site as it exists today.

The areas within which the new drainage plant will be installed are shown as undeveloped in all maps.

Consequently, intrusive site investigation to obtain samples for analysis is not required.

APPENDIX A

Drawings



PROPOSED DRAINAGE PLAN **A2**

Issued for Comment

Job:
129-01-10

Title:
Existing Permit Boundary and Proposed Drainage

Date: November 2017

Scale: NTS

Drawn by: AD

Checked by: DS

ExCAL House,
Capel Hendre Ind. Est.,
Ammanford,
Carmarthenshire,
SA18 3SJ
Tel: 01269 831606
Fax: 01269 841887
Website: www.excaluk.com
E-mail: info@excaluk.com

Drawing No: 129-01-10.D01

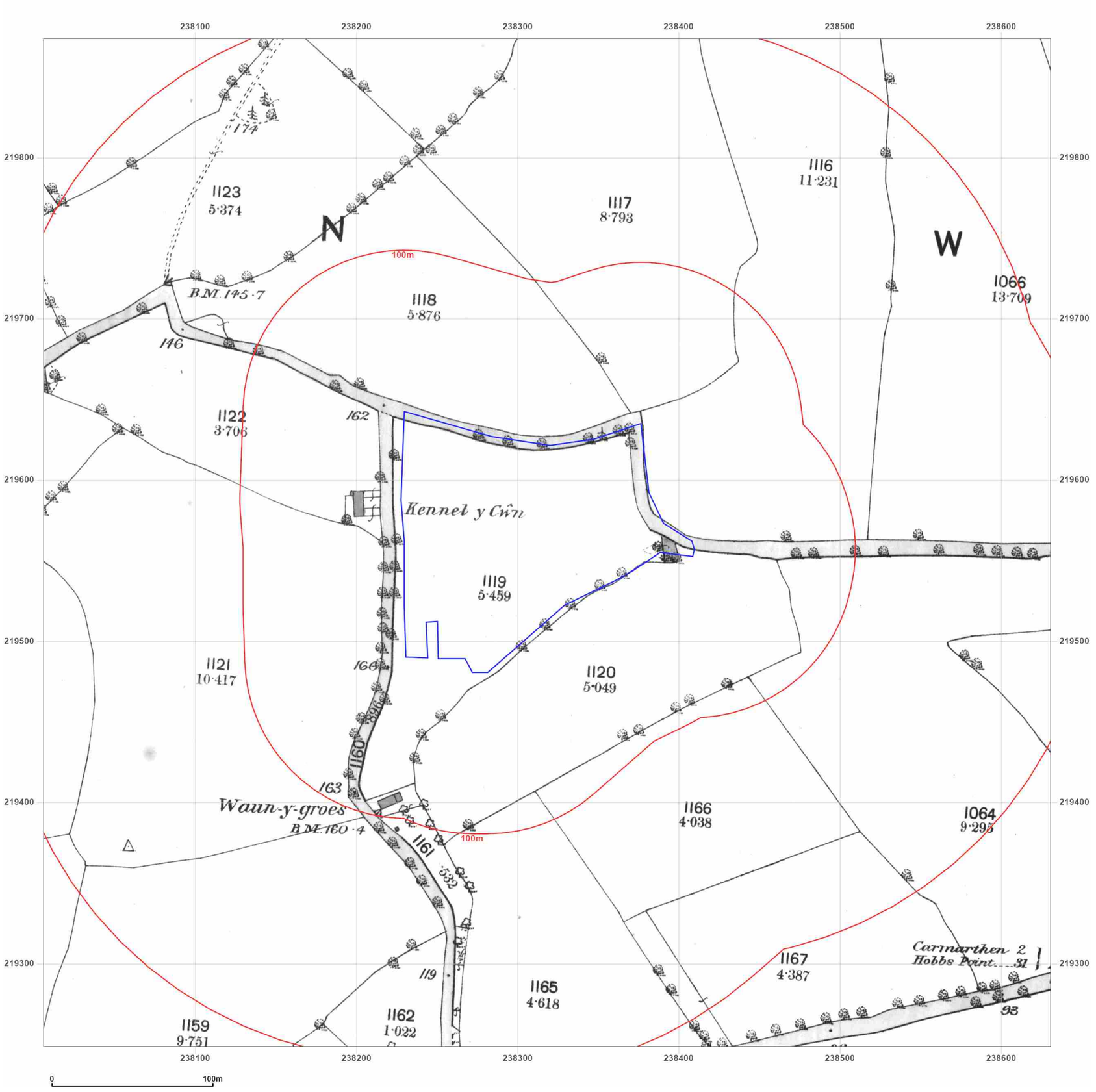
Revision No: | **Date: 29.11.17**

APPENDIX B

Groundsure Enviro Insight Report

(Not included in this 2023 SCR as superseded by 2023 Groundsure report)

Appendix B
Historical Mapping



Groundsure INSIGHTS

Site Details:

WYNNSTAY GROUP PLC,
LLYSONNEN MILL, LLYSONNEN ROAD, CARMARTHEN, SA31 3SG

Client Ref: EPL020855
Report Ref: GS-MOZ-JY5-QOP-SGG
Grid Ref: 238318, 219561

Map Name: County Series
Map date: 1889
Scale: 1:2,500
Printed at: 1:2,500

N
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Surveyed 1889
Revised 1889
Edition N/A
Copyright N/A
Levelled N/A

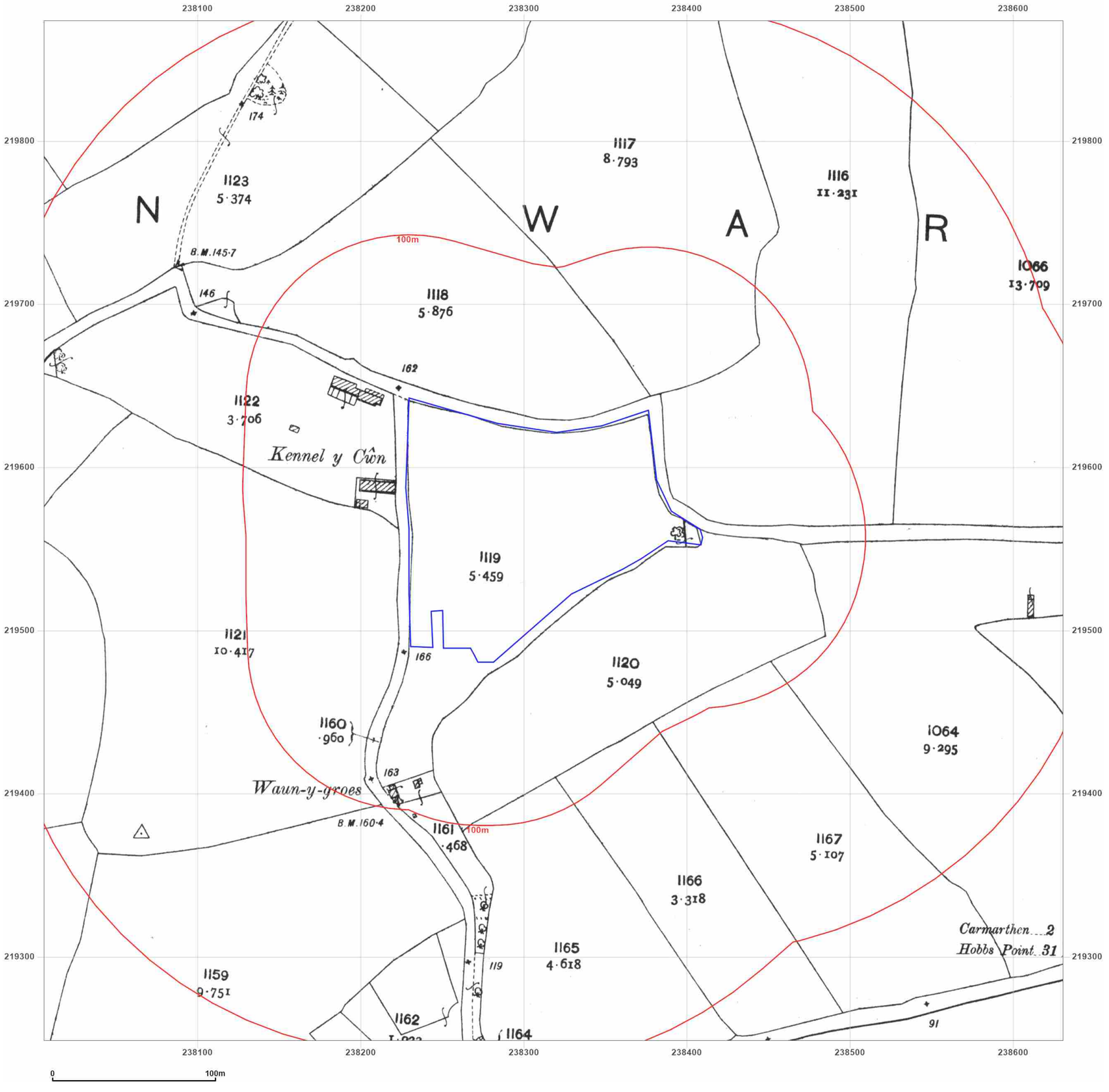
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Groundsure INSIGHTS

Site Details:

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LLYSONNEN MILL, LLYSONNEN ROAD, CARMARTHEN, SA31 3SG

Client Ref: EPL020855
Report Ref: GS-MOZ-JY5-QOP-SGG
Grid Ref: 238318, 219561

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Surveyed 1906
Revised 1906
Edition N/A
Copyright N/A
Levelled N/A

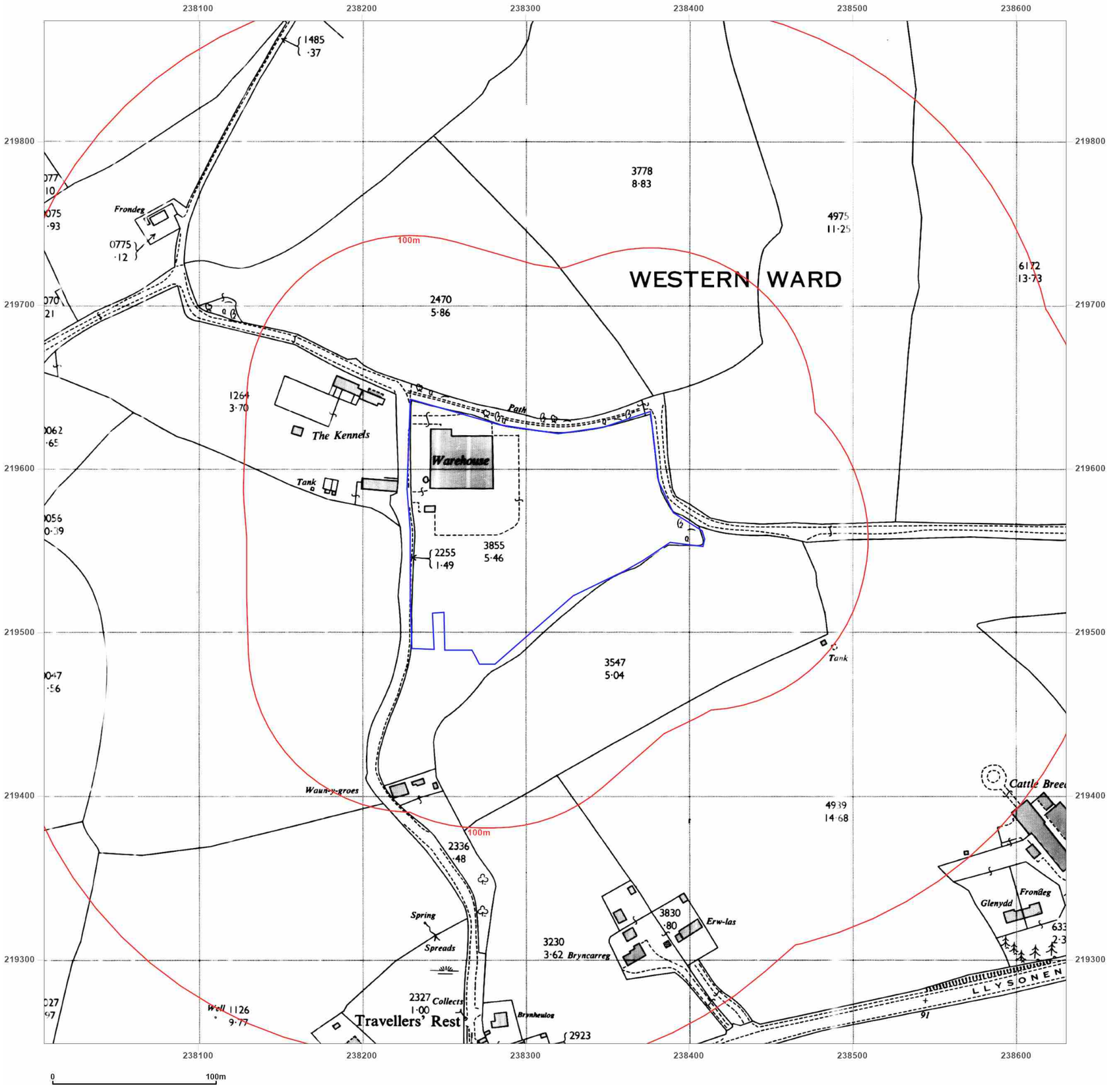
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Client Ref: EPL020855
Report Ref: GS-MOZ-JY5-QOP-SGG
Grid Ref: 238318, 219561

Map Name: National Grid

Map date: **1969**

Scale: 1:2,500

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Surveyed N/A
Revised N/A
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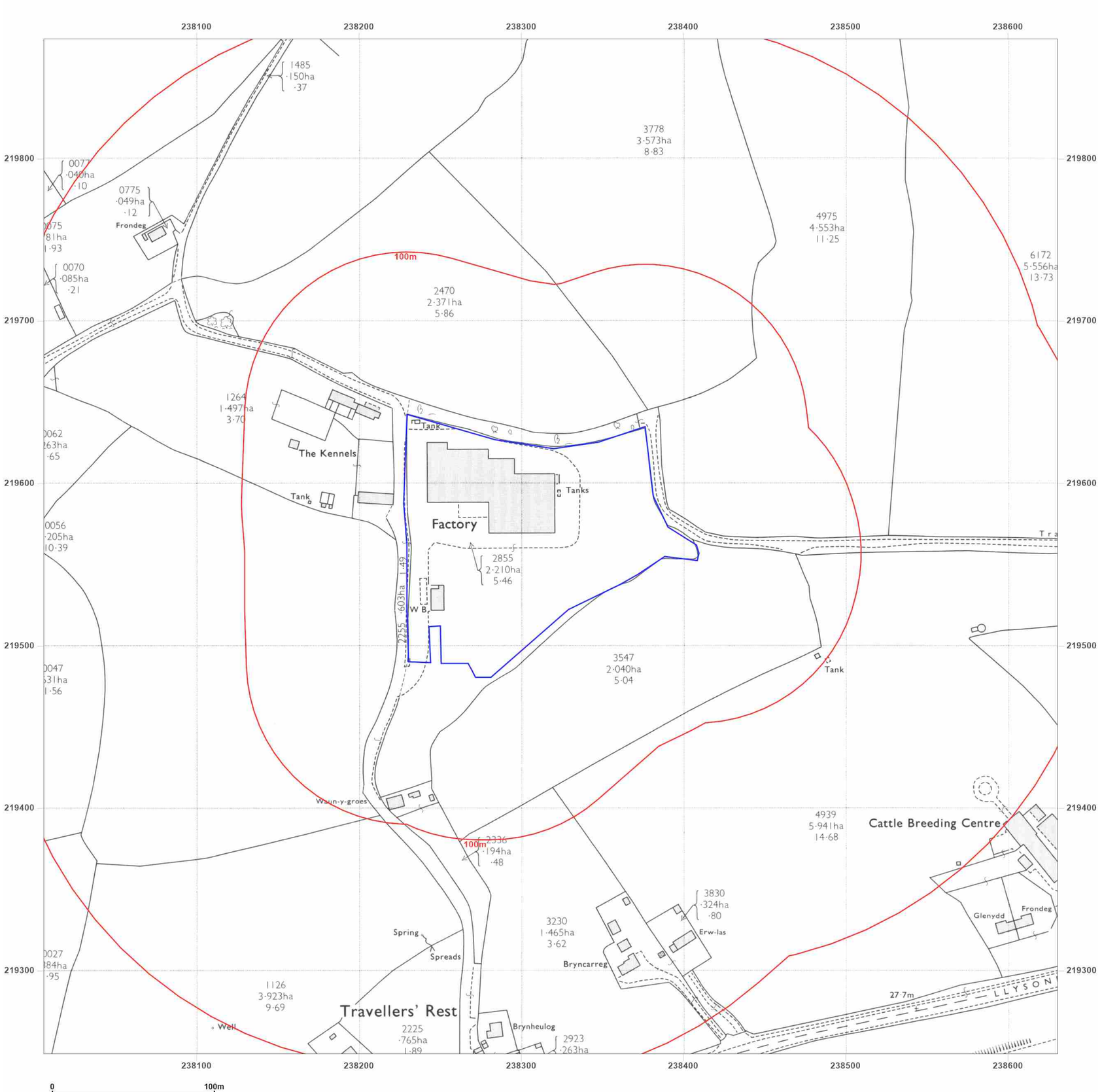
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Client Ref: EPL020855
Report Ref: GS-MOZ-JY5-QOP-SGG
Grid Ref: 238318, 219561

Map Name: National Grid

Map date: **1977**

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Surveyed 1975
Revised 1975
Edition N/A
Copyright 1977
Levelled 1954

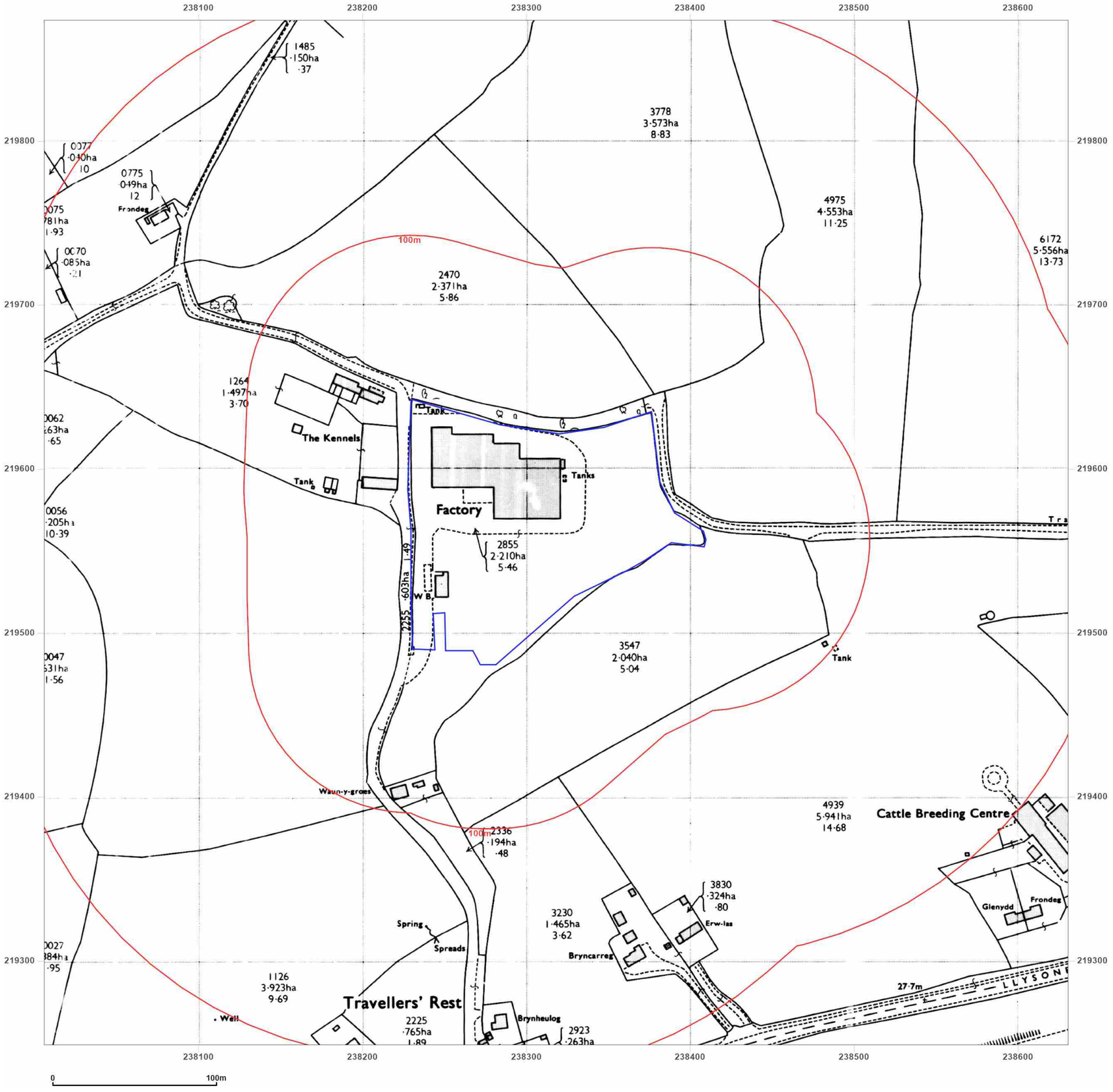
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Site Details:

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Client Ref: EPL020855
Report Ref: GS-MOZ-JY5-QOP-SGG
Grid Ref: 238318, 219561

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Revised 1975
Edition N/A
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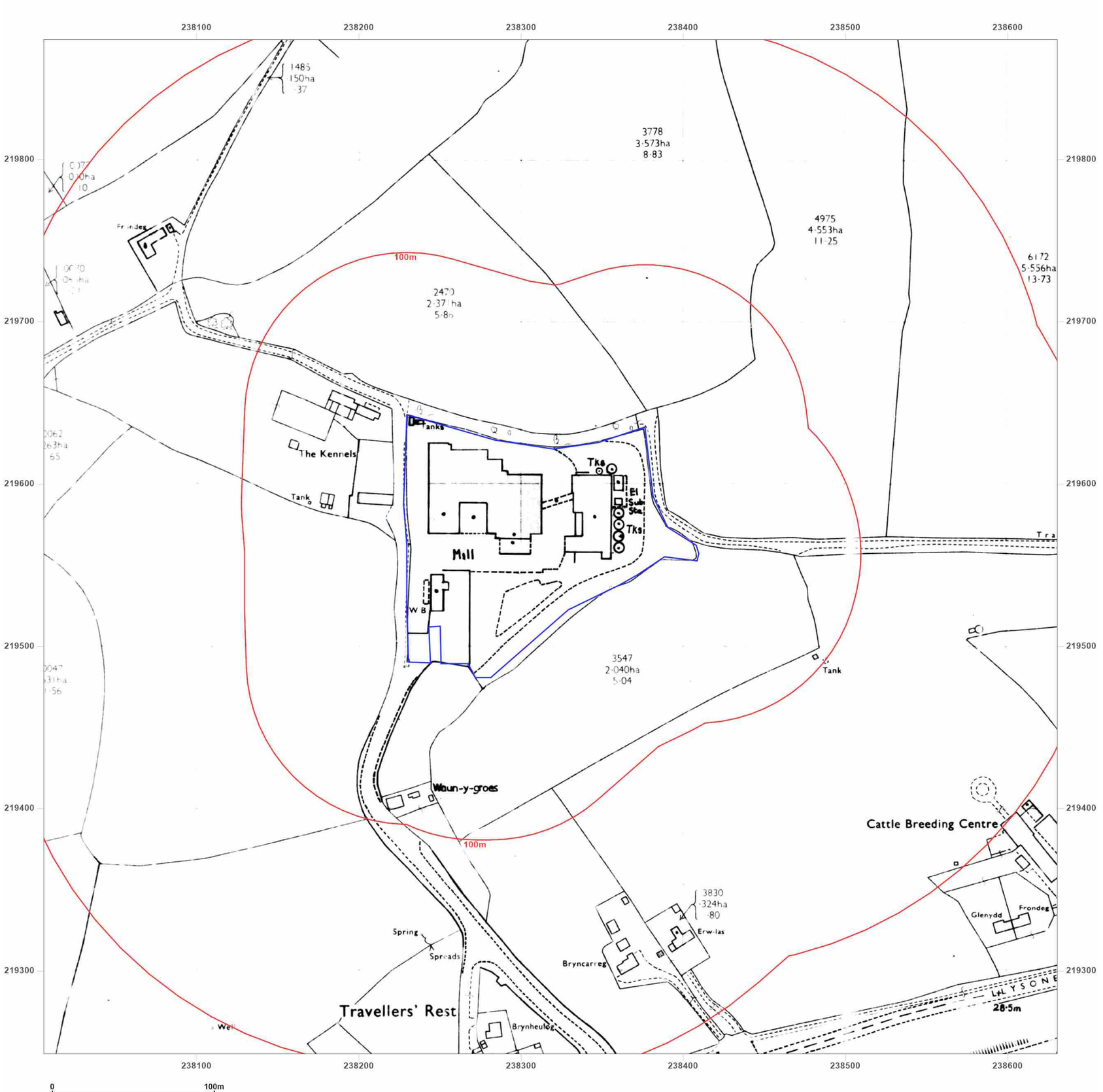
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Site Details:

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Client Ref: EPL020855
Report Ref: GS-MOZ-JY5-QOP-SGG
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Map Name: National Grid
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Scale: 1:2,500
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Surveyed N/A
Revised N/A
Edition N/A
Copyright N/A
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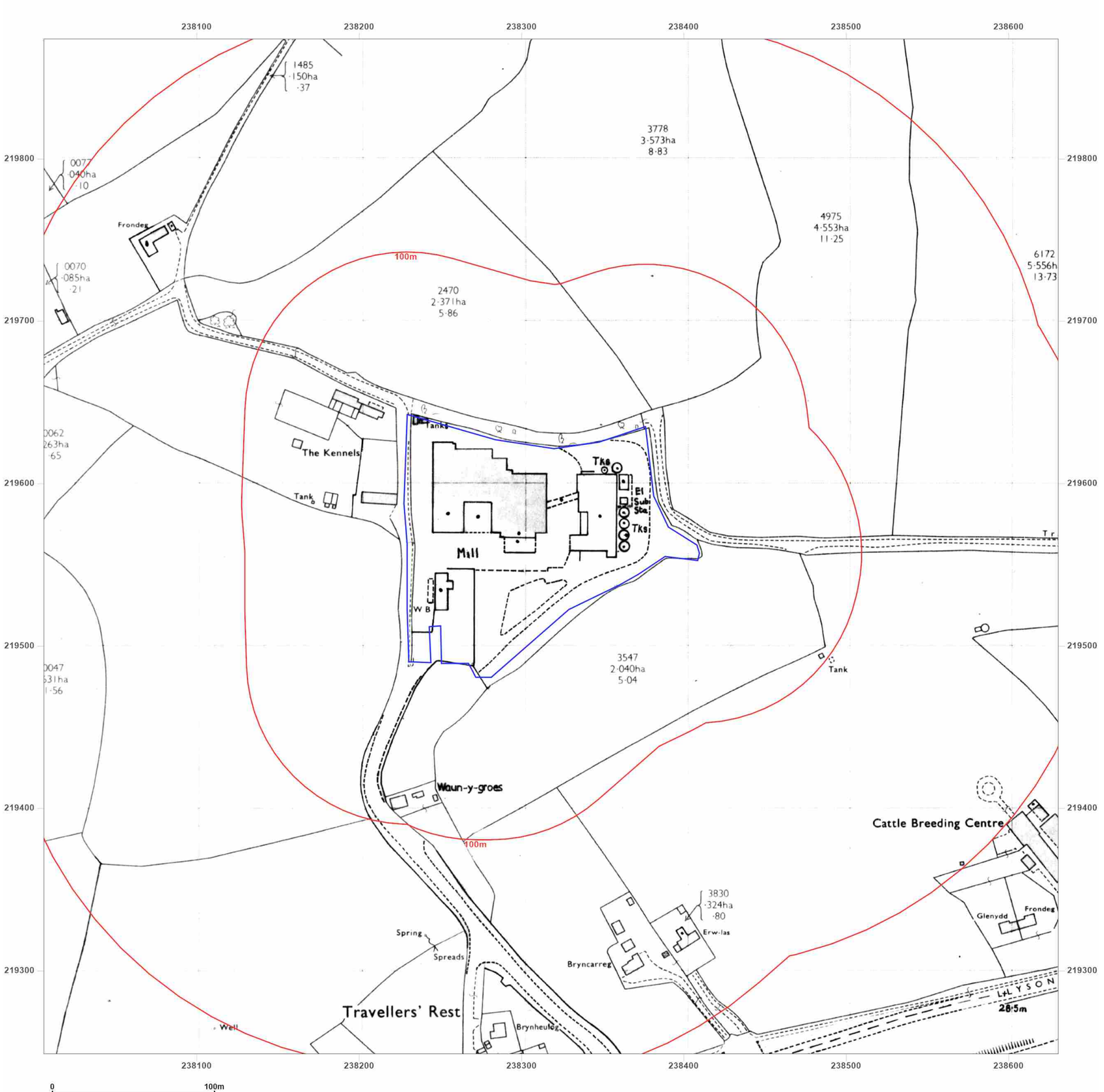
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Report Ref: GS-MOZ-JY5-QOP-SGG
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Edition N/A
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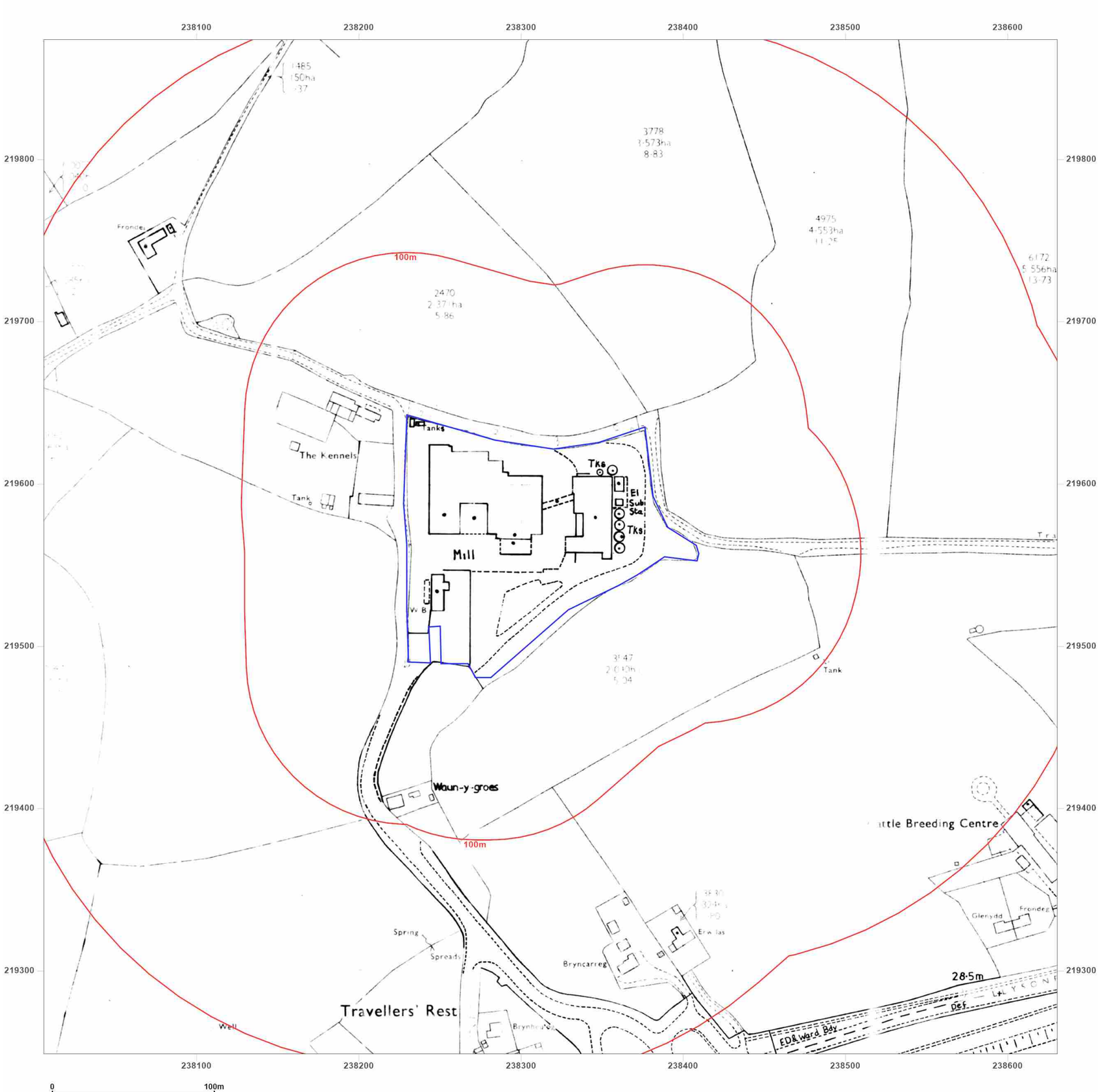
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Revised N/A
Edition N/A
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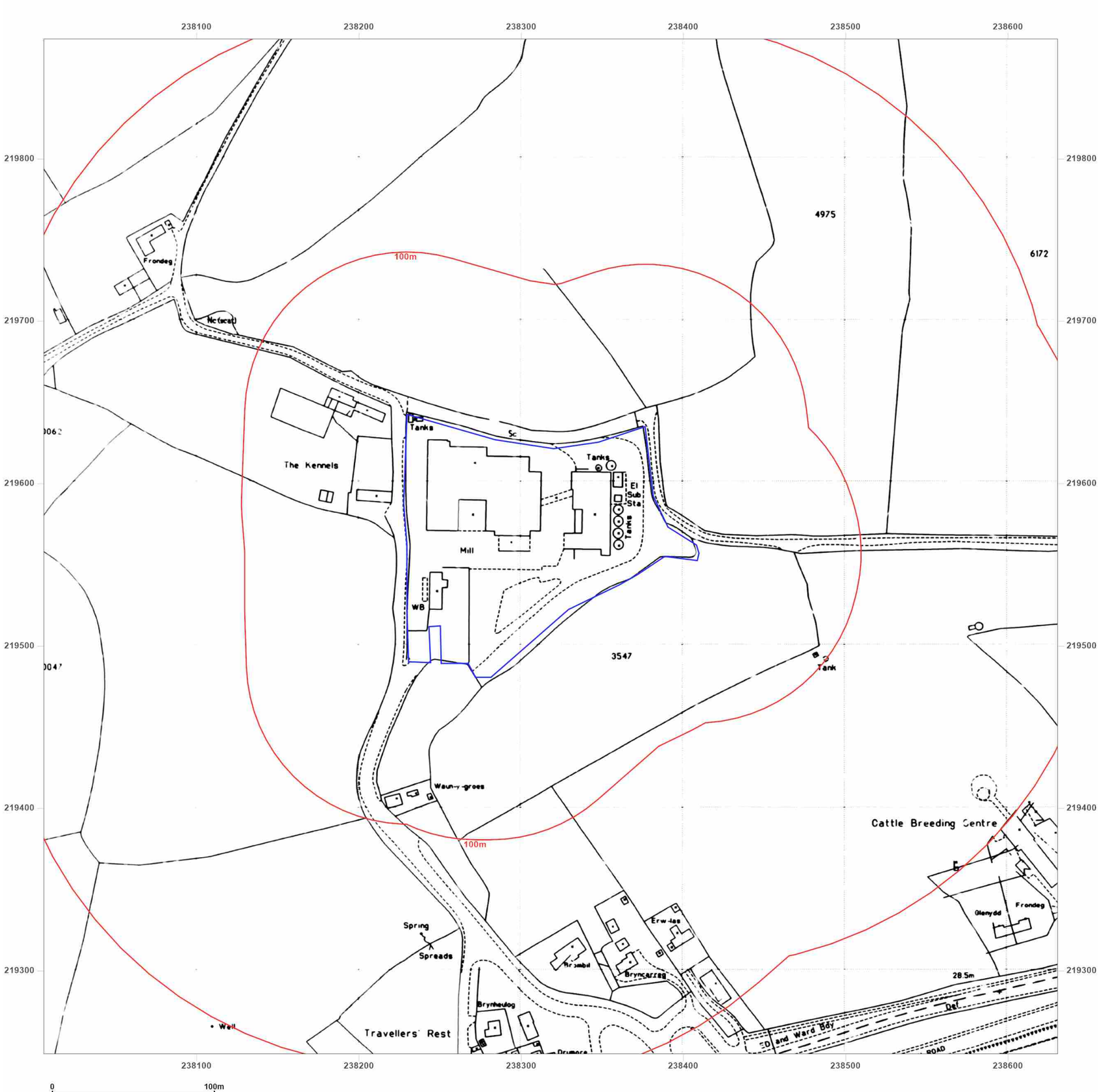
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Client Ref: EPL020855
Report Ref: GS-MOZ-JY5-QOP-SGG
Grid Ref: 238318, 219561

Map Name: National Grid
Map date: **1993**
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Printed at: 1:2,500

N
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Surveyed N/A
Revised N/A
Edition N/A
Copyright 1993
Levelled N/A

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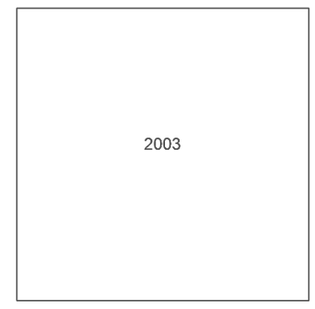
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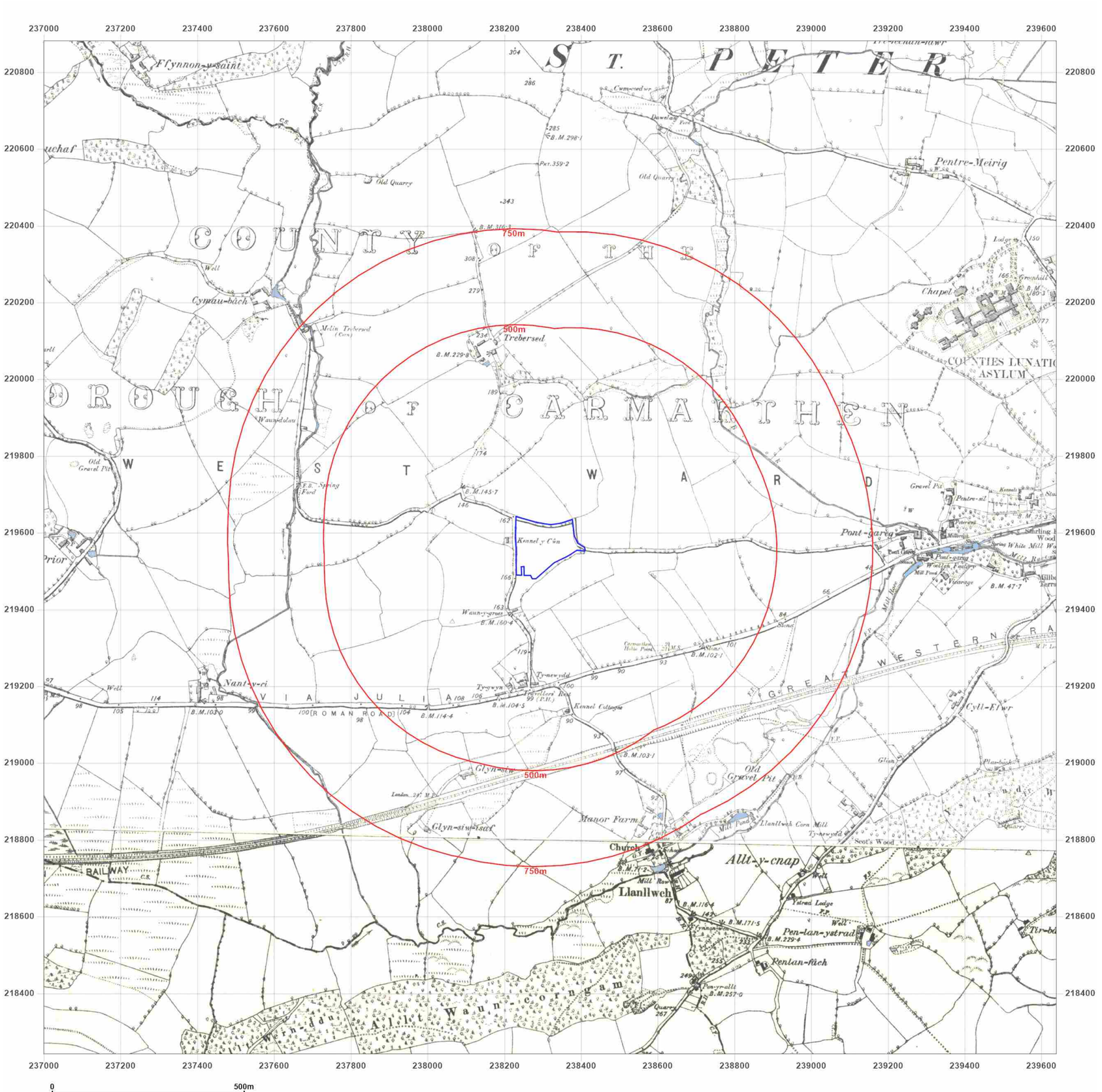
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Grid Ref: 238318, 219561

Map Name: County Series

Map date: **1886-1887**

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Printed at: 1:10,560

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Surveyed 1886
Revised 1886
Edition N/A
Copyright N/A
Levelled N/A

Surveyed 1887
Revised 1887
Edition N/A
Copyright N/A
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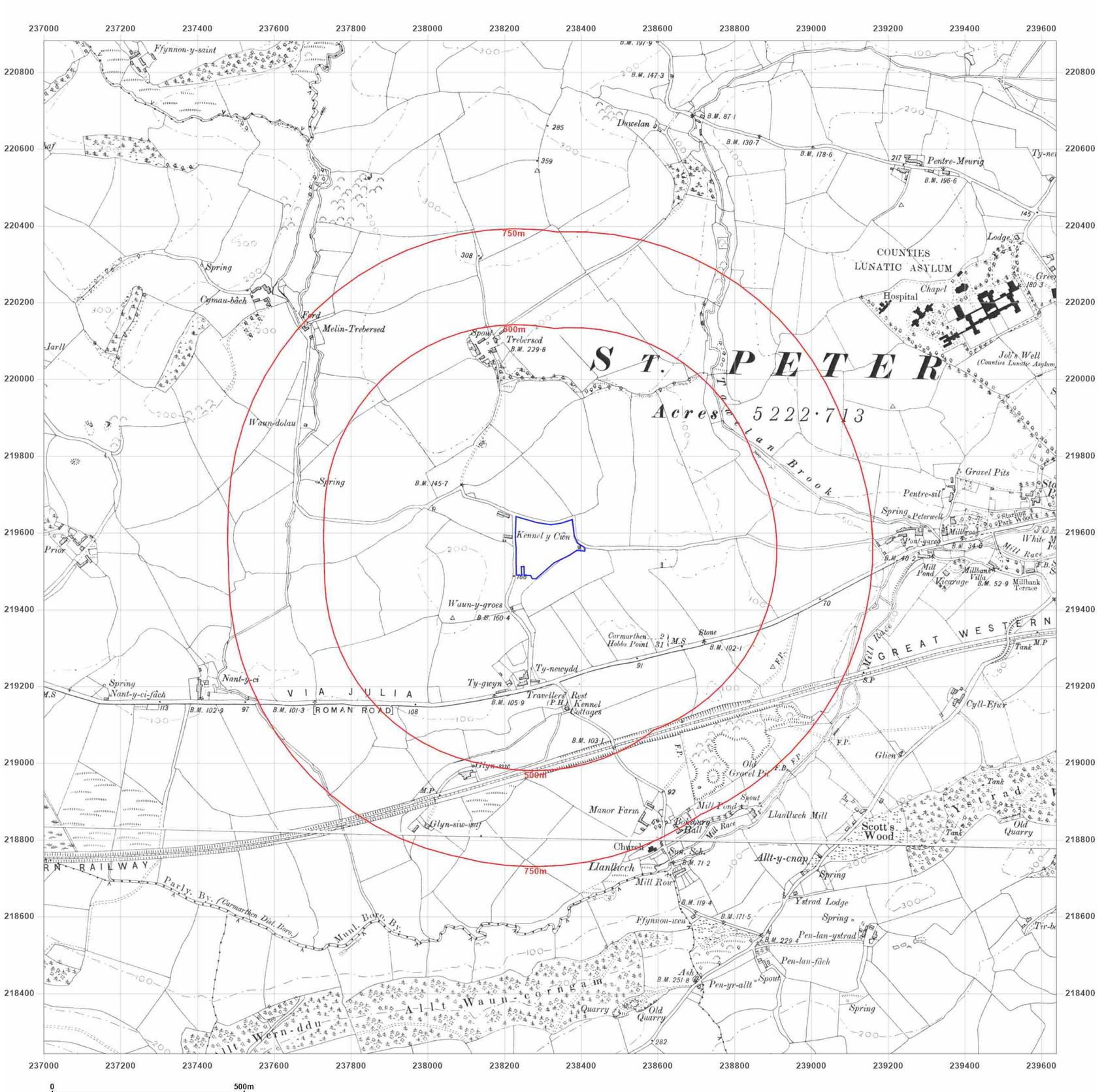
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Client Ref: EPL020855
Report Ref: GS-MOZ-JY5-QOP-SGG
Grid Ref: 238318, 219561

Map Name: County Series

Map date: **1905-1907**

Scale: 1:10,560

Printed at: 1:10,560

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Surveyed 1886
Revised 1905
Edition N/A
Copyright N/A
Levelled N/A

Surveyed 1886
Revised 1907
Edition 1907
Copyright N/A
Levelled N/A

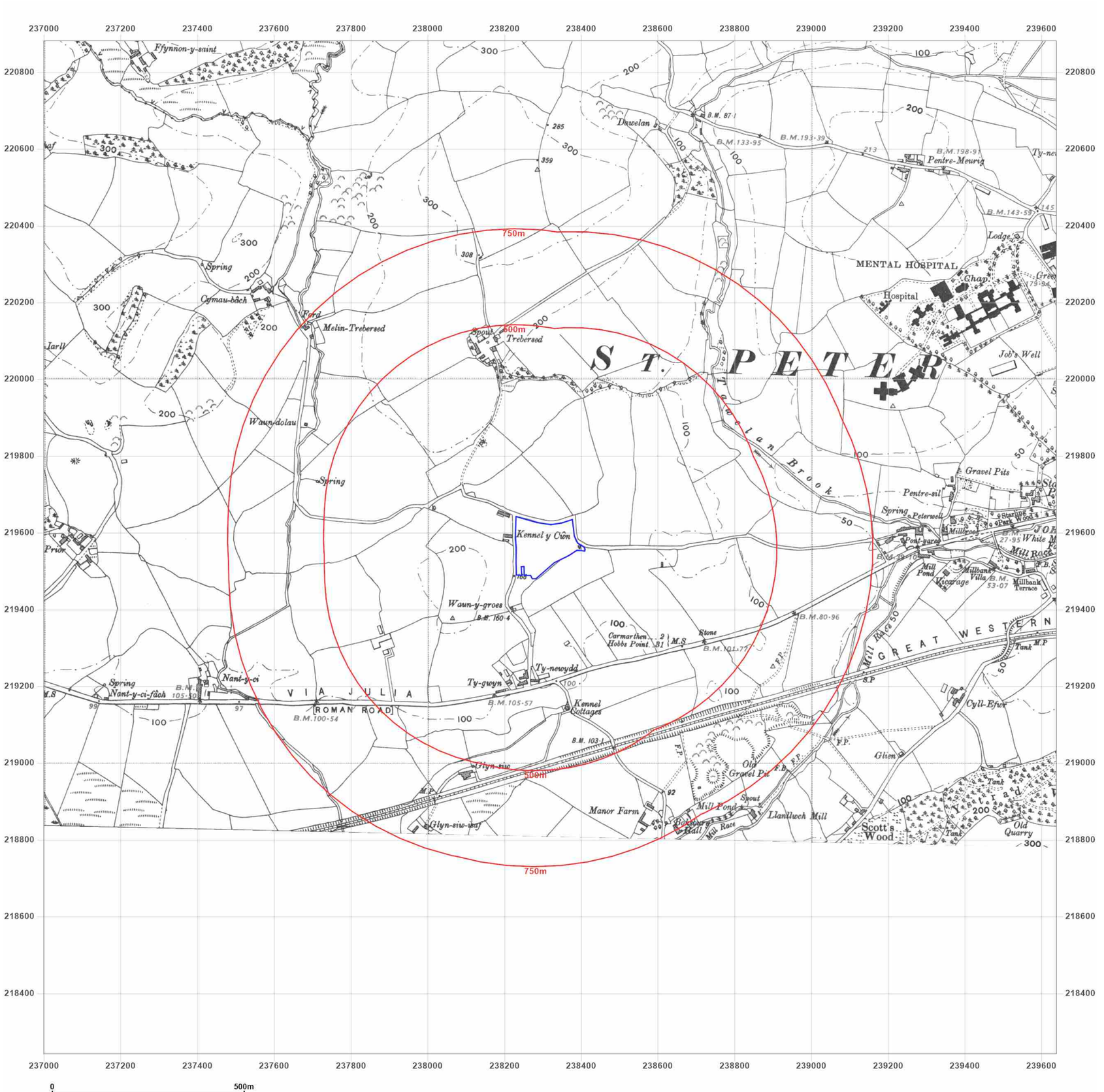
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Client Ref: EPL020855
Report Ref: GS-MOZ-JY5-QOP-SGG
Grid Ref: 238318, 219561

Map Name: County Series

Map date: **1938**

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Surveyed 1886
Revised 1938
Edition 1938
Copyright N/A
Levelled N/A

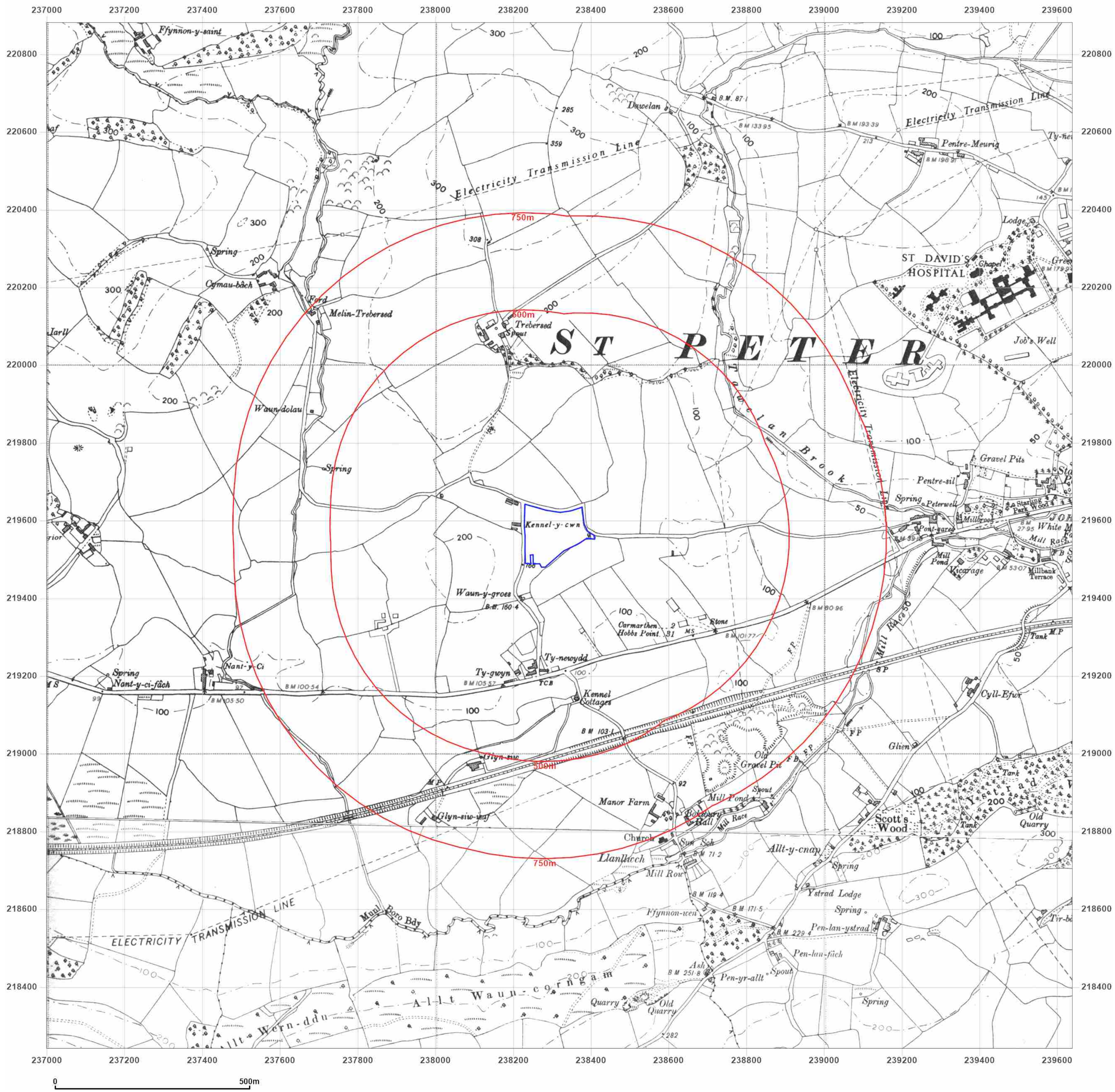
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Site Details:

WYNNSTAY GROUP PLC,
LLYSONNEN MILL, LLYSONNEN
ROAD, CARMARTHEN, SA31
3SG

Client Ref: EPL020855
Report Ref: GS-MOZ-JY5-QOP-SGG
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Map Name: County Series

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Surveyed 1866
Revised 1948
Edition N/A
Copyright N/A
Levelled N/A

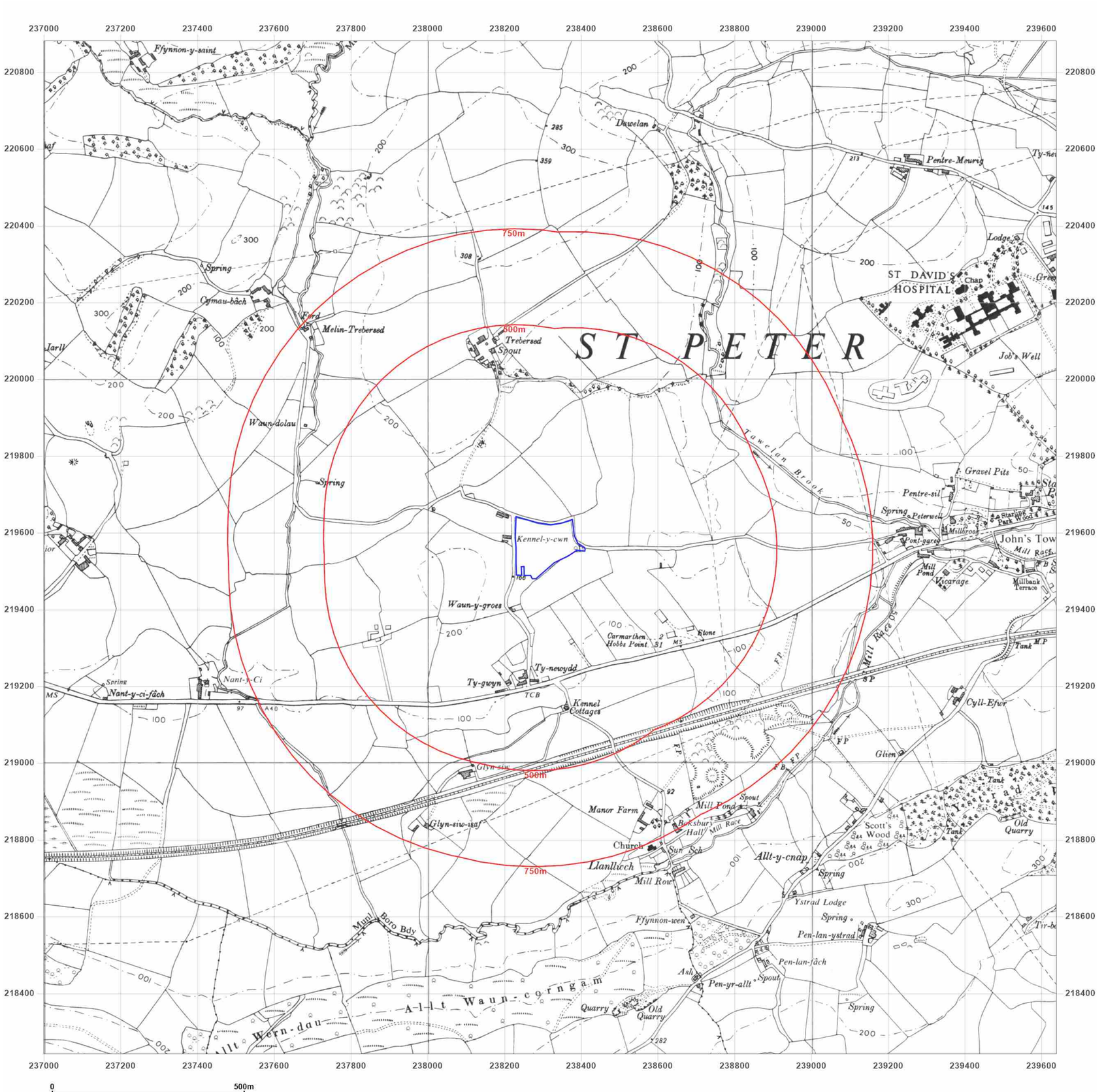
Surveyed 1886
Revised 1948
Edition N/A
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LLYSONNEN MILL, LLYSONNEN ROAD, CARMARTHEN, SA31 3SG

Client Ref: EPL020855
Report Ref: GS-MOZ-JY5-QOP-SGG
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Map Name: Provisional

Map date: **1963**

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Surveyed N/A
Revised 1963
Edition N/A
Copyright N/A
Levelled N/A

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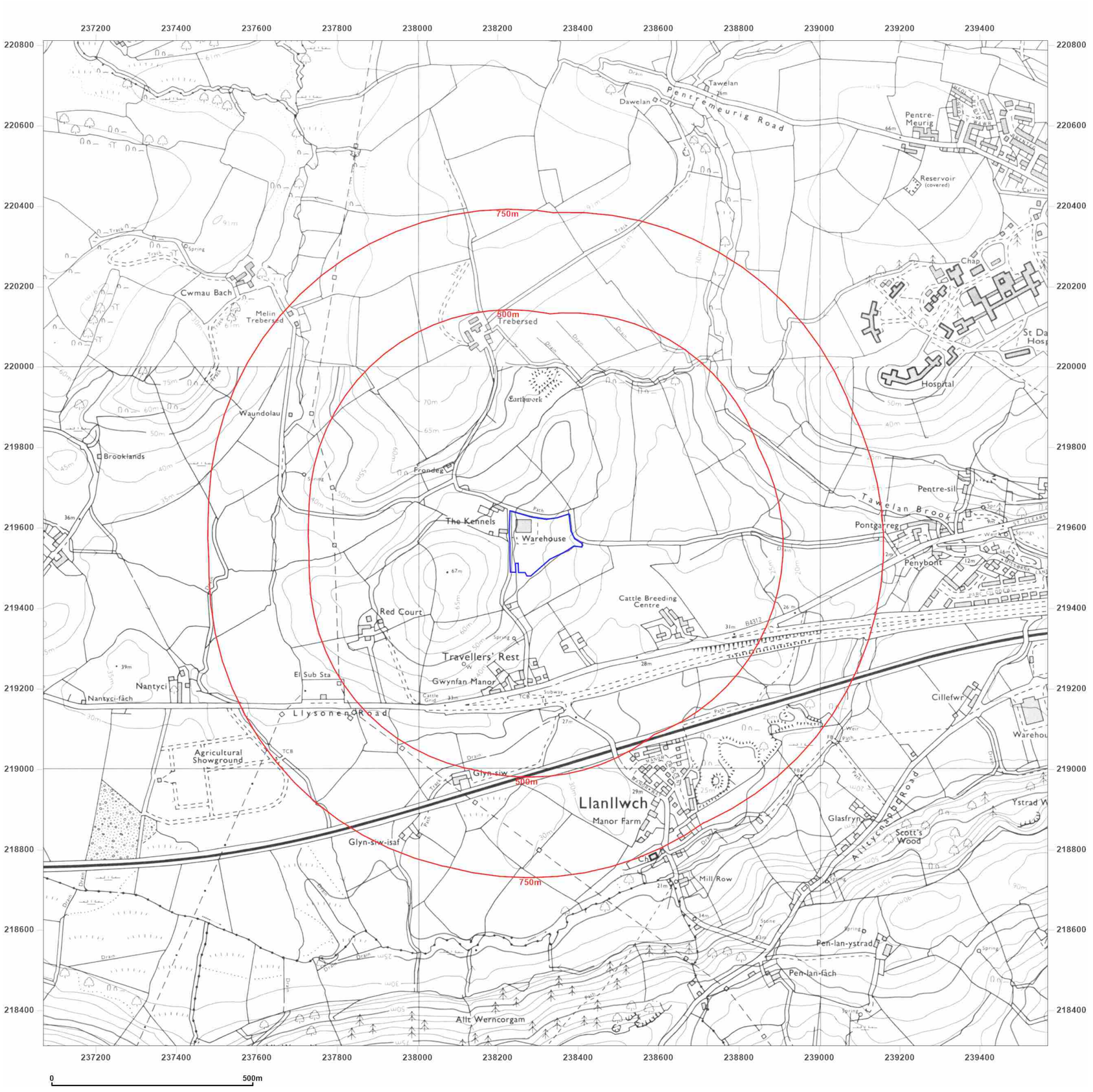
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Client Ref: EPL020855
Report Ref: GS-MOZ-JY5-QOP-SGG
Grid Ref: 238318, 219561

Map Name: National Grid

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Surveyed 1970
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Edition N/A
Copyright 1975
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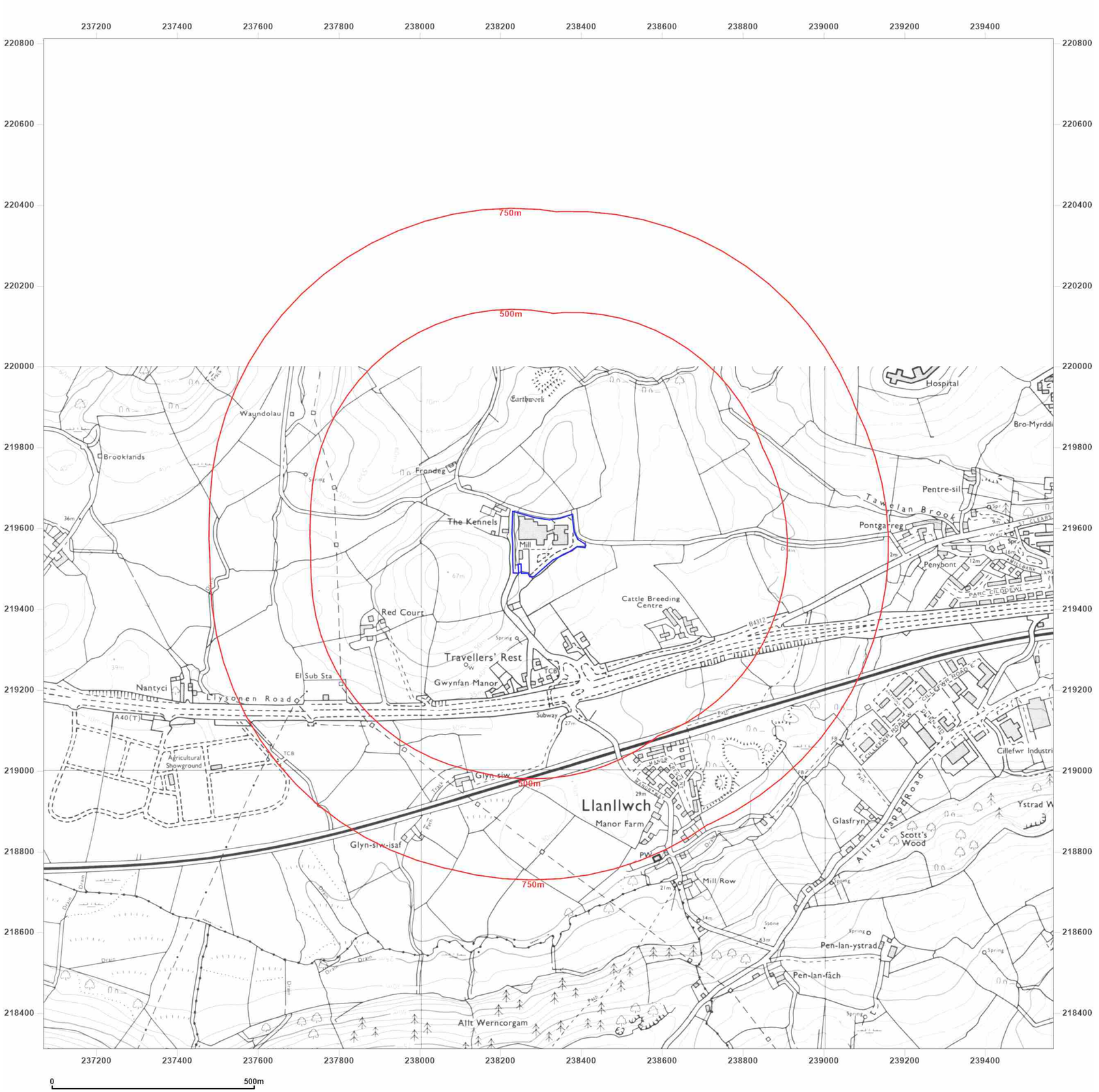
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Groundsure INSIGHTS

Site Details:

WYNNSTAY GROUP PLC,
LLYSONNEN MILL, LLYSONNEN ROAD, CARMARTHEN, SA31 3SG

Client Ref: EPL020855
Report Ref: GS-MOZ-JY5-QOP-SGG
Grid Ref: 238318, 219561

Map Name: National Grid
Map date: **1992**
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Surveyed 1970
Revised 1992
Edition N/A
Copyright N/A
Levelled N/A

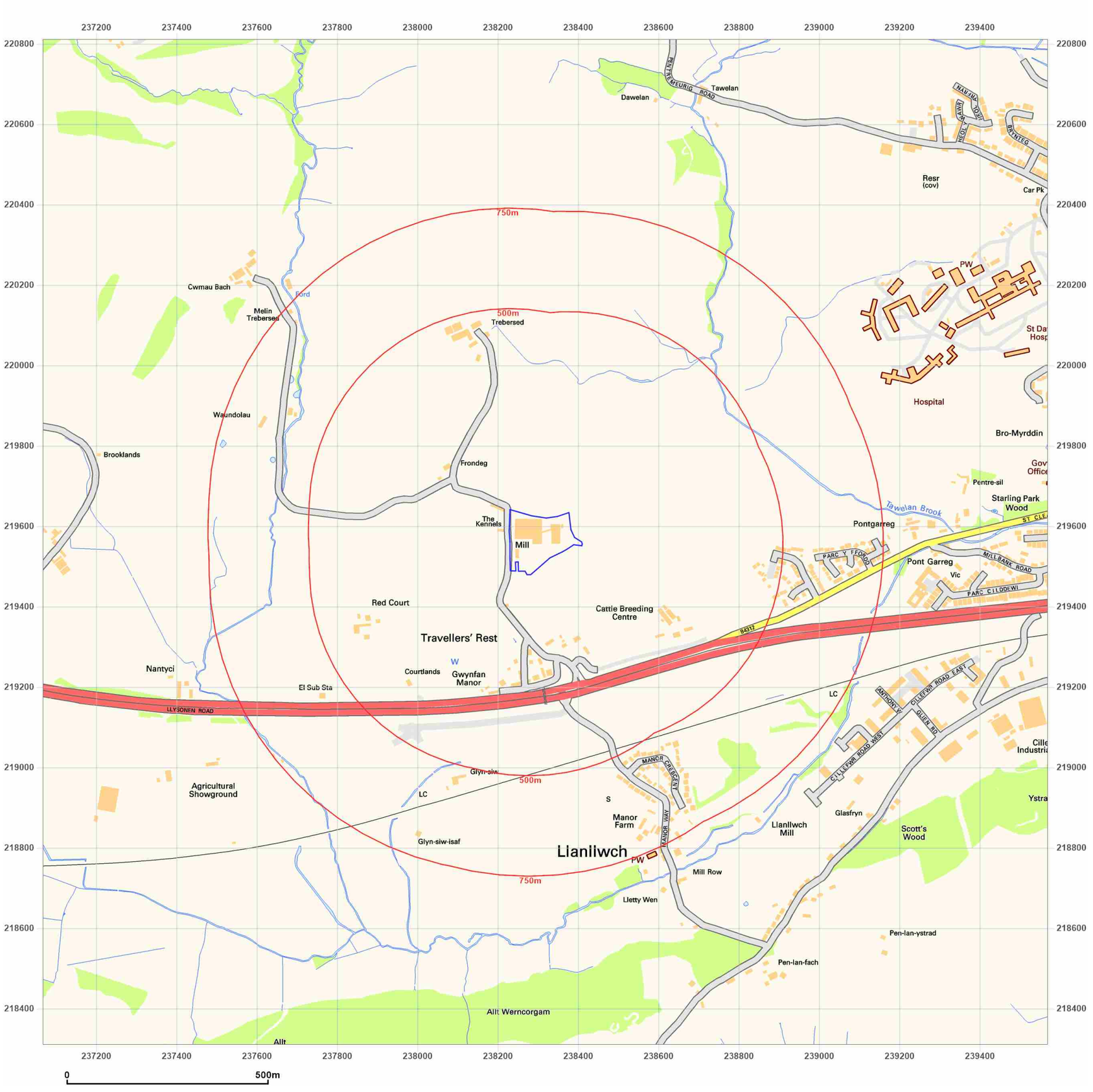
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Groundsure INSIGHTS

Site Details:

WYNNSTAY GROUP PLC,
LLYSONNEN MILL, LLYSONNEN ROAD, CARMARTHEN, SA31 3SG

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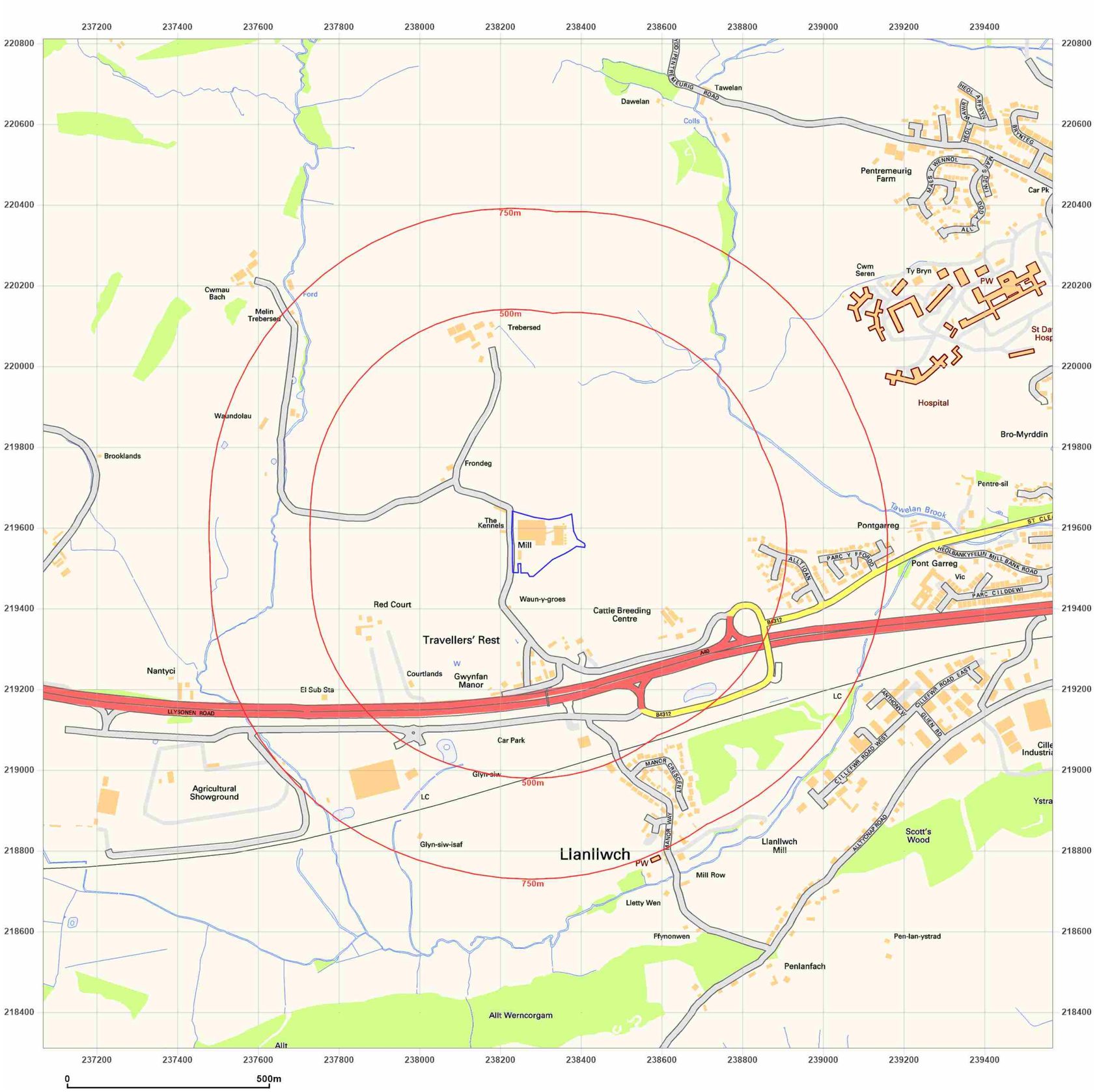
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Groundsure INSIGHTS

Site Details:

WYNNSTAY GROUP PLC,
LLYSONNEN MILL, LLYSONNEN ROAD, CARMARTHEN, SA31 3SG

Client Ref: EPL020855
Report Ref: GS-MOZ-JY5-QOP-SGG
Grid Ref: 238318, 219561

Map Name: National Grid
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Printed at: 1:10,000

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2010

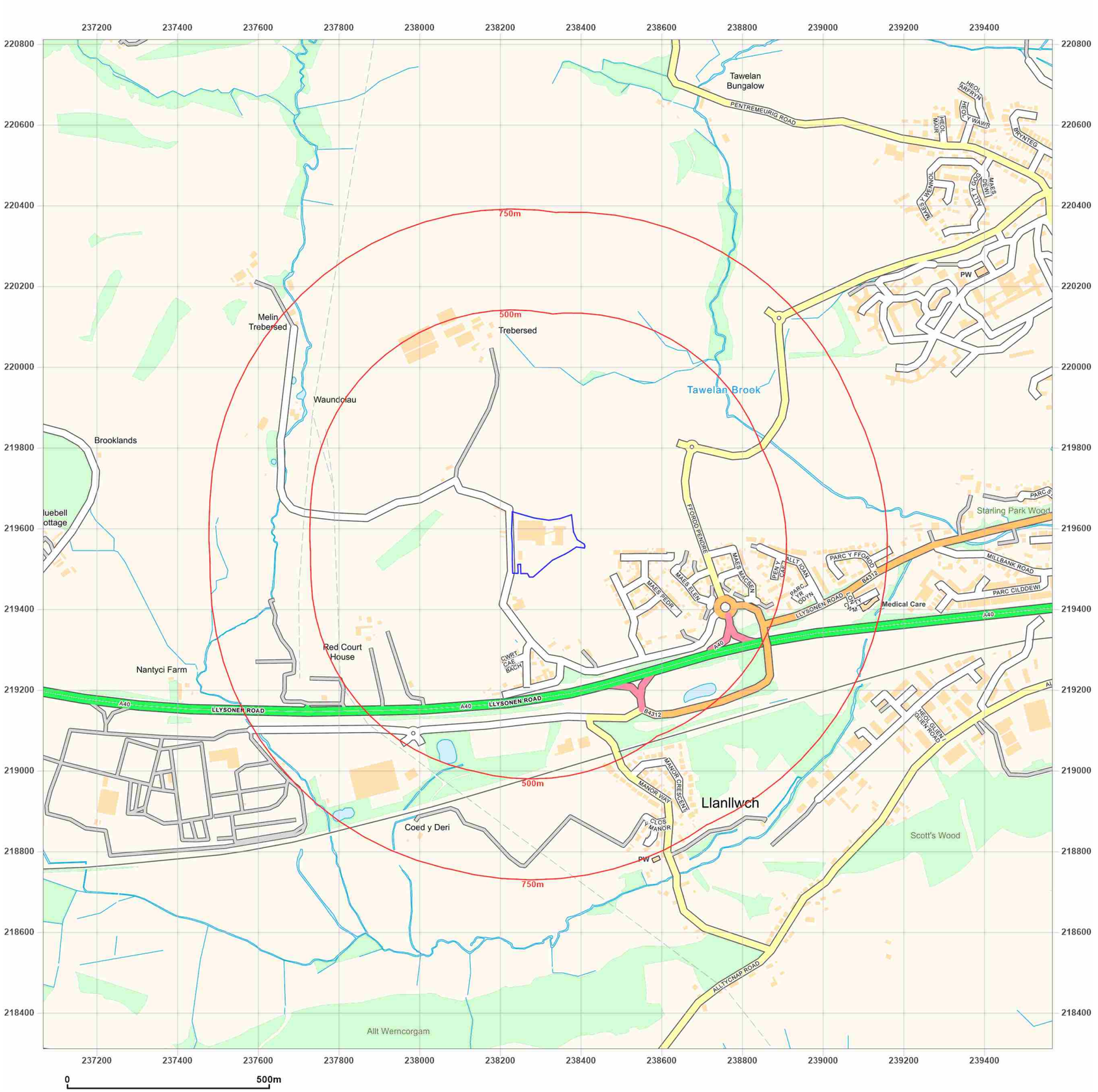
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Site Details:

WYNNSTAY GROUP PLC,
LLYSONNEN MILL, LLYSONNEN ROAD, CARMARTHEN, SA31 3SG

Client Ref: EPL020855
Report Ref: GS-MOZ-JY5-QOP-SGG
Grid Ref: 238318, 219561

Map Name: National Grid
Map date: **2023**
Scale: 1:10,000
Printed at: 1:10,000

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2023

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Production date: 12 May 2023

Map legend available at:
www.groundsure.com/sites/default/files/groundsure_legend.pdf

Appendix C
Groundsure Report

Groundsure
LOCATION INTELLIGENCE

Enviro+Geo Insight

WYNNSTAY GROUP PLC, LLYSONNEN MILL, LLYSONNEN ROAD, CARMARTHEN, SA31 3SG

Order Details

Date: 12/05/2023

Your ref: EPL020855

Our Ref: GS-CXU-XLW-RW6-CXB

Site Details

Location: 238248 219532

Area: 1.87 ha

Authority: Sir Gaerfyrddin - Carmarthenshire County Council ↗



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Summary of findings p. 2 >

OS MasterMap site plan p.13 >

Aerial image p. 8 >

groundsure.com/insightuserguide ↗

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

Summary of findings

Page	Section	Past land use >	On site	0-50m	50-250m	250-500m	500-2000m
14 >	1.1 >	Historical industrial land uses >	2	0	0	10	-
15 >	1.2 >	Historical tanks >	5	0	6	0	-
16 >	1.3 >	Historical energy features >	1	0	0	1	-
16 >	1.4 >	Historical petrol stations >	0	0	0	0	-
17 >	1.5 >	Historical garages >	0	0	0	0	-
17 >	1.6 >	Historical military land >	0	0	0	0	-
Page	Section	Past land use - un-grouped >	On site	0-50m	50-250m	250-500m	500-2000m
18 >	2.1 >	Historical industrial land uses >	2	0	0	10	-
19 >	2.2 >	Historical tanks >	5	0	7	0	-
20 >	2.3 >	Historical energy features >	1	0	0	2	-
20 >	2.4 >	Historical petrol stations >	0	0	0	0	-
20 >	2.5 >	Historical garages >	0	0	0	0	-
Page	Section	Waste and landfill >	On site	0-50m	50-250m	250-500m	500-2000m
21 >	3.1 >	Active or recent landfill >	0	0	0	0	-
21 >	3.2 >	Historical landfill (BGS records) >	0	0	0	0	-
22 >	3.3 >	Historical landfill (LA/mapping records) >	0	0	0	0	-
22 >	3.4 >	Historical landfill (EA/NRW records) >	0	0	0	1	-
22 >	3.5 >	Historical waste sites >	0	0	0	0	-
22 >	3.6 >	Licensed waste sites >	0	0	0	0	-
23 >	3.7 >	Waste exemptions >	0	0	2	11	-
Page	Section	Current industrial land use >	On site	0-50m	50-250m	250-500m	500-2000m
25 >	4.1 >	Recent industrial land uses >	9	0	2	-	-
26 >	4.2 >	Current or recent petrol stations >	0	0	0	0	-
26 >	4.3 >	Electricity cables >	0	0	0	0	-
26 >	4.4 >	Gas pipelines >	0	0	0	0	-
27 >	4.5 >	Sites determined as Contaminated Land >	0	0	0	0	-

27 >	4.6 >	Control of Major Accident Hazards (COMAH) >	0	0	0	0	-
27 >	4.7 >	Regulated explosive sites >	0	0	0	0	-
27 >	4.8 >	Hazardous substance storage/usage >	0	0	0	0	-
27 >	4.9 >	Historical licensed industrial activities (IPC) >	0	0	0	0	-
28 >	4.10 >	Licensed industrial activities (Part A(1)) >	5	0	0	0	-
29 >	4.11 >	Licensed pollutant release (Part A(2)/B) >	1	0	0	0	-
29 >	4.12 >	Radioactive Substance Authorisations >	0	0	0	0	-
30 >	4.13 >	Licensed Discharges to controlled waters >	2	2	0	1	-
30 >	4.14 >	Pollutant release to surface waters (Red List) >	0	0	0	0	-
31 >	4.15 >	Pollutant release to public sewer >	0	0	0	0	-
31 >	4.16 >	List 1 Dangerous Substances >	0	0	0	0	-
31 >	4.17 >	List 2 Dangerous Substances >	0	0	0	0	-
31 >	4.18 >	Pollution Incidents (EA/NRW) >	2	1	1	0	-
32 >	4.19 >	Pollution inventory substances >	0	0	0	0	-
32 >	4.20 >	Pollution inventory waste transfers >	0	0	0	0	-
32 >	4.21 >	Pollution inventory radioactive waste >	0	0	0	0	-

Page	Section	Hydrogeology >	On site	0-50m	50-250m	250-500m	500-2000m
33 >	5.1 >	Superficial aquifer >	Identified (within 500m)				
35 >	5.2 >	Bedrock aquifer >	Identified (within 500m)				
37 >	5.3 >	Groundwater vulnerability >	Identified (within 50m)				
38 >	5.4 >	Groundwater vulnerability- soluble rock risk >	None (within 0m)				
38 >	5.5 >	Groundwater vulnerability- local information >	None (within 0m)				
39 >	5.6 >	Groundwater abstractions >	0	0	0	0	9
41 >	5.7 >	Surface water abstractions >	0	0	0	0	3
42 >	5.8 >	Potable abstractions >	0	0	0	0	4
43 >	5.9 >	Source Protection Zones >	0	0	0	0	-
44 >	5.10 >	Source Protection Zones (confined aquifer) >	0	0	0	0	-

Page	Section	Hydrology >	On site	0-50m	50-250m	250-500m	500-2000m
45 >	6.1 >	Water Network (OS MasterMap) >	0	0	0	-	-

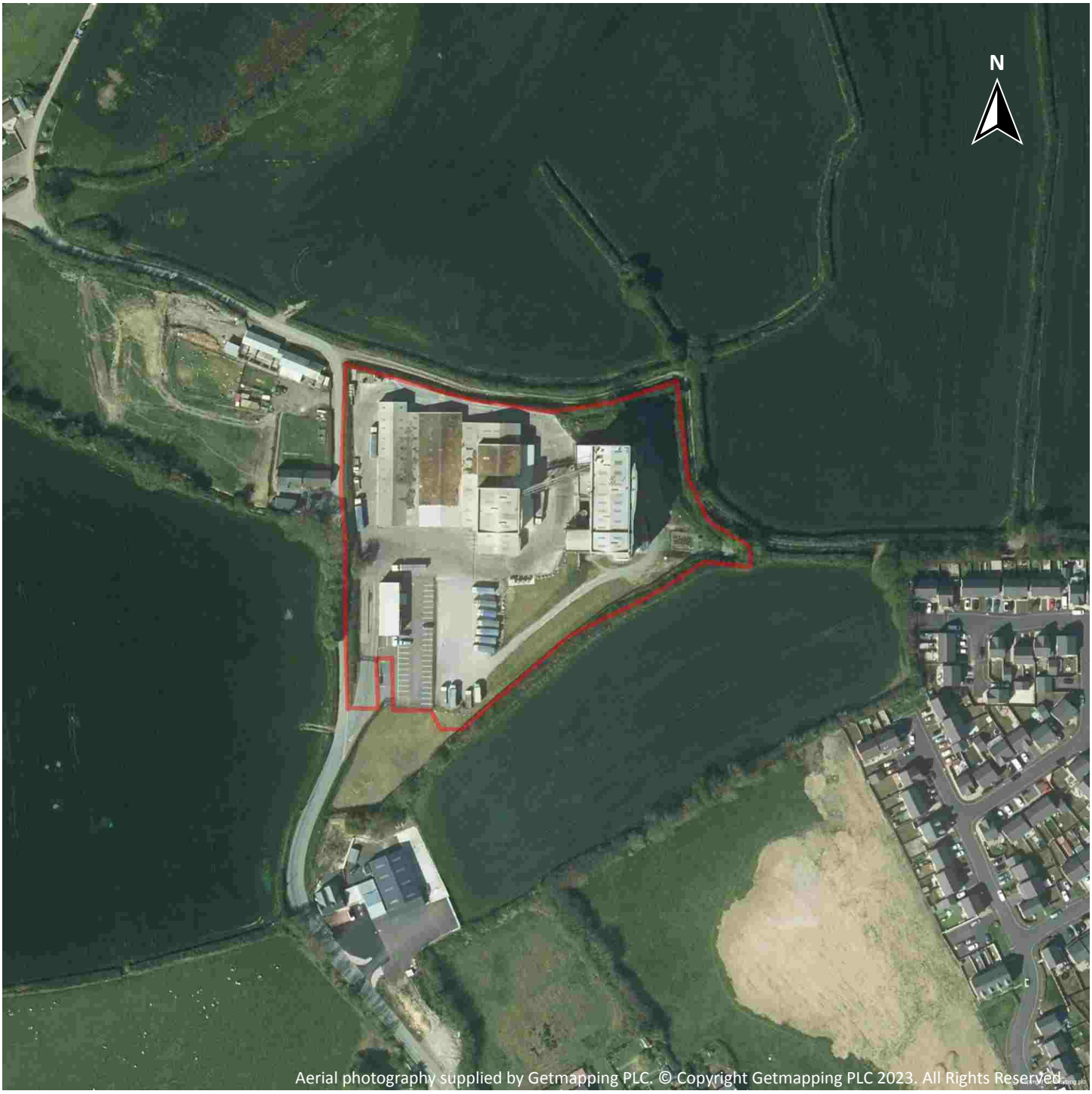
45 >	6.2 >	Surface water features >	0	0	1	-	-
46 >	6.3 >	WFD Surface water body catchments >	1	-	-	-	-
46 >	6.4 >	WFD Surface water bodies >	0	0	0	-	-
47 >	6.5 >	WFD Groundwater bodies >	1	-	-	-	-
Page	Section	**River and coastal flooding >**	On site	0-50m	50-250m	250-500m	500-2000m
48 >	7.1 >	Risk of flooding from rivers and the sea >	None (within 50m)				
48 >	7.2 >	Historical Flood Events >	0	0	0	-	-
48 >	7.3 >	Flood Defences >	0	0	0	-	-
49 >	7.4 >	Areas Benefiting from Flood Defences >	0	0	0	-	-
49 >	7.5 >	Flood Storage Areas >	0	0	0	-	-
50 >	7.6 >	Flood Zone 2 >	None (within 50m)				
50 >	7.7 >	Flood Zone 3 >	None (within 50m)				
Page	Section	**Surface water flooding >**					
51 >	8.1 >	Surface water flooding >	Negligible (within 50m)				
Page	Section	**Groundwater flooding >**					
52 >	9.1 >	Groundwater flooding >	Low (within 50m)				
Page	Section	**Environmental designations >**	On site	0-50m	50-250m	250-500m	500-2000m
53 >	10.1 >	Sites of Special Scientific Interest (SSSI) >	0	0	0	0	3
54 >	10.2 >	Conserved wetland sites (Ramsar sites) >	0	0	0	0	0
54 >	10.3 >	Special Areas of Conservation (SAC) >	0	0	0	0	0
54 >	10.4 >	Special Protection Areas (SPA) >	0	0	0	0	0
54 >	10.5 >	National Nature Reserves (NNR) >	0	0	0	0	1
55 >	10.6 >	Local Nature Reserves (LNR) >	0	0	0	0	0
55 >	10.7 >	Designated Ancient Woodland >	0	0	0	0	24
56 >	10.8 >	Biosphere Reserves >	0	0	0	0	0
56 >	10.9 >	Forest Parks >	0	0	0	0	0
57 >	10.10 >	Marine Conservation Zones >	0	0	0	0	0
57 >	10.11 >	Green Belt >	0	0	0	0	0
57 >	10.12 >	Proposed Ramsar sites >	0	0	0	0	0

57 >	10.13 >	Possible Special Areas of Conservation (pSAC) >	0	0	0	0	0
57 >	10.14 >	Potential Special Protection Areas (pSPA) >	0	0	0	0	0
58 >	10.15 >	Nitrate Sensitive Areas >	0	0	0	0	0
58 >	10.16 >	Nitrate Vulnerable Zones >	0	0	0	0	0
59 >	10.17 >	SSSI Impact Risk Zones >	0	-	-	-	-
59 >	10.18 >	SSSI Units >	0	0	0	0	0
Page	Section	**Visual and cultural designations >**	On site	0-50m	50-250m	250-500m	500-2000m
60 >	11.1 >	World Heritage Sites >	0	0	0	-	-
61 >	11.2 >	Area of Outstanding Natural Beauty >	0	0	0	-	-
61 >	11.3 >	National Parks >	0	0	0	-	-
61 >	11.4 >	Listed Buildings >	0	0	0	-	-
61 >	11.5 >	Conservation Areas >	0	0	0	-	-
62 >	11.6 >	Scheduled Ancient Monuments >	0	0	1	-	-
62 >	11.7 >	Registered Parks and Gardens >	0	0	0	-	-
Page	Section	**Agricultural designations >**	On site	0-50m	50-250m	250-500m	500-2000m
63 >	12.1 >	Agricultural Land Classification >	Grade 3a (within 250m)				
64 >	12.2 >	Open Access Land >	0	0	0	-	-
64 >	12.3 >	Tree Felling Licences >	0	0	0	-	-
64 >	12.4 >	Environmental Stewardship Schemes >	0	0	0	-	-
64 >	12.5 >	Countryside Stewardship Schemes >	0	0	0	-	-
Page	Section	**Habitat designations >**	On site	0-50m	50-250m	250-500m	500-2000m
65 >	13.1 >	Priority Habitat Inventory >	0	0	0	-	-
65 >	13.2 >	Habitat Networks >	0	0	0	-	-
65 >	13.3 >	Open Mosaic Habitat >	0	0	0	-	-
65 >	13.4 >	Limestone Pavement Orders >	0	0	0	-	-
Page	Section	**Geology 1:10,000 scale >**	On site	0-50m	50-250m	250-500m	500-2000m
66 >	14.1 >	10k Availability >	Identified (within 500m)				
67 >	14.2 >	Artificial and made ground (10k) >	0	0	0	0	-
68 >	14.3 >	Superficial geology (10k) >	0	0	0	0	-

68 >	14.4 >	Landslip (10k) >	0	0	0	0	-
69 >	14.5 >	Bedrock geology (10k) >	0	0	0	0	-
69 >	14.6 >	Bedrock faults and other linear features (10k) >	0	0	0	0	-
Page	Section	Geology 1:50,000 scale >	On site	0-50m	50-250m	250-500m	500-2000m
70 >	15.1 >	50k Availability >	Identified (within 500m)				
71 >	15.2 >	Artificial and made ground (50k) >	0	0	0	0	-
71 >	15.3 >	Artificial ground permeability (50k) >	0	0	-	-	-
72 >	15.4 >	Superficial geology (50k) >	1	0	1	1	-
73 >	15.5 >	Superficial permeability (50k) >	Identified (within 50m)				
73 >	15.6 >	Landslip (50k) >	0	0	0	0	-
73 >	15.7 >	Landslip permeability (50k) >	None (within 50m)				
74 >	15.8 >	Bedrock geology (50k) >	1	0	0	0	-
75 >	15.9 >	Bedrock permeability (50k) >	Identified (within 50m)				
75 >	15.10 >	Bedrock faults and other linear features (50k) >	0	0	0	0	-
Page	Section	Boreholes >	On site	0-50m	50-250m	250-500m	500-2000m
76 >	16.1 >	BGS Boreholes >	0	0	0	-	-
Page	Section	Natural ground subsidence >					
77 >	17.1 >	Shrink swell clays >	Very low (within 50m)				
78 >	17.2 >	Running sands >	Very low (within 50m)				
80 >	17.3 >	Compressible deposits >	Negligible (within 50m)				
81 >	17.4 >	Collapsible deposits >	Very low (within 50m)				
82 >	17.5 >	Landslides >	Low (within 50m)				
84 >	17.6 >	Ground dissolution of soluble rocks >	Negligible (within 50m)				
Page	Section	Mining, ground workings and natural cavities >	On site	0-50m	50-250m	250-500m	500-2000m
86 >	18.1 >	Natural cavities >	0	0	0	0	-
87 >	18.2 >	BritPits >	0	0	0	0	-
87 >	18.3 >	Surface ground workings >	0	0	0	-	-
87 >	18.4 >	Underground workings >	0	0	0	0	0
87 >	18.5 >	Historical Mineral Planning Areas >	0	0	0	0	-

87 >	18.6 >	Non-coal mining >	1	0	0	1	0
88 >	18.7 >	Mining cavities >	0	0	0	0	0
88 >	18.8 >	JPB mining areas >	None (within 0m)				
88 >	18.9 >	Coal mining >	None (within 0m)				
88 >	18.10 >	Brine areas >	None (within 0m)				
89 >	18.11 >	Gypsum areas >	None (within 0m)				
89 >	18.12 >	Tin mining >	None (within 0m)				
89 >	18.13 >	Clay mining >	None (within 0m)				
Page	Section	Radon >					
90 >	19.1 >	Radon >	Between 3% and 5% (within 0m)				
Page	Section	Soil chemistry >	On site	0-50m	50-250m	250-500m	500-2000m
92 >	20.1 >	BGS Estimated Background Soil Chemistry >	3	1	-	-	-
92 >	20.2 >	BGS Estimated Urban Soil Chemistry >	0	0	-	-	-
92 >	20.3 >	BGS Measured Urban Soil Chemistry >	0	0	-	-	-
Page	Section	Railway infrastructure and projects >	On site	0-50m	50-250m	250-500m	500-2000m
93 >	21.1 >	Underground railways (London) >	0	0	0	-	-
93 >	21.2 >	Underground railways (Non-London) >	0	0	0	-	-
93 >	21.3 >	Railway tunnels >	0	0	0	-	-
93 >	21.4 >	Historical railway and tunnel features >	0	0	0	-	-
93 >	21.5 >	Royal Mail tunnels >	0	0	0	-	-
94 >	21.6 >	Historical railways >	0	0	0	-	-
94 >	21.7 >	Railways >	0	0	0	-	-
94 >	21.8 >	Crossrail 1 >	0	0	0	0	-
94 >	21.9 >	Crossrail 2 >	0	0	0	0	-
94 >	21.10 >	HS2 >	0	0	0	0	-

Recent aerial photograph



Capture Date: 13/04/2020

Site Area: 1.87ha

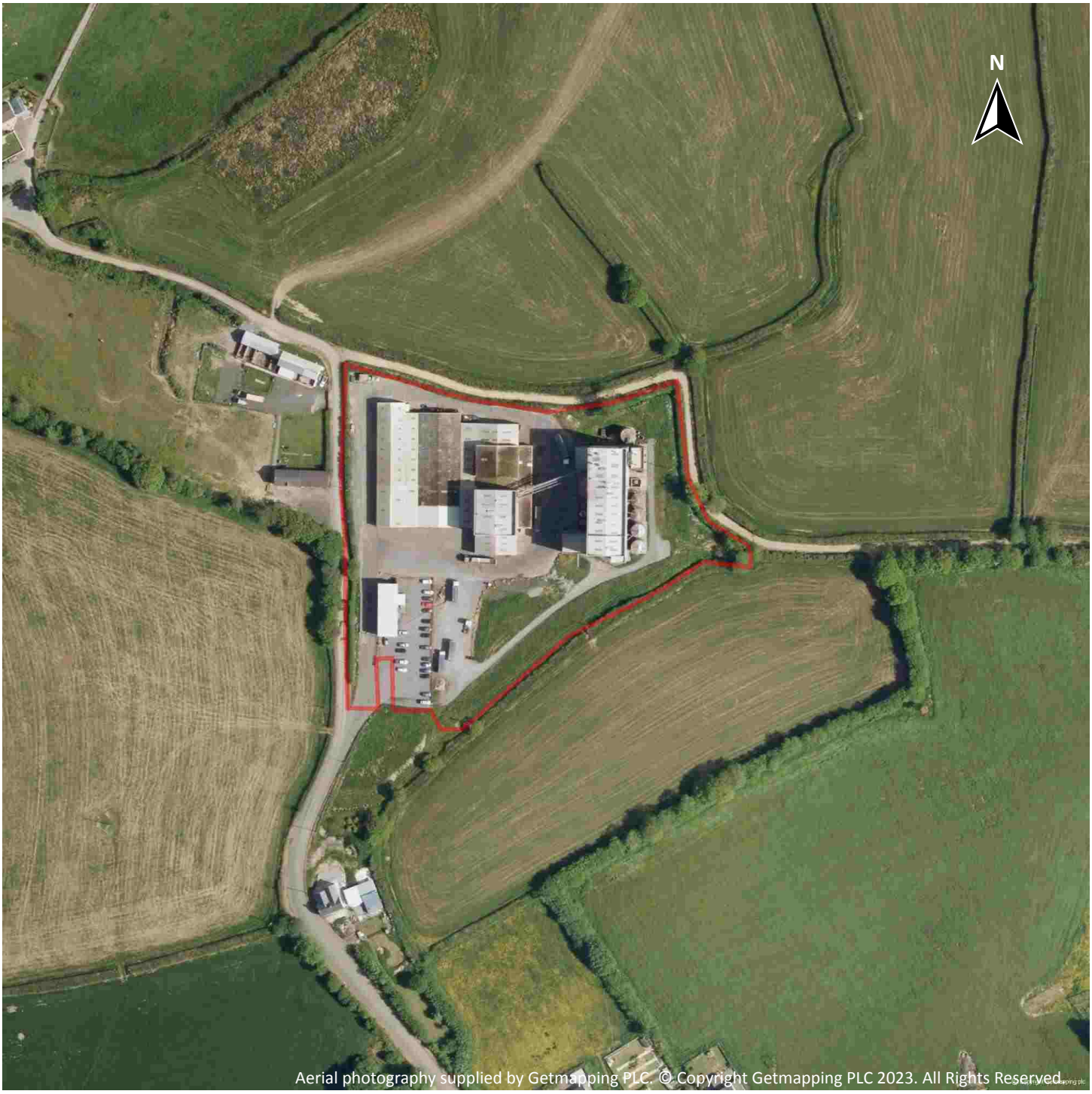
Recent site history - 2017 aerial photograph



Capture Date: 26/05/2017

Site Area: 1.87ha

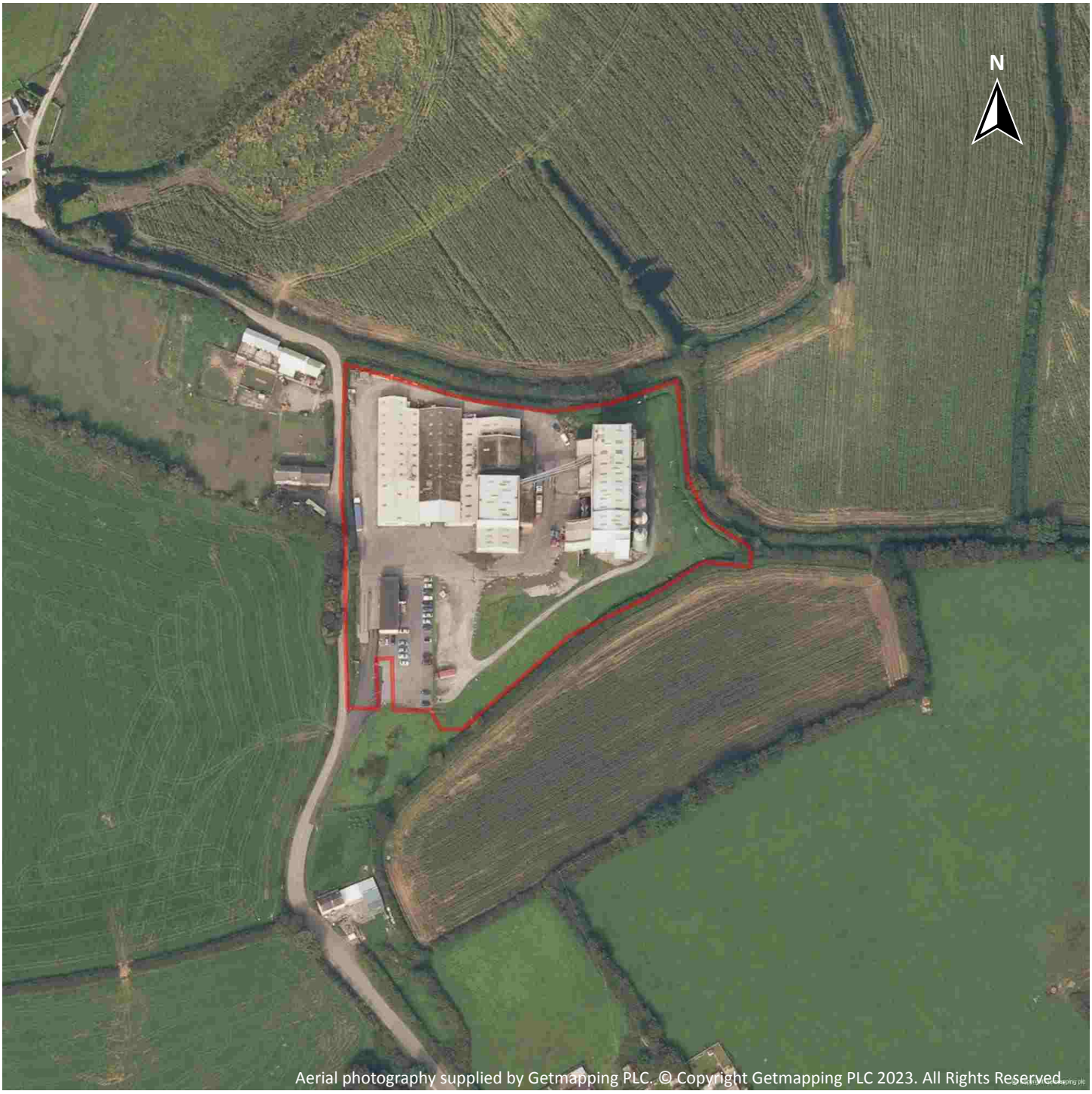
Recent site history - 2013 aerial photograph



Capture Date: 04/06/2013

Site Area: 1.87ha

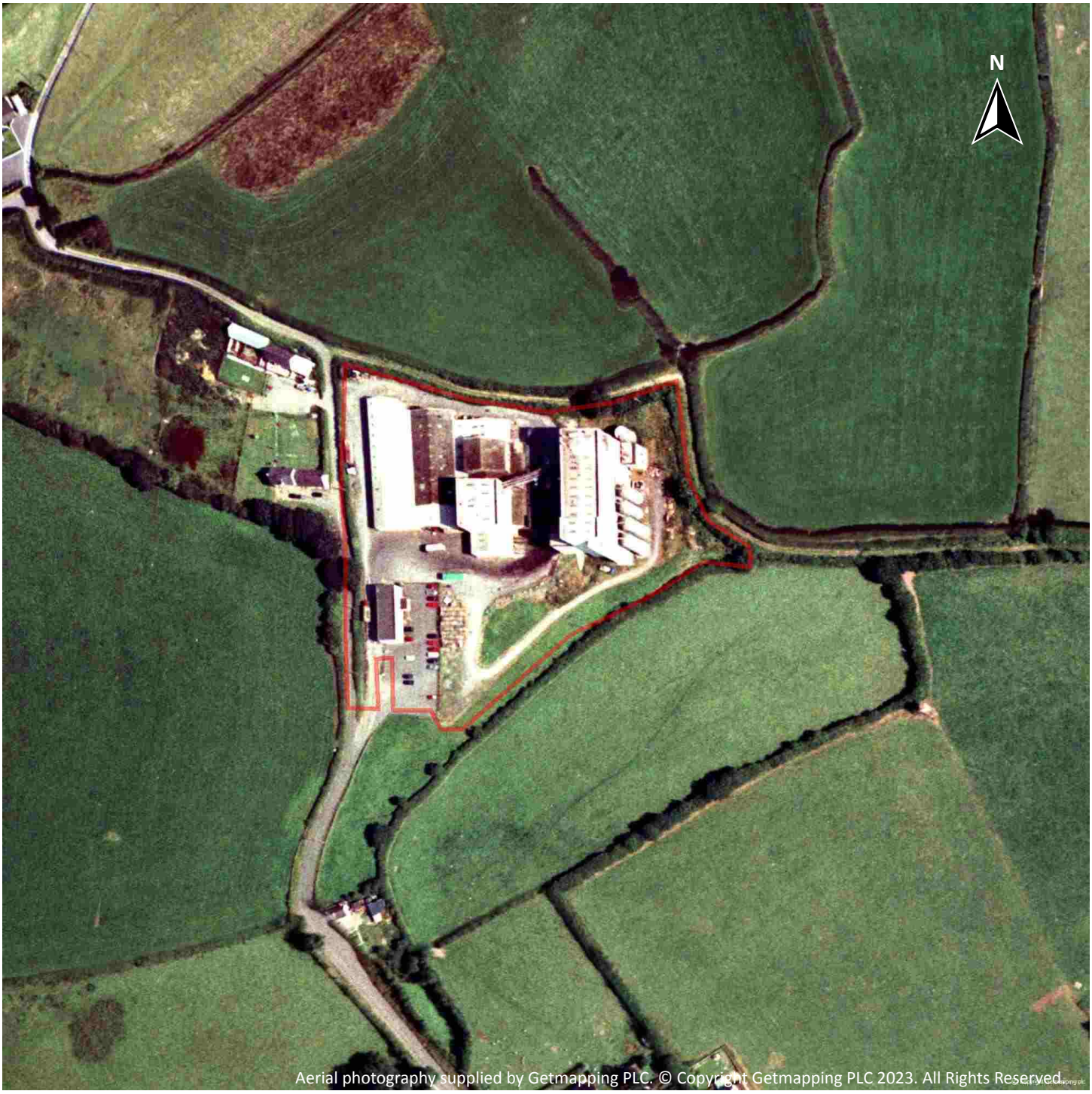
Recent site history - 2009 aerial photograph



Capture Date: 11/09/2009

Site Area: 1.87ha

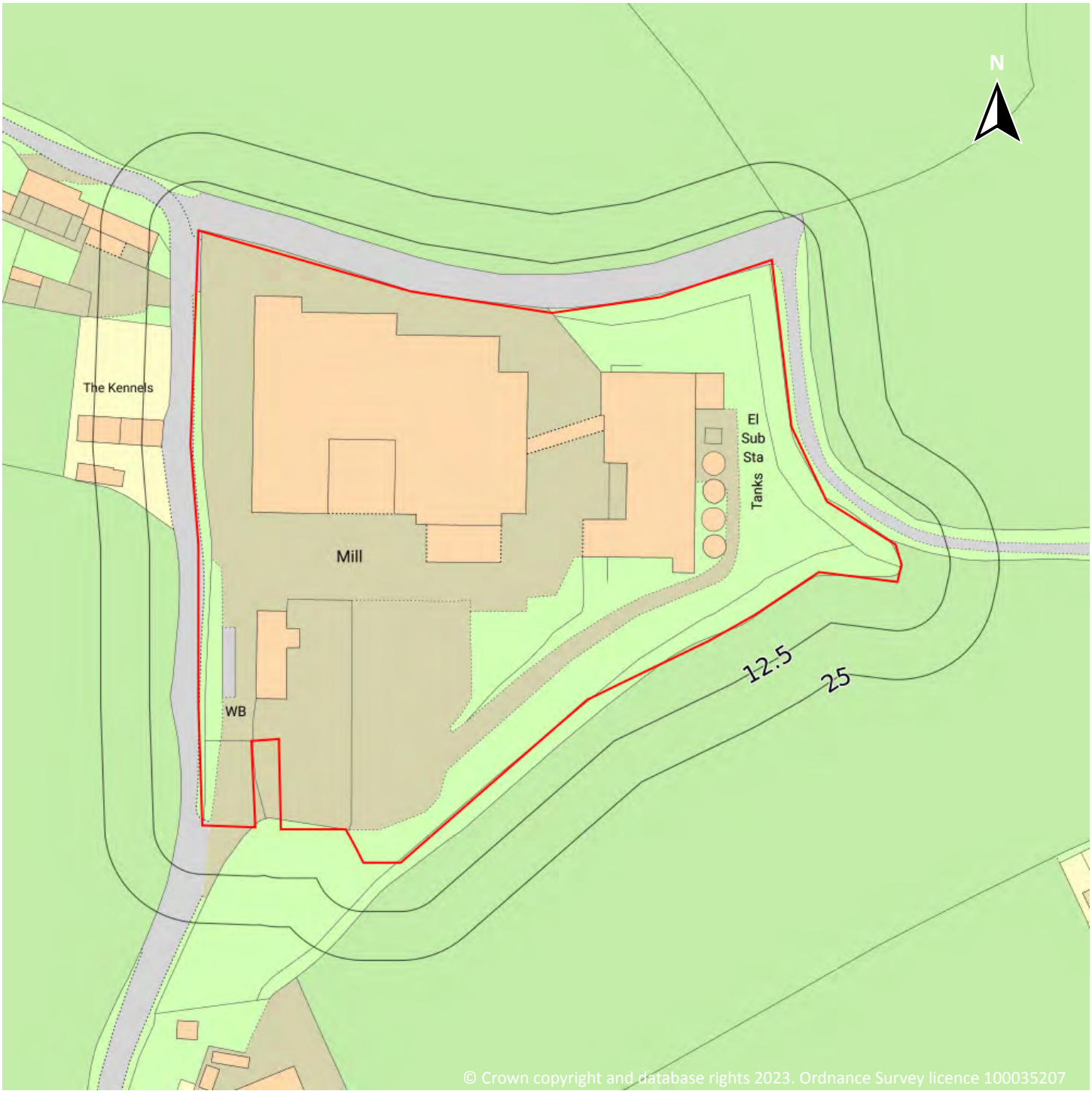
Recent site history - 2000 aerial photograph



Capture Date: 22/07/2000

Site Area: 1.87ha

OS MasterMap site plan



Site Area: 1.87ha

1 Past land use



Site Outline

Search buffers in metres (m)

Historical industrial land uses

Historical tanks

Historical energy features

1.1 Historical industrial land uses

Records within 500m	12

Potentially contaminative land use features digitised from historical Ordnance Survey mapping at 1:10,000 and 1:10,560 scale, intelligently grouped into contiguous features. To prevent misrepresentation of the size of historical features at any given time, features are only grouped if they have similar geometries within immediately preceding or succeeding map editions. See section 2 for a breakdown of grouping if required. Grouped and the original un-grouped features can be cross-referenced across sections 1 and 2 using the 'Group ID'.

Features are displayed on the Past land use map on **page 14 >**

ID	Location	Land use	Dates present	Group ID
A	**On site**	**Unspecified Mill**	**1992**	**261796**

ID	Location	Land use	Dates present	Group ID
A	**On site**	**Unspecified Warehouse**	**1973**	**270326**
2	437m SE	Cuttings	1973	268748
D	458m S	Cuttings	1963	283135
E	460m S	Cuttings	1905	286171
E	461m S	Cuttings	1938	289669
E	461m S	Cuttings	1948	299304
3	464m S	Cuttings	1963	277548
D	464m S	Cuttings	1886	277542
E	474m S	Cuttings	1886	285878
F	492m SW	Electricity Substation	1973	299998
F	492m SW	Electricity Substation	1992	316693

This data is sourced from Ordnance Survey / Groundsure.

1.2 Historical tanks

Records within 500m	**11**

Tank features digitised from historical Ordnance Survey mapping at high-detail 1:1,250 and 1:2,500 scale, intelligently grouped into contiguous features. To prevent misrepresentation of the size of historical features at any given time, features are only grouped if they have similar geometries within immediately preceding or succeeding map editions. See section 2 for a breakdown of grouping if required. Grouped and the original un-grouped features can be cross-referenced across sections 1 and 2 using the 'Group ID'.

Features are displayed on the Past land use map on **page 14 >**

ID	Location	Land use	Dates present	Group ID
A	**On site**	**Tanks**	**1987**	**34737**
A	**On site**	**Tanks**	**1975**	**34738**
A	**On site**	**Unspecified Tank**	**1975**	**33249**
A	**On site**	**Tanks**	**1987**	**34739**
A	**On site**	**Tanks**	**1987**	**34740**
B	55m W	Unspecified Tank	1987	35804
B	57m W	Unspecified Tank	1975	35050

ID	Location	Land use	Dates present	Group ID
B	58m W	Unspecified Tank	1968	35435
C	99m E	Unspecified Tank	1968 - 1975	36327
C	101m E	Unspecified Tank	1987	36377
1	179m E	Unspecified Tank	1987	33247

This data is sourced from Ordnance Survey / Groundsure.

1.3 Historical energy features

Records within 500m **2**

Energy features digitised from historical Ordnance Survey mapping at high-detail 1:1,250 and 1:2,500 scale, intelligently grouped into contiguous features. To prevent misrepresentation of the size of historical features at any given time, features are only grouped if they have similar geometries within immediately preceding or succeeding map editions. See section 2 for a breakdown of grouping if required. Grouped and the original un-grouped features can be cross-referenced across sections 1 and 2 using the 'Group ID'.

Features are displayed on the Past land use map on **page 14 >**

ID	Location	Land use	Dates present	Group ID
A	**On site**	**Electricity Substation**	**1987**	**17406**
F	492m SW	Electricity Substation	1969 - 1987	18845

This data is sourced from Ordnance Survey / Groundsure.

1.4 Historical petrol stations

Records within 500m **0**

Petrol stations digitised from historical Ordnance Survey mapping at high-detail 1:1,250 and 1:2,500 scale, intelligently grouped into contiguous features. To prevent misrepresentation of the size of historical features at any given time, features are only grouped if they have similar geometries within immediately preceding or succeeding map editions. See section 2 for a breakdown of grouping if required. Grouped and the original un-grouped features can be cross-referenced across sections 1 and 2 using the 'Group ID'.

This data is sourced from Ordnance Survey / Groundsure.

1.5 Historical garages

Records within 500m	0

Garages digitised from historical Ordnance Survey mapping at high-detail 1:1,250 and 1:2,500 scale, intelligently grouped into contiguous features. To prevent misrepresentation of the size of historical features at any given time, features are only grouped if they have similar geometries within immediately preceding or succeeding map editions. See section 2 for a breakdown of grouping if required. Grouped and the original un-grouped features can be cross-referenced across sections 1 and 2 using the 'Group ID'.

This data is sourced from Ordnance Survey / Groundsure.

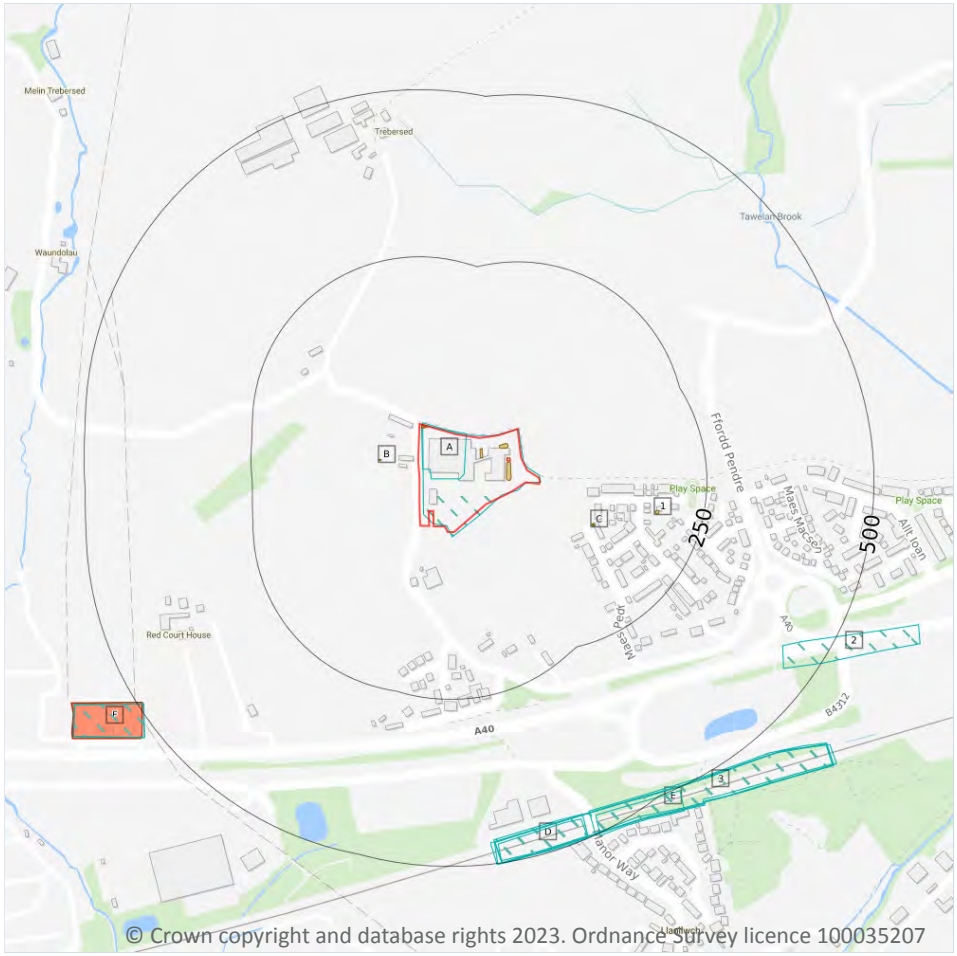
1.6 Historical military land

Records within 500m	0

Areas of military land digitised from multiple sources including the National Archives, local records, MOD records and verified other sources, intelligently grouped into contiguous features.

This data is sourced from Ordnance Survey / Groundsure / other sources.

2 Past land use - un-grouped



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Site Outline

Search buffers in metres (m)

Historical industrial land uses

Historical tanks

Historical energy features

2.1 Historical industrial land uses

Records within 500m	12

Potentially contaminative land use features digitised from historical Ordnance Survey mapping at 1:10,000 and 10,560 scale. Any records shown are available intelligently grouped in section 1. Grouped and the original un-grouped features can be cross-referenced across sections 1 and 2 using the 'Group ID'.

Features are displayed on the Past land use - un-grouped map on **page 18 >**

ID	Location	Land Use	Date	Group ID
A	**On site**	**Unspecified Warehouse**	**1973**	**270326**
A	**On site**	**Unspecified Mill**	**1992**	**261796**
2	437m SE	Cuttings	1973	268748

ID	Location	Land Use	Date	Group ID
D	458m S	Cuttings	1963	283135
E	460m S	Cuttings	1905	286171
E	461m S	Cuttings	1938	289669
E	461m S	Cuttings	1948	299304
3	464m S	Cuttings	1963	277548
D	464m S	Cuttings	1886	277542
E	474m S	Cuttings	1886	285878
F	492m SW	Electricity Substation	1973	299998
F	492m SW	Electricity Substation	1992	316693

This data is sourced from Ordnance Survey / Groundsure.

2.2 Historical tanks

Records within 500m	**12**

Tank features digitised from historical Ordnance Survey mapping at high-detail 1:1,250 and 1:2,500 scale. Any records shown are available intelligently grouped in section 1. Grouped and the original un-grouped features can be cross-referenced across sections 1 and 2 using the 'Group ID'.

Features are displayed on the Past land use - un-grouped map on **page 18 >**

ID	Location	Land Use	Date	Group ID
A	**On site**	**Unspecified Tank**	**1975**	**33249**
A	**On site**	**Tanks**	**1975**	**34738**
A	**On site**	**Tanks**	**1987**	**34740**
A	**On site**	**Tanks**	**1987**	**34737**
A	**On site**	**Tanks**	**1987**	**34739**
B	55m W	Unspecified Tank	1987	35804
B	57m W	Unspecified Tank	1975	35050
B	58m W	Unspecified Tank	1968	35435
C	99m E	Unspecified Tank	1975	36327
C	99m E	Unspecified Tank	1968	36327
C	101m E	Unspecified Tank	1987	36377

ID	Location	Land Use	Date	Group ID
1	179m E	Unspecified Tank	1987	33247

This data is sourced from Ordnance Survey / Groundsure.

2.3 Historical energy features

Records within 500m	3

Energy features digitised from historical Ordnance Survey mapping at high-detail 1:1,250 and 1:2,500 scale. Any records shown are available intelligently grouped in section 1. Grouped and the original un-grouped features can be cross-referenced across sections 1 and 2 using the 'Group ID'.

Features are displayed on the Past land use - un-grouped map on **page 18 >**

ID	Location	Land Use	Date	Group ID
A	**On site**	**Electricity Substation**	**1987**	**17406**
F	492m SW	Electricity Substation	1969	18845
F	493m SW	Electricity Substation	1987	18845

This data is sourced from Ordnance Survey / Groundsure.

2.4 Historical petrol stations

Records within 500m	0

Petrol stations digitised from historical Ordnance Survey mapping at high-detail 1:1,250 and 1:2,500 scale. Any records shown are available intelligently grouped in section 1. Grouped and the original un-grouped features can be cross-referenced across sections 1 and 2 using the 'Group ID'.

This data is sourced from Ordnance Survey / Groundsure.

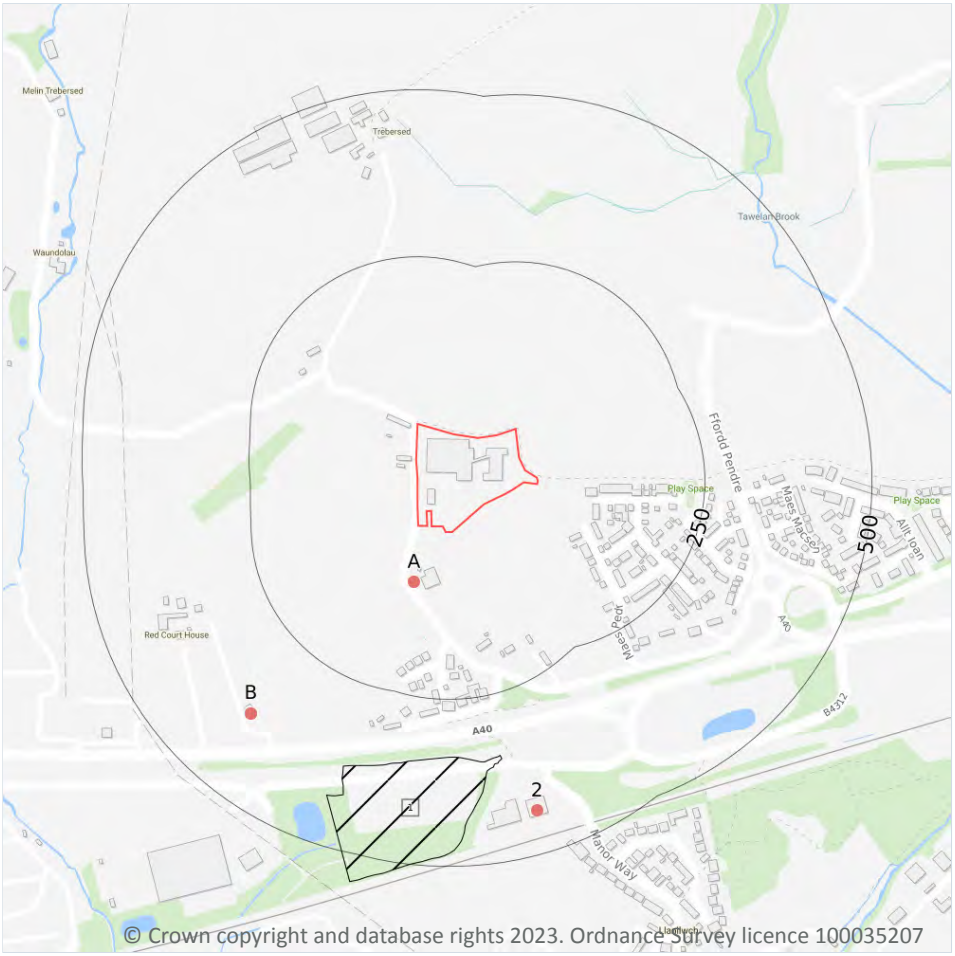
2.5 Historical garages

Records within 500m	0

Garages digitised from historical Ordnance Survey mapping at high-detail 1:1,250 and 1:2,500 scale. Any records shown are available intelligently grouped in section 1. Grouped and the original un-grouped features can be cross-referenced across sections 1 and 2 using the 'Group ID'.

This data is sourced from Ordnance Survey / Groundsure.

3 Waste and landfill



Site Outline

Search buffers in metres (m)

Historical landfill (EA/NRW)

Waste exemptions

3.1 Active or recent landfill

Records within 500m	0

Active or recently closed landfill sites under Environment Agency/Natural Resources Wales regulation.

This data is sourced from the Environment Agency and Natural Resources Wales.

3.2 Historical landfill (BGS records)

Records within 500m	0

Landfill sites identified on a survey carried out on behalf of the DoE in 1973. These sites may have been closed or operational at this time.

This data is sourced from the British Geological Survey.

3.3 Historical landfill (LA/mapping records)

Records within 500m	0

Landfill sites identified from Local Authority records and high detail historical mapping.

This data is sourced from the Ordnance Survey/Groundsure and Local Authority records.

3.4 Historical landfill (EA/NRW records)

Records within 500m	1

Known historical (closed) landfill sites (e.g. sites where there is no PPC permit or waste management licence currently in force). This includes sites that existed before the waste licensing regime and sites that have been licensed in the past but where a licence has been revoked, ceased to exist or surrendered and a certificate of completion has been issued.

Features are displayed on the Waste and landfill map on **page 21 >**

ID	Location	Details		
1	336m S	Site Address: Glyn Siw, Llanllwach, Carmarthen, Carmarthenshire Licence Holder Address: -	Waste Licence: - Site Reference: - Waste Type: Inert, Industrial, Household Environmental Permitting Regulations (Waste) Reference: - Licence Issue: - Licence Surrender: -	Operator: - Licence Holder: Ffynnon Plant Crymuch First Recorded 31/12/1989 Last Recorded: 31/12/1992

This data is sourced from the Environment Agency and Natural Resources Wales.

3.5 Historical waste sites

Records within 500m	0

Waste site records derived from Local Authority planning records and high detail historical mapping.

This data is sourced from Ordnance Survey/Groundsure and Local Authority records.

3.6 Licensed waste sites

Records within 500m	0

Active or recently closed waste sites under Environment Agency/Natural Resources Wales regulation.

This data is sourced from the Environment Agency and Natural Resources Wales.

3.7 Waste exemptions

Records within 500m	13

Activities involving the storage, treatment, use or disposal of waste that are exempt from needing a permit. Exemptions have specific limits and conditions that must be adhered to.

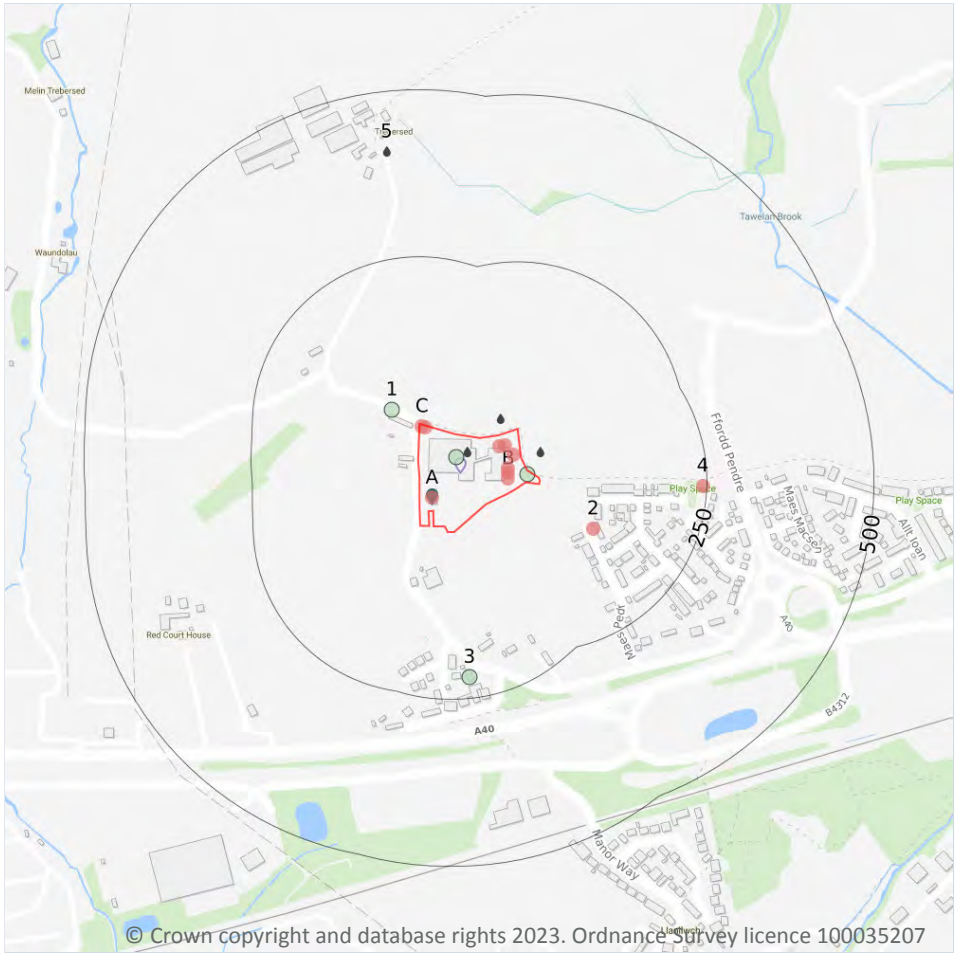
Features are displayed on the Waste and landfill map on **page 21 >**

ID	Location	Site	Reference	Category	Sub-Category	Description
A	85m SW	The Kennels, Llysonnen Road, Carmarthen, Carmarthen, Sir Gaerfyrddin, SA31 3RP	NRW-WME049069	Storing waste exemption	Not on a farm	Storage of waste in a secure place
A	85m SW	The Kennels, Llysonnen Road, Carmarthen, Carmarthen, Sir Gaerfyrddin, SA31 3RP	NRW-WME049069	Using waste exemption	Not on a farm	Use of baled end-of-life tyres in construction
B	376m SW	UNITED COUNTIES AGRICULTRAL & HUNTER SOCIETY, NANTYCI, LLYSONEN ROAD, CARMARTHEN, CARMARTHENSHIRE, SA335DR	NRW-WME029813	Using waste exemption	Not on a farm	Use of waste in construction
B	377m SW	Redcourt Farm, Llysonnen Road, Carmarthen, Caerfyrddin, Carmarthenshire, SA335DR	NRW-WME019086	Using waste exemption	On a farm	Use of waste in construction
B	377m SW	Redcourt Farm, Llysonnen Road, Carmarthen, Caerfyrddin, Carmarthenshire, SA335DR	NRW-WME019086	Treating waste exemption	On a farm	Treatment of waste wood and waste plant matter by chipping, shredding, cutting or pulverising
B	377m SW	Redcourt Farm, Llysonnen Road, Carmarthen, Caerfyrddin, Carmarthenshire, SA335DR	NRW-WME019086	Disposing of waste exemption	On a farm	Disposal by incineration
B	377m SW	Redcourt Farm, Llysonnen Road, Carmarthen, Caerfyrddin, Carmarthenshire, SA335DR	NRW-WME019086	Treating waste exemption	On a farm	Recovery of scrap metal

ID	Location	Site	Reference	Category	Sub-Category	Description
B	377m SW	Redcourt Farm, Llysonnen Road, Carmarthen, Caerfyrddin, Carmarthenshire, SA335DR	NRW-WME019086	Using waste exemption	On a farm	Spreading waste on agricultural land to confer benefit
B	377m SW	Redcourt Farm, Llysonnen Road, Carmarthen, Caerfyrddin, Carmarthenshire, SA335DR	NRW-WME019086	Storing waste exemption	On a farm	Storage of waste in a secure place
B	377m SW	Redcourt Farm, Llysonnen Road, Carmarthen, Caerfyrddin, Carmarthenshire, SA335DR	NRW-WME019086	Disposing of waste exemption	On a farm	Deposit of waste from dredging of inland waters
B	377m SW	Redcourt Farm, Llysonnen Road, Carmarthen, Caerfyrddin, Carmarthenshire, SA335DR	NRW-WME019086	Disposing of waste exemption	On a farm	Burning waste in the open
B	377m SW	Redcourt Farm, Llysonnen Road, Carmarthen, Caerfyrddin, Carmarthenshire, SA335DR	NRW-WME019086	Using waste exemption	On a farm	Spreading of plant matter to confer benefit
2	436m S	CVS Group, Carmarthen Veterinary Centre & Hospital, Llysonnen Road, Llanllwch, Carmarthen, Sir Gaerfyrddin, SA31 3SA	NRW-WME068187	Treating waste exemption	Not on a farm	Sorting and de-naturing of controlled drugs for disposal

This data is sourced from the Environment Agency and Natural Resources Wales.

4 Current industrial land use



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Site Outline

Search buffers in metres (m)

Recent industrial land uses

Part A(1) industrial activities

Licensed pollutant release (Part A(2)/B)

Licensed Discharges to controlled waters

Pollution Incidents (EA/NRW)

4.1 Recent industrial land uses

Records within 250m	11

Current potentially contaminative industrial sites.

Features are displayed on the Current industrial land use map on **page 25 >**

ID	Location	Company	Address	Activity	Category
A	**On site**	**Wynnstay Group Plc**	**Wynnstay, Llysonnen Road, Carmarthen, Dyfed, SA31 3SG**	**Agricultural Machinery and Goods**	**Industrial Products**
B	**On site**	**Tank**	**Dyfed, SA31**	**Tanks (Generic)**	**Industrial Features**
B	**On site**	**Electricity Sub Station**	**Dyfed, SA31**	**Electrical Features**	**Infrastructure and Facilities**

ID	Location	Company	Address	Activity	Category
B	**On site**	**Tank**	**Dyfed, SA31**	**Tanks (Generic)**	**Industrial Features**
B	**On site**	**Tank**	**Dyfed, SA31**	**Tanks (Generic)**	**Industrial Features**
B	**On site**	**Tank**	**Dyfed, SA31**	**Tanks (Generic)**	**Industrial Features**
B	**On site**	**Tank**	**Dyfed, SA31**	**Tanks (Generic)**	**Industrial Features**
C	**On site**	**Tank**	**Dyfed, SA31**	**Tanks (Generic)**	**Industrial Features**
C	**On site**	**Tank**	**Dyfed, SA31**	**Tanks (Generic)**	**Industrial Features**
2	105m SE	Tank	Dyfed, SA31	Tanks (Generic)	Industrial Features
4	244m E	Electricity Sub Station	Dyfed, SA31	Electrical Features	Infrastructure and Facilities

This data is sourced from Ordnance Survey.

4.2 Current or recent petrol stations

Records within 500m	**0**

Open, closed, under development and obsolete petrol stations.

This data is sourced from Experian.

4.3 Electricity cables

Records within 500m	**0**

High voltage underground electricity transmission cables.

This data is sourced from National Grid.

4.4 Gas pipelines

Records within 500m	**0**

High pressure underground gas transmission pipelines.

This data is sourced from National Grid.

4.5 Sites determined as Contaminated Land

Records within 500m	0

Contaminated Land Register of sites designated under Part 2a of the Environmental Protection Act 1990.

This data is sourced from Local Authority records.

4.6 Control of Major Accident Hazards (COMAH)

Records within 500m	0

Control of Major Accident Hazards (COMAH) sites. This data includes upper and lower tier sites, and includes a historical archive of COMAH sites and Notification of Installations Handling Hazardous Substances (NIHHS) records.

This data is sourced from the Health and Safety Executive.

4.7 Regulated explosive sites

Records within 500m	0

Sites registered and licensed by the Health and Safety Executive under the Manufacture and Storage of Explosives Regulations 2005 (MSER). The last update to this data was in April 2011.

This data is sourced from the Health and Safety Executive.

4.8 Hazardous substance storage/usage

Records within 500m	0

Consents granted for a site to hold certain quantities of hazardous substances at or above defined limits in accordance with the Planning (Hazardous Substances) Regulations 2015.

This data is sourced from Local Authority records.

4.9 Historical licensed industrial activities (IPC)

Records within 500m	0

Integrated Pollution Control (IPC) records of substance releases to air, land and water. This data represents a historical archive as the IPC regime has been superseded.

This data is sourced from the Environment Agency and Natural Resources Wales.

4.10 Licensed industrial activities (Part A(1))

Records within 500m	5

Records of Part A(1) installations regulated under the Environmental Permitting (England and Wales) Regulations 2016 for the release of substances to the environment.

Features are displayed on the Current industrial land use map on **page 25 >**

ID	Location	Details	
B	**On site**	**Operator: WYNNSTAY GROUP PLC** **Installation Name: LLYSONNEN MILL** **Process: TREATMENT AND PROCESSING, OTHER THAN EXCLUSIVELY PACKAGING, OF THE FOLLOWING RAW...** **Permit Number: EP3034GS** **Original Permit Number: UP3735HF**	**EPR Reference: -** **Issue Date: 19/02/2018** **Effective Date: 19/02/2018** **Last date noted as effective: 01/04/2018** **Status: EFFECTIVE**
B	**On site**	**Operator: WYNNSTAY GROUP PLC** **Installation Name: LLYSONNEN MILL EPR/EP3034GS** **Process: -** **Permit Number: EP3034GS** **Original Permit Number: UP3735HF**	**EPR Reference: -** **Issue Date: 05/10/2010** **Effective Date: 05/10/2010** **Last date noted as effective: 01/12/2016** **Status: EFFECTIVE**
B	**On site**	**Operator: WYNNSTAY GROUP PLC** **Installation Name: LLYSONNEN MILL EA/EPR/EP3034GS/A001** **Process: ANIMAL VEGETABLE AND FOOD; TREATING ETC VEGETABLE RAW MATERIALS FOR FOOD >300T/D** **Permit Number: EP3034GS** **Original Permit Number: EP3034GS**	**EPR Reference: -** **Issue Date: 05/07/2010** **Effective Date: 05/07/2010** **Last date noted as effective: 17/11/2015** **Status: SUPERCEDED**
B	**On site**	**Operator: WYNNSTAY GROUP PLC** **Installation Name: LLYSONNEN MILL EPR/EP3034GS** **Process: ANIMAL VEGETABLE AND FOOD; TREATING ETC VEGETABLE RAW MATERIALS FOR FOOD >300T/D** **Permit Number: UP3735HF** **Original Permit Number: EP3034GS**	**EPR Reference: -** **Issue Date: 05/10/2010** **Effective Date: 05/10/2010** **Last date noted as effective: 17/11/2015** **Status: EFFECTIVE**

ID	Location	Details	
B	**On site**	**Operator: Wynnstay Group PLC** **Installation Name: Llysonnen Mill** **Process: TREATMENT AND PROCESSING, OTHER THAN EXCLUSIVELY PACKAGING, OF THE FOLLOWING RAW MATERIALS, WHETHER PREVIOUSLY PROCESSED OR UNPROCESSED, INTENDED FOR THE PRODUCTION OF FOOD OR FEED (WHERE THE WEIGHT OF THE FINISHED PRODUCT EXCLUDES PACKAGING)—ONLY VEGETABLE RAW MATERIALS WITH A FINISHED PRODUCT PRODUCTION CAPACITY GREATER THAN 300 TONNES PER DAY OR 600 TONNES PER DAY WHERE THE INSTALLATION OPERATES FOR A PERIOD OF NO MORE THAN 90 CONSECUTIVE DAYS IN ANY YEAR** **Permit Number: EP3034GS** **Original Permit Number: -**	**EPR Reference: -** **Issue Date: 26/01/2022** **Effective Date: 26/01/2022** **Last date noted as effective: 21/03/2023** **Status: Effective**

This data is sourced from the Environment Agency and Natural Resources Wales.

4.11 Licensed pollutant release (Part A(2)/B)

Records within 500m	**1**

Records of Part A(2) and Part B installations regulated under the Environmental Permitting (England and Wales) Regulations 2016 for the release of substances to the environment.

Features are displayed on the Current industrial land use map on **page 25 >**

ID	Location	Address	Details	
A	**On site**	**Wynstay Group Plc (WFP), Llysonnen Mill, Travellers Rest, Carmarthen, SA31 3SG**	**Process: Animal Feed Compound** **Status: Historical Permit** **Permit Type: Part B**	**Enforcement: No Enforcements Notified** **Date of enforcement: No Enforcements Notified** **Comment: No Enforcements Notified**

This data is sourced from Local Authority records.

4.12 Radioactive Substance Authorisations

Records within 500m	**0**

Records of the storage, use, accumulation and disposal of radioactive substances regulated under the Radioactive Substances Act 1993.

This data is sourced from the Environment Agency and Natural Resources Wales.

4.13 Licensed Discharges to controlled waters

Records within 500m	5

Discharges of treated or untreated effluent to controlled waters under the Water Resources Act 1991.

Features are displayed on the Current industrial land use map on **page 25 >**

ID	Location	Address	Details	
B	**On site**	**WELSH FEED PRODUCERS, SEPTIC TANK, LLYSONNEN MILL, CARMARTHEN**	**Effluent Type: UNSPECIFIED Permit Number: BN0247301 Permit Version: 1 Receiving Water: UNNAMED TRIB TAWELAN BROOK**	**Status: CONSENT EXPIRED - TIME LIMIT Issue date: 25/08/1981 Effective Date: 25/08/1981 Revocation Date: 05/10/1993**
B	**On site**	**WELSH FEED PRODUCERS, SEPTIC TANK, LLYSONNEN MILL, CARMARTHEN**	**Effluent Type: - Permit Number: BN0128901 Permit Version: 0 Receiving Water: TAWELON BROOK**	**Status: Effective Issue date: 19/12/1975 Effective Date: 19/12/1975 Revocation Date: -**
B	22m NE	DALOETY AGRICULTURE LLYSONNEN MILL, DALOETY AGRICULTURE LLYSONNEN MI, LLYSONNEN MILL TRAVELLERS REST C, TRAVELLERS REST CARMARTHEN, CARMARTHEN	Effluent Type: UNSPECIFIED Permit Number: BN0243102 Permit Version: 1 Receiving Water: TAWELAN BROOK	Status: CONSENT EXPIRED - TIME LIMIT Issue date: 11/03/1981 Effective Date: 11/03/1981 Revocation Date: 05/10/1993
B	29m E	LLYSONNEN MILL TRAVELLERS REST CAR, LLYSONNEN MILL TRAVELLERS REST, TRAVELLERS REST CARMARTHEN, CARMARTHEN, CARMARTHEN, CARMARTHEN	Effluent Type: TRADE DISCHARGES - UNSPECIFIED Permit Number: BN0243101 Permit Version: 0 Receiving Water: A TRIBUTARY OF THE TAWELAN BRO	Status: Effective Issue date: 05/10/1993 Effective Date: 05/10/1993 Revocation Date: -
5	410m N	TREBERSED ST. PETERS CARMARTHEN DYF, TREBERSED ST. PETERS CARMARTHEN, ST. PETERS CARMARTHEN DYFED, CARMARTHEN DYFED, DYFED.	Effluent Type: UNSPECIFIED Permit Number: BP0066701 Permit Version: 1 Receiving Water: TO LAND	Status: CONSENT EXPIRED - TIME LIMIT Issue date: 16/10/1987 Effective Date: 16/10/1987 Revocation Date: 29/04/1994

This data is sourced from the Environment Agency and Natural Resources Wales.

4.14 Pollutant release to surface waters (Red List)

Records within 500m	0

Discharges of specified substances under the Environmental Protection (Prescribed Processes and Substances) Regulations 1991.

This data is sourced from the Environment Agency and Natural Resources Wales.

4.15 Pollutant release to public sewer

Records within 500m	0

Discharges of Special Category Effluents to the public sewer.

This data is sourced from the Environment Agency and Natural Resources Wales.

4.16 List 1 Dangerous Substances

Records within 500m	0

Discharges of substances identified on List I of European Directive E 2006/11/EC, and regulated under the Environmental Damage (Prevention and Remediation) Regulations 2015.

This data is sourced from the Environment Agency and Natural Resources Wales.

4.17 List 2 Dangerous Substances

Records within 500m	0

Discharges of substances identified on List II of European Directive E 2006/11/EC, and regulated under the Environmental Damage (Prevention and Remediation) Regulations 2015.

This data is sourced from the Environment Agency and Natural Resources Wales.

4.18 Pollution Incidents (EA/NRW)

Records within 500m	4

Records of substantiated pollution incidents. Since 2006 this data has only included category 1 (major) and 2 (significant) pollution incidents.

Features are displayed on the Current industrial land use map on **page 25 >**

ID	Location	Details	
B	**On site**	**Incident Date: 10/02/2016** **Incident Identification: 1411292** **Pollutant: General Biodegradable Materials and Wastes** **Pollutant Description: Natural Organic Material**	**Water Impact: -** **Land Impact: Category 3 (Minor)** **Air Impact: Category 4 (No Impact)**
B	**On site**	**Incident Date: 04/12/2015** **Incident Identification: 1392225** **Pollutant: Pollutant Not Identified** **Pollutant Description: Not Identified**	**Water Impact: -** **Land Impact: Category 3 (Minor)** **Air Impact: Category 4 (No Impact)**

ID	Location	Details	
1	46m NW	Incident Date: 04/09/2014 Incident Identification: 1274197 Pollutant: Multiple Pollutants Pollutant Description: 2 Pollutants Including Other Animal Matter	Water Impact: - Land Impact: Category 4 (No Impact) Air Impact: Category 4 (No Impact)
3	217m S	Incident Date: 05/04/2013 Incident Identification: 1099748 Pollutant: Atmospheric Pollutants and Effects Pollutant Description: Dust	Water Impact: - Land Impact: Category 4 (No Impact) Air Impact: Category 4 (No Impact)

This data is sourced from the Environment Agency and Natural Resources Wales.

4.19 Pollution inventory substances

Records within 500m	0

The pollution inventory (substances) includes reporting on annual emissions of certain regulated substances to air, controlled waters and land. A reporting threshold for each substance is also included. Where emissions fall below the reporting threshold, no value will be given. The data is given for the most recent complete year available.

This data is sourced from the Environment Agency and the Scottish Environment Protection Agency.

4.20 Pollution inventory waste transfers

Records within 500m	0

The pollution inventory (waste transfers) includes reporting on annual transfers and recovery/disposal of controlled wastes from a site. A reporting threshold for each waste type is also included. Where releases fall below the reporting threshold, no value will be given. The data is given for the most recent complete year available.

This data is sourced from the Environment Agency and the Scottish Environment Protection Agency.

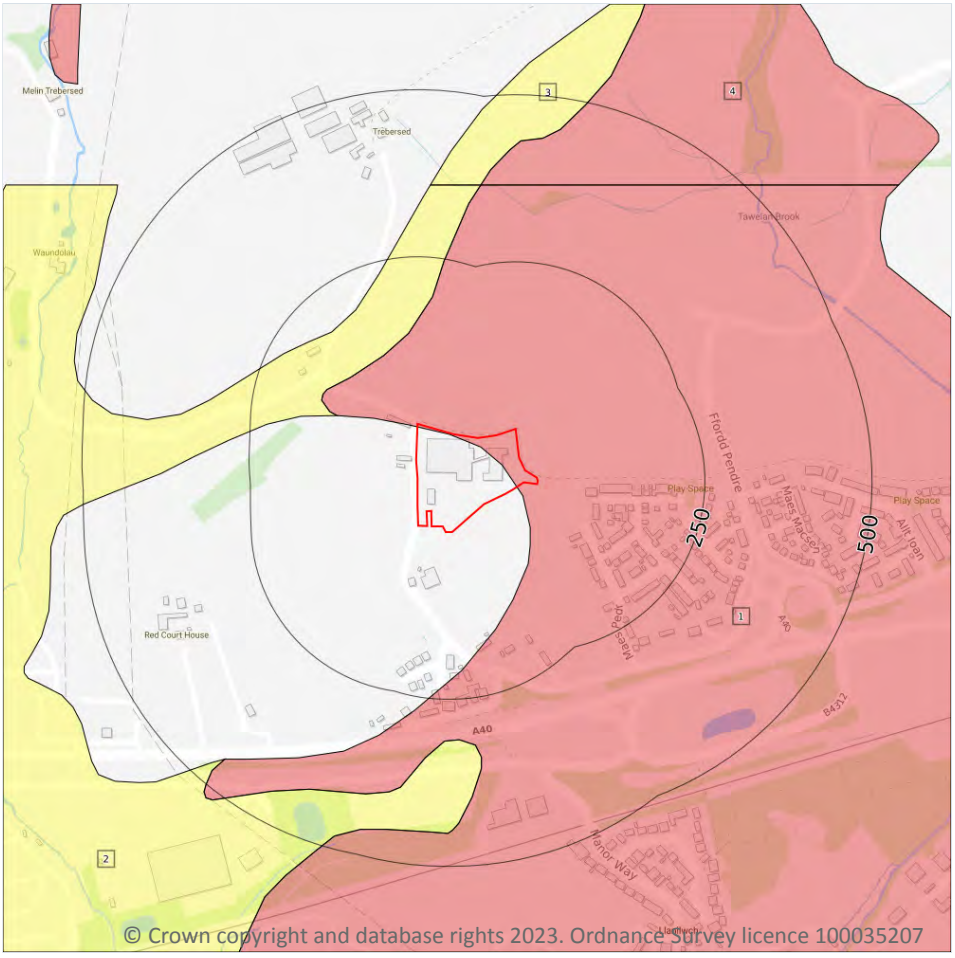
4.21 Pollution inventory radioactive waste

Records within 500m	0

The pollution inventory (radioactive wastes) includes reporting on annual releases of radioactive substances from a site, including the means of release. Where releases fall below the reporting threshold, no value will be given. The data is given for the most recent complete year available.

This data is sourced from the Environment Agency and the Scottish Environment Protection Agency.

5 Hydrogeology - Superficial aquifer



Site Outline

Search buffers in metres (m)

- Principal
- Secondary A
- Secondary B
- Secondary Undifferentiated
- Unproductive
- Unknown

5.1 Superficial aquifer

Records within 500m	4

Aquifer status of groundwater held within superficial geology.

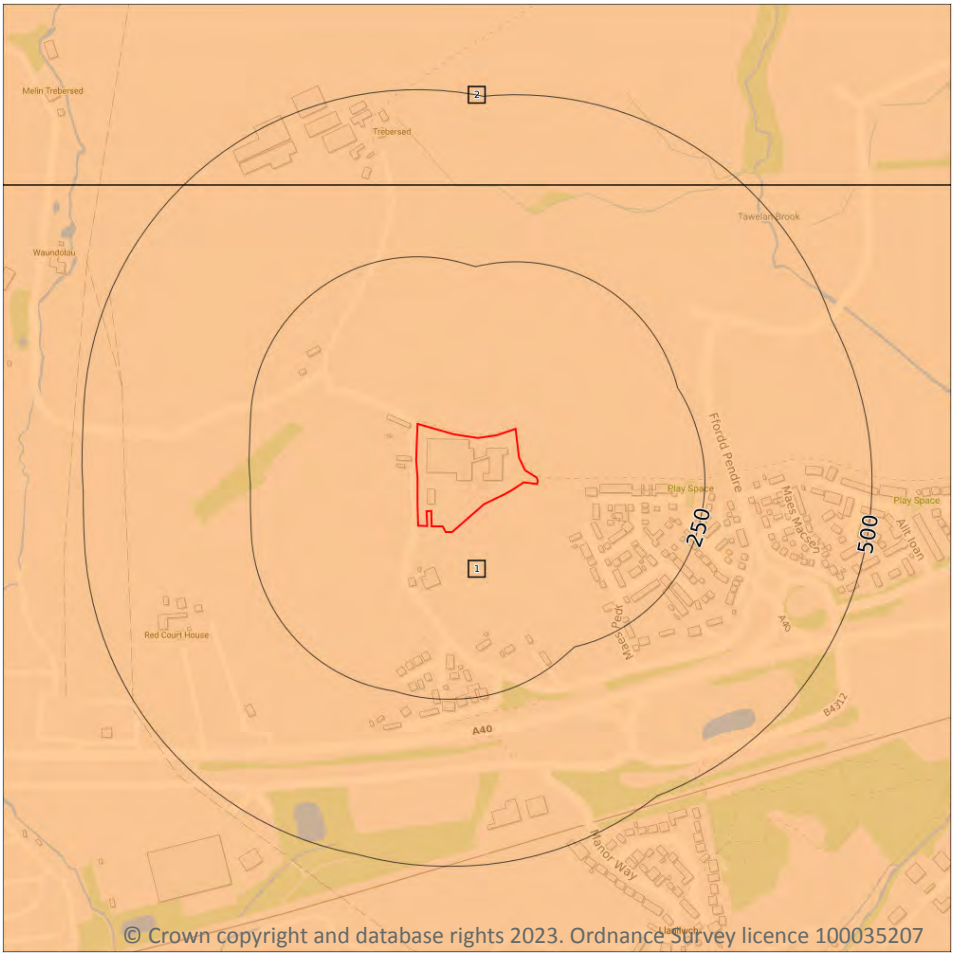
Features are displayed on the Hydrogeology map on **page 33 >**

ID	Location	Designation	Description
1	**On site**	**Secondary A**	**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. These are generally aquifers formerly classified as minor aquifers**
2	113m NW	Secondary Undifferentiated	Assigned where it is not possible to attribute either category A or B to a rock type. In general these layers have previously been designated as both minor and non-aquifer in different locations due to the variable characteristics of the rock type

ID	Location	Designation	Description
3	358m N	Secondary Undifferentiated	Assigned where it is not possible to attribute either category A or B to a rock type. In general these layers have previously been designated as both minor and non-aquifer in different locations due to the variable characteristics of the rock type
4	365m N	Secondary A	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. These are generally aquifers formerly classified as minor aquifers

This data is sourced from the British Geological Survey, the Environment Agency and Natural Resources Wales.

Bedrock aquifer



Site Outline

Search buffers in metres (m)

- Principal
- Secondary A
- Secondary B
- Secondary Undifferentiated
- Unproductive

5.2 Bedrock aquifer

Records within 500m	2

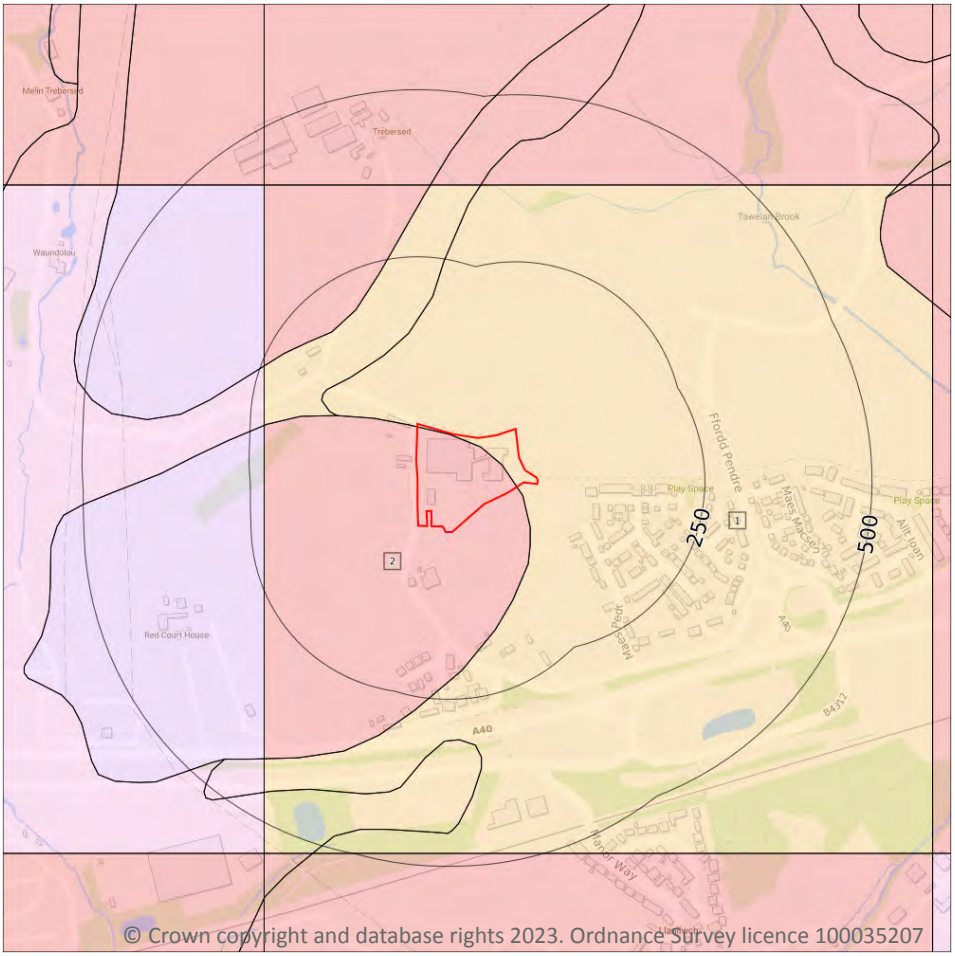
Aquifer status of groundwater held within bedrock geology.

Features are displayed on the Bedrock aquifer map on **page 35 >**

ID	Location	Designation	Description
1	**On site**	**Secondary B**	**Predominantly lower permeability layers which may store/yield limited amounts of groundwater due to localised features such as fissures, thin permeablehorizons and weathering. These are generally the water-bearing parts of the former non-aquifers**
2	357m N	Secondary B	Predominantly lower permeability layers which may store/yield limited amounts of groundwater due to localised features such as fissures, thin permeablehorizons and weathering. These are generally the water-bearing parts of the former non-aquifers

This data is sourced from the British Geological Survey, the Environment Agency and Natural Resources Wales.

Groundwater vulnerability



Site Outline

Search buffers in metres (m)

Superficial vulnerability

- Principal superficial aquifer, high vulnerability
- Secondary superficial aquifer, high vulnerability
- Principal superficial aquifer, medium vulnerability
- Secondary superficial aquifer, medium vulnerability
- Principal superficial aquifer, low vulnerability
- Secondary superficial aquifer, low vulnerability

Bedrock vulnerability

- Principal bedrock aquifer, high vulnerability
- Secondary bedrock aquifer, high vulnerability
- Principal bedrock aquifer, medium vulnerability
- Secondary bedrock aquifer, medium vulnerability
- Principal bedrock aquifer, low vulnerability
- Secondary bedrock aquifer, low vulnerability

Other information

- Unproductive aquifer
- Soluble rock risk
- Local information

5.3 Groundwater vulnerability

Records within 50m	2

An assessment of the vulnerability of groundwater to a pollutant discharged at ground level based on the hydrological, geological, hydrogeological and soil properties within a one kilometre square grid. Groundwater vulnerability is described as High, Medium or Low as follows:

- High - Areas able to easily transmit pollution to groundwater. They are likely to be characterised by high leaching soils and the absence of low permeability superficial deposits.
- Medium - Intermediate between high and low vulnerability.
- Low - Areas that provide the greatest protection from pollution. They are likely to be characterised by low leaching soils and/or the presence of superficial deposits characterised by a low permeability.

Features are displayed on the Groundwater vulnerability map on **page 37 >**

ID	Location	Summary	Soil / surface	Superficial geology	Bedrock geology
1	On site	Summary Classification: Secondary superficial aquifer - High Vulnerability Combined classification: Productive Bedrock Aquifer, Productive Superficial Aquifer	Leaching class: High Infiltration value: >70% Dilution value: >550mm/year	Vulnerability: High Aquifer type: Secondary Thickness: 3-10m Patchiness value: <90% Recharge potential: No Data	Vulnerability: High Aquifer type: Secondary Flow mechanism: Well connected fractures
2	On site	Summary Classification: Secondary bedrock aquifer - High Vulnerability Combined classification: Productive Bedrock Aquifer, No Superficial Aquifer	Leaching class: High Infiltration value: >70% Dilution value: >550mm/year	Vulnerability: - Aquifer type: - Thickness: 3-10m Patchiness value: <90% Recharge potential: No Data	Vulnerability: High Aquifer type: Secondary Flow mechanism: Well connected fractures

This data is sourced from the British Geological Survey, the Environment Agency and Natural Resources Wales.

5.4 Groundwater vulnerability- soluble rock risk

Records on site	0

This dataset identifies areas where solution features that enable rapid movement of a pollutant may be present within a 1km grid square.

This data is sourced from the British Geological Survey and the Environment Agency.

5.5 Groundwater vulnerability- local information

Records on site	0

This dataset identifies areas where additional local information affecting vulnerability is held by the Environment Agency. Further information can be obtained by contacting the Environment Agency local Area groundwater team through the Environment Agency National Customer Call Centre on 03798 506 506 or by email on enquiries@environment-agency.gov.uk ↗.

This data is sourced from the British Geological Survey and the Environment Agency.

Abstractions and Source Protection Zones



Site Outline

Search buffers in metres (m)

- Source Protection Zone 1 — Inner catchment
- Source Protection Zone 2 — Outer catchment
- Source Protection Zone 3 — Total catchment
- Source Protection Zone 4 — Zone of Special Interest
- Source Protection Zone 1c — Inner catchment - confined aquifer
- Source Protection Zone 2c — Outer catchment - confined aquifer
- Source Protection Zone 3c — Total catchment - confined aquifer
- Drinking water abstraction licences
- Drinking water abstraction licences — Polygon features
- Drinking water abstraction licences — Linear features
- Groundwater abstraction licence (point)
- Groundwater abstraction licence (area)
- Groundwater abstraction licence (linear)
- Surface Water Abstractions (point)
- Surface Water Abstractions (area)
- Surface Water Abstractions (linear)

5.6 Groundwater abstractions

Records within 2000m	9

Licensed groundwater abstractions for sites extracting more than 20 cubic metres of water a day and includes active and historical records. The data may be for a single abstraction point, between two points (line data) or a larger area.

Features are displayed on the Abstractions and Source Protection Zones map on **page 39 >**

ID	Location	Details	
-	1677m E	Status: Historical Licence No: 22/60/3/0022 Details: Effluent/Slurry Dilution Direct Source: EAW Groundwater Point: WELL IN THE COMMUNITY OF JOHNSTOWN Data Type: Point Name: Mekatek Ltd Easting: 240060 Northing: 219260	Annual Volume (m^3): 318226 Max Daily Volume (m^3): 1391.1 Original Application No: - Original Start Date: - Expiry Date: - Issue No: 100 Version Start Date: 23/06/1997 Version End Date: -
-	1677m E	Status: Historical Licence No: 22/60/3/0022 Details: Effluent/Slurry Dilution Direct Source: EAW Groundwater Point: WELL IN THE COMMUNITY OF JOHNSTOWN USED FOR BOTTLING Data Type: Point Name: Mekatek Ltd Easting: 240060 Northing: 219260	Annual Volume (m^3): 318226 Max Daily Volume (m^3): 1391.1 Original Application No: - Original Start Date: - Expiry Date: - Issue No: 100 Version Start Date: 23/06/1997 Version End Date: -
-	1677m E	Status: Historical Licence No: 22/60/3/0022 Details: Water Bottling Direct Source: EAW Groundwater Point: WELL IN THE COMMUNITY OF JOHNSTOWN Data Type: Point Name: Mekatek Ltd Easting: 240060 Northing: 219260	Annual Volume (m^3): 318226 Max Daily Volume (m^3): 1391.1 Original Application No: - Original Start Date: - Expiry Date: - Issue No: 100 Version Start Date: 23/06/1997 Version End Date: -
-	1677m E	Status: Historical Licence No: 22/60/3/0022 Details: Effluent/Slurry Dilution Direct Source: EAW Groundwater Point: WELL IN THE COMMUNITY OF JOHNSTOWN USED FOR BOTTLING Data Type: Point Name: Mekatek Ltd Easting: 240060 Northing: 219260	Annual Volume (m^3): 318226 Max Daily Volume (m^3): 1391.1 Original Application No: - Original Start Date: 23/06/1997 Expiry Date: - Issue No: 100 Version Start Date: 01/01/2007 Version End Date: -
-	1677m E	Status: Historical Licence No: 22/60/3/0022 Details: Water Bottling Direct Source: EAW Groundwater Point: WELL IN THE COMMUNITY OF JOHNSTOWN USED FOR BOTTLING Data Type: Point Name: Mekatek Ltd Easting: 240060 Northing: 219260	Annual Volume (m^3): 318226 Max Daily Volume (m^3): 1391.1 Original Application No: - Original Start Date: 23/06/1997 Expiry Date: - Issue No: 100 Version Start Date: 01/01/2007 Version End Date: -

ID	Location	Details	
-	1736m E	Status: Historical Licence No: 22/60/3/0022 Details: Effluent/Slurry Dilution Direct Source: EAW Groundwater Point: WELL IN THE COMMUNITY OF JOHNSTOWN Data Type: Point Name: Mekatek Ltd Easting: 240120 Northing: 219260	Annual Volume (m^3): 318226 Max Daily Volume (m^3): 1391.1 Original Application No: - Original Start Date: 23/06/1997 Expiry Date: - Issue No: 100 Version Start Date: 01/01/2007 Version End Date: -
-	1736m E	Status: Historical Licence No: 22/60/3/0022 Details: Water Bottling Direct Source: EAW Groundwater Point: WELL IN THE COMMUNITY OF JOHNSTOWN Data Type: Point Name: Mekatek Ltd Easting: 240120 Northing: 219260	Annual Volume (m^3): 318226 Max Daily Volume (m^3): 1391.1 Original Application No: - Original Start Date: 23/06/1997 Expiry Date: - Issue No: 100 Version Start Date: 01/01/2007 Version End Date: -
-	1736m E	Status: Active Licence No: 22/60/3/0022 Details: Water Bottling - Medium Direct Source: - Point: - Data Type: Point Name: - Easting: 240120 Northing: 219260	Annual Volume (m^3): 318226 Max Daily Volume (m^3): - Original Application No: - Original Start Date: 01/01/2007 Expiry Date: - Issue No: - Version Start Date: - Version End Date: -
-	1736m E	Status: Active Licence No: 22/60/3/0022 Details: Effluent / Slurry Dilution - Very Low Direct Source: - Point: - Data Type: Point Name: - Easting: 240120 Northing: 219260	Annual Volume (m^3): 318226 Max Daily Volume (m^3): - Original Application No: - Original Start Date: 01/01/2007 Expiry Date: - Issue No: - Version Start Date: - Version End Date: -

This data is sourced from the Environment Agency and Natural Resources Wales.

5.7 Surface water abstractions

Records within 2000m	**3**

Licensed surface water abstractions for sites extracting more than 20 cubic metres of water a day and includes active and historical records. The data may be for a single abstraction point, a stretch of watercourse or a larger area.

Features are displayed on the Abstractions and Source Protection Zones map on **page 39 >**

ID	Location	Details	
-	1721m E	Status: Historical Licence No: 22/60/3/0021 Details: Effluent/Slurry Dilution Direct Source: EAW Surface Water Point: TAWELAN BROOK Data Type: Point Name: Mekatek Ltd Easting: 240130 Northing: 219500	Annual Volume (m^3): 340956 Max Daily Volume (m^3): 1491.09 Original Application No: - Original Start Date: - Expiry Date: - Issue No: 100 Version Start Date: 23/06/1997 Version End Date: -
-	1721m E	Status: Historical Licence No: 22/60/3/0021 Details: Effluent/Slurry Dilution Direct Source: EAW Surface Water Point: TAWELAN BROOK Data Type: Point Name: Mekatek Ltd Easting: 240130 Northing: 219500	Annual Volume (m^3): 340956 Max Daily Volume (m^3): 1491.09 Original Application No: - Original Start Date: 23/06/1997 Expiry Date: - Issue No: 100 Version Start Date: 01/01/2007 Version End Date: -
-	1721m E	Status: Active Licence No: 22/60/3/0021 Details: Effluent / Slurry Dilution - Very Low Direct Source: - Point: - Data Type: Point Name: - Easting: 240130 Northing: 219500	Annual Volume (m^3): 340956 Max Daily Volume (m^3): - Original Application No: - Original Start Date: 01/01/2007 Expiry Date: - Issue No: - Version Start Date: - Version End Date: -

This data is sourced from the Environment Agency and Natural Resources Wales.

5.8 Potable abstractions

Records within 2000m	**4**

Licensed potable water abstractions for sites extracting more than 20 cubic metres of water a day and includes active and historical records. The data may be for a single abstraction point, a stretch of watercourse or a larger area.

Features are displayed on the Abstractions and Source Protection Zones map on **page 39 >**

ID	Location	Details	
-	1677m E	Status: Historical Licence No: 22/60/3/0022 Details: Water Bottling Direct Source: EAW Groundwater Point: WELL IN THE COMMUNITY OF JOHNSTOWN Data Type: Point Name: Mekatek Ltd Easting: 240060 Northing: 219260	Annual Volume (m^3): 318226 Max Daily Volume (m^3): 1391.1 Original Application No: - Original Start Date: - Expiry Date: - Issue No: 100 Version Start Date: 23/06/1997 Version End Date: -
-	1677m E	Status: Historical Licence No: 22/60/3/0022 Details: Water Bottling Direct Source: EAW Groundwater Point: WELL IN THE COMMUNITY OF JOHNSTOWN USED FOR BOTTLING Data Type: Point Name: Mekatek Ltd Easting: 240060 Northing: 219260	Annual Volume (m^3): 318226 Max Daily Volume (m^3): 1391.1 Original Application No: - Original Start Date: 23/06/1997 Expiry Date: - Issue No: 100 Version Start Date: 01/01/2007 Version End Date: -
-	1736m E	Status: Historical Licence No: 22/60/3/0022 Details: Water Bottling Direct Source: EAW Groundwater Point: WELL IN THE COMMUNITY OF JOHNSTOWN Data Type: Point Name: Mekatek Ltd Easting: 240120 Northing: 219260	Annual Volume (m^3): 318226 Max Daily Volume (m^3): 1391.1 Original Application No: - Original Start Date: 23/06/1997 Expiry Date: - Issue No: 100 Version Start Date: 01/01/2007 Version End Date: -
-	1736m E	Status: Active Licence No: 22/60/3/0022 Details: Water Bottling - Medium Direct Source: - Point: - Data Type: Point Name: - Easting: 240120 Northing: 219260	Annual Volume (m^3): 318226 Max Daily Volume (m^3): - Original Application No: - Original Start Date: 01/01/2007 Expiry Date: - Issue No: - Version Start Date: - Version End Date: -

This data is sourced from the Environment Agency and Natural Resources Wales.

5.9 Source Protection Zones

Records within 500m	0

Source Protection Zones define the sensitivity of an area around a potable abstraction site to contamination.

This data is sourced from the Environment Agency and Natural Resources Wales.

5.10 Source Protection Zones (confined aquifer)

Records within 500m	0

Source Protection Zones in the confined aquifer define the sensitivity around a deep groundwater abstraction to contamination. A confined aquifer would normally be protected from contamination by overlying geology and is only considered a sensitive resource if deep excavation/drilling is taking place.

This data is sourced from the Environment Agency and Natural Resources Wales.

6 Hydrology



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Site Outline

Search buffers in metres (m)

Water Network (OS MasterMap)

Surface water features (wider than 5m)

Surface water features (narrower than 5m)

WFD River, canal and surface water transfer water bodies

WFD Lake water bodies

WFD Transitional and coastal water bodies

WFD Surface water body catchments boundaries

WFD Groundwater body boundaries

6.1 Water Network (OS MasterMap)

Records within 250m	0

Detailed water network of Great Britain showing the flow and precise central course of every river, stream, lake and canal.

This data is sourced from the Ordnance Survey.

6.2 Surface water features

Records within 250m	1

Covering rivers, streams and lakes (some overlap with OS MasterMap Water Network data in previous section) but additionally covers smaller features such as ponds. Rivers and streams narrower than 5m are represented as a single line. Lakes, ponds and rivers or streams wider than 5m are represented as polygons.

Features are displayed on the Hydrology map on **page 45 >**

This data is sourced from the Ordnance Survey.

6.3 WFD Surface water body catchments

Records on site	1

The Water Framework Directive is an EU-led framework for the protection of inland surface waters, estuaries, coastal waters and groundwater through river basin-level management planning. In terms of surface water, these basins are broken down into smaller units known as management, operational and water body catchments.

Features are displayed on the Hydrology map on **page 45 >**

ID	Location	Type	Water body catchment	Water body ID	Operational catchment	Management catchment
A	**On site**	**River WB catchment**	**Tawelon - headwaters to tidal limit**	**GB110060029320**	**Taf**	**Carmarthen Bay and the Gower**

This data is sourced from the Environment Agency and Natural Resources Wales.

6.4 WFD Surface water bodies

Records identified	1

Surface water bodies under the Directive may be rivers, lakes, estuary or coastal. To achieve the purpose of the Directive, environmental objectives have been set and are reported on for each water body. The progress towards delivery of the objectives is then reported on by the relevant competent authorities at the end of each six-year cycle. The river water body directly associated with the catchment listed in the previous section is detailed below, along with any lake, canal, coastal or artificial water body within 250m of the site.

Features are displayed on the Hydrology map on **page 45 >**

ID	Location	Type	Name	Water body ID	Overall rating	Chemical rating	Ecological rating	Year
4	467m NE	River	Tawelon - headwaters to tidal limit	GB110060029320	Moderate	Good	Moderate	2016

This data is sourced from the Environment Agency and Natural Resources Wales.

6.5 WFD Groundwater bodies

Records on site	1

Groundwater bodies are also covered by the Directive and the same regime of objectives and reporting detailed in the previous section is in place.

Features are displayed on the Hydrology map on **page 45 >**

ID	Location	Name	Water body ID	Overall rating	Chemical rating	Quantitative	Year
A	**On site**	**Tywi, Taf and Gwendraeths**	**GB41002G200500**	**Poor**	**Poor**	**Good**	**2017**

This data is sourced from the Environment Agency and Natural Resources Wales.

7 River and coastal flooding

7.1 Risk of flooding from rivers and the sea

Records within 50m	0

The chance of flooding from rivers and/or the sea in any given year, based on cells of 50m within the Risk of Flooding from Rivers and Sea (RoFRaS)/Flood Risk Assessment Wales (FRAW) models. Each cell is allocated one of four flood risk categories, taking into account flood defences and their condition. The risk categories for RoFRaS for rivers and the sea and FRAW for rivers are; Very low (less than 1 in 1000 chance in any given year), Low (less than 1 in 100 but greater than or equal to 1 in 1000 chance), Medium (less than 1 in 30 but greater than or equal to 1 in 100 chance) or High (greater than or equal to 1 in 30 chance). The risk categories for FRAW for the sea are; Very low (less than 1 in 1000 chance in any given year), Low (less than 1 in 200 but greater than or equal to 1 in 1000 chance), Medium (less than 1 in 30 but greater than or equal to 1 in 200 chance) or High (greater than or equal to 1 in 30 chance).

This data is sourced from the Environment Agency and Natural Resources Wales.

7.2 Historical Flood Events

Records within 250m	0

Records of historic flooding from rivers, the sea, groundwater and surface water. Records began in 1946 when predecessor bodies started collecting detailed information about flooding incidents, although limited details may be included on flooding incidents prior to this date. Takes into account the presence of defences, structures, and other infrastructure where they existed at the time of flooding, and includes flood extents that may have been affected by overtopping, breaches or blockages.

This data is sourced from the Environment Agency and Natural Resources Wales.

7.3 Flood Defences

Records within 250m	0

Records of flood defences owned, managed or inspected by the Environment Agency and Natural Resources Wales. Flood defences can be structures, buildings or parts of buildings. Typically these are earth banks, stone and concrete walls, or sheet-piling that is used to prevent or control the extent of flooding.

This data is sourced from the Environment Agency and Natural Resources Wales.

7.4 Areas Benefiting from Flood Defences

Records within 250m	0

Areas that would benefit from the presence of flood defences in a 1 in 100 (1%) chance of flooding each year from rivers or 1 in 200 (0.5%) chance of flooding each year from the sea.

This data is sourced from the Environment Agency and Natural Resources Wales.

7.5 Flood Storage Areas

Records within 250m	0

Areas that act as a balancing reservoir, storage basin or balancing pond to attenuate an incoming flood peak to a flow level that can be accepted by the downstream channel or to delay the timing of a flood peak so that its volume is discharged over a longer period.

This data is sourced from the Environment Agency and Natural Resources Wales.

River and coastal flooding - Flood Zones

7.6 Flood Zone 2

Records within 50m	0

Areas of land at risk of flooding, when the presence of flood defences are ignored. Covering land between Flood Zone 3 (see next section) and the extent of the flooding from rivers or the sea with a 1 in 1000 (0.1%) chance of flooding each year.

This data is sourced from the Environment Agency and Natural Resources Wales.

7.7 Flood Zone 3

Records within 50m	0

Areas of land at risk of flooding, when the presence of flood defences are ignored. Covering land with a 1 in 100 (1%) or greater chance of flooding each year from rivers or a 1 in 200 (0.5%) or greater chance of flooding each year from the sea.

This data is sourced from the Environment Agency and Natural Resources Wales.

8 Surface water flooding

8.1 Surface water flooding

Highest risk on site	**Negligible**
Highest risk within 50m	**Negligible**

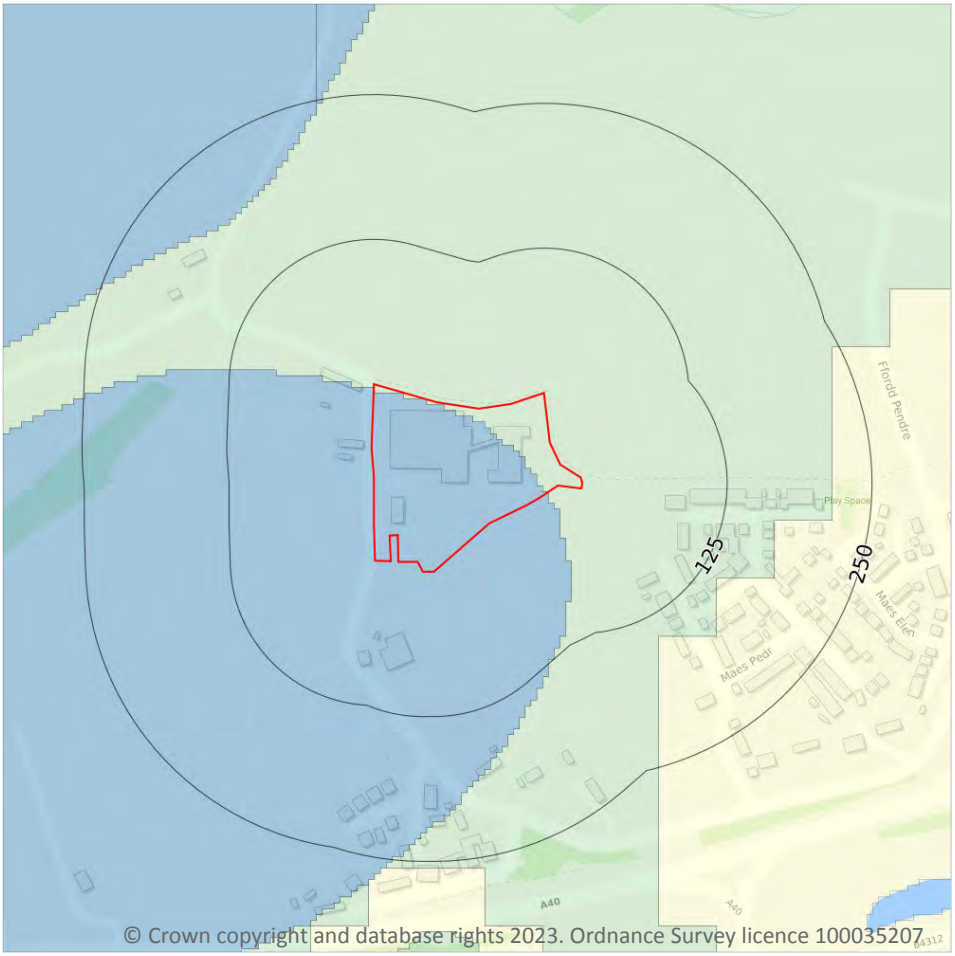
Ambiental Risk Analytics surface water (pluvial) FloodMap identifies areas likely to flood as a result of extreme rainfall events, i.e. land naturally vulnerable to surface water ponding or flooding. This data set was produced by simulating 1 in 30 year, 1 in 100 year, 1 in 250 year and 1 in 1,000 year rainfall events. Modern urban drainage systems are typically built to cope with rainfall events between 1 in 20 and 1 in 30 years, though some older ones may flood in a 1 in 5 year rainfall event.

The data shown on the map and in the table above shows the highest likelihood of flood events happening at the site. Lower likelihood events may have greater flood depths and hence a greater potential impact on a site. The table below shows the maximum flood depths for a range of return periods for the site.

Return period	Maximum modelled depth
1 in 1000 year	Negligible
1 in 250 year	Negligible
1 in 100 year	Negligible
1 in 30 year	Negligible

This data is sourced from Ambiental Risk Analytics.

9 Groundwater flooding



Site Outline

Search buffers in metres (m)

High

Moderate - High

Moderate

Low

Negligible

9.1 Groundwater flooding

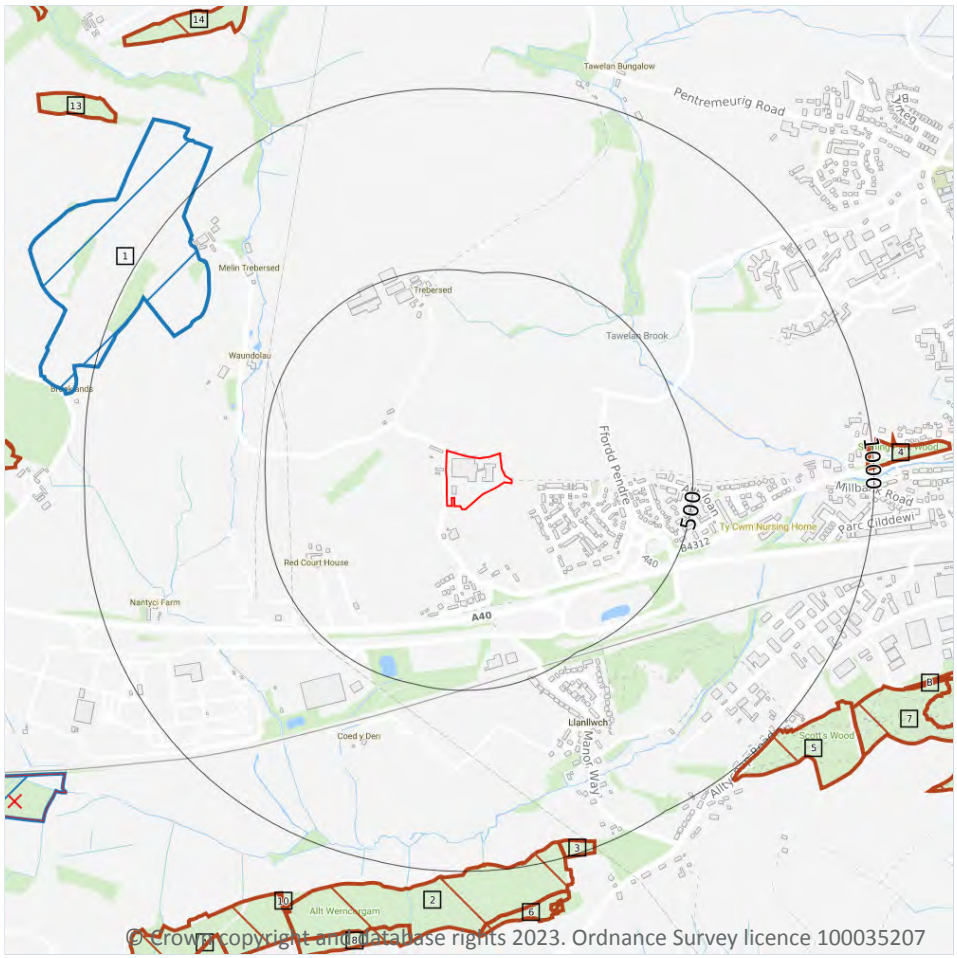
Highest risk on site	**Low**
Highest risk within 50m	**Low**

Groundwater flooding is caused by unusually high groundwater levels. It occurs when the water table rises above the ground surface or within underground structures such as basements or cellars. Groundwater flooding tends to exhibit a longer duration than surface water flooding, possibly lasting for weeks or months, and as a result it can cause significant damage to property. This risk assessment is based on a 1 in 100 year return period and a 5m Digital Terrain Model (DTM).

Features are displayed on the Groundwater flooding map on **page 52 >**

This data is sourced from Ambiental Risk Analytics.

10 Environmental designations



Site Outline

Search buffers in metres (m)

Sites of Special Scientific Interest (SSSI)

National Nature Reserves (NNR)

Designated Ancient Woodland

10.1 Sites of Special Scientific Interest (SSSI)

Records within 2000m	3

Sites providing statutory protection for the best examples of UK flora, fauna, or geological or physiographical features. Originally notified under the National Parks and Access to the Countryside Act 1949, SSSIs were re-notified under the Wildlife and Countryside Act 1981. Improved provisions for the protection and management of SSSIs were introduced by the Countryside and Rights of Way Act 2000 (in England and Wales) and (in Scotland) by the Nature Conservation (Scotland) Act 2004 and the Wildlife and Natural Environment (Scotland) Act 2010.

Features are displayed on the Environmental designations map on **page 53 >**

ID	Location	Name	Data source
1	773m NW	Maesyprior	Natural Resources Wales

ID	Location	Name	Data source
11	1289m SW	Cors Goch, Llanllwch	Natural Resources Wales
-	1710m W	Maesyprior	Natural Resources Wales

This data is sourced from Natural England, Natural Resources Wales and Scottish Natural Heritage.

10.2 Conserved wetland sites (Ramsar sites)

Records within 2000m	0

Ramsar sites are designated under the Convention on Wetlands of International Importance, agreed in Ramsar, Iran, in 1971. They cover all aspects of wetland conservation and wise use, recognizing wetlands as ecosystems that are extremely important for biodiversity conservation in general and for the well-being of human communities. These sites cover a broad definition of wetland; marsh, fen, peatland or water, whether natural or artificial, permanent or temporary, with water that is static or flowing, fresh, brackish or salt, and even some marine areas.

This data is sourced from Natural England, Natural Resources Wales and Scottish Natural Heritage.

10.3 Special Areas of Conservation (SAC)

Records within 2000m	0

Areas which have been identified as best representing the range and variety within the European Union of habitats and (non-bird) species listed on Annexes I and II to the Directive. SACs are designated under the EC Habitats Directive.

This data is sourced from Natural England, Natural Resources Wales and Scottish Natural Heritage.

10.4 Special Protection Areas (SPA)

Records within 2000m	0

Sites classified by the UK Government under the EC Birds Directive, SPAs are areas of the most important habitat for rare (listed on Annex I to the Directive) and migratory birds within the European Union.

This data is sourced from Natural England, Natural Resources Wales and Scottish Natural Heritage.

10.5 National Nature Reserves (NNR)

Records within 2000m	1

Sites containing examples of some of the most important natural and semi-natural terrestrial and coastal ecosystems in Great Britain. They are managed to conserve their habitats, provide special opportunities for scientific study or to provide public recreation compatible with natural heritage interests.

Features are displayed on the Environmental designations map on **page 53 >**

ID	Location	Name	Data source
12	1289m SW	Cors Goch, Llanllwch	Natural Rescources Wales

This data is sourced from Natural England, Natural Resources Wales and Scottish Natural Heritage.

10.6 Local Nature Reserves (LNR)

Records within 2000m	0

Sites managed for nature conservation, and to provide opportunities for research and education, or simply enjoying and having contact with nature. They are declared by local authorities under the National Parks and Access to the Countryside Act 1949 after consultation with the relevant statutory nature conservation agency.

This data is sourced from Natural England, Natural Resources Wales and Scottish Natural Heritage.

10.7 Designated Ancient Woodland

Records within 2000m	24

Ancient woodlands are classified as areas which have been wooded continuously since at least 1600 AD. This includes semi-natural woodland and plantations on ancient woodland sites. 'Wooded continuously' does not mean there is or has previously been continuous tree cover across the whole site, and not all trees within the woodland have to be old.

Features are displayed on the Environmental designations map on **page 53 >**

ID	Location	Name	Woodland Type
2	952m S	Unknown	Plantation on Ancient Woodland Site
3	954m S	Unknown	Plantation on Ancient Woodland Site
4	981m E	Unknown	Restored Ancient Woodland Site
5	1005m SE	Unknown	Restored Ancient Woodland Site
6	1089m S	Unknown	Restored Ancient Woodland Site
7	1127m SE	Unknown	Plantation on Ancient Woodland Site
8	1159m S	Unknown	Restored Ancient Woodland Site
A	1163m SW	Unknown	Restored Ancient Woodland Site
9	1177m W	Unknown	Restored Ancient Woodland Site
10	1181m SW	Unknown	Plantation on Ancient Woodland Site
B	1225m SE	Unknown	Plantation on Ancient Woodland Site

ID	Location	Name	Woodland Type
13	1290m NW	Unknown	Restored Ancient Woodland Site
14	1296m NW	Unknown	Restored Ancient Woodland Site
15	1302m SE	Unknown	Restored Ancient Woodland Site
B	1314m SE	Unknown	Restored Ancient Woodland Site
A	1345m SW	Unknown	Ancient Semi Natural Woodland
-	1486m SW	Unknown	Ancient Semi Natural Woodland
-	1534m NW	Unknown	Restored Ancient Woodland Site
-	1562m SE	Unknown	Restored Ancient Woodland Site
19	1636m NW	Unknown	Ancient Semi Natural Woodland
-	1775m SW	Unknown	Restored Ancient Woodland Site
-	1893m N	Unknown	Ancient Semi Natural Woodland
-	1939m E	Unknown	Ancient Semi Natural Woodland
-	1984m N	Unknown	Ancient Semi Natural Woodland

This data is sourced from Natural England, Natural Resources Wales and Scottish Natural Heritage.

10.8 Biosphere Reserves

Records within 2000m	0

Biosphere Reserves are internationally recognised by UNESCO as sites of excellence to balance conservation and socioeconomic development between nature and people. They are recognised under the Man and the Biosphere (MAB) Programme with the aim of promoting sustainable development founded on the work of the local community.

This data is sourced from Natural England, Natural Resources Wales and Scottish Natural Heritage.

10.9 Forest Parks

Records within 2000m	0

These are areas managed by the Forestry Commission designated on the basis of recreational, conservation or scenic interest.

This data is sourced from the Forestry Commission.

10.10 Marine Conservation Zones

Records within 2000m	0

A type of marine nature reserve in UK waters established under the Marine and Coastal Access Act (2009). They are designated with the aim to protect nationally important, rare or threatened habitats and species.

This data is sourced from Natural England, Natural Resources Wales and Scottish Natural Heritage.

10.11 Green Belt

Records within 2000m	0

Areas designated to prevent urban sprawl by keeping land permanently open.

This data is sourced from the Ministry of Housing, Communities and Local Government.

10.12 Proposed Ramsar sites

Records within 2000m	0

Ramsar sites are areas listed as a Wetland of International Importance under the Convention on Wetlands of International Importance especially as Waterfowl Habitat (the Ramsar Convention) 1971. The sites here supplied have a status of 'Proposed' having been identified for potential adoption under the framework.

This data is sourced from Natural England.

10.13 Possible Special Areas of Conservation (pSAC)

Records within 2000m	0

Special Areas of Conservation are areas which have been identified as best representing the range and variety within the European Union of habitats and (non-bird) species listed on Annexes I and II to the Directive. SACs are designated under the EC Habitats Directive. Those sites supplied here are those with a status of 'Possible' having been identified for potential adoption under the framework.

This data is sourced from Natural England and Natural Resources Wales.

10.14 Potential Special Protection Areas (pSPA)

Records within 2000m	0

Special Protection Areas (SPAs) are areas designated (or ‘classified’) under the European Union Wild Birds Directive for the protection of nationally and internationally important populations of wild birds. Those sites supplied here are those with a status of 'Potential' having been identified for potential adoption under the framework.

This data is sourced from Natural England.

10.15 Nitrate Sensitive Areas

Records within 2000m	0

Areas where nitrate concentrations in drinking water sources exceeded or was at risk of exceeding the limit of 50 mg/l set by the 1980 EC Drinking Water Directive. Voluntary agricultural measures as a means of reducing the levels of nitrate were introduced by DEFRA as MAFF, with payments being made to farmers who complied. The scheme was started as a pilot in 1990 in ten areas, later implemented within 32 areas. The scheme was closed to further new entrants in 1998, although existing agreements continued for their full term. All Nitrate Sensitive Areas fell within the areas designated as Nitrate Vulnerable Zones (NVZs) in 1996 under the EC Nitrate Directive (91/676/EEC).

This data is sourced from Natural England.

10.16 Nitrate Vulnerable Zones

Records within 2000m	0

Areas at risk from agricultural nitrate pollution designated under the EC Nitrate Directive (91/676/EEC). These are areas of land that drain into waters polluted by nitrates. Farmers operating within these areas have to follow mandatory rules to tackle nitrate loss from agriculture.

This data is sourced from Natural England and Natural Resources Wales.

SSSI Impact Zones and Units

10.17 SSSI Impact Risk Zones

Records on site	0

Developed to allow rapid initial assessment of the potential risks to SSSIs posed by development proposals. They define zones around each SSSI which reflect the particular sensitivities of the features for which it is notified and indicate the types of development proposal which could potentially have adverse impacts.

This data is sourced from Natural England.

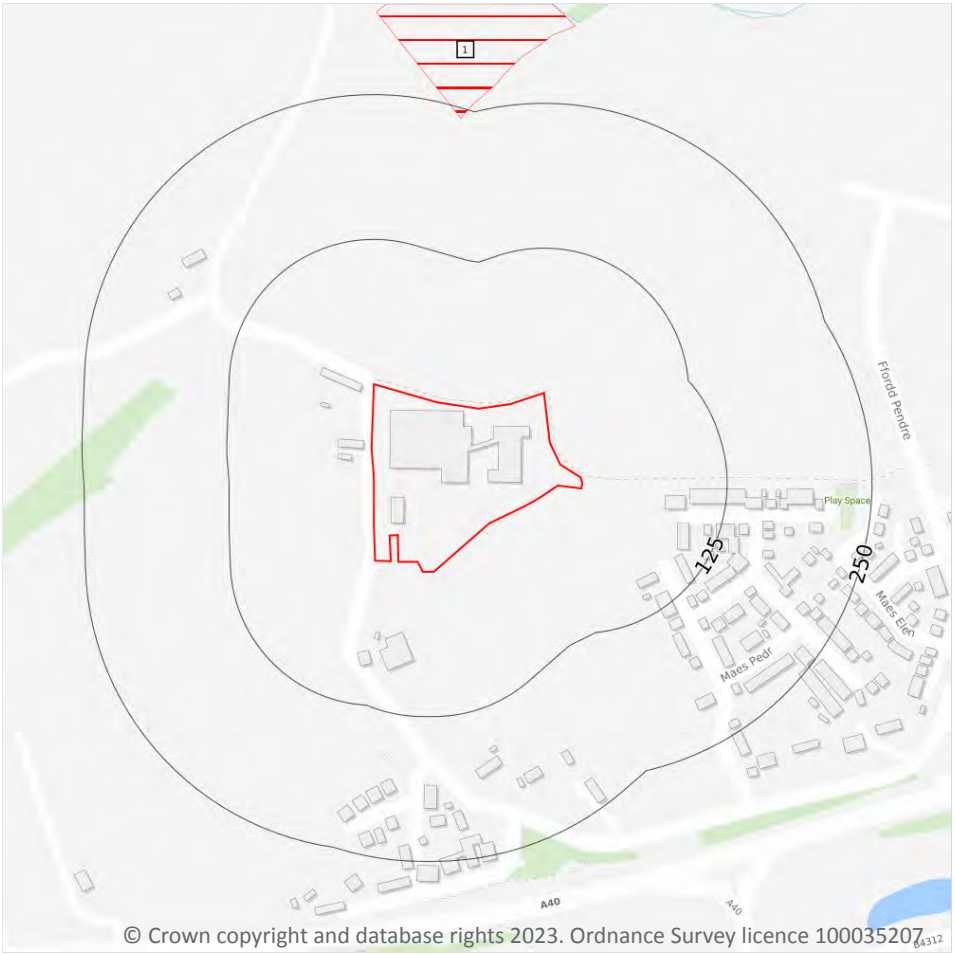
10.18 SSSI Units

Records within 2000m	0

Divisions of SSSIs used to record management and condition details. Units are the smallest areas for which Natural England gives a condition assessment, however, the size of units varies greatly depending on the types of management and the conservation interest.

This data is sourced from Natural England and Natural Resources Wales.

11 Visual and cultural designations



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Site Outline

Search buffers in metres (m)

Listed buildings

Conservation areas

Conservation areas - no data

National Parks

Areas of Outstanding Natural Beauty

Registered parks and gardens

Scheduled Monuments

World Heritage Sites

11.1 World Heritage Sites

Records within 250m	0

Sites designated for their globally important cultural or natural interest requiring appropriate management and protection measures. World Heritage Sites are designated to meet the UK's commitments under the World Heritage Convention.

This data is sourced from Historic England, Cadw and Historic Environment Scotland.

11.2 Area of Outstanding Natural Beauty

Records within 250m	0

Areas of Outstanding Natural Beauty (AONB) are conservation areas, chosen because they represent 18% of the finest countryside. Each AONB has been designated for special attention because of the quality of their flora, fauna, historical and cultural associations, and/or scenic views. The National Parks and Access to the Countryside Act of 1949 created AONBs and the Countryside and Rights of Way Act, 2000 added further regulation and protection. There are likely to be restrictions to some developments within these areas.

This data is sourced from Natural England, Natural Resources Wales and Scottish Natural Heritage.

11.3 National Parks

Records within 250m	0

In England and Wales, the purpose of National Parks is to conserve and enhance landscapes within the countryside whilst promoting public enjoyment of them and having regard for the social and economic well-being of those living within them. In Scotland National Parks have the additional purpose of promoting the sustainable use of the natural resources of the area and the sustainable social and economic development of its communities. The National Parks and Access to the Countryside Act 1949 established the National Park designation in England and Wales, and The National Parks (Scotland) Act 2000 in Scotland.

This data is sourced from Natural England, Natural Resources Wales and the Scottish Government.

11.4 Listed Buildings

Records within 250m	0

Buildings listed for their special architectural or historical interest. Building control in the form of 'listed building consent' is required in order to make any changes to that building which might affect its special interest. Listed buildings are graded to indicate their relative importance, however building controls apply to all buildings equally, irrespective of their grade, and apply to the interior and exterior of the building in its entirety, together with any curtilage structures.

This data is sourced from Historic England, Cadw and Historic Environment Scotland.

11.5 Conservation Areas

Records within 250m	0

Local planning authorities are obliged to designate as conservation areas any parts of their own area that are of special architectural or historic interest, the character and appearance of which it is desirable to preserve or enhance. Designation of a conservation area gives broader protection than the listing of individual buildings. All the features within the area, listed or otherwise, are recognised as part of its character. Conservation area designation is the means of recognising the importance of all factors and of ensuring that planning decisions address the quality of the landscape in its broadest sense.

This data is sourced from Historic England, Cadw and Historic Environment Scotland.

11.6 Scheduled Ancient Monuments

Records within 250m	1

A scheduled monument is an historic building or site that is included in the Schedule of Monuments kept by the Secretary of State for Digital, Culture, Media and Sport. The regime is set out in the Ancient Monuments and Archaeological Areas Act 1979. The Schedule of Monuments has c.20,000 entries and includes sites such as Roman remains, burial mounds, castles, bridges, earthworks, the remains of deserted villages and industrial sites. Monuments are not graded, but all are, by definition, considered to be of national importance.

Features are displayed on the Visual and cultural designations map on **page 60 >**

ID	Location	Ancient monument name	Reference number
1	241m N	Trebersed Moated Site	2822

This data is sourced from Historic England, Cadw and Historic Environment Scotland.

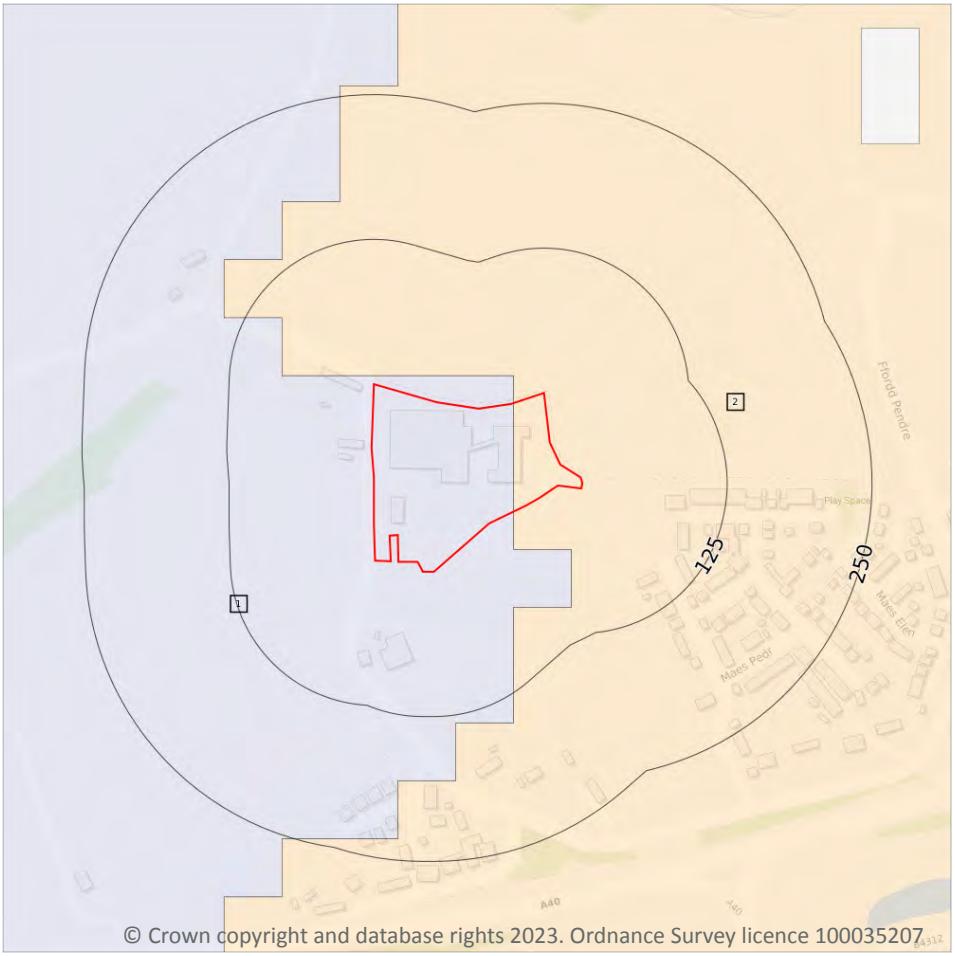
11.7 Registered Parks and Gardens

Records within 250m	0

Parks and gardens assessed to be of particular interest and of special historic interest. The emphasis being on 'designed' landscapes, rather than on planting or botanical importance. Registration is a 'material consideration' in the planning process, meaning that planning authorities must consider the impact of any proposed development on the special character of the landscape.

This data is sourced from Historic England, Cadw and Historic Environment Scotland.

12 Agricultural designations



Site Outline

Search buffers in metres (m)

- Grade 1 - excellent quality
- Grade 2 - very good quality
- Grade 3a - good quality
- Grade 3b - moderate quality
- Grade 4 - poor quality
- Grade 5 - very poor quality
- Timber felling licences
- Open Access land

12.1 Agricultural Land Classification

Records within 250m	2

Classification of the quality of agricultural land taking into consideration multiple factors including climate, physical geography and soil properties. It should be noted that the categories for the grading of agricultural land are not consistent across England, Wales and Scotland.

Features are displayed on the Agricultural designations map on **page 63 >**

ID	Location	Classification	Description
1	**On site**	**Grade 3b**	**Moderate quality agricultural land**
2	**On site**	**Grade 3a**	**Good to moderate quality agricultural land**

This data is sourced from Natural Resources Wales.

12.2 Open Access Land

Records within 250m	0

The Countryside and Rights of Way Act 2000 (CROW Act) gives a public right of access to land without having to use paths. Access land includes mountains, moors, heaths and downs that are privately owned. It also includes common land registered with the local council and some land around the England Coast Path. Generally permitted activities on access land are walking, running, watching wildlife and climbing.

This data is sourced from Natural England and Natural Resources Wales.

12.3 Tree Felling Licences

Records within 250m	0

Felling Licence Application (FLA) areas approved by Forestry Commission England. Anyone wishing to fell trees must ensure that a licence or permission under a grant scheme has been issued by the Forestry Commission before any felling is carried out or that one of the exceptions apply.

This data is sourced from the Forestry Commission.

12.4 Environmental Stewardship Schemes

Records within 250m	0

Environmental Stewardship covers a range of schemes that provide financial incentives to farmers, foresters and land managers to look after and improve the environment. The schemes identified may be historical schemes that have now expired, or may still be active.

This data is sourced from Natural England.

12.5 Countryside Stewardship Schemes

Records within 250m	0

Countryside Stewardship covers a range of schemes that provide financial incentives to farmers, foresters and land managers to look after and improve the environment. Main objectives are to improve the farmed environment for wildlife and to reduce diffuse water pollution.

This data is sourced from Natural England.

13 Habitat designations

13.1 Priority Habitat Inventory

Records within 250m	0

Habitats of principal importance as named under Natural Environment and Rural Communities Act (2006) Section 41.

This data is sourced from Natural England.

13.2 Habitat Networks

Records within 250m	0

Habitat networks for 18 priority habitat networks (based primarily, but not exclusively, on the priority habitat inventory) and areas suitable for the expansion of networks through restoration and habitat creation.

This data is sourced from Natural England.

13.3 Open Mosaic Habitat

Records within 250m	0

Sites verified as Open Mosaic Habitat. Mosaic habitats are brownfield sites that are identified under the UK Biodiversity Action Plan as a priority habitat due to the habitat variation within a single site, supporting an array of invertebrates.

This data is sourced from Natural England.

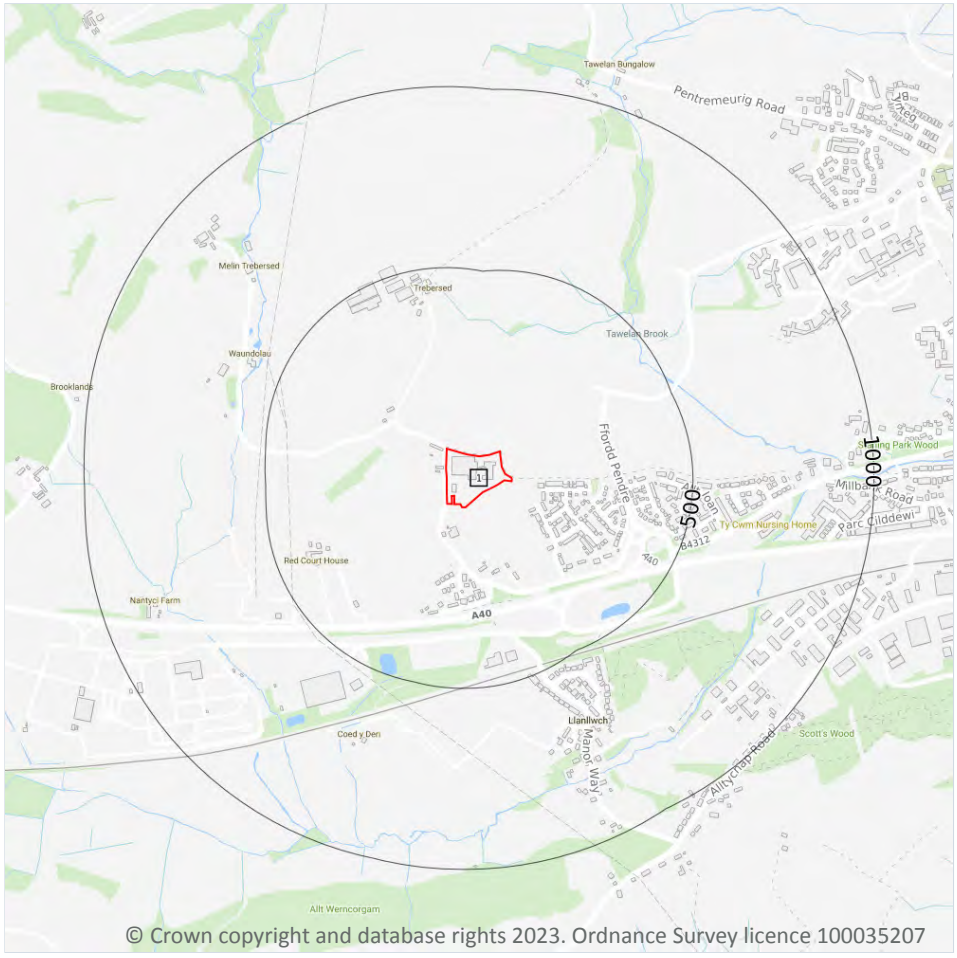
13.4 Limestone Pavement Orders

Records within 250m	0

Limestone pavements are outcrops of limestone where the surface has been worn away by natural means over millennia. These rocks have the appearance of paving blocks, hence their name. Not only do they have geological interest, they also provide valuable habitats for wildlife. These habitats are threatened due to their removal for use in gardens and water features. Many limestone pavements have been designated as SSSIs which affords them some protection. In addition, Section 34 of the Wildlife and Countryside Act 1981 gave them additional protection via the creation of Limestone Pavement Orders, which made it a criminal offence to remove any part of the outcrop. The associated Limestone Pavement Priority Habitat is part of the UK Biodiversity Action Plan priority habitat in England.

This data is sourced from Natural England.

14 Geology 1:10,000 scale - Availability



Site Outline

Search buffers in metres (m)

Full coverage

Partial coverage

No coverage

14.1 10k Availability

Records within 500m	1

An indication on the coverage of 1:10,000 scale geology data for the site, the most detailed dataset provided by the British Geological Survey. Either 'Full', 'Partial' or 'No coverage' for each geological theme.

Features are displayed on the Geology 1:10,000 scale - Availability map on **page 66 >**

ID	Location	Artificial	Superficial	Bedrock	Mass movement	Sheet No.
1	**On site**	**No coverage**	**No coverage**	**No coverage**	**No coverage**	**NoCov**

This data is sourced from the British Geological Survey.

Geology 1:10,000 scale - Artificial and made ground

14.2 Artificial and made ground (10k)

Records within 500m	0

Details of made, worked, infilled, disturbed and landscaped ground at 1:10,000 scale. Artificial ground can be associated with potentially contaminated material, unpredictable engineering conditions and instability.

This data is sourced from the British Geological Survey.

Geology 1:10,000 scale - Superficial

14.3 Superficial geology (10k)

Records within 500m	0

Superficial geological deposits at 1:10,000 scale. Also known as 'drift', these are the youngest geological deposits, formed during the Quaternary. They rest on older deposits or rocks referred to as bedrock.

This data is sourced from the British Geological Survey.

14.4 Landslip (10k)

Records within 500m	0

Mass movement deposits on BGS geological maps at 1:10,000 scale. Primarily superficial deposits that have moved down slope under gravity to form landslips. These affect bedrock, other superficial deposits and artificial ground.

This data is sourced from the British Geological Survey.

Geology 1:10,000 scale - Bedrock

14.5 Bedrock geology (10k)

Records within 500m	0

Bedrock geology at 1:10,000 scale. The main mass of rocks forming the Earth and present everywhere, whether exposed at the surface in outcrops or concealed beneath superficial deposits or water.

This data is sourced from the British Geological Survey.

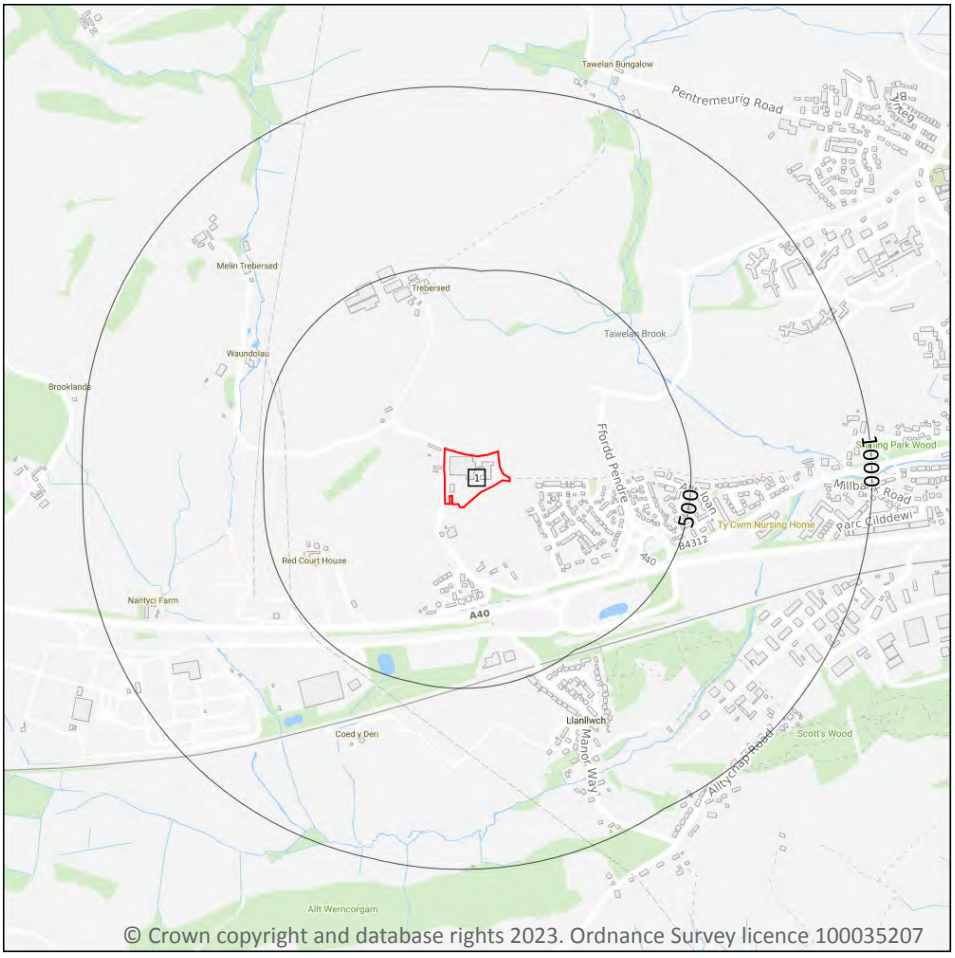
14.6 Bedrock faults and other linear features (10k)

Records within 500m	0

Linear features at the ground or bedrock surface at 1:10,000 scale of six main types; rock, fault, fold axis, mineral vein, alteration area or landform. Features are either observed or inferred, and relate primarily to bedrock.

This data is sourced from the British Geological Survey.

15 Geology 1:50,000 scale - Availability



Site Outline

Search buffers in metres (m)

Geological map tile

15.1 50k Availability

Records within 500m	1

An indication on the coverage of 1:50,000 scale geology data for the site. Either 'Full' or 'No coverage' for each geological theme. Where 50k data is not available, this area has been filled in with 625k scale data.

Features are displayed on the Geology 1:50,000 scale - Availability map on **page 70 >**

ID	Location	Artificial	Superficial	Bedrock	Mass movement	Sheet No.
1	**On site**	**Full**	**Full**	**Full**	**Full**	**EW229_carmarthen_v4**

This data is sourced from the British Geological Survey.

Geology 1:50,000 scale - Artificial and made ground

15.2 Artificial and made ground (50k)

Records within 500m	0

Details of made, worked, infilled, disturbed and landscaped ground at 1:50,000 scale. Artificial ground can be associated with potentially contaminated material, unpredictable engineering conditions and instability.

This data is sourced from the British Geological Survey.

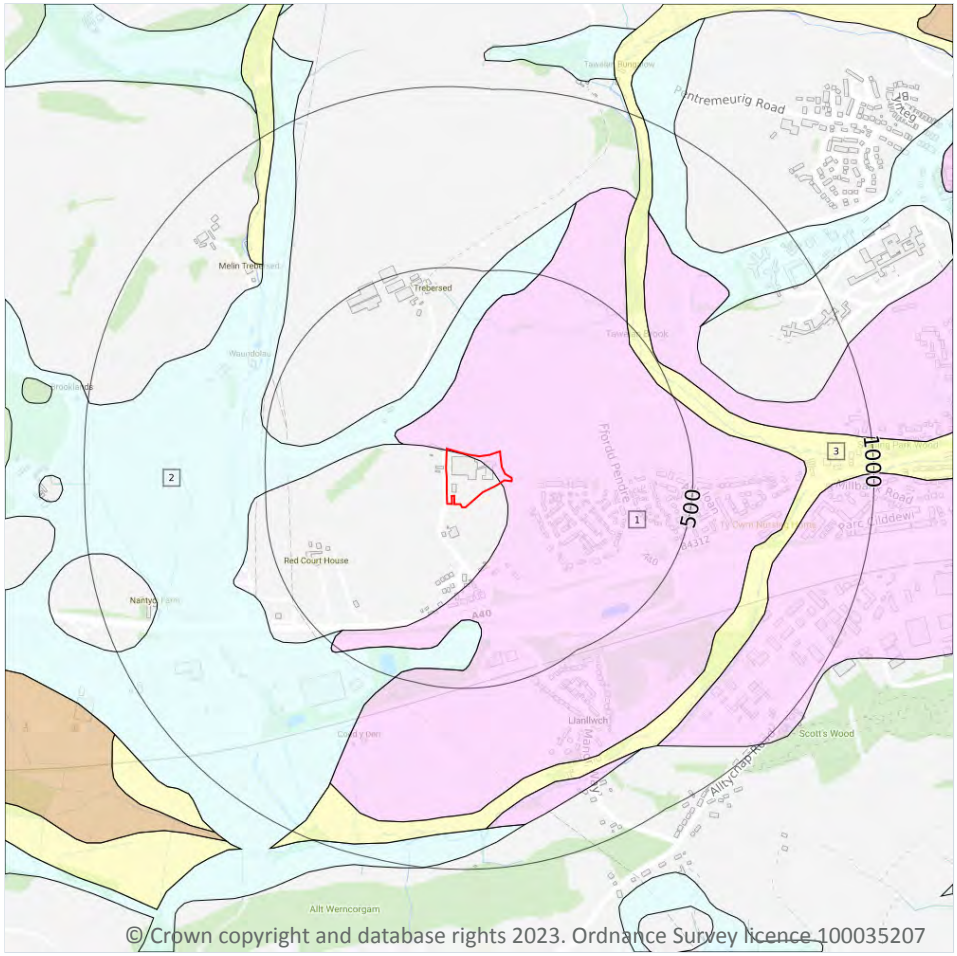
15.3 Artificial ground permeability (50k)

Records within 50m	0

A qualitative classification of estimated rates of vertical movement of water from the ground surface through the unsaturated zone of any artificial deposits (the zone between the land surface and the water table).

This data is sourced from the British Geological Survey.

Geology 1:50,000 scale - Superficial



Site Outline

Search buffers in metres (m)

Landslip (50k)

Superficial geology (50k)
Please see table for more details.

15.4 Superficial geology (50k)

Records within 500m **3**

Superficial geological deposits at 1:50,000 scale. Also known as 'drift', these are the youngest geological deposits, formed during the Quaternary. They rest on older deposits or rocks referred to as bedrock.

Features are displayed on the Geology 1:50,000 scale - Superficial map on **page 72 >**

ID	Location	LEX Code	Description	Rock description
1	**On site**	**GFDUD-XSV**	**GLACIOFLUVIAL DEPOSITS, DEVENSIAN**	**SAND AND GRAVEL**
2	113m NW	TILLD-DMTN	TILL, DEVENSIAN	DIAMICTON
3	461m NE	ALV-XCZSV	ALLUVIUM	CLAY, SILT, SAND AND GRAVEL

This data is sourced from the British Geological Survey.

15.5 Superficial permeability (50k)

Records within 50m	1

A qualitative classification of estimated rates of vertical movement of water from the ground surface through the unsaturated zone of any superficial deposits (the zone between the land surface and the water table).

Location	Flow type	Maximum permeability	Minimum permeability
On site	**Intergranular**	**Very High**	**High**

This data is sourced from the British Geological Survey.

15.6 Landslip (50k)

Records within 500m	0

Mass movement deposits on BGS geological maps at 1:50,000 scale. Primarily superficial deposits that have moved down slope under gravity to form landslips. These affect bedrock, other superficial deposits and artificial ground.

This data is sourced from the British Geological Survey.

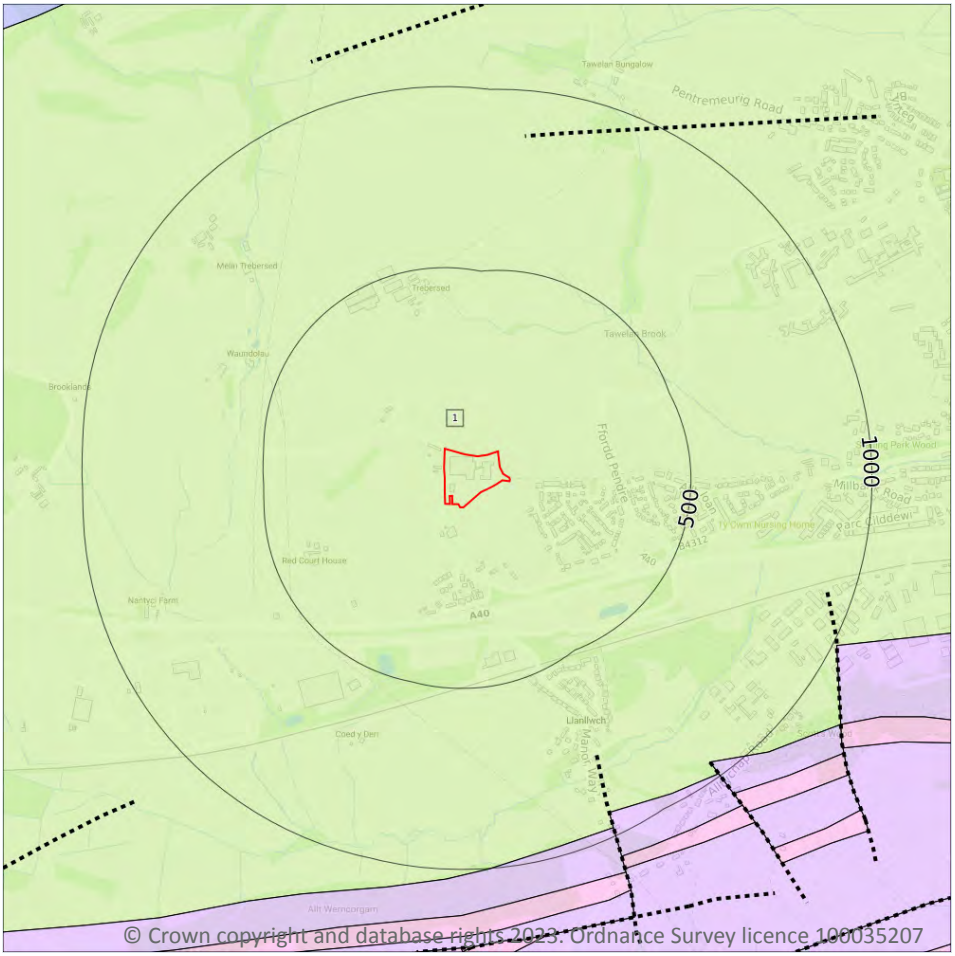
15.7 Landslip permeability (50k)

Records within 50m	0

A qualitative classification of estimated rates of vertical movement of water from the ground surface through the unsaturated zone of any landslip deposits (the zone between the land surface and the water table).

This data is sourced from the British Geological Survey.

Geology 1:50,000 scale - Bedrock



Site Outline

Search buffers in metres (m)

Bedrock faults and other linear features (50k)

Bedrock geology (50k)
Please see table for more details.

15.8 Bedrock geology (50k)

Records within 500m	1

Bedrock geology at 1:50,000 scale. The main mass of rocks forming the Earth and present everywhere, whether exposed at the surface in outcrops or concealed beneath superficial deposits or water.

Features are displayed on the Geology 1:50,000 scale - Bedrock map on **page 74 >**

ID	Location	LEX Code	Description	Rock age
1	**On site**	**TTRA-MDST**	**TETRAGRAPTUS BEDS - MUDSTONE**	**-**

This data is sourced from the British Geological Survey.

15.9 Bedrock permeability (50k)

Records within 50m	1

A qualitative classification of estimated rates of vertical movement of water from the ground surface through the unsaturated zone of bedrock (the zone between the land surface and the water table).

Location	Flow type	Maximum permeability	Minimum permeability
On site	**Fracture**	**Low**	**Low**

This data is sourced from the British Geological Survey.

15.10 Bedrock faults and other linear features (50k)

Records within 500m	0

Linear features at the ground or bedrock surface at 1:50,000 scale of six main types; rock, fault, fold axis, mineral vein, alteration area or landform. Features are either observed or inferred, and relate primarily to bedrock.

This data is sourced from the British Geological Survey.

16 Boreholes

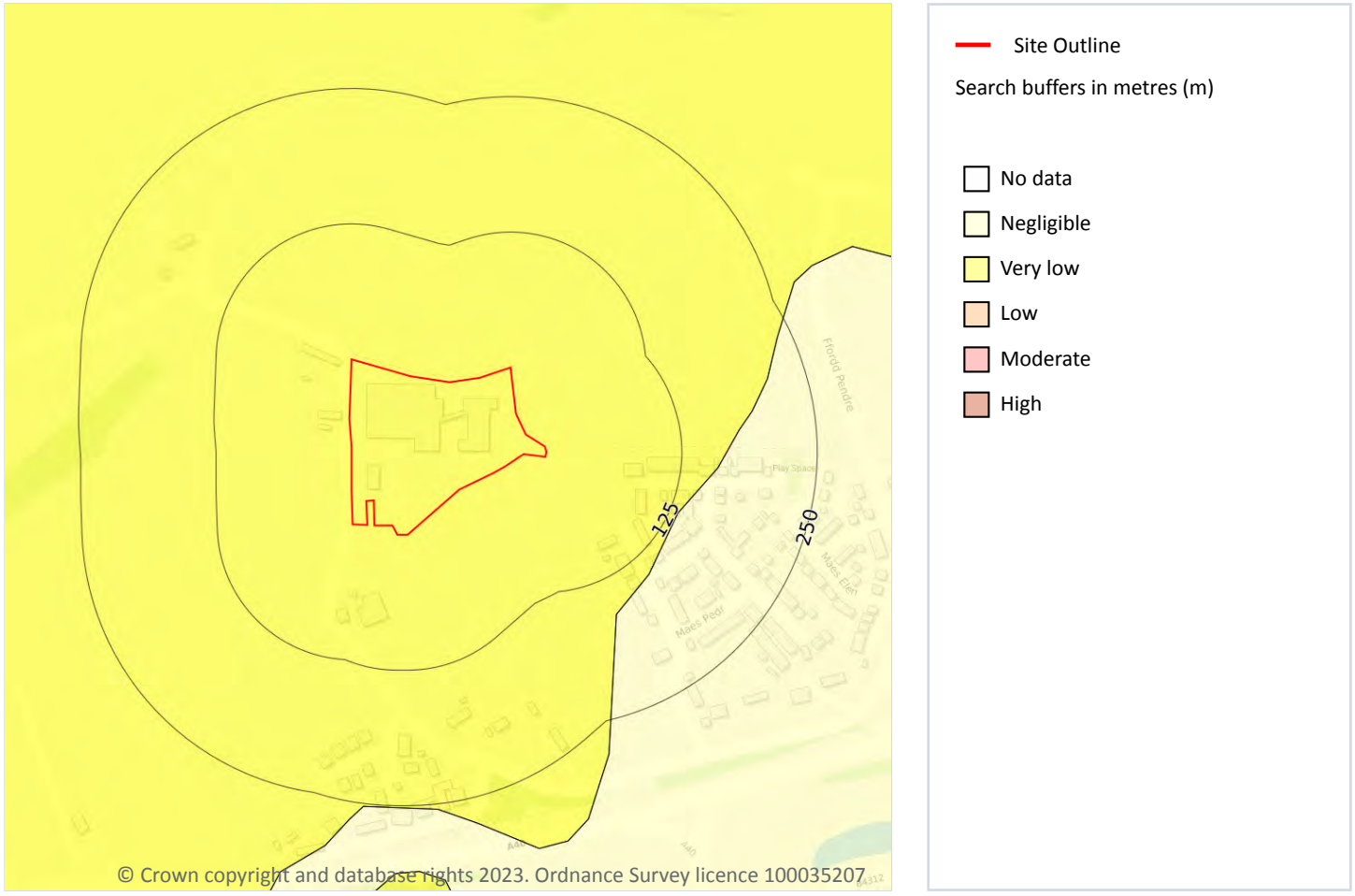
16.1 BGS Boreholes

Records within 250m	0

The Single Onshore Boreholes Index (SOBI); an index of over one million records of boreholes, shafts and wells from all forms of drilling and site investigation work held by the British Geological Survey. Covering onshore and nearshore boreholes dating back to at least 1790 and ranging from one to several thousand metres deep.

This data is sourced from the British Geological Survey.

17 Natural ground subsidence - Shrink swell clays



17.1 Shrink swell clays

Records within 50m	1

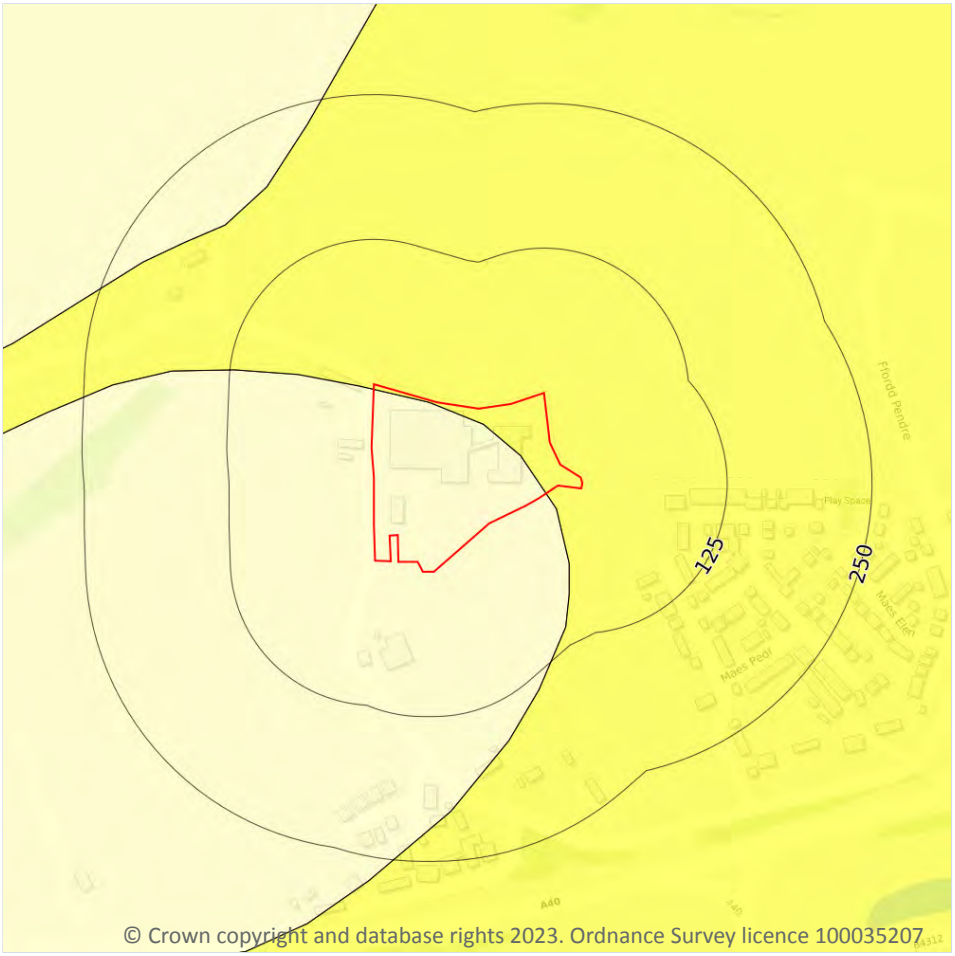
The potential hazard presented by soils that absorb water when wet (making them swell), and lose water as they dry (making them shrink). This shrink-swell behaviour is controlled by the type and amount of clay in the soil, and by seasonal changes in the soil moisture content (related to rainfall and local drainage).

Features are displayed on the Natural ground subsidence - Shrink swell clays map on **page 77 >**

Location	Hazard rating	Details
On site	**Very low**	**Ground conditions predominantly low plasticity.**

This data is sourced from the British Geological Survey.

Natural ground subsidence - Running sands



Site Outline

Search buffers in metres (m)

- No data
- Negligible
- Very low
- Low
- Moderate
- High

17.2 Running sands

Records within 50m	2

The potential hazard presented by rocks that can contain loosely-packed sandy layers that can become fluidised by water flowing through them. Such sands can 'run', removing support from overlying buildings and causing potential damage.

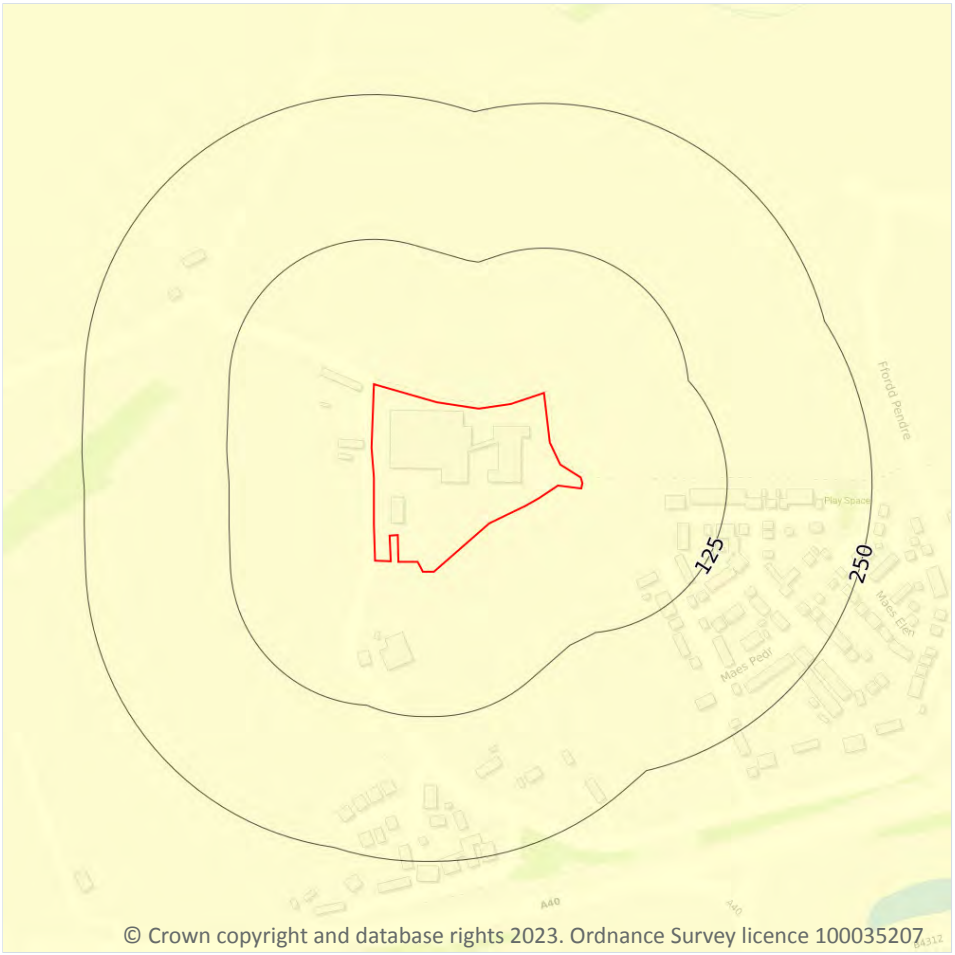
Features are displayed on the Natural ground subsidence - Running sands map on **page 78 >**

Location	Hazard rating	Details
On site	**Negligible**	**Running sand conditions are not thought to occur whatever the position of the water table. No identified constraints on lands use due to running conditions.**

Location	Hazard rating	Details
On site	**Very low**	**Running sand conditions are unlikely. No identified constraints on land use due to running conditions unless water table rises rapidly.**

This data is sourced from the British Geological Survey.

Natural ground subsidence - Compressible deposits



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Site Outline

Search buffers in metres (m)

- No data
- Negligible
- Very low
- Low
- Moderate
- High

17.3 Compressible deposits

Records within 50m	1

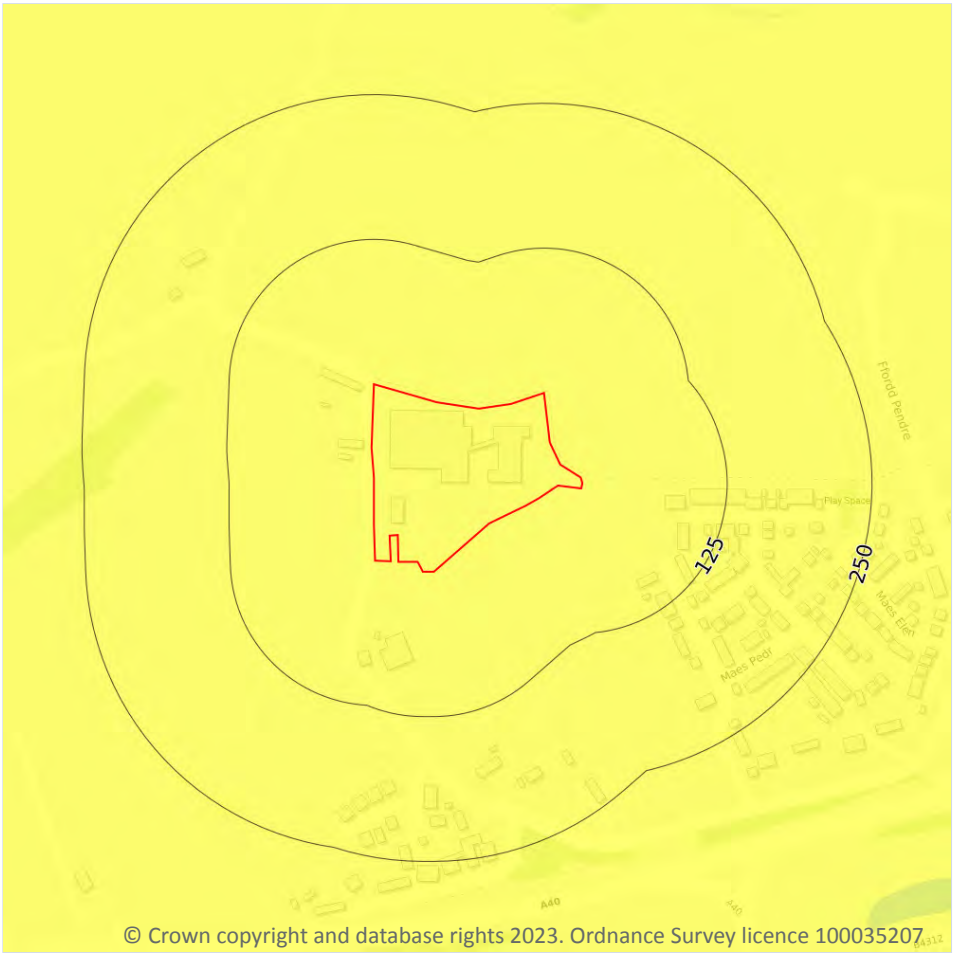
The potential hazard presented by types of ground that may contain layers of very soft materials like clay or peat and may compress if loaded by overlying structures, or if the groundwater level changes, potentially resulting in depression of the ground and disturbance of foundations.

Features are displayed on the Natural ground subsidence - Compressible deposits map on **page 80 >**

Location	Hazard rating	Details
On site	**Negligible**	**Compressible strata are not thought to occur.**

This data is sourced from the British Geological Survey.

Natural ground subsidence - Collapsible deposits



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Site Outline

Search buffers in metres (m)

- No data
- Negligible
- Very low
- Low
- Moderate
- High

17.4 Collapsible deposits

Records within 50m	1

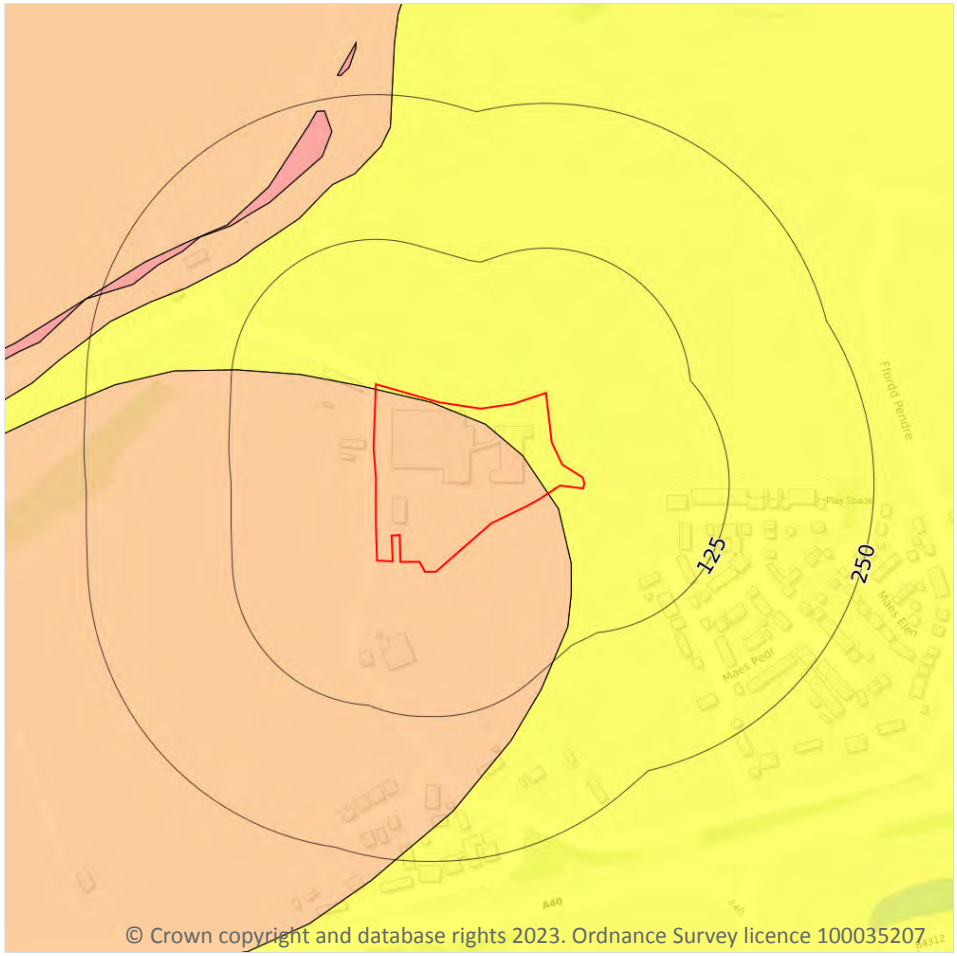
The potential hazard presented by natural deposits that could collapse when a load (such as a building) is placed on them or they become saturated with water.

Features are displayed on the Natural ground subsidence - Collapsible deposits map on **page 81 >**

Location	Hazard rating	Details
On site	**Very low**	**Deposits with potential to collapse when loaded and saturated are unlikely to be present.**

This data is sourced from the British Geological Survey.

Natural ground subsidence - Landslides



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Site Outline

Search buffers in metres (m)

- No data
- Negligible
- Very low
- Low
- Moderate
- High

17.5 Landslides

Records within 50m	2

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

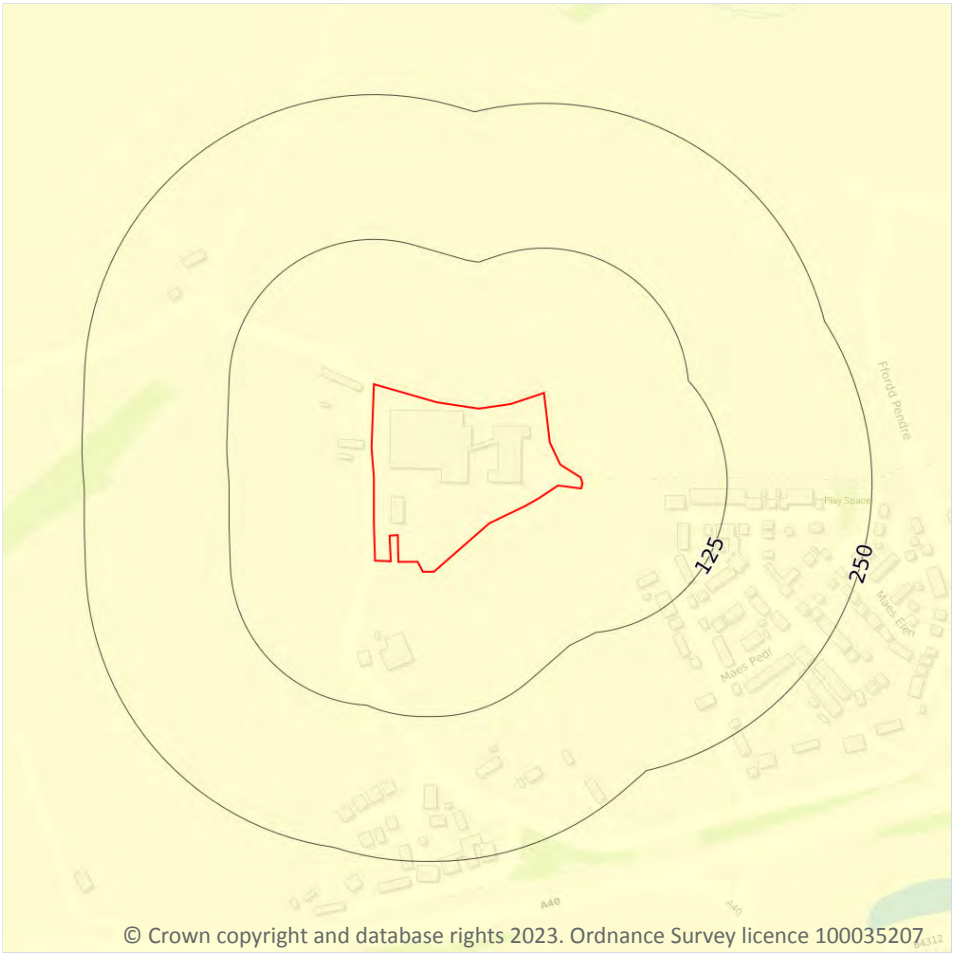
Features are displayed on the Natural ground subsidence - Landslides map on **page 82 >**

Location	Hazard rating	Details
On site	**Very low**	**Slope instability problems are not likely to occur but consideration to potential problems of adjacent areas impacting on the site should always be considered.**

Location	Hazard rating	Details
On site	**Low**	**Slope instability problems may be present or anticipated. Site investigation should consider specifically the slope stability of the site.**

This data is sourced from the British Geological Survey.

Natural ground subsidence - Ground dissolution of soluble rocks



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Site Outline

Search buffers in metres (m)

- No data
- Negligible
- Very low
- Low
- Moderate
- High

17.6 Ground dissolution of soluble rocks

Records within 50m	1

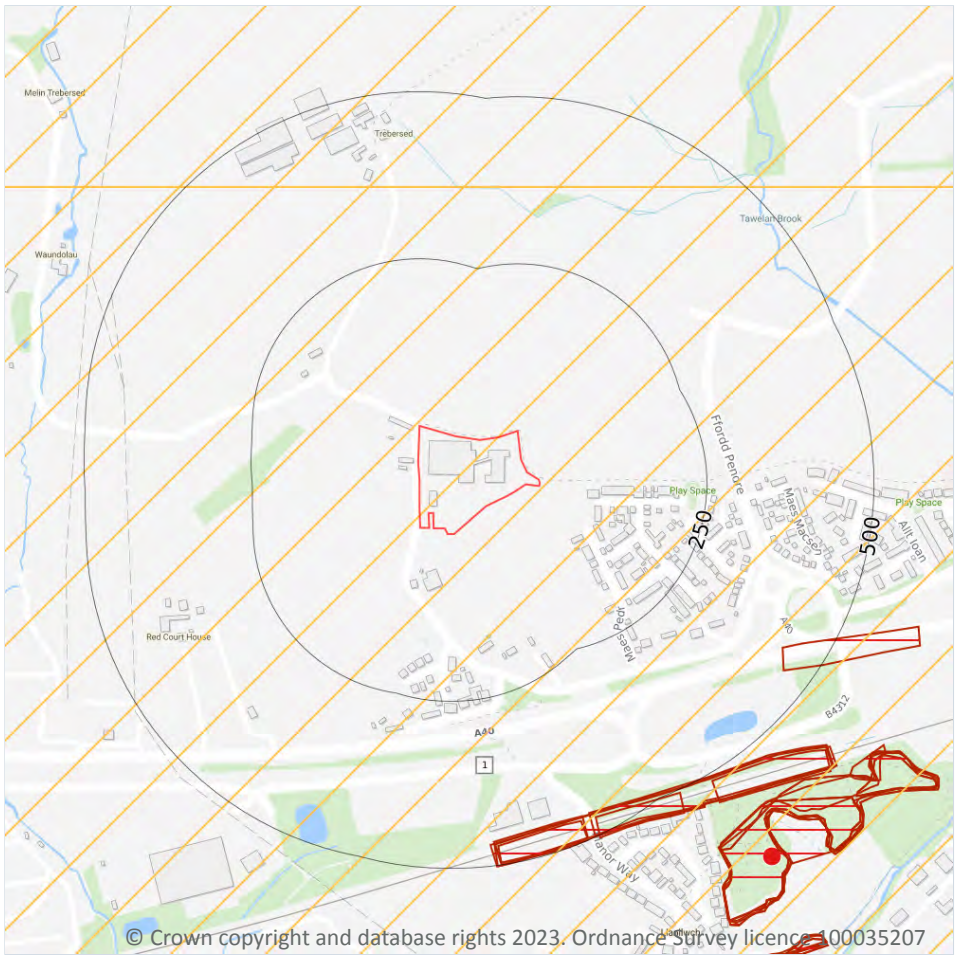
The potential hazard presented by ground dissolution, which occurs when water passing through soluble rocks produces underground cavities and cave systems. These cavities reduce support to the ground above and can cause localised collapse of the overlying rocks and deposits.

Features are displayed on the Natural ground subsidence - Ground dissolution of soluble rocks map on **page 84 >**

Location	Hazard rating	Details
On site	**Negligible**	**Soluble rocks are either not thought to be present within the ground, or not prone to dissolution. Dissolution features are unlikely to be present.**

This data is sourced from the British Geological Survey.

18 Mining, ground workings and natural cavities



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Site Outline

Search buffers in metres (m)

- Natural cavities (Area)
- Natural cavities (Point)
- BritPits
- Surface ground workings
- Underground workings
- Historical Mineral Planning Areas
- Mining Cavities

Non Coal Mining

- Sporadic underground mining of restricted extent possible
- Localised small scale underground mining possible
- Small scale mining possible
- Underground mining known or likely within or in close proximity
- Underground mining known within or in very close proximity

18.1 Natural cavities

Records within 500m	0

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

This data is sourced from Stantec UK Ltd.

18.2 BritPits

Records within 500m	0

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

This data is sourced from the British Geological Survey.

18.3 Surface ground workings

Records within 250m	0

Historical land uses identified from Ordnance Survey mapping that involved ground excavation at the surface. These features may or may not have been subsequently backfilled.

This is data is sourced from Ordnance Survey/Groundsure.

18.4 Underground workings

Records within 1000m	0

Historical land uses identified from Ordnance Survey mapping that indicate the presence of underground workings e.g. mine shafts.

This is data is sourced from Ordnance Survey/Groundsure.

18.5 Historical Mineral Planning Areas

Records within 500m	0

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

This data is sourced from the British Geological Survey.

18.6 Non-coal mining

Records within 1000m	2

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

Features are displayed on the Mining, ground workings and natural cavities map on **page 86 >**

ID	Location	Name	Commodity	Class	Likelihood
1	**On site**	**Not available**	**Vein Mineral**	**B**	**Localised small scale underground mining may have occurred. Potential for difficult ground conditions are unlikely or localised and are at a level where they need not be considered**
2	357m N	Not available	Vein Mineral	B	Localised small scale underground mining may have occurred. Potential for difficult ground conditions are unlikely or localised and are at a level where they need not be considered

This data is sourced from the British Geological Survey.

18.7 Mining cavities

Records within 1000m	0

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

This data is sourced from Stantec UK Ltd.

18.8 JPB mining areas

Records on site	0

Areas which could be affected by former coal and other mining. This data includes some mine plans unavailable to the Coal Authority.

This data is sourced from Johnson Poole and Bloomer.

18.9 Coal mining

Records on site	0

Areas which could be affected by past, current or future coal mining.

This data is sourced from the Coal Authority.

18.10 Brine areas

Records on site	0

The Cheshire Brine Compensation District indicates areas that may be affected by salt and brine extraction in Cheshire and where compensation would be available where damage from this mining has occurred. Damage from salt and brine mining can still occur outside this district, but no compensation will be available.

This data is sourced from the Cheshire Brine Subsidence Compensation Board.

18.11 Gypsum areas

Records on site	0

Generalised areas that may be affected by gypsum extraction.

This data is sourced from British Gypsum.

18.12 Tin mining

Records on site	0

Generalised areas that may be affected by historical tin mining.

This data is sourced from Groundsure.

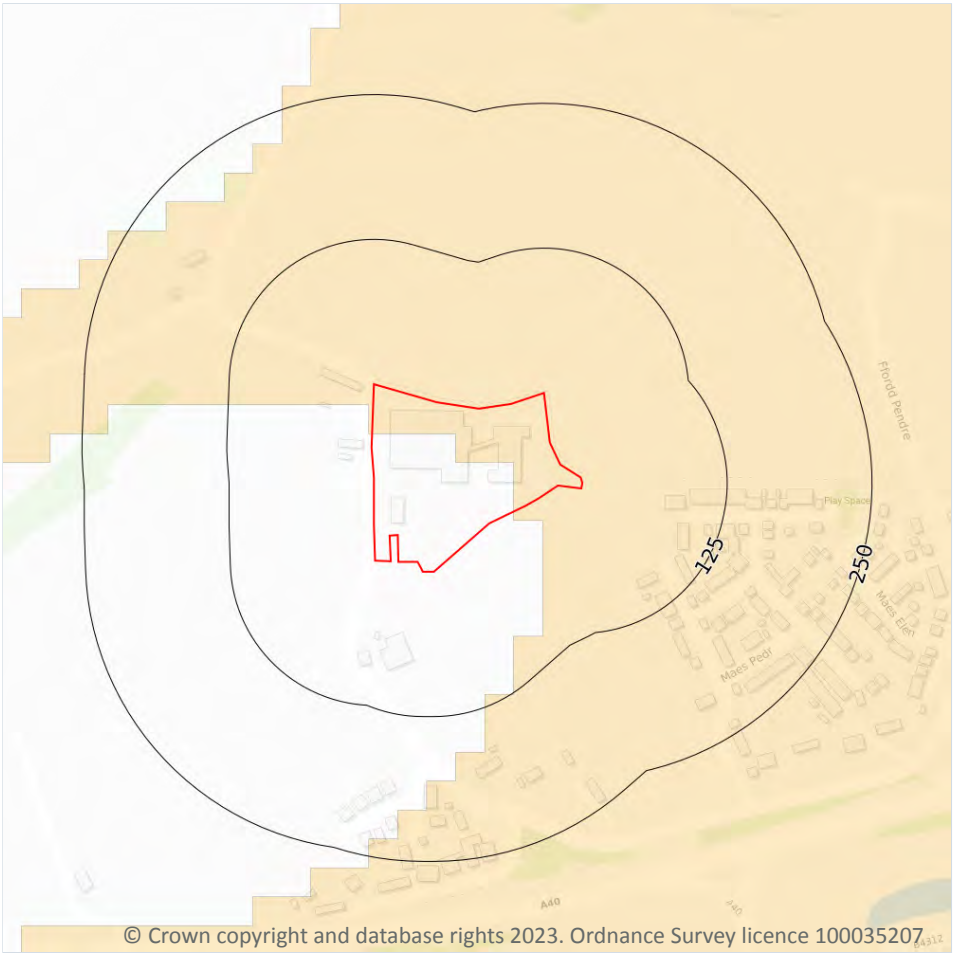
18.13 Clay mining

Records on site	0

Generalised areas that may be affected by kaolin and ball clay extraction.

This data is sourced from the Kaolin and Ball Clay Association (UK).

19 Radon



Site Outline

Search buffers in metres (m)

- Greater than 30%
- Between 10% and 30%
- Between 5% and 10%
- Between 3% and 5%
- Between 1% and 3%
- Less than 1%

19.1 Radon

Records on site	2

The Radon Potential data classifies areas based on their likelihood of a property having a radon level at or above the Action Level in Great Britain. The dataset is intended for use at 1:50,000 scale and was derived from both geological assessments and indoor radon measurements (more than 560,000 records). A minimum 50m buffer should be considered when searching the maps, as the smallest detectable feature at this scale is 50m. The findings of this section should supersede any estimations derived from the Indicative Atlas of Radon in Great Britain (1:100,000 scale).

Features are displayed on the Radon map on **page 90 >**

Location	Estimated properties affected	Radon Protection Measures required
On site	**Less than 1%**	**None**

Location	Estimated properties affected	Radon Protection Measures required
On site	**Between 3% and 5%**	**Basic**

This data is sourced from the British Geological Survey and UK Health Security Agency.

20 Soil chemistry

20.1 BGS Estimated Background Soil Chemistry

Records within 50m	4

The estimated values provide the likely background concentration of the potentially harmful elements Arsenic, Cadmium, Chromium, Lead and Nickel in topsoil. The values are estimated primarily from rural topsoil data collected at a sample density of approximately 1 per 2 km^2. In areas where rural soil samples are not available, estimation is based on stream sediment data collected from small streams at a sampling density of 1 per 2.5 km^2; this is the case for most of Scotland, Wales and southern England. The stream sediment data are converted to soil-equivalent concentrations prior to the estimation.

Location	Arsenic	Bioaccessible Arsenic	Lead	Bioaccessible Lead	Cadmium	Chromium	Nickel
On site	**15 mg/kg**	**No data**	**100 mg/kg**	**60 mg/kg**	**1.8 mg/kg**	**60 - 90 mg/kg**	**15 - 30 mg/kg**
On site	**15 mg/kg**	**No data**	**100 mg/kg**	**60 mg/kg**	**1.8 mg/kg**	**60 - 90 mg/kg**	**15 - 30 mg/kg**
On site	**15 mg/kg**	**No data**	**100 mg/kg**	**60 mg/kg**	**1.8 mg/kg**	**60 - 90 mg/kg**	**15 - 30 mg/kg**
50m SE	15 mg/kg	No data	100 mg/kg	60 mg/kg	1.8 mg/kg	60 - 90 mg/kg	15 - 30 mg/kg

This data is sourced from the British Geological Survey.

20.2 BGS Estimated Urban Soil Chemistry

Records within 50m	0

Estimated topsoil chemistry of Arsenic, Cadmium, Chromium, Copper, Nickel, Lead, Tin and Zinc and bioaccessible Arsenic and Lead in 23 urban centres across Great Britain. These estimates are derived from interpolation of the measured urban topsoil data referred to above and provide information across each city between the measured sample locations (4 per km^2).

This data is sourced from the British Geological Survey.

20.3 BGS Measured Urban Soil Chemistry

Records within 50m	0

The locations and measured total concentrations (mg/kg) of Arsenic, Cadmium, Chromium, Copper, Nickel, Lead, Tin and Zinc in urban topsoil samples from 23 urban centres across Great Britain. These are collected at a sample density of 4 per km^2.

This data is sourced from the British Geological Survey.

21 Railway infrastructure and projects

21.1 Underground railways (London)

Records within 250m	0

Details of all active London Underground lines, including approximate tunnel roof depth and operational hours.

This data is sourced from publicly available information by Groundsure.

21.2 Underground railways (Non-London)

Records within 250m	0

Details of the Merseyrail system, the Tyne and Wear Metro and the Glasgow Subway. Not all parts of all systems are located underground. The data contains location information only and does not include a depth assessment.

This data is sourced from publicly available information by Groundsure.

21.3 Railway tunnels

Records within 250m	0

Railway tunnels taken from contemporary Ordnance Survey mapping.

This data is sourced from the Ordnance Survey.

21.4 Historical railway and tunnel features

Records within 250m	0

Railways and tunnels digitised from historical Ordnance Survey mapping as scales of 1:1,250, 1:2,500, 1:10,000 and 1:10,560.

This data is sourced from Ordnance Survey/Groundsure.

21.5 Royal Mail tunnels

Records within 250m	0

The Post Office Railway, otherwise known as the Mail Rail, is an underground railway running through Central London from Paddington Head District Sorting Office to Whitechapel Eastern Head Sorting Office. The line is 10.5km long. The data includes details of the full extent of the tunnels, the depth of the tunnel, and the depth to track level.

This data is sourced from Groundsure/the Postal Museum.

21.6 Historical railways

Records within 250m	0

Former railway lines, including dismantled lines, abandoned lines, disused lines, historic railways and razed lines.

This data is sourced from OpenStreetMap.

21.7 Railways

Records within 250m	0

Currently existing railway lines, including standard railways, narrow gauge, funicular, trams and light railways.

This data is sourced from Ordnance Survey and OpenStreetMap.

21.8 Crossrail 1

Records within 500m	0

The Crossrail railway project links 41 stations over 100 kilometres from Reading and Heathrow in the west, through underground sections in central London, to Shenfield and Abbey Wood in the east.

This data is sourced from publicly available information by Groundsure.

21.9 Crossrail 2

Records within 500m	0

Crossrail 2 is a proposed railway linking the national rail networks in Surrey and Hertfordshire via an underground tunnel through London.

This data is sourced from publicly available information by Groundsure.

21.10 HS2

Records within 500m	0

HS2 is a proposed high speed rail network running from London to Manchester and Leeds via Birmingham. Main civils construction on Phase 1 (London to Birmingham) of the project began in 2019, and it is currently anticipated that this phase will be fully operational by 2026. Construction on Phase 2a (Birmingham to Crewe) is anticipated to commence in 2021, with the service fully operational by 2027. Construction on Phase 2b (Crewe to Manchester and Birmingham to Leeds) is scheduled to begin in 2023 and be operational by 2033.

This data is sourced from HS2 ltd.

Data providers

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

Terms and conditions

Groundsure's Terms and Conditions can be accessed at this link: https://www.groundsure.com/terms-and-conditions-april-2023/ ↗.

Appendix D

Environmental Permit (EPR/EP3034GS, July 2010)

Permit with introductory note

The Environmental Permitting (England & Wales) Regulations 2010

Llysonnen Mill

Wynnstay Group PLC
Travellers Rest
Carmarthen
Carmarthenshire
SA31 3SG

Permit number

EPR/EP3034GS

Llysonnen Mill
Permit Number EP3034GS

Introductory note

This introductory note does not form a part of the permit

The main features of the facility are as follows.

The installation is located at Travellers Rest, Carmarthen covering an area of approximately 1.6 hectares with the centre of the site located at National Grid Reference SN 38295 19579.

The facility utilises bulk raw materials of vegetable origin to produce pellets or blends of meals for animal feed. Raw materials are accepted at the site in dry and liquid forms with the dry materials being stored in bulk silos and liquids in bunded storage tanks. Filters are used at the intake points to reduce the potential for atmospheric emissions during delivery.

The milling process blends, grinds, mixes and extrudes into pellets (if required) the raw materials which are blended to specified formulas (steam, molasses and liquids are added as necessary).

Pelletising of the mixes into pellets, nuts or rolls occurs through one of two processing lines. After the feed has been formed in the presses, air is drawn through to cool the feed using one of two coolers. Air from each cooler is expelled through cyclone abatement systems which are monitored for particulate emissions on an annual basis. The finished product is transferred for bulk storage and subsequent sale.

The main process is also supported by ancillary activities which include steam generation, oil storage, compressed air generation, effluent treatment, cleaning and vehicle washing.

All processes which are likely to produce dust and noise emissions are undertaken in buildings or sheltered units fitted with dust suppression systems where appropriate.

A management system is in place covering all aspects of site operations which could impact on the environment.

The status log of the permit sets out the permitting history, including any changes to the permit reference number.

Status Log of the permit		
Detail	**Date**	**Response Date**
Application EP3034GS	Duly made 30/10/09	
Additional Information Received	Changes to vehicle wash area including revised site drainage plan, drawing No. 129-01-01-08.D007 Revision A. Received 11/01/10	
Additional Information Received	Revised site drainage drawing No.129-01-01-08.D007 Revision B. Received 18/05/10	
Additional Information Received	Revised Installation boundary drawing No.129-01-01-08.D004 Revision B. Received 11/06/10	
Permit determined	05/07/10	

End of Introductory Note

Permit

Permit number
EPR/EP3034GS

The Environment Agency hereby authorises, under regulation 13 of the Environmental Permitting (England and Wales) Regulations 2010

Wynnstay Group PLC ("the operator"),

whose registered office is
Eagle House
Llansantffraid ym Mechain
Powys
SY22 6AQ

company registration number **02704051**

to operate a facility comprising an installation at
Llysonnen Mill
Travellers Rest
Carmarthen
Carmarthenshire
SA31 3SG

to the extent authorised by and subject to the conditions of this permit.

Name	Date
	05 July 2010

Eirian Macdonald

Authorised on behalf of the Environment Agency

Conditions

Management

1.1 General management

1.1.1 The activities shall be managed and operated:

(a) in accordance with a management system, which identifies and minimises risks of pollution, including those arising from operations, maintenance, accidents, incidents, non-conformances and closure and those drawn to the attention of the operator as a result of complaints; and

(b) by sufficient persons who are competent in respect of the responsibilities to be undertaken by them in connection with the operation of the activities.

1.1.2 Records demonstrating compliance with condition 1.1.1 shall be maintained.

1.1.3 Any person having duties that are or may be affected by the matters set out in this permit shall have convenient access to a copy of it kept at or near the place where those duties are carried out.

1.2 Accident management plan

1.2.1 The operator shall:

(a) maintain and implement an accident management plan;

(b) review and record at least every 4 years or as soon as practicable after an accident, (whichever is the earlier) whether changes to the plan should be made;

(c) make any appropriate changes to the plan identified by a review.

1.3 Energy efficiency

1.3.1 For the following activities referenced in schedule 1, table S1.1 (A1 to A8) The operator shall:

(a) take appropriate measures to ensure that energy is used efficiently in the activities;

(b) review and record at least every 4 years whether there are suitable opportunities to improve the energy efficiency of the activities; and

(c) take any further appropriate measures identified by a review.

1.4 Efficient use of raw materials

1.4.1 For the following activities referenced in schedule 1, table S1.1 (A1 to A8) The operator shall:

(a) take appropriate measures to ensure that raw materials and water are used efficiently in the activities;

(b) maintain records of raw materials and water used in the activities;

(c) review and record at least every 4 years whether there are suitable alternative materials that could reduce environmental impact or opportunities to improve the efficiency of raw material and water use; and

(d) take any further appropriate measures identified by a review.

1.5 Avoidance, recovery and disposal of wastes produced by the activities

1.5.1. For the following activities referenced in schedule 1, table S1.1 (A1 to A8) The operator shall:

(a) take appropriate measures to ensure that waste produced by the activities is avoided or reduced, or where waste is produced it is recovered wherever practicable or otherwise disposed of in a manner which minimises its impact on the environment;

(b) review and record at least every 4 years whether changes to those measures should be made; and

(c) take any further appropriate measures identified by a review.

2 Operations

2.1 Permitted activities

2.1.1 The operator is authorised to carry out the activities specified in schedule 1 table S1.1 (the "activities").

2.2 The site

2.2.1 The activities shall not extend beyond the site, being the land shown edged in green on the site plan at schedule 2 to this permit.

2.3 Operating techniques

2.3.1 (a) The activities shall, subject to the conditions of this permit, be operated using the techniques and in the manner described in the documentation specified in schedule 1, table S1.2, unless otherwise agreed in writing by the Agency.

(b) If notified by the Agency that the activities are giving rise to pollution, the operator shall submit to the Agency for approval within the period specified, a revision of any plan specified in schedule 1, table S1.2 or otherwise required under this permit, and shall implement the approved revised plan in place of the original from the date of approval, unless otherwise agreed in writing by the Agency.

2.4 Improvement programme

2.4.1 The operator shall complete the improvements specified in schedule 1 table S1.3 by the date specified in that table unless otherwise agreed in writing by the Agency.

2.4.2 Except in the case of an improvement which consists only of a submission to the Agency, the operator shall notify the Agency within 14 days of completion of each improvement.

3 Emissions and monitoring

3.1 Emissions to water, air or land

3.1.1 There shall be no point source emissions to water, air or land except from the sources and emission points listed in schedule 4 tables S4.1 and S4.2.

3.1.2 The limits given in schedule 4 shall not be exceeded.

3.2 Fugitive emissions of substances

3.2.1 Fugitive emissions of substances (excluding odour, noise and vibration) shall not cause pollution. The operator shall not be taken to have breached this condition if appropriate measures, including, but not limited to, those specified in any approved fugitive emissions management plan, have been taken to prevent or where that is not practicable, to minimise, those emissions.

3.2.2 The operator shall:

(a) if notified by the Agency that the activities are giving rise to pollution, submit to the Agency for approval within the period specified, a fugitive emissions management plan;

(b) implement the approved fugitive emissions management plan, from the date of approval, unless otherwise agreed in writing by the Agency.

3.2.3 All liquids, whose emission to water or land could cause pollution, shall be provided with secondary containment, unless the operator has used other appropriate measures to prevent or where that is not practicable, to minimise, leakage and spillage from the primary container.

3.3 Odour

3.3.1 Emissions from the activities shall be free from odour at levels likely to cause pollution outside the site, as perceived by an authorised officer of the Agency, unless the operator has used appropriate measures, including, but not limited to, those specified in any approved odour management plan, to prevent or where that is not practicable to minimise the odour.

3.4 Noise and vibration

3.4.1 Emissions from the activities shall be free from noise and vibration at levels likely to cause pollution outside the site, as perceived by an authorised officer of the Agency, unless the operator has used appropriate measures, including, but not limited to, those specified in any approved noise and vibration management plan to prevent or where that is not practicable to minimise the noise and vibration.

3.4.2 The operator shall:

(a) if notified by the Agency that the activities are giving rise to pollution outside the site due to noise and vibration, submit to the Agency for approval within the period specified, a noise and vibration management plan;

(b) implement the approved noise and vibration management plan, from the date of approval, unless otherwise agreed in writing by the Agency.

3.5 Monitoring

3.5.1 The operator shall, unless otherwise agreed in writing by the Agency, undertake the monitoring specified in the following tables in schedule 4 to this permit:

(a) point source emissions specified in tables S4.1 and S4.2;

3.5.2 The operator shall maintain records of all monitoring required by this permit including records of the taking and analysis of samples, instrument measurements (periodic and continual), calibrations, examinations, tests and surveys and any assessment or evaluation made on the basis of such data.

3.5.3 Monitoring equipment, techniques, personnel and organisations employed for the emissions monitoring programme and the environmental or other monitoring specified in condition 3.5.1 shall have either MCERTS certification or MCERTS accreditation (as appropriate) unless otherwise agreed in writing by the Agency.

3.5.4 Permanent means of access shall be provided to enable sampling/monitoring to be carried out in relation to the emission points specified in schedule 4 tables S4.1 and S4.2 unless otherwise specified in that schedule.

4 Information

4.1 Records

4.1.1 All records required to be made by this permit shall:

(a) be legible;

(b) be made as soon as reasonably practicable;

(c) if amended, be amended in such a way that the original and any subsequent amendments remain legible, or are capable of retrieval; and

(d) be retained, unless otherwise agreed in writing by the Agency, for at least 6 years from the date when the records were made, or in the case of the following records until permit surrender:

(i) off-site environmental effects; and

(ii) matters which affect the condition of the land and groundwater.

4.1.2 All records, plans and the management system required to be maintained by this permit shall be held on the site where practicable, or other location agreed in writing and controlled by the operator.

4.2 Reporting

4.2.1 All reports and notifications required by the permit shall be sent to the Agency using the contact details supplied in writing by the Agency

4.3 Notifications

4.3.1 The Agency shall be notified without delay following the detection of:

(a) any malfunction, breakdown or failure of equipment or techniques, accident, or fugitive emission which has caused, is causing or may cause significant pollution;

(b) the breach of a limit specified in the permit; or

(c) any significant adverse environmental effects.

4.3.2 Any information provided under condition 4.3.1 shall be confirmed by sending the information listed in schedule 6 to this permit within the time period specified in that schedule.

4.3.3 Where the Agency has requested in writing that it shall be notified when the operator is to undertake monitoring and/or spot sampling, the operator shall inform the Agency when the relevant monitoring is to take place. The operator shall provide this information to the Agency at least 14 days before the date the monitoring is to be undertaken.

4.3.4 The Agency shall be notified within 14 days of the occurrence of the following matters, except where such disclosure is prohibited by Stock Exchange rules:

Where the operator is a registered company:

(a) any change in the operator's trading name, registered name or registered office address; and

(b) any steps taken with a view to the operator going into administration, entering into a company voluntary arrangement or being wound up.

Where the operator is a corporate body other than a registered company:

(a) any change in the operator's name or address; and

(b) any steps taken with a view to the dissolution of the operator.

In any other case:

(a) the death of any of the named operators (where the operator consists of more than one named individual);

(b) any change in the operator's name(s) or address(es); and

(c) any steps taken with a view to the operator, or any one of them, going into bankruptcy, entering into a composition or arrangement with creditors, or, in the case of them being in a partnership, dissolving the partnership.

4.3.5 Where the operator proposes to make a change in the nature or functioning, or an extension of the activities, which may have consequences for the environment and the change is not otherwise the subject of an application for approval under the Regulations or this permit:

(a) the Environment Agency shall be notified at least 14 days before making the change; and

(b) the notification shall contain a description of the proposed change in operation.

4.3.6 The Environment Agency shall be given at least 14 days notice before implementation of any part of the site closure plan.

4.3.7 Where the operator has entered into a climate change agreement with the Government, the Environment Agency shall be notified within one month of:

(a) a decision by the Secretary of State not to re-certify the agreement;

(b) a decision by either the operator or the Secretary of State to terminate the agreement; and

(c) any subsequent decision by the Secretary of State to re-certify such an agreement.

4.4 Interpretation

4.4.1 In this permit the expressions listed in schedule 7 shall have the meaning given in that schedule.

4.4.2 In this permit references to reports and notifications mean written reports and notifications, except where reference is made to notification being made "without delay", in which case it may be provided by telephone.

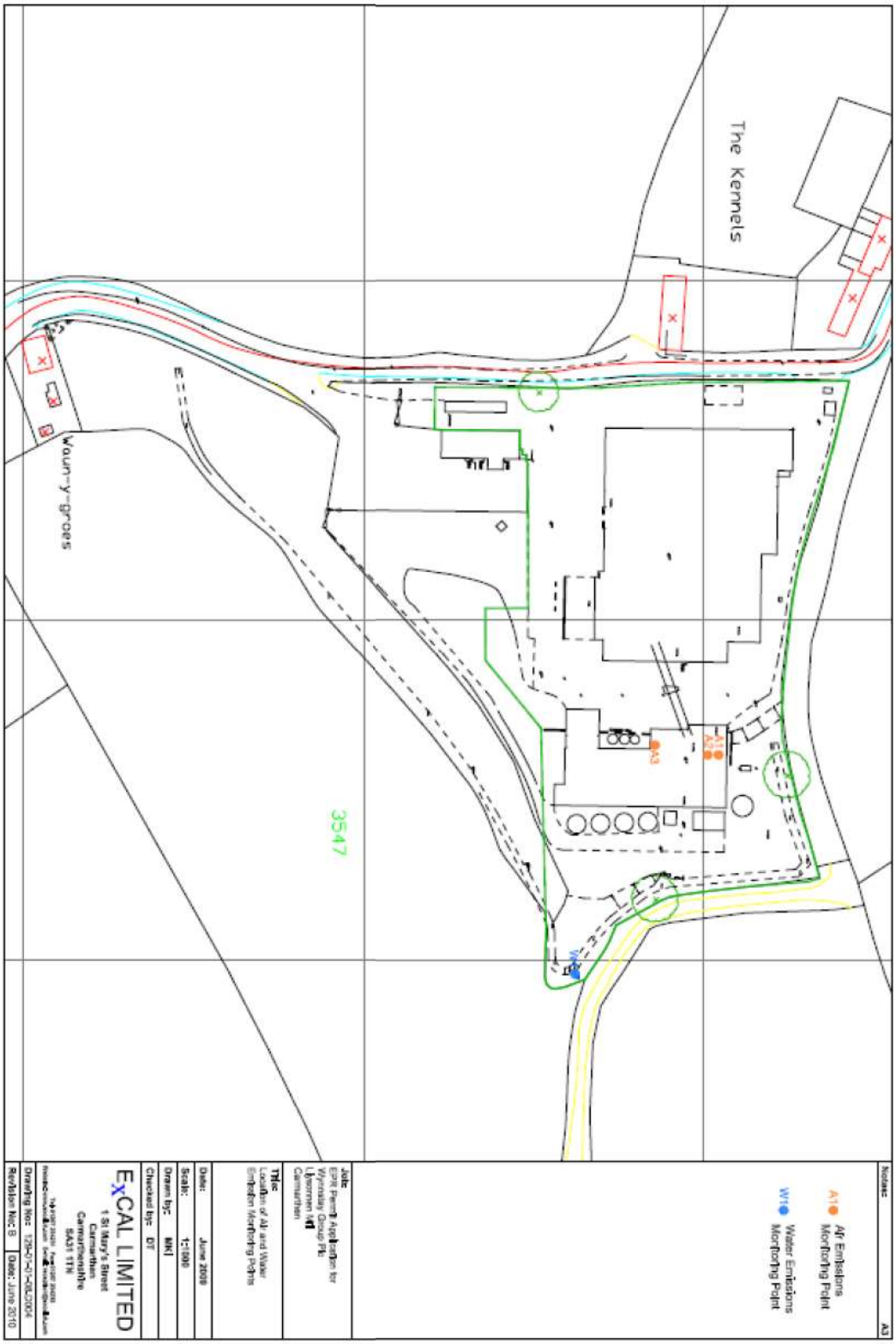
Schedule 1 - Operations

Table S1.1 activities			
Activity reference	**Activity listed in Schedule 1 of the EP Regulations**	**Description of specified activity**	**Limits of specified activity**
A1	S6.8 A1 (d) (ii)	Treating and processing materials intended for the production of food products from vegetable raw materials at a plant with a finished product production capacity of more than 300 tonnes per day (average value on a quarterly basis).	From receipt of raw materials to dispatch of finished product
Directly Associated Activity			
A2	Operation of abatement systems	Operation of abatement systems for the control of emissions to air	Operation, maintenance and control of abatement systems for emissions to air
A3	Operation of steam boilers	2.5 MWth heavy fuel oil fired boiler	From receipt of water to generation of steam and emissions of combustion gases
A4	Fuel/oil storage	3,000 litre red diesel storage tank 10,000 litre road diesel storage tank 15,000 litre heavy fuel oil storage tank	Includes fuel/oil receipt, storage and off loading
A5	Air compression	Generation of compressed air on site to deliver powder meal products via overhead pneumatic blow lines.	From receipt of air to discharge of compressed air to feed mill.
A6	Vehicle cleaning	Provision of vehicle cleaning facilities	Operation of vehicle cleaning facilities and discharge of wash waters to the underground storage tank.
A7	The collection and conveying of effluents arising from the permitted activities to the discharge point	Operation of the Installation drainage system and the discharge to surface water	From generation of effluent at the Installation to the discharge of effluent to surface water
A8	Waste handling and storage	Storage and handling of waste produced at the site.	From generation of waste to dispatch of waste materials from site.

Table S1.2 Operating techniques		
Description	**Parts**	**Date Received**
Application	The response to section B5 to B9 in the application	29/09/09
Additional information	Odour Management Plan	28/10/09
Additional information	Changes to vehicle wash area including revised site drainage plan, drawing No. 129-01-01-08.D007 Revision A.	11/01/10
Additional information	Revised site drainage drawing No. 129-01-01-08.D007 Revision B.	18/05/10
Additional Information Received	Revised Installation boundary drawing No.129-01-01-08.D004 Revision B.	11/06/10

Table S1.3 Improvement programme requirements		
Reference	**Requirement**	**Date**
IC1	The Operator shall investigate options which avoid the discharge of surface water, other than from building roofs, to local water courses. A written report on the options and proposed actions, with timescales for implementation, shall be submitted to the Environment Agency. You must implement the plan from the date of approval in writing by the Environment Agency.	01/10/2010
IC2	A written report shall be submitted to the Agency for approval detailing the results of a survey to determine the integrity, adequacy and suitability of existing hardstanding, kerbing and secondary containment and bunding for above and below ground structures and the measures to comply with the requirements of How to comply with your Environmental Permit (EPR 1.00) and the food and drink Technical Guidance Note (EPR 6.10). This shall include but not be limited to an inspection and maintenance program for all relative equipment identified. Where appropriate the report shall contain timetabled dates for the implementation of individual measures. You must implement the plan from the date of approval in writing by the Environment Agency.	01/01/2011
IC3	The Operator shall submit a written report to the Environment Agency for approval. The report shall assess the condition and integrity of the diesel storage and heavy fuel oil tanks and associated equipment such as pumps and connection lines in line with PPG2 Above ground oil storage tanks. The report will include an action plan with timescales for implementing improvements identified. You must implement the plan from the date of approval in writing by the Environment Agency.	01/04/2011
IC4	The Operator shall undertake a survey to assess the adequacy of the design, construction and condition of the site drainage system with the purpose of preventing fugitive emissions to surface water, ground water and land. A written report summarising the survey and proposals for improvements shall be submitted to the Environment Agency. A timescale for implementation of any improvements shall be approved by the Environment Agency.	01/04/2011

Schedule 2 - Site plan



Schedule 3 - Waste types, raw materials and fuels

Table S3.1 Raw materials and fuels	
Raw materials and fuel description	**Specification**
Heavy fuel oil	Less than 1.0% sulphur content.

Schedule 4 – Emissions and monitoring

Table S4.1 Point source emissions to air – emission limits and monitoring requirements

Emission point ref. & location	Parameter	Source	Limit (including unit)	Reference period	Monitoring frequency	Monitoring standard or method
A1 [Point A1 on site plan in schedule 2]	Particulate matter	Cyclone exhaust	50 mg/m^3	Hourly average	Annually	BS EN 13284-1
A2 [Point A2 on site plan in schedule 2]	Particulate matter	Cyclone exhaust	50 mg/m^3	Hourly average	Annually	BS EN 13284-1
A3 [Point A3 on site plan in Schedule 2]	No parameters set	Boiler Plant	No limit set	-	-	Permanent sampling access not required

Table S4.2 Point Source emissions to water (other than sewer) and land – emission limits and monitoring requirements

Emission point ref. & location	Parameter	Source	Limit (incl. unit)	Reference Period	Monitoring frequency	Monitoring standard or method
W1 on site plan in schedule 2 emission to tributary of Tawelan Brook	Total suspended solids	Site drainage and boiler blow down water	15 mg/l	For 95% of all measured values of periodic samples taken over one month	Monthly	BS EN 872
W1 on site plan in schedule 2 emission to tributary of Tawelan Brook	pH	Site drainage and boiler blow down water	5.0 – 8.5	Periodic	Monthly	BS6068-2.50
W1 on site plan in schedule 2 emission to tributary of Tawelan Brook	BOD (5 day)	Site drainage and boiler blow down water	10 mg/l	Periodic	Monthly	BS EN 1899-1:1998
W1 on site plan in schedule 2 emission to tributary of Tawelan Brook	Flow	Site drainage and boiler blow down water	53 m^3/day No flow in dry weather conditions	Periodic	Monthly	Calibrated apparatus approved in writing by the Agency to permit the instantaneous rate of effluent flow to be measured accurately at any one time

Schedule 5 - Reporting

Parameters, for which reports shall be made, in accordance with conditions of this permit, are listed below.

Table S5.1 Reporting of monitoring data

Parameter	Emission or monitoring point/reference	Reporting period	Period begins
Emissions to air Parameters as required by condition 3.5.1.	A1, A2	Every 12 months	01/07/10
Emissions to water Parameters as required by condition 3.5.1	W1	Every 3 months	01/07/10

Table S5.2: Annual production/treatment

Parameter	Units
Animal Feed	tonnes

Table S5.3 Performance parameters

Parameter	Frequency of assessment	Units
Water usage	Annually	Litres per tonne of product
Energy usage	Annually	MWh per tonne of product
Waste produced	Annually	tonnes

Table S5.4 Reporting forms

Media/parameter	Reporting format	Date of form
Air	Form air 1 or other form as agreed in writing by the Agency	30/06/10
Water and Land	Form water 1 or other form as agreed in writing by the Agency	30/06/10
Water usage	Form water usage1 or other form as agreed in writing by the Agency	30/06/10
Energy usage	Form energy 1 or other form as agreed in writing by the Agency	30/06/10
Animal feed produced	Form performance 1 or other form as agreed in writing by the Agency	30/06/10
Waste produced	Form performance 1 or other form as agreed in writing by the Agency	30/06/10

Schedule 6 - Notification

These pages outline the information that the operator must provide.

Units of measurement used in information supplied under Part A and B requirements shall be appropriate to the circumstances of the emission. Where appropriate, a comparison should be made of actual emissions and authorised emission limits.

If any information is considered commercially confidential, it should be separated from non-confidential information, supplied on a separate sheet and accompanied by an application for commercial confidentiality under the provisions of the EP Regulations.

Part A

Permit Number	
Name of operator	
Location of Facility	
Time and date of the detection	

(a) Notification requirements for any malfunction, breakdown or failure of equipment or techniques, accident, or fugitive emission which has caused, is causing or may cause significant pollution	
To be notified within 24 hours of detection	
Date and time of the event	
Reference or description of the location of the event	
Description of where any release into the environment took place	
Substances(s) potentially released	
Best estimate of the quantity or rate of release of substances	
Measures taken, or intended to be taken, to stop any emission	
Description of the failure or accident.	

(b) Notification requirements for the breach of a limit	
To be notified within 24 hours of detection unless otherwise specified below	
Emission point reference/ source	
Parameter(s)	
Limit	
Measured value and uncertainty	
Date and time of monitoring	
Measures taken, or intended to be taken, to stop the emission	

Time periods for notification following detection of a breach of a limit	
Parameter	**Notification period**

(c) Notification requirements for the detection of any significant adverse environmental effect	
To be notified within 24 hours of detection	
Description of where the effect on the environment was detected	
Substances(s) detected	
Concentrations of substances detected	
Date of monitoring/sampling	

Part B - to be submitted as soon as practicable

Any more accurate information on the matters for notification under Part A.	
Measures taken, or intended to be taken, to prevent a recurrence of the incident	
Measures taken, or intended to be taken, to rectify, limit or prevent any pollution of the environment which has been or may be caused by the emission	
The dates of any unauthorised emissions from the facility in the preceding 24 months.	

Name*	
Post	
Signature	
Date	

* authorised to sign on behalf of Wynnstay Group Plc

Schedule 7 - Interpretation

"*accident*" means an accident that may result in pollution.

"*annually*" means once every year.

"*application*" means the application for this permit, together with any additional information supplied by the operator as part of the application and any response to a notice served under Schedule 5 to the EP Regulations.

"authorised officer" means any person authorised by the Agency under section 108(1) of The Environment Act 1995 to exercise, in accordance with the terms of any such authorisation, any power specified in section 108(4) of that Act.

"emissions to land" includes emissions to groundwater.

"EP Regulations" means The Environmental Permitting (England and Wales) Regulations SI 2007 No.3538 and words and expressions used in this permit which are also used in the Regulations have the same meanings as in those Regulations.

"fugitive emission" means an emission to air, water or land from the activities from a localised or diffuse source which is not controlled by an emission or background concentration limit.

"groundwater" means all water, which is below the surface of the ground in the saturation zone and in direct contact with the ground or subsoil.

"MCERTS" means the Environment Agency's Monitoring Certification Scheme.

"quarter" means a calendar year quarter commencing on 1 January, 1 April, 1 July or 1 October.

"year" means calendar year ending 31 December.

END OF PERMIT

Appendix E

Environmental Permit (EPR/EP3034GS/V004)

Permit with introductory note

The Environmental Permitting (England & Wales) Regulations 2016

Wynnstay Group P.L.C.

Llysonnen Mill
Travellers Rest
Carmarthen
Carmarthenshire
SA31 3SG

Permit number

EPR/EP3034GS

Llysonnen Mill
Permit number EPR/EP3034GS

Introductory note

This introductory note does not form a part of the permit

The main features of the permit are as follows.

The installation is located at Travellers Rest, Carmarthen covering an area of approximately 1.6 hectares with the centre of the site located at National Grid Reference SN 38295 19579.

The installation utilises bulk raw materials of vegetable origin to produce pellets or blends of meals for animal feed. Raw materials are accepted at the site in dry and liquid forms with dry materials being stored in bulk silos and liquids in blended storage tanks. Filters are used at the intake points to reduce the potential for atmospheric emissions during delivery.

The milling process blends, grinds, mixes and extrudes into pellets (if required) the raw materials which are blended to specific formulas (steam, molasses and liquids are added if necessary).

Pelletising of the mixes into pellets, nuts or rolls occurs through one of two processing lines. After the feed, has been formed in the presses air is drawn down to cool the feed using one of two coolers. Air from each cooler is expelled through cyclone abatement systems which are monitored for particulate emissions on an annual basis. The finished product is transferred for bulk storage and subsequent sale.

The main process is also supported by ancillary activities which include steam generation, compressed air generation, effluent treatment, cleaning and vehicle washing.

All processes which are likely to produce dust and noise emissions are undertaken in buildings or sheltered units fitted with dust suppression systems where appropriate. A management system is in place that covers all aspects of site operations which could impact on the environment.

The status log of the permit sets out the permitting history, including any changes to the permit reference number.

Status log of the permit		
Description	**Date**	**Comments**
Application EPR/EP3034GS	Duly Made 30/10/09	
Additional information Received	11/01/10	Changes to vehicle wash area including revised site drainage plan, drawing No.12901-01-08.DO007, Revision A
Additional information received	18/05/10	Revised drainage drawing No. 129-01-0108.D007, Revision B
Additional information received	11/06/10	Revised site drainage drawing No. 129-01-01-08. D004, Revision B
Permit determined	05/07/10	
Application for variation EA/EPR/EP3034GS/V002	13/09/2010	
Variation issued	05/10/2010	
Application EPR/EP3034GS/V003	Duly Made 02/05/17	
Permit application withdrawn	30/08/17	
Application EPR/EP3034GS/V003	Duly Made 01/12/17	
Permit determined	19/02/2018	
Regulation 61 Notice sent to the Operator	28/04/2020	Issue of a Notice under Regulation 61(1) of the EPR. Natural Resources Wales initiated review and variation to vary the permit following the publication of the revised Best Available Techniques (BAT) Reference Document (BRef) for the Food, Drink and Milk Industries.
Regulation 61 Notice response	28/10/2020	Response received from the operator.
NRW Initiated variation determined EPR/EP3034GS/V004	26/01/2022	Varied permit issued to Operator. Natural Resources Wales initiated review and variation to vary the permit following the publication of the revised Best Available Techniques (BAT) Reference Document (BRef) for the Food, Drink and Milk Industries.

End of introductory note

Permit

The Environmental Permitting (England and Wales) Regulations 2016

Permit number
EPR/EP3034GS

This is the consolidated permit referred to in the variation and consolidation notice for application EPR/EP3034GS/V004 authorising

Wynnstay Group P.L.C. ("the operator")

whose registered office is

Eagle House
Llansantffraid Ym Mechain
Powys
SY22 6AQ

company registration number **02704051**

to operate an installation at

Llysonnen Mill
Travellers Rest
Carmarthen
Carmarthenshire
SA31 3SG

to the extent authorised by and subject to the conditions of this permit.

Signed	Date
Holly Noble	**26/01/2022**

Authorised on behalf of Natural Resources Wales

Conditions

1 Management

1.1 General management

1.1.1 The operator shall manage and operate the activities:

(a) in accordance with a written management system that identifies and minimises risks of pollution, including those arising from operations, maintenance, accidents, incidents, non-conformances, closure and those drawn to the attention of the operator as a result of complaints; and

(b) using sufficient competent persons and resources.

1.1.2 Records demonstrating compliance with condition 1.1.1 shall be maintained.

1.1.3 Any person having duties that are or may be affected by the matters set out in this permit shall have convenient access to a copy of it kept at or near the place where those duties are carried out.

1.2 Energy efficiency

1.2.1 The operator shall:

(a) take appropriate measures to ensure that energy is used efficiently in the activities;

(b) review and record at least every four years whether there are suitable opportunities to improve the energy efficiency of the activities; and

(c) take any further appropriate measures identified by a review.

1.3 Efficient use of raw materials

1.3.1 The operator shall:

(a) take appropriate measures to ensure that raw materials and water are used efficiently in the activities;

(b) maintain records of raw materials and water used in the activities;

(c) review and record at least every four years whether there are suitable alternative materials that could reduce environmental impact or opportunities to improve the efficiency of raw material and water use; and

(d) take any further appropriate measures identified by a review.

1.4 Avoidance, recovery and disposal of wastes produced by the activities

1.4.1 The operator shall take appropriate measures to ensure that:

(a) the waste hierarchy referred to in Article 4 of the Waste Framework Directive is applied to the generation of waste by the activities; and

(b) any waste generated by the activities is treated in accordance with the waste hierarchy referred to in Article 4 of the Waste Framework Directive; and

(c) where disposal is necessary, this is undertaken in a manner which minimises its impact on the environment.

1.4.2 The operator shall review and record at least every four years whether changes to those measures should be made and take any further appropriate measures identified by a review.

2 Operations

2.1 Permitted activities

2.1.1 The operator is only authorised to carry out the activities specified in schedule 1 table S1.1 (the "activities").

2.2 The site

2.2.1 The activities shall not extend beyond the site, being the land shown edged in green on the site plan at schedule 7 to this permit.

2.3 Operating techniques

2.3.1 (a) The activities shall, subject to the conditions of this permit, be operated using the techniques and in the manner described in the documentation specified in schedule 1, table S1.2, unless otherwise agreed in writing by Natural Resources Wales.

(b) If notified by Natural Resources Wales that the activities are giving rise to pollution, the operator shall submit to Natural Resources Wales for approval within the period specified, a revision of any plan or other documentation ("plan") specified in schedule 1, table S1.2 or otherwise required under this permit which identifies and minimises the risks of pollution relevant to that plan , and shall implement the approved revised plan in place of the original from the date of approval, unless otherwise agreed in writing by Natural Resources Wales.

2.3.2 Any raw materials or fuels listed in schedule 2 table S2.1 shall conform to the specifications set out in that table.

2.3.3 The operator shall ensure that where waste produced by the activities is sent to a relevant waste operation, that operation is provided with the following information, prior to the receipt of the waste:

(a) the nature of the process producing the waste;

(b) the composition of the waste;

(c) the handling requirements of the waste;

(d) the hazardous property associated with the waste, if applicable; and

(e) the waste code of the waste.

2.3.4 The operator shall ensure that where waste produced by the activities is sent to a landfill site, it meets the waste acceptance criteria for that landfill.

2.4 Improvement programme

2.4.1 The operator shall complete the improvements specified in schedule 1 table S1.3 by the date specified in that table unless otherwise agreed in writing by Natural Resources Wales.

2.4.2 Except in the case of an improvement which consists only of a submission to Natural Resources Wales, the operator shall notify Natural Resources Wales within 14 days of completion of each improvement.

3 Emissions and monitoring

3.1 Emissions to water, air or land

3.1.1 There shall be no point source emissions to water, air or land except from the sources and emission points listed in schedule 3 tables S3.1 and S3.2.

3.1.2 The limits given in schedule 3 shall not be exceeded.

3.1.3 Periodic monitoring shall be carried out at least once every 5 years for groundwater and 10 years for soil, unless such monitoring is based on a systematic appraisal of the risk of contamination.

3.2 Emissions of substances not controlled by emission limits

3.2.1 Emissions of substances not controlled by emission limits (excluding odour) shall not cause pollution. The operator shall not be taken to have breached this condition if appropriate measures, including, but not limited to, those specified in any approved emissions management plan, have been taken to prevent or where that is not practicable, to minimise, those emissions.

3.2.2 The operator shall:

(a) if notified by Natural Resources Wales that the activities are giving rise to pollution, submit to Natural Resources Wales for approval within the period specified, an emissions management plan which identifies and minimises the risks of pollution from emissions of substances not controlled by emission limits;

(b) implement the approved emissions management plan, from the date of approval, unless otherwise agreed in writing by Natural Resources Wales.

3.2.3 All liquids in containers, whose emission to water or land could cause pollution, shall be provided with secondary containment, unless the operator has used other appropriate measures to prevent or where that is not practicable, to minimise, leakage and spillage from the primary container.

3.3 Odour

3.3.1 Emissions from the activities shall be free from odour at levels likely to cause pollution outside the site, as perceived by an authorised officer of Natural Resources Wales, unless the operator has used appropriate measures, including, but not limited to, those specified in any approved odour management plan, to prevent or where that is not practicable to minimise the odour.

3.3.2 The operator shall:

(a) if notified by Natural Resources Wales that the activities are giving rise to pollution outside the site due to odour, submit to Natural Resources Wales for approval within the period specified, an odour management plan which identifies and minimises the risks of pollution from odour;

(b) implement the approved odour management plan, from the date of approval, unless otherwise agreed in writing by Natural Resources Wales.

3.4 Noise and vibration

3.4.1 Emissions from the activities shall be free from noise and vibration at levels likely to cause pollution outside the site, as perceived by an authorised officer of Natural Resources Wales, unless the operator has used appropriate measures, including, but not limited to, those specified in any approved noise and vibration management plan to prevent or where that is not practicable to minimise the noise and vibration.

3.4.2 The operator shall:

(a) if notified by Natural Resources Wales that the activities are giving rise to pollution outside the site due to noise and vibration, submit to Natural Resources Wales for approval within the period specified, a noise and vibration management plan which identifies and minimises the risks of pollution from noise and vibration;

(b) implement the approved noise and vibration management plan, from the date of approval, unless otherwise agreed in writing by Natural Resources Wales.

3.5 Monitoring

3.5.1 The operator shall, unless otherwise agreed in writing by Natural Resources Wales, undertake the monitoring specified in the following tables in schedule 3 to this permit:

(a) point source emissions specified in tables S3.1 and S3.2

3.5.2 The operator shall maintain records of all monitoring required by this permit including records of the taking and analysis of samples, instrument measurements (periodic and continual), calibrations, examinations, tests and surveys and any assessment or evaluation made on the basis of such data.

3.5.3 Monitoring equipment, techniques, personnel and organisations employed for the emissions monitoring programme and the environmental or other monitoring specified in condition 3.5.1 shall have either MCERTS certification or MCERTS accreditation (as appropriate), where available, unless otherwise agreed in writing by Natural Resources Wales.

3.5.4 Permanent means of access shall be provided to enable sampling/monitoring to be carried out in relation to the emission points specified in schedule 3 tables S3.1 and S3.2 unless otherwise agreed in writing by Natural Resources Wales.

3.6 Pests

3.6.1 The activities shall not give rise to the presence of pests which are likely to cause pollution, hazard or annoyance outside the boundary of the site. The operator shall not be taken to have breached this condition if appropriate measures, including, but not limited to, those specified in any approved pests management plan, have been taken to prevent or where that is not practicable, to minimise the presence of pests on the site.

3.6.2 The operator shall:

(a) if notified by Natural Resources Wales, submit to Natural Resources Wales for approval within the period specified, a pests management plan which identifies and minimises risks of pollution, hazard or annoyance from pests;

(b) implement the pests management plan, from the date of approval, unless otherwise agreed in writing by Natural resources Wales

4 Information

4.1 Records

4.1.1 All records required to be made by this permit shall:

(a) be legible;

(b) be made as soon as reasonably practicable;

(c) if amended, be amended in such a way that the original and any subsequent amendments remain legible, or are capable of retrieval; and

(d) be retained, unless otherwise agreed in writing by Natural Resources Wales, for at least 6 years from the date when the records were made, or in the case of the following records until permit surrender:

(i) off-site environmental effects; and

(ii) matters which affect the condition of the land and groundwater.

4.1.2 The operator shall keep on site all records, plans and the management system required to be maintained by this permit, unless otherwise agreed in writing by Natural Resources Wales.

4.2 Reporting

4.2.1 The operator shall send all reports and notifications required by the permit to Natural Resources Wales using the contact details supplied in writing by Natural Resources Wales.

4.2.2 A report or reports on the performance of the activities over the previous year shall be submitted to Natural Resources Wales by 31 January (or other date agreed in writing by Natural Resources Wales) each year. The report(s) shall include as a minimum:

(a) a review of the results of the monitoring and assessment carried out in accordance with the permit including an interpretive review of that data;

(b) the annual production / treatment data set out in schedule 4 table S4.2; and

(c) the performance parameters set out in schedule 4 table S4.3 using the forms specified in table S4.4 of that schedule.

4.2.3 Within 28 days of the end of the reporting period the operator shall, unless otherwise agreed in writing by Natural Resources Wales, submit reports of the monitoring and assessment carried out in accordance with the conditions of this permit, as follows:

(a) in respect of the parameters and emission points specified in schedule 4 table S4.1;

(b) for the reporting periods specified in schedule 4 table S4.1 and using the forms specified in schedule 4 table S4.4 ; and

(c) giving the information from such results and assessments as may be required by the forms specified in those tables.

4.2.4 The operator shall, unless notice under this condition has been served within the preceding four years, submit to Natural Resources Wales, within six months of receipt of a written notice, a report assessing whether there are other appropriate measures that could be taken to prevent, or where that is not practicable, to minimise pollution.

4.3 Notifications

4.3.1 (a) In the event that the operation of the activities gives rise to an incident or accident which significantly affects or may significantly affect the environment, the operator must immediately—

(i) inform Natural Resources Wales,

(ii) take the measures necessary to limit the environmental consequences of such an incident or accident, and

(iii) take the measures necessary to prevent further possible incidents or accidents;

(b) in the event of a breach of any permit condition the operator must immediately—

(i) inform Natural Resources Wales, and

(ii) take the measures necessary to ensure that compliance is restored within the shortest possible time;

(c) in the event of a breach of permit condition which poses an immediate danger to human health or threatens to cause an immediate significant adverse effect on the environment, the operator must immediately suspend the operation of the activities or the relevant part of it until compliance with the permit conditions has been restored.

4.3.2 Any information provided under condition 4.3.1 (a)(i), or 4.3.1 (b)(i) where the information relates to the breach of a limit specified in the permit, shall be confirmed by sending the information listed in schedule 5 to this permit within the time period specified in that schedule.

4.3.3 Where Natural Resources Wales has requested in writing that it shall be notified when the operator is to undertake monitoring and/or spot sampling, the operator shall inform Natural Resources Wales when the relevant monitoring and/or spot sampling is to take place. The operator shall provide this information to Natural Resources Wales at least 14 days before the date the monitoring is to be undertaken.

4.3.4 Natural Resources Wales shall be notified within 14 days of the occurrence of the following matters, except where such disclosure is prohibited by Stock Exchange rules:

Where the operator is a registered company:

(a) any change in the operator's trading name, registered name or registered office address; and

(b) any steps taken with a view to the operator going into administration, entering into a company voluntary arrangement or being wound up.

Where the operator is a corporate body other than a registered company:

(a) any change in the operator's name or address; and

(b) any steps taken with a view to the dissolution of the operator.

In any other case:

(a) the death of any of the named operators (where the operator consists of more than one named individual);

(b) any change in the operator's name(s) or address(es); and

(c) any steps taken with a view to the operator, or any one of them, going into bankruptcy, entering into a composition or arrangement with creditors, or, in the case of them being in a partnership, dissolving the partnership.

4.3.5 Where the operator proposes to make a change in the nature or functioning, or an extension of the activities, which may have consequences for the environment and the change is not otherwise the subject of an application for approval under the Regulations or this permit:

(a) Natural Resources Wales shall be notified at least 14 days before making the change; and

(b) the notification shall contain a description of the proposed change in operation.

4.3.6 Natural Resources Wales shall be given at least 14 days notice before implementation of any part of the site closure plan.

4.3.7 Where the operator has entered into a climate change agreement with the Government, Natural Resources Wales shall be notified within one month of:

(a) a decision by the Secretary of State not to re-certify the agreement;

(b) a decision by either the operator or the Secretary of State to terminate the agreement; and

(c) any subsequent decision by the Secretary of State to re-certify such an agreement.

4.4 Interpretation

4.4.1 In this permit the expressions listed in schedule 6 shall have the meaning given in that schedule.

4.4.2 In this permit references to reports and notifications mean written reports and notifications, except where reference is made to notification being made “immediately” or “without delay” in which case it may be provided by telephone.

Schedule 1 - Operations

Table S1.1 activities			
Activity reference	**Activity listed in Schedule 1 of the EP Regulations**	**Description of specified activity**	**Limits of specified activity**
A1	Section 6.8 Part A(1)(d)(ii) Treatment and processing, other than exclusively packaging, of the following raw materials, whether previously processed or unprocessed, intended for the production of food or feed (ii) only vegetable raw materials with a finished product production capacity greater than 300 tonnes per day	Production of animal feeds	From receipt of raw materials to despatch of final product. Maximum capacity limited to the agreed figure provided in response to part (b) of Improvement Condition 10.
Directly Associated Activity			
A2	Operation of abatement systems	Operation of abatement systems for the control of emissions to air	Operation, maintenance and control of abatement
A3	Steam generation	Boiler fuelled on kerosene used to generate steam on-site	From receipt of water to generation of steam and emissions of combustion gases
A4	Fuel/oil storage	3,000 litre red diesel storage tank 10,000 litre road diesel storage tank 10,000 litre kerosene storage tank	Includes fuel/oil receipt, storage and off-loading
A5	Air compression	Generation of compressed air on-site to deliver powder meal products via overhead pneumatic blow lines	From receipt of ait ro discharge of compressed air to feed mill
A6	Vehicle cleaning	Provision of vehicle leaning facilities	Operation of vehicle cleaning facilities and discharge of wash water to underground storage tank
A7	Effluent Treatment	Operation of effluent treatment plan to treat all process and foul effluent	From generation of process and foul effluent at the installation to discharge of treated effluent to surface water
A8	Waste handling and storage	Storage and handling of wastes produced at the site	From generation of waste to despatch of waste materials from site

Table S1.2 Operating techniques		
Description	**Parts**	**Date Received**
Application	The response to section B5-B9 in the application	29/09/09
Additional Information	Odour Management Plan	28/10/09

Table S1.2 Operating techniques		
Description	**Parts**	**Date Received**
Additional Information	Changes to vehicle wash area including revised site drainage plan, drawing No. 129-01-01-08. D007. Revision A	11/01/10
Additional Information	Revised site drainage drawing No. 129-01-01-08. D007. Revision B	18/05/10
Additional Information Received	Revised Installation boundary drawing No. 129-01-01-08. D004. Revision B	11/06/10
Application	Drawing no. 129-01-08. d01 – proposed permit boundary Rev A	01/12/17
Application	Drawing no. 129-01-09.DO8 – Wynnstay drainage scheme ARM design rev 1	01/12/17
Application	6922 NRW Supporting docs for permit variation	01/12/17
Response to regulation 61(1) Notice – request for information dated 28/04/2020 detailing how the Operator will comply with the BAT conclusions for the Food, Drink and Milk Industries under Directive 2010/75/EU of the European Parliament and of the Council	All	28/10/2020
Additional information received via E-mail	All	30/09/2021, 21/10/2021 and

Table S1.3 Improvement programme requirements		
Reference	**Requirement**	**Date**
IC1	A written report shall be submitted to Natural Resources Wales for approval, detailing the results of a survey to determine the integrity, adequacy and suitability of existing hardstanding, kerbing and secondary containment and bunding for above and below ground structures and the measures to comply with the requirements of '*How to comply with your environmental permit (EPR1.00) and the Food and Drink Technical Guidance Note (EPR 6.10).* This shall include but not be limited to an inspection and maintenance program for all relative equipment identified. Where appropriate the report shall contain timetabled dates for implementation of individual measures. You must implement the plan from the date of approval in writing by Natural Resources Wales.	06/08/2018 Complete CAR_NRW0034570 05/02/2019
IC2	Full details relating to the design and performance of the 'ARM Reed bed and Septic Tank system' shall be submitted to Natural Resources Wales for approval, following submission of the final plans. As part of this, the operator shall provide an up-to-date site plan showing the final location of the 'W1' emission point.	06/08/2018 Complete CAR_NRW0035967 20/11/2019
IC3	Full details for the proposed design of the lorry wash water recirculation system shall be submitted to Natural Resources Wales for approval following completion of the design.	06/08/2018 Complete CAR_NRW0035967 20/11/2019

Table S1.3 Improvement programme requirements		
Reference	**Requirement**	**Date**
IC4	The operator shall submit a written report to Natural Resources Wales for approval. The report shall assess the condition and integrity of kerosene storage and associated equipment such as pumps and connection lines in-line with GPP2 – Above ground oil storage tanks. The report will include an action plan and timescales for implementing improvements identified. You must implement the plan from the date of approval in writing by Natural Resources Wales.	06/08/2018 Complete CAR_NRW0034570 05/02/2019
IC5	The operator shall review the operating techniques in Table S1.2 of this permit in-line with 'how to comply' guidance, Technical Guidance Note M18, Food & Drink sector guidance EPR6.10 and any other guidance relevant to the operations carried out on-site to ensure that the operating techniques are still relevant and up-to-date. A report will be submitted to NRW for approval.	06/08/2018 Superseded by 2022 BREF review
IC6	The Operator shall complete and submit for approval in writing by Natural Resources Wales: • A baseline report containing information necessary to determine the current state of soil and groundwater contamination; or • Provide a summary report referring to information previously submitted where you are satisfied that such information represents the current state of soil and groundwater contamination; so as to enable a quantified comparison to be made with the state of soil and groundwater contamination upon definitive cessation of activity.	4 June 2023 or otherwise agreed in writing with Natural Resources Wales
IC7	The Operator shall submit to Natural Resources Wales an updated written procedure(s) describing how they intend to meet the following BAT requirements in accordance with requirements specified within: • BAT Conclusion 15 of the Food, Drink and Milk Industries BRef Document (EU 2019) – Set up, implement and regularly review an Odour Management Plan (as part of the EMS) that includes all of the specified elements	4 June 2023 or otherwise agreed in writing with Natural Resources Wales
IC8	The Operator shall submit to Natural Resources Wales an updated written procedure(s) describing how they intend to meet the following BAT requirements in accordance with requirements specified within: • BAT Conclusion 13 of the Food, Drink and Milk Industries BRef Document (EU 2019) – Set up, implement and regularly review a Noise Management Plan (as part of the EMS) that includes all of the specified elements	4 June 2023 or otherwise agreed in writing with Natural Resources Wales
IC9	The Operator shall submit to Natural Resources Wales an updated written procedure(s) describing how they intend to meet the following BAT requirements in accordance with requirements specified within: • BAT Conclusion 2 of the Food, Drink and Milk Industries BRef Document (EU 2019) – Establish and maintain a waste water and waste gas inventory as part of the Environment Management System	4 June 2023 or otherwise agreed in writing with Natural Resources Wales

Table S1.3 Improvement programme requirements		
Reference	**Requirement**	**Date**
IC10	(a) The Operator shall submit to NRW the maximum capacity of the installation that was used in the most recent risk assessment submitted to NRW. (b) The Operator shall submit to NRW for approval the maximum capacity of the installation at the current time. (c) If the maximum capacity of the installation has increased from the time of the last submitted risk assessment and the current time, the Operator shall review and update the risk assessment to account for the current maximum capacity. The risk assessment shall be submitted to NRW for review. Notes: The capacity is to be taken and presented using the same units from the relevant sub-section of Section 6.8, Part 2, Schedule 1 of the Environmental Permitting Regulations 2016 (as from time to time amended). Capacity is to be taken as the maximum possible capacity of the installation, not the maximum actual production. The risk assessment should follow the methodology set out in The Environmental Risk Assessment (EPR-H1). You may use a methodology other than EPR-H1 however the methodology must address the same issues as in EPR-H1 to an equivalent level of detail.	(a) and (b) Within 6 months of permit variation issue (c) Within 9 months of permit variation issue (if applicable)

Schedule 2 - Waste types, raw materials and fuels

Table S2.1 Raw materials and fuels	
Raw materials and fuel description	**Specification**
Kerosene – storage capacity 10,000 litres	-

Schedule 3(a) – Emissions and monitoring effective until 3 December 2023

Table S3.1 Point source emissions to air – emission limits and monitoring requirements

Emission point ref. & location	Source	Parameter	Limit (including unit)	Reference period	Monitoring frequency	Monitoring standard or method
A1 [Point A1 on site plan in Schedule 7]	Cyclone exhaust – pellet cooling	Particulate matter	50 mg/m^3	Periodic	Annual	EN 13284-1
A2 [Point A2 on site plan in Schedule 7]	Cyclone exhaust – pellet cooling	Particulate matter	50 mg/m^3	Periodic	Annual	EN 13284-1
A3 [Point A3 on site plan in Schedule 7]	Boiler plant	No parameters set	No limit set	-	-	-
A4 [Point A4 on site plan in Schedule 7]	Bulk intake extraction unit	No parameters set	No limit set	-	-	-

Table S3.2 Point Source emissions to water (other than sewer) and land – emission limits and monitoring requirements

Emission point ref. & location	Source	Parameter	Limit (including unit)	Reference Period	Monitoring frequency	Compliance statistic	Monitoring standard or method
W1 [Point W1 on site plan in Schedule 7] emission to Tawelan Brook	Surface water and foul sewage effluent	Total suspended solids	15 mg/l	Instantaneous (spot sample)	Monthly	For 95 % of all measured values of periodic samples taken over one month	BS EN 872
		pH	5.0 – 8.5	Instantaneous (spot sample)	Monthly	Minimum and maximum	BS6068-2.50
		Biochemical oxygen demand (BOD) 5 day	10 mg/l	Instantaneous (spot sample)	Monthly	Maximum	BS EN 1899-1

Table S3.2 Point Source emissions to water (other than sewer) and land – emission limits and monitoring requirements							
Emission point ref. & location	**Source**	**Parameter**	**Limit (including unit)**	**Reference Period**	**Monitoring frequency**	**Compliance statistic**	**Monitoring standard or method**
		Flow	53 m^3/day No flow in dry weather conditions	Instantaneous (spot sample)	Monthly	Maximum	Calibrated apparatus approved in writing by Natural Resources Wales

Schedule 3(b) – Emissions and monitoring effective from 4 December 2023

Table S3.1 Point source emissions to air – emission limits and monitoring requirements

Emission point ref. & location	Source	Parameter	Limit (including unit)	Reference period	Monitoring frequency	Monitoring standard or method
A1 [Point A1 on site plan in Schedule 7]	Cyclone exhaust – pellet cooling	Particulate matter	20 mg/Nm^3 Note 1	Periodic	Annual	EN 13284-1
A2 [Point A2 on site plan in Schedule 7]	Cyclone exhaust – pellet cooling	Particulate matter	20 mg/Nm^3 Note 1	Periodic	Annual	EN 13284-1
A3 [Point A3 on site plan in Schedule 7]	Boiler plant	No parameters set	No limit set	-	-	-
A4 [Point A4 on site plan in Schedule 7]	Bulk intake extraction unit	No parameters set	No limit set	-	-	-

Note 1: Emission limit value expressed as mass of emitted substances per volume of waste gas under the following conditions: dry gas at a temperature of 273.15 K and a pressure of 101.3 kPa without correction for oxygen content.

Table S3.2 Point Source emissions to water (other than sewer) and land – emission limits and monitoring requirements

Emission point ref. & location	Source	Parameter	Limit (including unit)	Reference Period	Monitoring frequency	Compliance statistic	Monitoring standard or method
W1 [Point W1 on site plan in Schedule 7] emission to Tawelan Brook	Surface water and foul sewage effluent	Total suspended solids	15 mg/l	Instantaneous (spot sample)	Monthly	For 95 % of all measured values of periodic samples taken over one month	BS EN 872
		pH	5.0 – 8.5	Instantaneous (spot sample)	Monthly	Minimum and maximum	BS6068-2.50
		Biochemical oxygen demand (BOD) 5 day	10 mg/l	Instantaneous (spot sample)	Monthly	Maximum	BS EN 1899-1

Table S3.2 Point Source emissions to water (other than sewer) and land – emission limits and monitoring requirements							
Emission point ref. & location	**Source**	**Parameter**	**Limit (including unit)**	**Reference Period**	**Monitoring frequency**	**Compliance statistic**	**Monitoring standard or method**
		Flow	53 m^3/day No flow in dry weather conditions	Instantaneous (spot sample)	Monthly	Maximum	Calibrated apparatus approved in writing by Natural Resources Wales

Schedule 4(a) – Reporting effective until 3 December 2023

Parameters, for which reports shall be made, in accordance with conditions of this permit, are listed below.

Table S4.1 Reporting of monitoring data			
Parameter	**Emission or monitoring point/reference**	**Reporting period**	**Period begins**
Emissions to air Parameters as required by condition 3.5.1.	A1, A2	Annually	1 January
Emissions to water Parameters as required by condition 3.5.1	W1	Annually	1 January

Table S4.2: Annual production/treatment	
Parameter	**Units**
Animal feed	tonnes

Table S4.3 Performance parameters		
Parameter	**Frequency of assessment**	**Units**
Water usage	Annually	m^3
Energy usage	Annually	MWh
Waste produced	Annually	tonnes

Table S4.4 Reporting forms		
Media/parameter	**Reporting format**	**Date of form**
Air	Form air 1 or other form as agreed in writing by Natural Resources Wales	30/06/2010
Water and Land	Form water 1 or other form as agreed in writing by Natural Resources Wales	30/06/2010
Water usage	Form water usage 1 or other form as agreed in writing by Natural Resources Wales	30/06/2010
Energy usage	Form energy 1 or other form as agreed in writing by Natural Resources Wales	30/06/2010
Other performance indicators	Form performance 1 or other form as agreed in writing by Natural Resources Wales	30/06/2010

Schedule 4(b) – Reporting effective from 4 December 2023

Parameters, for which reports shall be made, in accordance with conditions of this permit, are listed below.

Table S4.1 Reporting of monitoring data

Parameter	Emission or monitoring point/reference	Reporting period	Period begins
Emissions to air Parameters as required by condition 3.5.1.	A1, A2	Annually	1 January
Emissions to water Parameters as required by condition 3.5.1	W1	Annually	1 January

Table S4.2: Annual production/treatment

Parameter	Units
Animal feed	tonnes

Table S4.3 Performance parameters

Parameter	Frequency of assessment	Units
Water usage	Annually	m^3
Energy usage	Annually	MWh
Waste produced	Annually	tonnes

Table S4.4 Reporting forms

Media/parameter	Reporting format	Date of form
Air	Form air 1 or other form as agreed in writing by Natural Resources Wales	04/12/2023
Water and Land	Form water 1 or other form as agreed in writing by Natural Resources Wales	30/06/2020
Water usage	Form water usage 1 or other form as agreed in writing by Natural Resources Wales	30/06/2010
Energy usage	Form energy 1 or other form as agreed in writing by Natural Resources Wales	30/06/2010
Other performance indicators	Form performance 1 or other form as agreed in writing by Natural Resources Wales	30/06/2010

Schedule 5 - Notification

These pages outline the information that the operator must provide.

Units of measurement used in information supplied under Part A and B requirements shall be appropriate to the circumstances of the emission. Where appropriate, a comparison should be made of actual emissions and authorised emission limits.

If any information is considered commercially confidential, it should be separated from non-confidential information, supplied on a separate sheet and accompanied by an application for commercial confidentiality under the provisions of the EP Regulations.

Part A

Permit Number	**EPR/EP3034GS**
Name of operator	
Location of Facility	
Time and date of the detection	

(a) Notification requirements for any activity that gives rise to an incident or accident which significantly affects or may significantly affect the environment	
To be notified within 24 hours of detection	
Date and time of the event	
Reference or description of the location of the event	
Description of where any release into the environment took place	
Substances(s) potentially released	
Best estimate of the quantity or rate of release of substances	
Measures taken, or intended to be taken, to stop any emission	
Description of the failure or accident.	

(b) Notification requirements for the breach of a permit condition	
To be notified within 24 hours of detection unless otherwise specified below	
Emission point reference/ source	
Parameter(s)	
Limit	
Measured value and uncertainty	
Date and time of monitoring	
Measures taken, or intended to be taken, to stop the emission	

Time periods for notification following detection of a breach of a limit	
Parameter	**Notification period**

(c) In the event of a breach of permit condition which poses an immediate danger to human health or threatens to cause an immediate significant adverse effect on the environment:	
To be notified within 24 hours of detection	
Description of where the effect on the environment was detected	
Substances(s) detected	
Concentrations of substances detected	
Date of monitoring/sampling	

Part B - to be submitted as soon as practicable

Any more accurate information on the matters for notification under Part A.	
Measures taken, or intended to be taken, to prevent a recurrence of the incident	
Measures taken, or intended to be taken, to rectify, limit or prevent any pollution of the environment which has been or may be caused by the emission	
The dates of any unauthorised emissions from the facility in the preceding 24 months.	

Name*	
Post	
Signature	
Date	

* authorised to sign on behalf of the operator

Schedule 6 - Interpretation

"accident" means an accident that may result in pollution.

"Annex I" means Annex I to Directive 2008/98/EC of the European Parliament and of the Council on waste.

"Annex II" means Annex II to Directive 2008/98/EC of the European Parliament and of the Council on waste.

"application" means the application for this permit, together with any additional information supplied by the operator as part of the application and any response to a notice served under Schedule 5 to the EP Regulations.

"authorised officer" means any person authorised by Natural Resources Wales under section 108(1) of The Environment Act 1995 to exercise, in accordance with the terms of any such authorisation, any power specified in section 108(4) of that Act.

"background concentration" means such concentration of that substance as is present in:

- for emissions to surface water, the surface water quality up-gradient of the site; or
- for emissions to sewer, the surface water quality up-gradient of the sewage treatment works discharge.

"building" means a construction that has the objective of providing sheltering cover and minimising emissions of noise, particulate matter, odour and litter.

"combined heat and power" or "CHP" or "Cogeneration" means the simultaneous generation in one process of thermal energy and electrical or mechanical energy

*"disposal" or "D" m*eans any of the operations provided for in Annex I to Directive 2008/98/EC of the European Parliament and of the Council on waste.

"emissions to land" includes emissions to groundwater.

"EP Regulations" means The Environmental Permitting (England and Wales) Regulations SI 2016 No.1154 and words and expressions used in this permit which are also used in the Regulations have the same meanings as in those Regulations.

"emissions of substances not controlled by emission limits" means emissions of substances to air, water or land from the activities, either from the emission points specified in schedule 3 or from other localised or diffuse sources, which are not controlled by an emission or background concentration limit**.**

"first put into operation" means that the plant must have been fired with its design fuel up to its full load. This can be, but does not have to be, during commissioning.

"groundwater" means all water, which is below the surface of the ground in the saturation zone and in direct contact with the ground or subsoil.

"hazardous property" has the meaning in Annex lll of the Waste Framework Directive

"hazardous waste" has the meaning given in the Hazardous Waste (Wales) Regulations 2005 (as amended)

"hazardous substance" means a substance classified as hazardous as a consequence of fulfilling the criteria laid down in parts 2 to 5 of Annex I to Regulation (EC) No 1272/2008

"impermeable surface" means a surface or pavement constructed and maintained to a standard sufficient to prevent the transmission of liquids beyond the pavement surface

"Industrial Emissions Directive" means DIRECTIVE 2010/75/EU OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL of 24 November 2010 on industrial emissions

"limited operating hours MCP" means an MCP that meets the requirements of paragraph 8 of Part 2 of Schedule 25A of the EP Regulations

"MCERTS" means the Environment Agency's Monitoring Certification Scheme.

"Medium Combustion Plant" or "MCP" means a combustion plant with a rated thermal input equal to or greater than 1 MW but less than 50 MW.

"Medium Combustion Plant Directive" or "MCPD" means Directive 2015/2193/EU of the European Parliament and of the Council of the limitation of emissions of certain pollutants into the air from medium combustion plants.

"Natural gas" means naturally occurring methane with no more than 20 % by volume of inert or other constituents

"operating hours" means the time, expressed in hours, during which a combustion plant is operating and discharging emissions into the air, excluding start-up and shut-down periods

"Pests" means Birds, Vermin and Insects.

"quarter" means a calendar year quarter commencing on 1 January, 1 April, 1 July or 1 October.

"recovery" or "R" means any of the operations provided for in Annex II to Directive 2008/98/EC of the European Parliament and of the Council on waste.

"residue" means the solid waste generated by the waste treatment activity and is not directly related to the type of waste treated in the plant

"sealed drainage system" in relation to an impermeable surface, means a drainage system with impermeable components which does not leak and which will ensure that:

- no liquids will run off the surface otherwise than via the system
- all liquids entering the system are collected in a sealed sump, except where liquids may be lawfully discharged

"specified generator" or "SG" means has the meaning given in paragraph 2(1) of Schedule 25B of the EP Regulations

"Waste code" means the six digit code referable to a type of waste in accordance with the list of wastes established by Commission Decision 2000/532/EC as amended from time to time (the 'List of Wastes Decision') and in relation to hazardous waste, includes the asterisk.

"Waste Framework Directive" or *"WFD"* means Waste Framework Directive 2008/98/EC of the European Parliament and of the Council on waste

"Waste Treatment BAT Conclusions" means the BAT Conclusions for the Waste Treatment sector published as a Commission Implementing Decision EU 2018/1447 in the Official Journal of the EU on 17 August 2018

"year" means calendar year ending 31 December.

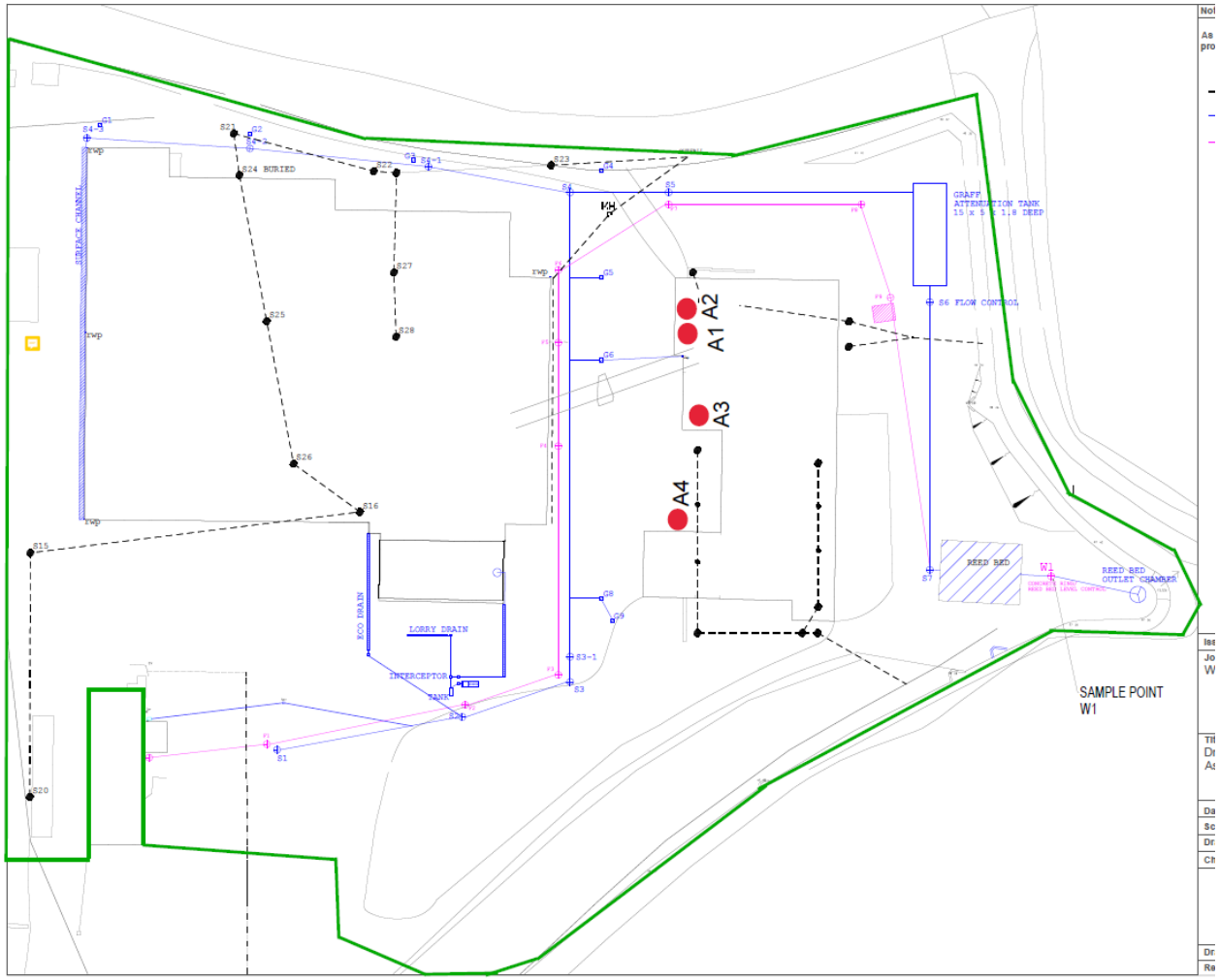
Where a minimum limit is set for any emission parameter, for example pH, reference to exceeding the limit shall mean that the parameter shall not be less than that limit.

Unless otherwise stated, any references in this permit to concentrations of substances in emissions into air means:

(a) in relation to emissions from combustion processes, the concentration in dry air at a temperature of 273 K, at a pressure of 101.3 kPa and with an oxygen content of 3 % dry for liquid and gaseous fuels, 6 % for solid fuels; and/or

(b) in relation to emissions from non-combustion sources, the concentration at a temperature of 273 K and at a pressure of 101.3 kPa, with no correction for water vapour content

Schedule 7 - Site plan



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END OF PERMIT

Appendix F

Environmental Manual and EMS Extracts

Environmental Manual

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Record of changes

Date	Document	Summary of change	Amended By
21/03/18	Environmental Manual Version 2	Amended organizational structure due to staff changes; corrected SOP and EAP references	S. Davies
25/10/18	Environmental Manual Version 3	Amended organizational structure due to changes to senior managers	S. Davies
18/09/19	Environmental Manual Version 4	Amended organizational structure due to changes to senior managers. Amended section 3.3 Roles & Responsibilities. Amended reference to Wynnstay Group to Wynnstay Agricultural Supplies	S. Davies

Environmental Manual

1 Introduction to the Environmental Management System

This Environmental Manual presents the Environmental Management System (EMS) operated by Wynnstay Agricultural Supplies. It is a statement of Wynnstay Group's responsibilities, together with the processes and controls that are implemented and maintained so as to minimise the impacts of activities on the environment and to fulfil the requirements of the Environmental Permits issued to both Llansantffraid and Carmarthen mills.

The elements of the EMS are defined to comply with the Permits issued for the two mills:

Llansantffraid	Permit WP3839SG Issued 19 December 2005
Carmarthen	Permit EP3034GS Issued 5 July 2010
	Permit EPR/EP3034GS/V003 Issued 19/02/2018

Condition 1.1.1 of each of these permits requires the activities to be managed and operated:

- *a) in accordance with a management system, which identifies and minimises risks of pollution, including those arising from operations, maintenance, accidents, incidents, non-conformances and closure and those drawn to the attention of the operator as a result of complaints; and b) by sufficient persons who are competent in respect of the responsibilities to be undertaken by them in connection with the operation of those activities*.

Wynnstay's Environmental Management System (EMS) is based on:

- NRW guidance: How to Comply with your Environmental Permit October 2014;
- Environment Agency's Additional Food and Drink guidance;
- Compliance requirements with UK legislation;
- Industry best practice and guidance from regulators;
- Findings of internal assessments including environmental risk assessments.

The EMS adopts a Plan Do Check Act approach as illustrated in Figure 2. It incorporates a continual process of review and improvement of performance.

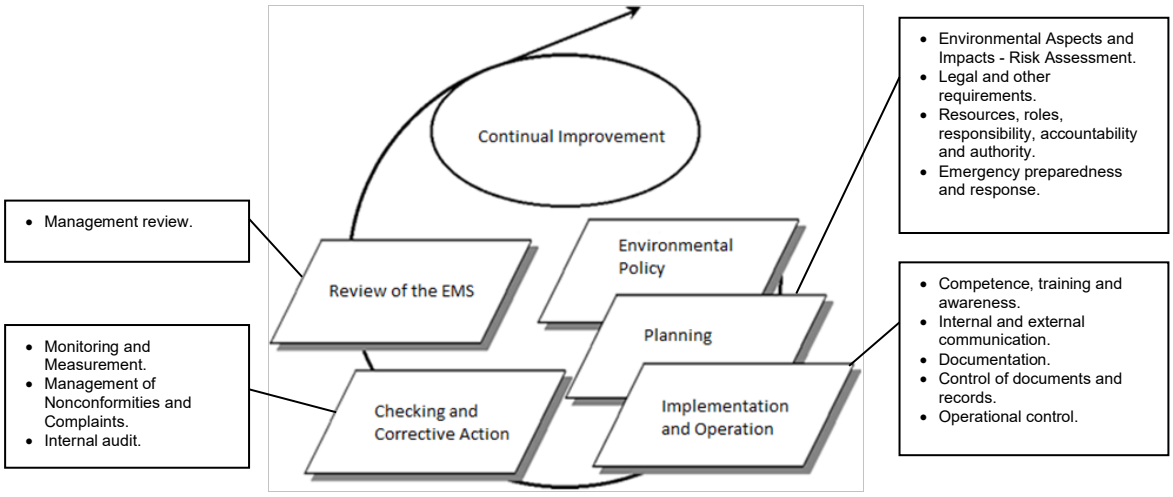


Figure 1 Principles of the EMS (adapted from ISO14001:2004)

The documentation structure is described in section 5.1.3.

This manual describes how the various processes of the EMS interact, and includes signposts to where the various components of the system can be found.

2 Environmental Management System Scope

The EMS applies to the permitted activities at the Llansantffraid facilities located at:

Eagle House,
Llansantffraid
SY22 6AQ

The EMS also applies to the permitted activities conducted at the Carmarthen facilities located at:

Travellers Rest
Carmarthen
SA31 3SG.

The sites may operate 24 hours a day, 7 days a week. The process on each site involves the treatment and processing of vegetable material with a capacity of over 300 tonnes per day. Activities include blending, grinding, mixing and extrusion into pellets and are illustrated in Figure 1. Common procedures for both sites are used where appropriate.

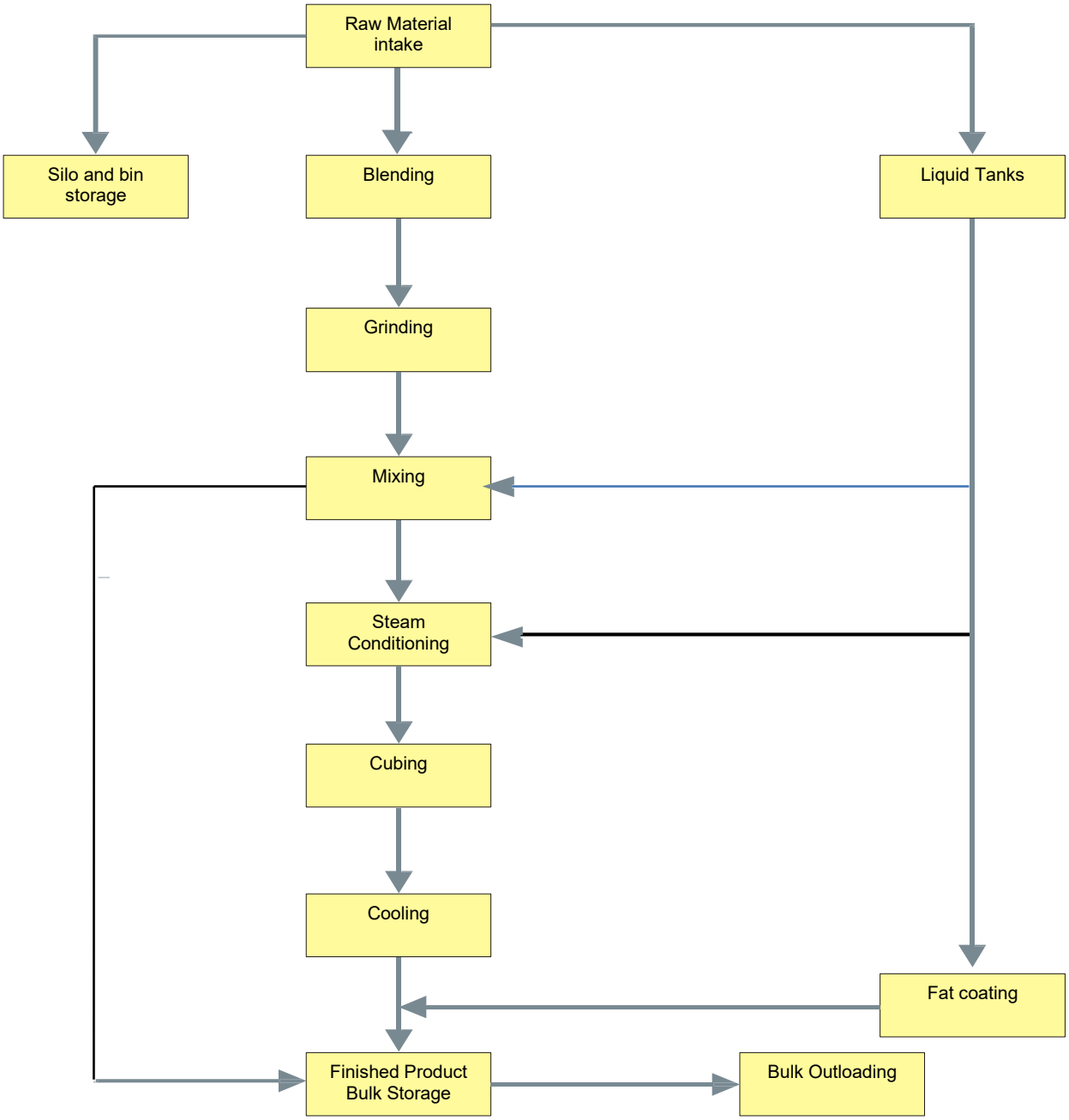


Figure 2 Operational flow chart

3 Leadership

3.1 Environmental Policy

The Wynnstay Group Plc Environmental Policy (EP01) has been defined by senior management and expresses the Company's aims regarding the Environment and reflects the company's commitment to compliance with applicable environmental legislation and continual improvement.

The policy is signed and dated by the Chief Executive Officer and copies are available as follows:

- Displayed at prominent locations at site e.g. reception, noticeboards
- Referenced during induction and awareness training

Periodic review and revision of the policy will reflect changing conditions and information.

Reference document:

- EP01 – Environmental Policy

3.2 Organisational Structure

The following structure is adopted to manage Wynnstay Agricultural Supplies environmental responsibilities:

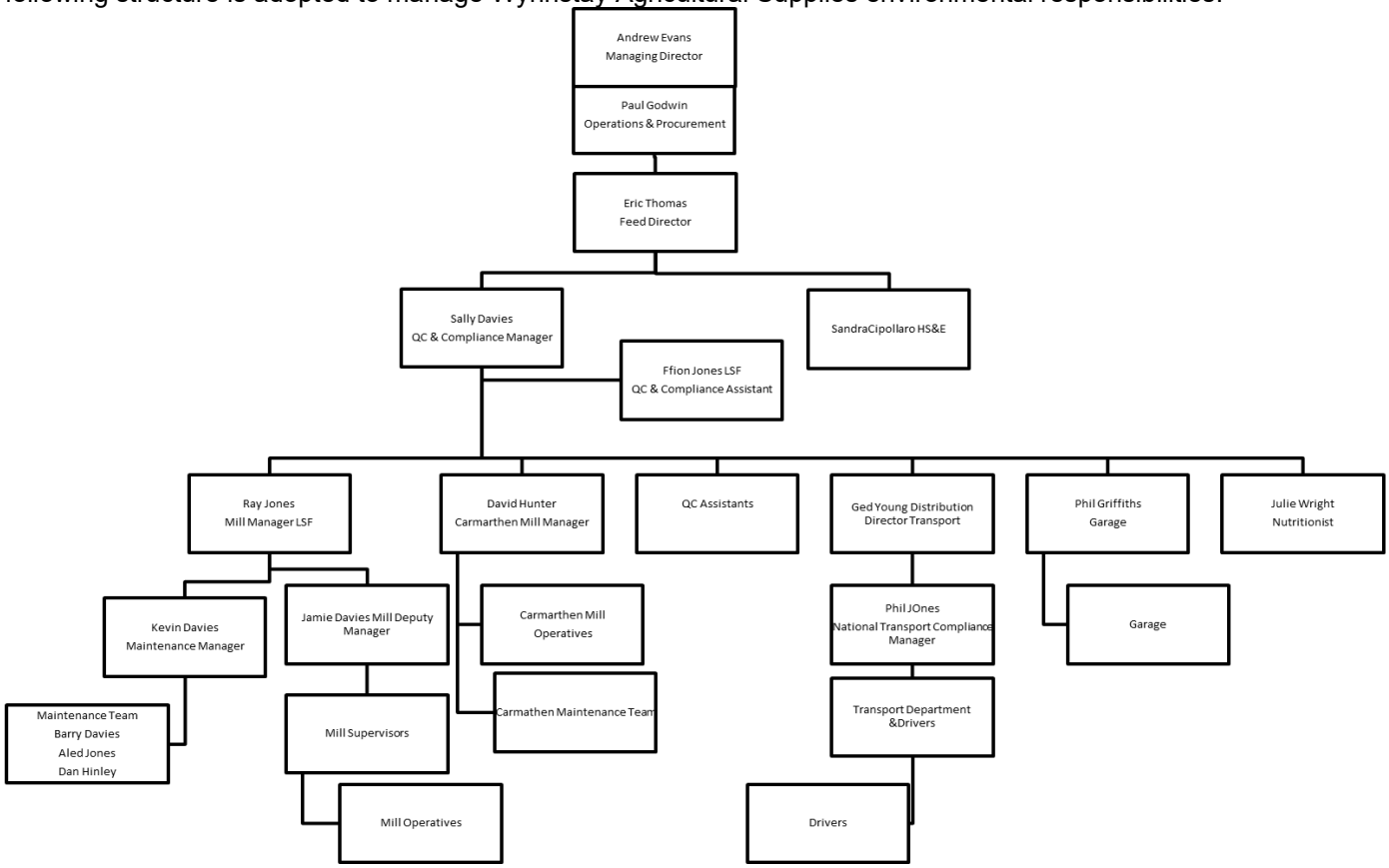


Figure 3 Organisation structure

3.3 Roles and Responsibilities

The environmental responsibilities of key staff are set out below. In addition, an Environmental and Regulatory Compliance Management Committee (ERCMC) has been established and is responsible for reviewing and setting objectives and targets with regards to the EMS. Membership of the ERCMC includes the Feeds Director, Operations and Procurement Director, Distribution Director, Mill Managers, Maintenance Managers, QC and Compliance Manager, QC and Compliance Assistants.

3.3.1 Managing Director and CEO

Establish overall direction
Develop and approve the company's Environmental Policy
Approve the resources necessary to establish, maintain, implement and improve the EMS
Ensure adequate resources are in place to respond in the event of potential accidents and incidents

3.3.2 Feeds Director and Operations & Procurement Director

Allocate necessary resources to maintain and implement the EMS
Promote the Environmental Policy and ensure the EMS is established, implemented and maintained
Develop environmental objectives, targets and programmes
Manage external communications and complaints and provide feedback as necessary
Attend the Environmental and Regulatory Compliance Committee meetings.
Ensure adequate resources are in place in the event of potential accidents and incidents
In the event of fire or explosion obtain all relevant information, liaise with Emergency Services.
Conduct an investigation in the event of a significant incident. Communicate findings to the QC and Compliance Manager or Assistant.

3.3.3 QC and Compliance Manager and QC and Compliance Assistant

Monitor overall environmental management system performance
Ensure all monitoring and measurement of all significant environmental impacts is undertaken and review and report the results to the Mill Managers.
Implement the environmental policy and standards in accordance with the EMS and ensure the relevance of all documentation.
Maintain and review the Environmental Management System and report to the ERCMC.
Attend the Environmental and Regulatory Compliance Committee meetings.
Maintain relevant documentation which addresses environmental legislation in conjunction with documents related to the EMS.
Review and interpret new and existing relevant legal requirements and list these requirements in the Register of Legislation. Ensure the register is current.
Develop an environmental audit policy as a component of management system audits. On completion of an audit communicate the results to the ECRM Committee and complete corrective and preventive actions as decided by the committee.
Provide support in the event of any environmental incidents. This includes reviewing all actions undertaken during the course of an incident and assisting in any accident/incident investigation.
Liaise with Regulatory Authorities on environmental issues and draft a response to external communication.
Ensure updated training given to mill operatives where new guidelines/instructions that deviate from the standard training instruction are implemented.
Retain records for a minimum of six years.

3.3.4 Distribution Director

Ensure all transport personnel are aware of, and meet their environmental responsibilities. Where

necessary, provide outside or in-house training.
Inform the QC and Compliance Manager or QC and Compliance Assistant of all relevant issues.
Take part in the Environmental and Regulatory Compliance Management Committee.

3.3.5 Mill Manager

Assist the QC and Compliance Manager or QC and Compliance Assistant in notifying Natural Resources Wales in the event of hazardous material leaking into the plant drainage system or storm drains or unauthorised discharge to the air, land or water.
Supervise the resources necessary to implement the Environmental Management System.
Identify staff environmental core competences
Identify the need for training and arrange external or in-house training.
Ensure all monitoring equipment is calibrated and maintained.
Undertake periodic audits to ensure quality of sub contractors.
Ensure all mill personnel are aware of, and meet their environmental responsibilities. Where necessary, provide outside or in-house training.
Records should be legible, identifiable and traceable and may include but are not limited to results of inspections, waste transfer notes, raw material receipts and incident reports etc.
Inform the QC and Compliance Manager or QC and Compliance Assistant of all relevant issues.
Ensure that relevant environmental information is passed directly onto site personnel.
Take part in the Environmental and Regulatory Compliance Management Committee.

3.3.6 Maintenance Manager

Ensure all plant, equipment etc. is adequately maintained and any maintenance activity necessary during operations is undertaken and recorded.
Ensure the critical equipment list is periodically reviewed and updated.
Ensure critical equipment is inspected and maintained as defined by the Preventative Maintenance Schedule.
Ensure all maintenance records are maintained.
Ensure all maintenance procedures are documented and implemented.
Notify Mill Manager of any mechanical or electrical faults.
Complete relevant Fault log form.
Ensure all external contractors are issued with correct permit to work prior to work commencing.
Liaise with the QC and Compliance Manager or QC and Compliance Assistant in the event of any maintenance/lack of maintenance, which may give rise to significant environmental impacts.
Take part in Environmental and Regulatory Compliance Management Committee.

3.3.7 Mill Supervisors

Ensure that all operations are carried out according to standard operating procedure and with regard to the environmental management system.
Report all incidents that may have an environmental impact as soon as possible to the Mill Manager
Follow all emergency and spill procedures in the event of an incident.
Supervise operators who report a spill or incident
Attend environmental training sessions as required.

3.3.8 Mill Operators, Drivers, Office Staff

Ensure that all operations are carried out according to standard operating procedures and with regard to the environmental management system
Observe and obey all signs displayed for environmental purposes
Report all incidents that may have an environmental impact immediately to the shift supervisor
Follow all emergency and spill procedures in the event of an incident
Attend inductions and environmental training sessions as required.

4 Planning

4.1.1 Environmental Aspects

Wynnstay recognises that some of the activities carried out may have an impact on the environment. These aspects are identified and are assessed for their significance via the Environmental Aspects Procedure (EAP-01) and using a documented calculation method. The results of the assessment are summarised in the aspects and impacts register.

Reference documents:
- EAP01 Identification of Aspects and Impacts

Outputs and records:
- EAP01 SD01 Aspects and Impacts register
- EAP01 SD02 Total significance rating calculation

4.1.2 Objectives and Targets

The company has adopted a procedure to set environmental improvement targets (EAP02). These are prioritised and progress is monitored against them by the Environmental and Regulatory Compliance Management Committee (ERCMC).

These are reviewed by the Feed Director/Purchasing & Supply Director and are reflected in the Environmental Policy (EPS01). All set objectives and targets will be monitored at the ERCMC review.

For each designated target the company will establish a program according to the principles in the procedure.

Reference documents:
- EAP02 Objectives and targets
- EAP11 Management Review
- EAP01 SD01 Aspects and Impacts register
- EAP01 SD02 Total significance rating calculation

Outputs and records:
- EAP02 EIP Environmental Improvement Targets

4.1.3 Compliance obligations

The company has established, implemented and maintains a procedure to identify, record, update and assess the environmental compliance obligations, in the form of laws, regulatory and industry guidance for example, that are applicable to the company's activities, products and services.

The company maintains a compliance matrix to monitor and illustrate the status of its compliance obligations.

Reference documents:
- EAP03 Compliance evaluation

Outputs and records:
- EAP03 SD01 Legal register
- EAP03 SD02 Compliance matrix

5 Implementation and Operation

5.1.1 Training, Awareness and Competence

The Company assumes the responsibility to ensure that any person working under its control and performing tasks that can impact on the environment are competent, i.e. holds the adequate training, skills, experience and knowledge. A procedure has been implemented (EAP08) to identify the training required for employees, to provide appropriate training and to record any training undertaken.

The Company provides EMS Awareness training for all employees. Where a need is identified, more detailed training is provided for individuals. All training activities are defined in the Training Procedure (EAP08 Training, Awareness and Competence).

Reference documents:
- EAP08 Training, awareness and competence

Outputs and records:
- EAP08 SD01 Training Record
- EAP08 SD02 Training matrix
- EAP08 SD03 Competences

5.1.2 Internal and External Communication

The Company has established, implemented and maintains a procedure (EAP12) to ensure that internal environmental communications (within the Company) are effectively disseminated. It also provides for the management of external environmental communications between the Company and interested parties, such as regulatory authorities and the public/local community.

Requirements for reporting and notification to Natural Resources Wales are covered under EAP06 Monitoring, reporting and notification.

Reference documents:
- EAP12 Communication

Outputs and records:
- Regular internal notices posted on noticeboards
- Communication received from regulators and other stakeholders and the responses
- External Communication log to list all external communication with the regulator.

5.1.3 Documentation

Various documents have been developed, implemented and are maintained to ensure the EMS is adequately understood and effectively and efficiently operated. The environmental procedures and the management system manual are maintained in paper and/or electronic format. The outline structure is shown in Figure 3.

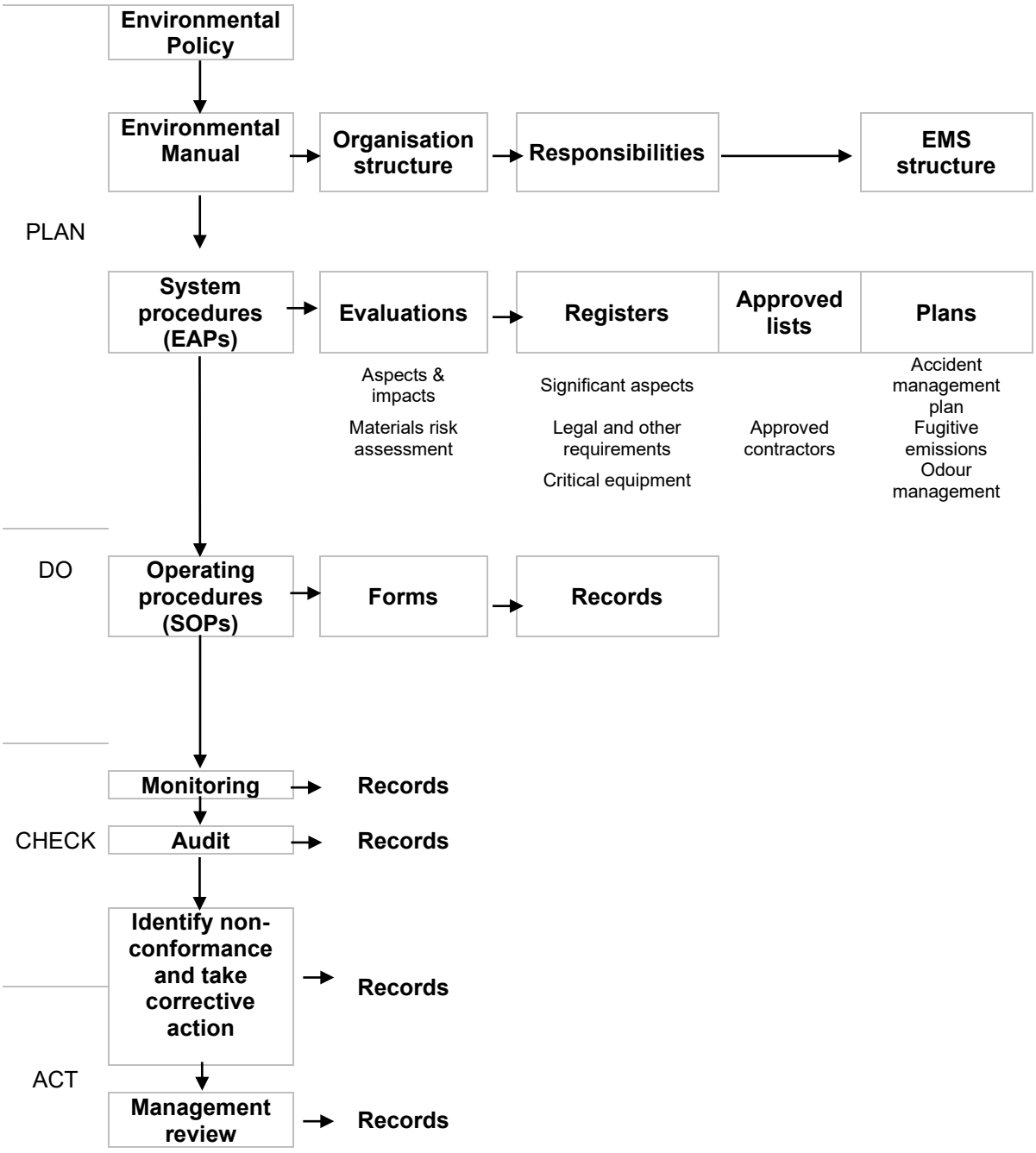


Figure 4: Outline EMS documentation structure

The detailed structure of the EMS is defined in diagram EDS-001.

5.1.4 Document Control

All of the documents relating to the EMS will be retained as detailed in the Document Control procedure EAP07.
This procedure details the responsibilities for compiling, approving, issuing, control and archiving of documents relating to the EMS and Environmental matters.

Reference documents:
- EAP07 Document control

Outputs and records:
- Applies to all documents and records

5.1.5 Operational Control

The operational control procedure is described in EAP04. All Permitted activities, including maintenance, are planned in order to ensure that they are carried out under controlled and specified conditions by:

- Use of a process control system with access restricted to authorised competent persons;
- Identification of Environmentally Critical Equipment (EAP04 SD01);
- Documented standard operating procedures which are defined to cover those operations and activities that are associated with the significant environmental aspects and impacts in line with policy objectives and targets;
- Planned preventative maintenance schedules for environmentally critical equipment (EAP04 SD02).
- A list of approved contractors for environmentally critical equipment (EAP04 SD03).

The main process activities at the site are controlled by the mill operators following the standard operating procedures defined for each process as listed below. This ensures that competent persons operate the plant using appropriate process control.

SOP1	Promtek login
SOP2	Mill intake
SOP3	Blendops
SOP4	substitutions
SOP5	Reworks
SOP7	cubing
SOP9	bulk outloading
SOP11	BULKDEL
SOP12	Packing
SOP14	Warehouse operations
SOP16	new ingredients
SOP29	Molasses intake

The Mill Manager is responsible for ensuring the operators are working to the defined procedures, and for reviewing the procedures annually.

Critical Equipment Failure

All equipment at the site with the potential to create an environmental impact if failure occurs, is listed on the Critical Equipment List and a failure mode effects analysis has been carried out according to SOP 27 Procedure for Identifying and Prioritising Plant for Preventative Maintenance.

The overall procedure to be followed for maintaining the production machinery and equipment in the mill is described in SOP 33 Maintain

The standard operating procedures for the maintenance of environmentally critical equipment listed below are also followed to minimize the risk of equipment failure and to minimise environmental impact:

SOP 28	Contractor working
SOP 24	Dust emissions management
SOP 08	Cubing plant maintenance
SOP17	Interceptor
SOP19	Procedure for ensuring safe storage of liquids
SOP20	Maintenance of boilers
SOP21	Maintenance of air compressor plant
SOP22	Maintenance of mixer
SOP23	Maintenance of grinder
SOP30	Molasses tank maintenance
SOP36	Asbestos management
SOP15	Site Drainage

The following forms are used to record maintenance and monitoring carried out and to document any faults that occur and the action taken to rectify the issue:

List of Critical equipment	EAP04-SD01
Critical plant schedule	EAP04-SD02
Plant maintained by contractors	EAP04-SD03
Maintenance checks	EAP04-SD04
Cyclone checks	SOP24 form 2
Boiler daily checks	SOP20 form1
Meter readings	SOP31 form 1
Air compressor checks	SOP21 form 1
Filter checks	SOP24 form 1
Fault Reporting Forms Mechanical	SOP33 form 1
Fault Reporting Forms Electrical	SOP33 form 2
Diaries kept by operators in Blending, Cubing, Packing and Outloading	checked daily by maintenance manager]
Cubing plant cleaning and maintenance record	SOP8 form 1
Fuel and material storage tanks, bunds and hardstanding monitoring sheets	SOP19 forms 1 to5
Interceptor monitoring sheet	Sop17 form 1
Visual and olfactory monitoring sheet	SOP31 form 2

Further checks, maintenance and cleaning of other equipment that could have the potential to impact on the environment are also undertaken as detailed in standard operating procedures. These procedures are listed below.

SOP6	Cleaning and Maintenance Procedures for Blending
SOP10	Cleaning and Maintenance for Bulk Outloading
SOP13	Cleaning and Maintenance Procedures for Bag Packing
SOP34	Mill hygiene

Raw Materials and waste

Raw materials are selected following the new ingredients procedure (SOP16). Potential environmental impacts of the raw materials are assessed using form EAP05 SD01 and SD02 considering chemical composition, storage method and capacity, and risk phrases from material safety data sheets.

A standard operating procedure for Waste Management (SOP32) covers Duty of Care, waste handling and storage locations, waste removal and disposal by listed waste carriers, with allocation of responsibilities at each step, supported by suitable referenced records.

All waste produced at the site will be removed by approved contractors in accordance with the appropriate legislation and exported either to landfill or where possible will be sent for further treatment/processing. Waste contractors are responsible for providing waste transfer notes for all wastes leaving the site which are held by the mill manager.

5.1.6 Emergency preparedness and response

The Company has established an Environmental Incident Procedure (EAP05) to identify the potential for, and suitable response to, accidents, emergency situations, and for preventing and mitigating the environmental impacts that may be associated with them.

- Potential hazards are identified on a materials inventory and a risk assessment carried out as appropriate.
- A fugitive emissions analysis is carried out to demonstrate the use of Best Available Techniques to reduce the potential for environmental impact from fugitive emissions.
- The company has developed an accident management plan to provide effective incident response and an emergency response matrix identifies the emergency contacts.
- Proformas are used to record incidents and the results of any accident investigations.

A standard operating procedure for Control of Spills (SOP18) has been developed to describe the action to be taken in the event of spillage in normal operation. A standard operating procedure for emergency response (SOP25) has been developed to describe the action to be taken in the event of an incident or abnormal operation to prevent or mitigate environmental impacts.

Reference documents:
- EAP05 Emergency preparedness and response
- SOP18 Control of spills
- SOP25 Emergency response procedure

Outputs and records:

Registers and plans
- EAP05 SD01 Materials Inventory
- EAP05 SD02 Materials risk assessment
- EAP05 SD03 Fugitive Emissions Plan
- EAP05 SD04 Accident management plan
- EAP05 SD06 Emergency response matrix

Forms
- EAP05 SD05 Incident report form
- Spill kit contents list
- Spill kit monitoring sheet

5.1.7 Management of Change

The Management of Change procedure (EAP14) details the processes to be followed when changes to production processes are being considered. This includes minor operational changes and permit variations.

Reference documents:
- EAP14 Management of change

Outputs and records:
- Permit variations as required
- Record of minor operational change

5.1.8 Purchasing Procedure

The purchasing procedure (EAP13) is defined to ensure that environmental considerations are included when making purchasing decisions.

Reference documents:
- EAP13 Purchasing procedure

Outputs and records:
- Cap Ex form
- Approved suppliers list

6 Checking and corrective action

6.1.1 Monitoring, Measurement, Reporting and Notification

Wynnstay has established a Monitoring and Measurement Procedure (EAP06) to monitor and measure on a regular basis those operations that have aspects that may lead to significant environmental impacts. It details routine reporting of data and includes the reporting of monitoring data, annual performance data and reviews of plans.

The process to be followed when a notification to NRW is required, following an unauthorised emission or other breach of permit conditions, is also detailed.

Monitoring methods of environmentally critical equipment and activities are described in a standard operating procedure SOP31.

Reference documents:
- EAP06 Monitoring, reporting and notification
- SOP31 Monitoring

Outputs and records:

Registers and plans
- EAP06 SD01 Monitoring and measurement requirements
- EAP06 SD02 Key performance indicators
- EAP06 SD03 Site monitoring plan
- EAP06 SD04 Site closure plan

External reporting
- Annual NRW reporting forms A1 R1 WU1 E1 PI1
- Schedule 6 Notification forms

Forms

- Waste audit
- Energy efficiency
- Water usage
- Particulate monitoring

6.1.2 Non-conformance and Corrective and Preventative Action

The recording of non-conformance is detailed in the Non-conformance and Corrective and Preventive Action Procedure (EAP09). Any changes to the EMS that are appropriate following the investigation of the event will be proposed for acceptance to the senior management.

Reference documents:
- EAP08 Training, awareness and competence

Outputs and records:
- EAP09 SD01 Improvement Action report
- EAP09 SD02 Improvement conditions form
- EAP09 SD03 Summary of non conformances

6.1.3 Environmental Management System Audit

The Internal Audit Procedure (EAP10) details the internal environmental audits. Auditors will be independent of the areas to be audited, and selected or trained to have an appreciation of the technical aspects of the process and environmental knowledge, as well as basic auditing skills.

The purpose of the audits is to determine if the EMS has been properly implemented and maintained and that objectives and targets have been met.

Reference documents:
- EAP10 Audit

Outputs and records:
- EAP10 SD02 Audit programme
- EAP10 SD01 Audit report
- EAP10 SD03 Audit log

6.1.4 Management Review

The EMS will be periodically reviewed to ensure its continuing suitability, adequacy and effectiveness. The review also aims to identify any opportunities for improvement and/or the need for changes to the management system. The findings of the review are recorded in meeting minutes in accordance with the Management Review procedure EAP11. The EMS will also be reviewed:
Following an accident, compliant or breach of permit reported under EAP05;
If a new environmental problem or issue is found and new control measures are necessary;
Whenever an application is made to vary the permit.

Reference documents:
- EAP11 Management Review

Outputs and records:
- EAP11 SD01 Management review meeting minutes

EAP05/SD01 Materials Inventory – Carmarthen 2021

Material	Chemical Nature/Composition	Storage	Storage Capacity	Hazard Identification	Process Use	Toxicity/Environmental Impact	Risk of Environmental Harm	Is there an alternative material?
Diesel (fuel for vehicles)	Various Hydrocarbons	Bundeed Tank in warehouse	10,000 litres	Spillage onto yard during a delivery of fuel or when vehicles are re-fueled. Damage to storage tank could cause it to leak. Vehicles situated on the yard could have fuel tanks which leak.	Fueling of vehicles	Serious harm to water organisms, animals and plant species	MODERATE	No
Red Diesel (fuel for forklift trucks)	Various Hydrocarbons	Steel tank in warehouse, situated in a concrete bund	2,500 litres	Spillage onto yard during a delivery of fuel or when vehicles are re-fueled. Damage to storage tank could cause it to leak. Vehicles situated on the yard could have fuel tanks which leak.	Fueling FLTs	Serious harm to water organisms, animals and plant species	MODERATE	No
Kerosenel (fuel for mill operation)	Various Hydrocarbons	Above ground storage tank in drip tray above bund,	10,000 litres	Spillage onto yard during delivery of fuel. Leaking storage tank	Cubing	Serious harm to water organisms, animals and plant species	MODERATE	No
Feed Cane Molasses	Grass material (bi-product)	Above ground self bunded storage tank in bund	70,000 litres	Spillage onto yard or into bund at intake	Blending	High BOD in water courses. Control systems in place to prevent spills entering water courses.	MODERATE	No
Limestone granules	Solid. $CaC0_3$	Blending bin	40 tonnes	Spillages during intake	Blending	Unfavourable effects on water organisms Large amounts entering water courses could raise pH	LOW	No
Wynnstay Sheep	Minerals	Bags 7.5Kg	4 tonnes in 25Kg bags	Damage to bags causing product to leak onto floor. Spilling the product onto floor when tipping into MB5	Blending	Toxic to aquatic environment. Irritant, harmful	LOW	No
Wynnstay Healthcare	Minerals	Mineral bin	30 tonnes	Damage to bags causing product to leak onto floor. Spilling the product onto floor when tipping into MB3	Blending	Toxic to aquatic environment. Irritant, harmful	LOW	No
Wynnstay Lamb mineral	Minerals	Bags 25Kg	4 tonnes in 25kg bags,	Damage to bags causing product to leak onto floor. Spilling the product onto floor when tipping into BB50	Blending	Toxic to aquatic environment. Irritant, harmful	LOW	No
Wynnstay Calf mineral	Minerals	Bags 25Kg	4 tonnes in 25kg bags,	Damage to bags causing product to leak onto floor. Spilling the product onto floor when tipping into BB66	Blending	Toxic to aquatic environment. Irritant, harmful	LOW	No
Vegetable fat	Vegetable matter	Above ground storage tank in bund	45 tonnes	Vegetable fat spillage on floor on intake if pipe were to disconnect from tanker etc.	Blending/Fat coating	Adverse effects to aquatic environment. Irritant	MODERATE	No
Barley	Cereal matter	Silo & Blending Bin	300 tonnes	Storage silo could become damaged and leak	Blending	Adverse effects to aquatic environment. Could raise BOD.	LOW	No

Material	Chemical Nature/Composition	Storage	Storage Capacity	Hazard Identification	Process Use	Toxicity/Environmental Impact	Risk of Environmental Harm	Is there an alternative material?
Calcined Magnesite	MgO	Mineral Bin	20 tonnes	Mineral bin could become damaged and leak	Blending	Unfavorable effects on aquatic environments	LOW	No
Cracked Maize	Cereal matter	Blending Bin	50 tonnes	Blending bin could become damaged and leak	Blending	Adverse effects to aquatic environment. Could raise BOD.	LOW	No
Sugar Beet Pulp Pellets	Vegetable matter	Blending Bin	50 tonnes	Blending bin could become damaged and leak	Blending	Adverse effects to aquatic environment. Could raise BOD.	LOW	No
GM Soya	Vegetable matter	Blending Bin	50 tonnes	Blending bin could become damaged and leak	Blending	Adverse effects to aquatic environment. Could raise BOD.	LOW	No
GM Soya Hulls	Vegetable (bi-product)	Blending Bin	50 tonnes	Blending bin could become damaged and leak	Blending	Adverse effects to aquatic environment. Could raise BOD.	LOW	No
Maize Distillers	Cereal (bi-product)	Blending Bin	50 tonnes	Storage bin could become damaged and leak	Blending	Adverse effects to aquatic environment. Could raise BOD.	LOW	No
Monocalcium Phosphate	$CaH_4P_2O_8$	Mineral Bin	30 tonnes	Mineral bin could become damaged and leak	Blending	Adverse effects to aquatic environment. Irritant, harmful	LOW	No
Non GM Maize (Whole)	Cereal matter	Blending Bin	50 tonnes	Blending bin could become damaged and leak	Blending	Adverse effects to aquatic environment. Could raise BOD.	LOW	No
Non GM Soya	Vegetable matter	Blending Bin	50 tonnes	Blending bin could become damaged and leak	Blending	Adverse effects to aquatic environment. Could raise BOD.	LOW	No
Nutritionally Improved Straw	Treated straw	Blending Bin	50 tonnes	Blending bin could become damaged and leak	Blending	Adverse effects to aquatic environment. Could raise BOD.	LOW	No
Palm Kernel Expeller	Fruit seed (bi-product)	Blending Bin	50 tonnes	Blending bin could become damaged and leak	Blending	Adverse effects to aquatic environment. Could raise BOD.	LOW	No
Rapeseed Extract	Cereal (bi-product)	Storage Bin & Blending Bin	200 tonnes	Storage bin could become damaged and leak	Blending	Adverse effects to aquatic environment. Could raise BOD.	LOW	No
Rolled Wheat	Cereal matter	Blending Bin	40 tonnes	Blending bin could become damaged and leak	Blending	Adverse effects to aquatic environment. Could raise BOD.	LOW	No
Salt	NaCl	Mineral Bin	30 tonnes	Mineral bin could become damaged and leak	Blending	Soluble in water. No potential for bioaccumulation. The product is predicted to have high mobility in soil. Low toxicity to aquatic organisms.	LOW	No
Sunflower	Cereal matter	Blending Bin	50 tonnes	Storage bin could become damaged and leak	Blending	Adverse effects to aquatic environment. Could raise BOD.	LOW	No
Wheat	Cereal	Silo	300 tonnes	Storage silo could become damaged and leak	Blending	Adverse effects to aquatic environment. Could raise BOD.	LOW	No

Material	Chemical Nature/Composition	Storage	Storage Capacity	Hazard Identification	Process Use	Toxicity/Environmental Impact	Risk of Environmental Harm	Is there an alternative material?
Wheatfeed	Cereal (bi-product)	Silo	50 tonnes	Storage silo could become damaged and leak	Blending	Adverse effects to aquatic environment. Could raise BOD.	LOW	No
Wheat distillers	Cereal (bi-product)	Blending Bin	50 tonnes	Blending bin could become damaged and leak	Blending	Adverse effects to aquatic environment. Could raise BOD.	LOW	No
Protected Soya	Vegetable matter	Blending Bin	50 tonnes	Blending bin could become damaged and leak	Blending	Adverse effects to aquatic environment. Could raise BOD.	LOW	No
Ammonium Chloride	NH_4Cl	Bags 25Kg	10 tonnes in 25kg bags,	Damage to bags causing product to leak onto floor. Spilling the product onto floor when tipping into BB65	Blending	Toxic to aquatic environment. Irritant and harmful	LOW	No
Deccox	Decoquinate powder veterinary product for coccidiosis	Bags	20x 10Kg bags	Damage to bags causing product to leak onto floor	Blending	Avoid release to the environment. Inform appropriate managerial or supervisory personnel of all environmental releases. Prevent further leakage or spillage if safe to do so. Avoid discharge into drains, water courses or onto the ground.	LOW	No

Appendix G

Site Visit Photographs


1) Bulk loading area towards main mill

2) Boiler house and oil tank




3) Storage tanks at main mill
WYNNSTAY
1 H.C.S. Bin 40
2 LIME Bin 39
3 SALT Bin 38
4 CAL-MAG Bin 37
Sodium Bi-Carb Bin 36
MCP
2 4 1 3 5


4) Base of large main tank bund adjacent to mill building



5) Base of molasses tank in bund at main mill


6) Reed bed with air blower and W1 discharge point



7) Yard between main mill building and warehouse



8) New finished product stores under construction


9) Heating oil tank by office block
HANDLE WITH CARE!
ITE
Harlequin
1400LT Bund



10) Top floor of main mill building



11) Warehouse interior with waste signage


12) Bulk loading area top floor



13) Cake press in main mill



14) Grinder floor in main mill


15) Main dust unit emission, main mill
HEATONGREEN