

DMH Tyres, LLAY INDUSTRIAL ESTATE

STAGE 1 CONTAMINATION ASSESSMENT

For: DMH Tyres

November 2023

R3274-R01-v1

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DMH TYRES, LLAY INDUSTRIAL ESTATE

STAGE 1 CONTAMINATION ASSESSMENT

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EXECUTIVE SUMMARY

Project Reference	R3274-v1-R01
Site Location	Parcel of land opposite DMH Tyres, Miners Road, Llay Industrial Estate, LL12 0PJ
Development Proposals	The construction of a vehicle servicing facility, training facility, office, car park. Raft foundations are to be constructed for minimum excavation within site soils. Access to the site will be off Miners Road. The car parking area will be located to the north of the site. Hardstanding concrete / tarmac will cover the site surface. (See Appendix A for further details).
Ground Conditions / Geology & hydrogeology	BGS mapping reports the presence of made ground (artificial deposit) across the site and wider area. Granular made ground was observed across all areas where hardstanding was not present during the walkover. Natural ground conditions are mapped as superficial deposits of Devensian Till-Diamicton, and the bedrock is mapped as Salop Formation – mudstone, sandstone, and conglomerate. No shallow mineworkings are present although deep coal seams (>615m) have been worked, presumably as part of the Llay Colliery which occupied the site and wider area. The site formed the southern extent of the main works, occupied by railway sidings and part of the screening and washing plant rooms in the west. A large colliery spoil mound exists to the south and remains to this date. The site lies on a Secondary undifferentiated aquifer, mapped as low vulnerability. The site is underlain by a Secondary bedrock A aquifer, of a medium vulnerability.
Radon	The site lies within an area where <1% of homes are estimated to be at or above the Radon Action level according to the Groundsure Report meaning that radon protection measures are not required in any buildings or extensions.
UXO	The UXO risk map identifies the Site as located within an area of Low Risk. A copy of the UXO risk map is provided in Appendix D.
Contamination	Potential contamination sources have been identified as made ground of an unknown depth and chemistry but may include elevated heavy metals, PAHs and asbestos. Hydrocarbon impacted soils may also be present, associated with the former railway sidings but also the more recent use of the site as a storage yard where vehicles and fuels may have been stored although none were observed during the walkover. A heating oil tank is also present to the immediate west, associated with the neighbouring commercial premises. Whilst the tank is of modern construction, it is unknown if an older tank was once present which could have resulted in limited leaks or spillages. There is no evidence of the stockpiling or placement of colliery waste on the site although a significant colliery spoil stockpile is located circa 100m to the south. There is potential that windblown dust could have occurred resulting in the aerial deposition of colliery spoil dusts across the site. The presence of such material can give rise to high sulphate conditions and result in aggressive concrete conditions.
Recommendations	It is recommended that a limited site investigation is undertaken to confirm the depth and chemistry of made ground soils, supplemented with soil sampling to determine the concentrations of identified potential contaminants (heavy metals, PAHs, hydrocarbons and asbestos) as well as aggressive concrete conditions (pH, total sulphate, total sulphur and soluble sulphate).

1. Introduction

1.1. General

1.1.1. DMH Tyres has submitted a planning application to Wrexham County Borough Council (WCBC) for the development of a parcel of land off Miners Road, Llay Industrial Estate although it is understood a decision on the application is currently pending. The proposed development is to comprise of a new vehicle servicing building, training facility, office, car park and landscaping. A copy of the proposed development layout is provided in Appendix A.

1.1.2. A pre-application consultation (ref. ENQ/2021/0073) has been undertaken and it is understood that one of the consultees will be the 'Public Protection and Contaminated Land'. In support of the application and to partially satisfy any relevant Contaminated Land Condition which may be placed on the Consent, DMH tyres have instructed Smith Grant LLP (SGLLP) to produce a Stage 1 Contaminated Land Assessment.

1.2. Scope of Objectives of the Report

1.2.1. This following report describes the Stage 1 Contamination Assessment undertaken by SGP in accordance with the brief agreed with the client. The assessment has been prepared with reference to the Planning Practice Guidance provided in relation to land affected by contamination¹ land stability².under the National Planning Policy Framework (NPPF)³.

1.2.2. The assessment comprised a review of third-party information on the environmental setting of the site and the site's previous and current uses with respect to potential risks to the environment or human health, and a site inspection. This report contains a qualitative risk assessment, and where appropriate makes recommendations for further investigation and remedial actions appropriate to the proposed future use of the site.

1.2.3. SGP is an environmental consultancy specialising in the risk assessment and remediation of contaminated and derelict land.

¹ Planning Practice Guidance (PPG): Land Affected by Contamination, issued 12 June 2014, last updated 22 July 2019, www.gov.uk

² Planning Practice Guidance (PPG): Land Stability, issued 6 March 2014, last updated 22 July 2019, www.gov.uk

³ National Planning Policy Framework (NPPF), issued 27 March 2012, last updated 20 November 2023

2. Planning and Legislative Context

2.1. National Planning Policy and Guidance

2.1.1. The **Planning Policy Wales 2021** (NPW)⁴ sets out the Government's planning policies for Wales and how these are expected to be applied. The Framework provides some general guidance to local authorities on taking land condition into account in planning policies and decisions. Paragraph 6.9.18 of the Framework states:

'Planning authorities should take into account the nature, scale and extent of land contamination which may pose risks to health and the environment so as to ensure the site is capable of effective remediation and is suitable for its intended use. In doing so, development management decisions need to take into account:

- the potential hazard that contamination presents to the development itself, its occupants and the local environment; and*
- the results of a specialist investigation and assessment by the developer to determine the contamination of the ground and to identify any remedial measures required to deal with any contamination*

2.1.2. The Framework further states in paragraph 6.9.19 in relation to Land Contamination that:

Where land contamination issues arise, the planning authority will require evidence of a detailed investigation and risk assessment prior to the determination of the application to enable beneficial use of land, unless it can already be established that remedial measures can be employed. Where it is known that acceptable remedial measures can overcome contamination, planning permission may be granted subject to conditions specifying the necessary measures and the need for their implementation, including provision for remediating any unexpected contamination which may arise during construction. If contamination cannot be overcome satisfactorily, the authority may refuse planning permission.'

2.1.3. Further guidance is provided in the **Planning Practice Guidance on Land Affected by Contamination**¹ which provides guiding principles on how planning can deal with land affected by contamination. The guidance sets out when contamination may be present, the role of planning when dealing with land which may be contaminated, what a contamination risk assessment may contain and how to determine unacceptable risk. The guidance states that where there is a reason to believe contamination could be an issue, proportionate but sufficient site investigation information should be prepared by a competent person to determine the existing or otherwise of contamination.

2.1.4. Further guidance is also provided in the **Planning Practice Guidance on Land Stability**² which provides guiding principles on how planning can deal with land stability. The effects of land

⁴ Welsh Government. Planning Policy Wales. Edition 11 (February 2021)

instability may result in landslides, subsidence or ground heave. Failing to deal with this issue could cause harm to human health, local property and associated infrastructure, and the wider environment. They occur in different circumstances for different reasons and vary in their predictability and in their effect on development. The guidance sets out steps to be taken when land stability is suspected to be an issue for a planning application, what a land stability risk assessment should be contained and measures to be taken to mitigate the risk of subsidence. The guidance also sets out the role of the Coal Authority in the planning system to prevent land instability.

2.2. Local Planning Policy and Guidance

2.2.1. Wrexham County Borough Council have submitted the 'Wrexham Local Development Plan 2 (LDP2) 2013 to 2028' to the Planning Inspectorate in November 2018, however the proposed LDP2 has been rejected by WCBC and is currently undergoing judicial review. In the absence of new development place, WCBC are working to the **Wrexham Unitary Development Plan**⁵ which was adopted in February 2005. This sets out the Councils' overall vision, strategic objectives, spatial strategy and strategic planning policies from 1996-2011. It contains a section on 'Environment and Conservation'; however, it does not mention land contamination.

2.3. Legislation

2.3.1. Land contamination can harm human health, groundwaters, surface waters, soils, ecosystems and property. As such it is controlled, either directly or indirectly, through a range of legislation, including, but not limited to:

- Part IIA of the Environmental Protection Act 1990: establishes a system for identifying and remediating statutorily defined 'contaminated land'; and focuses on addressing contaminated land that meets the specific legal definition and cannot be dealt with via other means, including planning;
- Water Environment Regulations 2017: replaces previous legislation and outlines duties of regulators in relation to characterisation and classification of water bodies, environmental permitting, abstraction and impoundment of water;
- Environmental Permitting Regulations: impose provisions to prevent ground and water contamination from operations requiring an Environmental Permit to operate; and implement controls for operations relating to the treatment or handling of contaminated soils.

2.3.2. Similarly, when dealing with land that may be unstable, the planning system works alongside a number of other regimes including Building Regulations and the Coal Authority's responsibility for public safety risks arising from past coal mining activities.

⁵ Wrexham Unitary Development Plan 1996-2013, February 2005

2.4. National Best Practice and Guidance

2.4.1. The Environment Agency (EA) **Land Contamination: Risk Management Guidance**⁶ provides an overarching framework for the assessment and investigation of land contamination. It replaces the previous Contaminated Land Report 11: Model Procedures for the Management of Contaminated Land 2004.

2.4.2. It is designed to be used in a range of regulatory and management contexts such as voluntary remediation, planning, assessing liabilities or under the Part 2A contaminated land regime. The guidance sets out a phased approach to the assessment of land contamination and specifies requirements for reports produced as part of the process, including Preliminary Risk Assessments (PRAs) and Generic and Detailed Quantitative Risk Assessments (GQRAs and DQRAs).

2.4.3. The EA Guidance is supported by, and cross-refers to, an extensive range of additional statutory and non-statutory guidance relating to aspects such as site investigations, protection of groundwater, understanding and managing asbestos, definition of waste and the specific investigation and assessment procedures under Part IIA. Where necessary, such guidance is referred to in the following report.

⁶ Land Contamination: Risk Management, issued 8th October 2020, last updated 20th July 2023, www.gov.uk

3. Scope of Assessment and Sources of Information

3.1. Scope of Assessment

3.1.1. In undertaking this assessment SGP carried out the following activities:

- site visit to view the existing site and its setting.
- review of comprehensive historical mapping information.
- review of comprehensive environmental setting information (geology, hydrology, hydrogeology, industrial land uses, mineral excavation / extraction, landfilling / waste management activities).
- review of information relating to potential unexploded ordnance (UXO).
- review of development proposals.
- Review of Consultants Coal Mining Report.
- development of preliminary conceptual site model (CSM) with regards to ground contamination; and,
- provision of recommendations for further investigations and mitigation, where deemed necessary.

3.1.2. The information has been used to determine i) the potential for any ground contamination to be present on or near the site due to historical and current land uses and ii) the potential for any such contamination to pose a constraint to the proposed use of the site and / or impact the surrounding environment. The information has been used to inform the risk assessment and determine any further work and/or investigations that may be required to identify any remedial requirements to ensure the site is suitable for the proposed development with regards to ground contamination.

3.1.3. Information has also been obtained on general expected ground conditions at the site and stability / physical ground conditions where these may constrain the planned development are included where relevant. However, formal recommendations with regards to geotechnical considerations are not included.

3.1.4. Similarly, structural building, asbestos or ecological surveys have not been carried out, although reference is made to relevant information and SGP observations were deemed relevant and applicable.

3.2. Sources of Information

3.2.1. The baseline data has been obtained through a desk top study and site visit. No additional survey or field work has been undertaken as part of this assessment.

3.2.2. The principal sources of information consulted in the preparation of this report include:

Table 3.1: Information Sources

Date and reference	Author and source	Purpose and information content
Topography, geology, hydrogeology and hydrology		
http://mapapps.bgs.ac.uk [Accessed November 2023]	British Geological Survey.	distribution of geological units at surface including drift and artificial deposits, faults and mineral outcrops, borehole logs.
https://www.ordnancesurvey.co.uk/osmaps/ [Accessed November 2023]	Ordnance Survey (OS), Explorer Map, 1: 10,000	general mapping information including structures, boundaries, ground features, water features etc.
http://www.ukradon.org [Accessed November 2023]	Public Health England	mapping defining radon affected areas in England & Wales.
Historical data		
Satellite imagery	Various	recent historical features
Groundsure Report Historical Mapping GS-SN8-PUW-KYG-VS2; November 2023 (provided in Appendix C)	Groundsure	historical mapping at 1:2,500, 1: 10,000 and 1: 10,560 scales from 1872-1875 onwards.
Information Review		
Groundsure Report Datasheet GS-OLK-W66-117-8T4; November 2023 (provided in Appendix C)	Groundsure	hydrological, waste, hazardous substances, geological, land uses, and natural stability hazards based on historical data and geological records.
https://magic.defra.gov.uk/MagicMap [Accessed November 2023]	Defra	web-based interactive map containing information on nature conservation areas, aquifer designations, source protection and nitrate vulnerable zones.
www.zeticauxo.com (provided in Appendix D)	Zetica	unexploded bomb risk mapping.
Consultants Coal Mining Report [15.11.23] (ref: GS-4EK-4QE-512-VWK) (provided in Appendix E).	The Coal Authority	Mining activity and geology, investigative or remedial activity, licensing and future mining activity, further relevant information included.

3.3. Site Inspection & Investigations

3.3.1. An inspection of the Site and the immediate surrounding area was undertaken by SGP Consultants, on 13th November 2023.

3.3.2. A photographic record of salient features is provided in Appendix B.

4. Site Location and Development Proposals

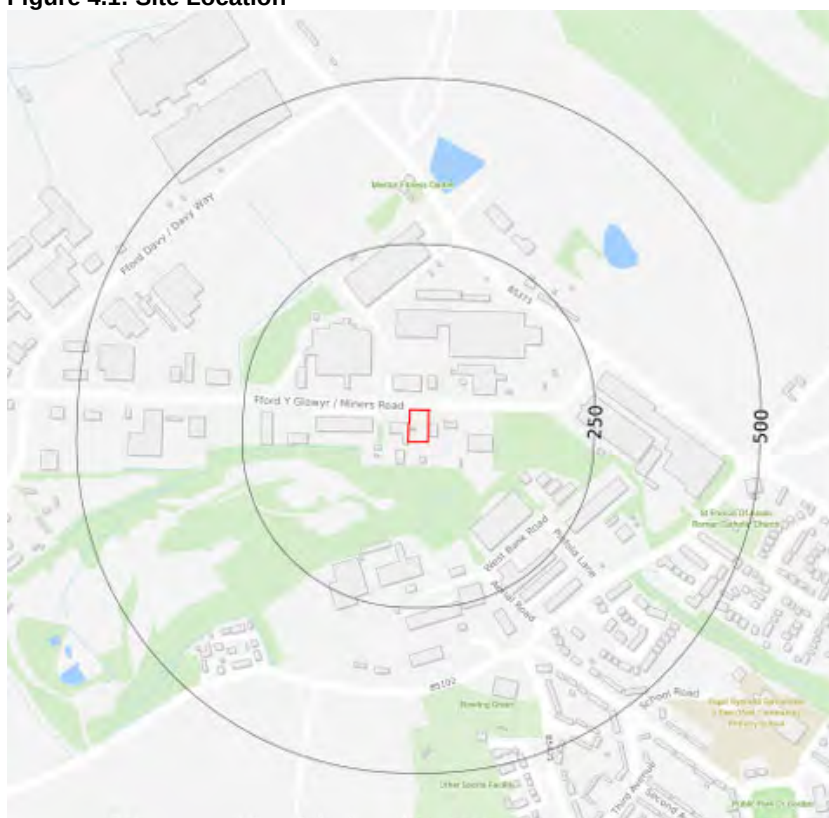
4.1. Site Details and Location

4.1.1. The Site is located on Llay Industrial Estate, lying approximately 6km to the east of the centre of the city of Wrexham, as shown below in Figure 4.1.

Table 4.1: Site Details

Address	Parcel of land opposite DMH Tyres, Miners Road, Llay Industrial Estate, LL12 0PJ
National Grid Reference	SJ 32895681
Local Authority	Wrexham County Borough Council
Site Areas	approximately 0.1 Ha
Current Use of Sites	Car parking and storage yard
Proposed Use	Construction of new vehicle servicing facility, training facility, office, car park.

Figure 4.1: Site Location



Source: Groundsure Datasheet Report, 2023 (ref: GS-OLK-W66-117-8T4).
Crown copyright and database rights 2023. Ordnance Survey license 1000035207.

4.2. Proposed Development

4.2.1. Proposals are for the construction of new vehicle servicing facility building which will include 4 vehicle servicing bays with entrances, mezzanine and training area (Bay 1) and office space. External areas will be covered by hardstanding with a parking area (14 spaces) in the north.

Details of the proposed site layout are provided in the 'SK01 Proposed Site Layout.pdf' (Drawing ref. 20258/SK01) a copy of which is presented in Appendix A.

5. Development History and Current Status

5.1. Historical Development

5.1.1. A summary of significant features, developments and land uses shown on historical Ordnance Survey maps is provided in Table 5.1 below. Copies of selected maps are provided in Drawings D01-D05.

5.1.2. Only key features of interest are summarised below; for full details reference should be made to the complete set of historical mapping, as provided by Groundsure (provided in Appendix C). Where key features have been observed their distance to the closest part of the respective proposed development is made.

Table 5.1: Summary of Development History (On site)

Feature	Date shown on Historical Mapping (mapping scale)	Date no longer shown on Historical mapping (mapping scale)	Comments
Open countryside (agricultural)	1872-1875 (1:2,500)	1961 (1:2,500)	The site is part of agricultural fields separated by hedgerows and trees. A hedgerow crosses the site east-west.
Llay Colliery (railway sidings and building)	1949 (1:10,560)	1974 (1:2,500)	The site forms the southern extend of Llay Colliery and is occupied by multiple railway sidings and part of an elongated building in the western part of the site. The building extends from the colliery to the north to the colliery spoil heaps to the south so may be associate with some production area or conveyor.
Site clear – no mapped features	1981 (1:10,000)	Present	Railway sidings and colliery building no longer present (following closure of the colliery and redevelopment of surrounding area to Llay Industrial Estate). The site is featureless and forms a undeveloped parcel of land located to the immediate south of a road (Miners Road) and Plant Hire Depot (west). Aerial imagery from 2006-present shows the site being used as a storage yard or similar with vehicles and materials visible across the site surface.

Note: Dates refer to dates provided on OS mapping; actual dates may differ

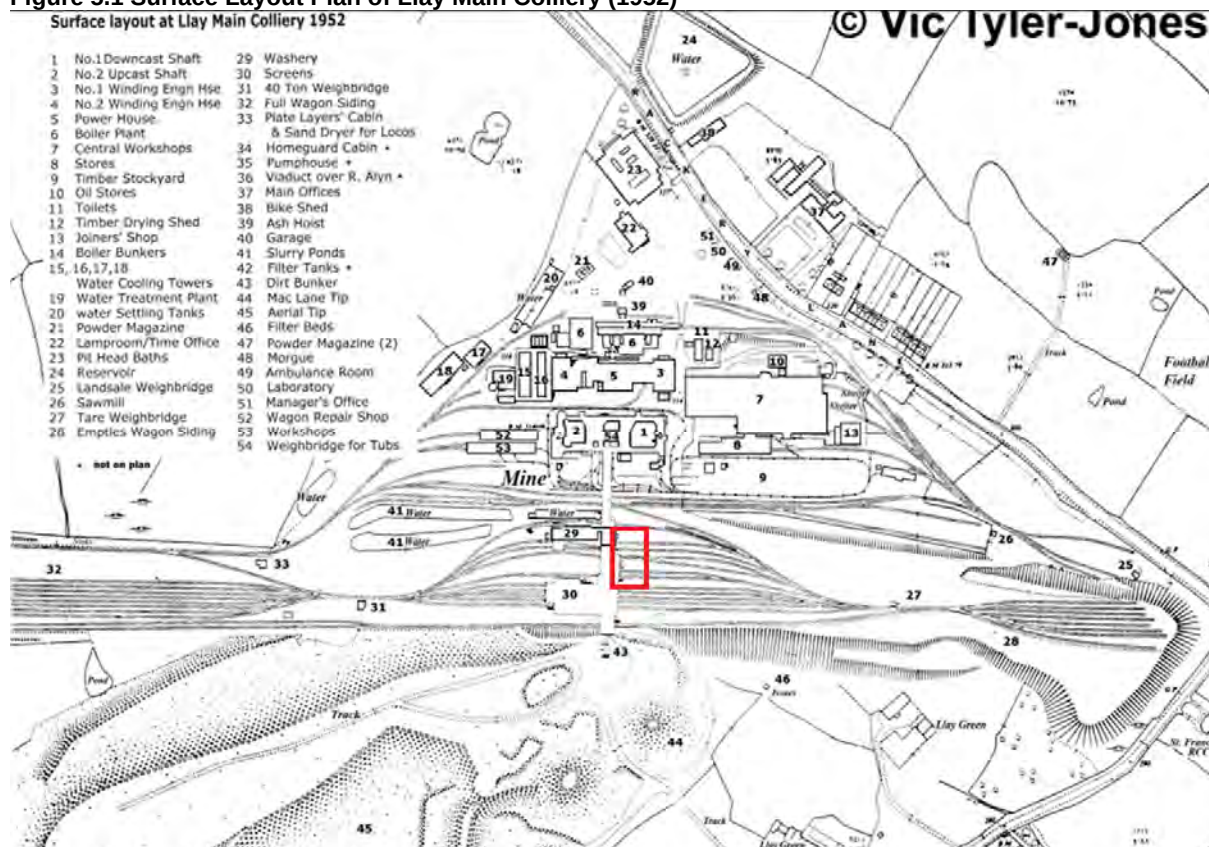
Table 5.2: Summary of Development History (Surroundings)

Feature	Area (approximate distance from site)	Date shown on Historical Mapping (mapping scale)	Date no longer shown on Historical mapping (mapping scale)	Comments
Open countryside (agricultural)	Whole site and surrounds	1872-1875 (1:2,500)	1961 (1:2,500)	Despite large industrial works within former agriculture land in 1961 mapping the Llay Green Farm remains in place. There are some areas of agricultural land remain present further south of site however the majority of the surrounding land has been developed.
Llay Colliery (railway sidings and building)	North, West, East, South	1949 (1:10,560) <i>*Dates are taken from available historical mapping. Anecdotal information suggests that the colliery was in operation from 1921.</i>	1974 (1:2,500)	The main Llay Colliery works were located to the around 80m to the north where large buildings, railway sidings and areas of water were present. The colliery was served by two shafts located approximately 80 and 90m to the north. Land to the immediate east and west was occupied by railway sidings which served the colliery. A large, elongated building extended south from the main colliery works, through the western end of the site and to a large colliery spoil heap.
Animal Food Factory and associated tanks (Agriculture Ltd) Food Products Factory	Northeast (approx. 20m) Northwest (approx. 15m)	1974 (1:2,500)	Present	The colliery has closed and been demolished – anecdotal information suggests the colliery closed in 1966. The main works site has been developed with a Food Products Factory, Engineering Works and Animal Foods Factory which included multiple tanks. All features are to the north, immediately beyond Miners Road. Both shafts are shown and are mapped as disused. Factory with eight large tanks and six small scale tanks are present in 1974 mapping. The footprint of the factory building, and

					tanks remain in-situ and unchanged up to 2003 mapping. According to the site walkover the factory remains in operation at present (2023), named 2Agriculture Ltd.
Plant Hire Depot	West (approx. 1m)	1974 (1:2,500)	Present		A plant hire depot is mapped to the immediate west. By 1975-1980 its now mapped as a factory although from the recent walkover it is confirmed it remains in use as a plant hire depot.
Textiles Factory	North (approx. 80m)	1974 (1:2,500)	2003 (1:2,500)		According to available mapping the footprint building of the factory remains however it is now used by Ecological Land Management Ltd.
Depot	East (approx. 1m)	1975-1980 (1:2,500)	Present		A small depot has been constructed to the immediate east which is now occupied by an Engineering Firm.

Note: Dates refer to dates provided on OS mapping; actual dates may differ

Figure 5.1 Surface Layout Plan of Llay Main Colliery (1952)⁷



⁷ http://bevendeanhistory.org.uk/estate/1940s_War_Time_Stories_001_Les_Wilson.html

Figure 5.2 Aerial image of Llay Main Colliery⁷



- 5.2. A site layout plan of the former colliery (Fig 5.1) has been obtained from an internet search with the approximate site boundary shown in red. The buildings identified in the west of the site relate to former building 29 (washery) and 30 (screens). It is understood that this where mine arisings would be processed before the colliery waste would be discharged onto the colliery tip to the south.
- 5.3. An aerial image of the colliery (Fig 5.2) has also been obtained and shows that Building 29 and 30 were enclosed structures, most probably housing a conveyor or similar. Any loss of mine spoil is therefore considered to be minimal.

5.4. Historical Development Summary

5.4.1. Since earliest mapping (1872-1875) the site and surrounds were open countryside. In approximately 1921 (according to Wrexham History, 2023) the Llay Main Colliery was completed after sinking two shafts approximately 80-90m north of the site boundary; Shaft (031) and Shaft (032). The main colliery works were located to the north of the site, beyond the now Miners Road. Here the two shafts were located as well as ponds/reservoirs, large processing buildings and railway lines / sidings. Elongated buildings (washery and screens) extended south through the western end of the site, continuing south to a large colliery spoil mound to the south. Multiple railway sidings also crossed the site. To the south a large colliery spoil mound was located, and which remains to this day.

5.4.2. The colliery closed in March 1966 and both shafts were infilled with approximately 60,000 tones of mine waste. Mapping from 1974 shows that the former colliery site had been redeveloped into the now Llay Industrial Estate with a Foods Products Factory, Engineering Works, Textiles Factory and Animal Foods Factory located on the main colliery site. During this period the railway sidings and buildings which had occupied the site had been demolished with the site now laying vacant. The site has remained undeveloped since this period with aerial imagery from 2006 showing it to be used as an external storage area.

5.4.3. No significant changes were observed beyond this date, other than redevelopment of the industrial units to the north of Miners Road.

5.5. Present Land Condition

5.5.1. A summary of existing significant features, recent activities and land uses shown on contemporaneous aerial photography, site inspections and anecdotal evidence is provided in Table 5.2 below.

Table 5.3: Present Land Condition

Site Description	The Site currently forms a rectangular parcel of land off Miners Road which is used by DMH Tyres for storage and car parking. The site lies within Llay business park and surrounded by commercial and industrial premises.
Access	Access to the Site is via Miners Road, off Rackery Lane.
Boundaries	The site boundaries consist of palisade fencing to the north, south and west of the site. To the east along the boundary with the Thomas plant hire depot there is heras fencing partially covering the boundary.
Services / Wayleaves	Service plans have not been obtained as part of this study. Two manhole covers were present in the north of the site, close to the site entrance. To the centre of the site there was evidence of newly installed electrical services within a small service box. Marks and scarring to the pavement along the northern boundary (Miners Road) may indicate further belowground services on site.
Rights of Way	No rights of way cross the site. There is a plot of land adjacent (to the immediate south) of the site, which is tenanted, access to this area is via the site's access gate off Miners Road.

Structures	The site was vacant, with the exception of a small service box (possibly electrical).
Surfaces / Vegetation	The Site comprises partial hardstanding (road) and exposed gravelled surface. Some construction materials including plastic sheeting, wood, cables and tyres were observed in the north. No invasive species were noted; however, a formal ecological survey has not been undertaken as part of this assessment.
Contamination Sources	The presence of hardstanding, gravelled surface along with fragments of brick and stone were present across the site extent. The depth and chemistry of the made ground is uncertain and could potentially include colliery spoil associated with the historical transport of soil from the colliery to the north to the colliery heaps to the south. Made ground within an urban or industrial setting can contain elevated concentrations of heavy metals, PAHs and asbestos fibres. The presence of former railway sidings could also include hydrocarbons. A heating oil tank is located off-site but along the western boundary. The tank appears to be of modern, plastic double-skinned design; however, it is uncertain if this may have replaced an older tank. Vehicles were parked on the site as well as various materials including, tyres, wood and bricks/blocks. Off-site to the south drums of chemicals on pallets were observed. There is potential that similar materials may have been stored on the site since its use as a storage yard.

Figure 5.1. Satellite Imagery of site



Source: Groundsure Datasheet Report, 2023 (ref: GS-OLK-W66-117-8T4).

Red line shows approximate site boundary: for accurate boundary refer to plans in Appendix A

5.6. Adequacy of Information

5.6.1. Whilst there are some gaps in the historical map coverage it is considered that the available mapping provides adequate coverage of the Site and immediate surroundings to inform the assessment of potential ground conditions and contamination status of the Site.

6. Site Characterisation

6.1. The physical setting of the Site has been derived from the review of information detailed in Section 2. Key details are summarised below; for full details reference should be made to the supporting information provided in Appendix C.

Table 7.1: Environmental Setting

Setting and Topography	The Site is located approximately 6km to the east of Wrexham and lies within Llay Industrial Estate. It is located at an elevation of approximately 70m Above Ordnance Datum (AOC) as shown by spot heights on contemporary OS mapping.
Geology / Ground Conditions	BGS, historical OS mapping and site observations indicate the potential ground conditions to be: <u>Made ground</u>: Groundsure mapping shows the site to be located within an area of made ground. Surface deposits of granular made ground soils were observed across the site. The composition and depth of such deposits is uncertain but may contain inclusions of colliery spoil although significant deposits of such materials are not expected. <u>Superficial Deposits</u>: BGS mapping shows the site to be underlain by Devensian Till-Diamicton. <u>Bedrock</u>: BGS mapping shows the site to be underlain by bedrock of the Salop Formation – mudstone, sandstone, and conglomerate. <u>Faults</u>: - The closest fault is mapped 1663 to the west. <u>BGS Records</u> BGS records show there are no borehole entries on the site, however there are several in close proximity. The nearest available ground conditions records are associated with the two coal mining shafts at Llay Main Colliery. Shaft (ref:332356-031) and Shaft (332356-032). Shaft (031) lies 77m north and Shaft (032) lies 87m north-west of the site boundary. A brief review of the records is detailed below. <u>SJ35NW1 (77m N)</u> According to records this Shaft (031) was sunk between 1916-1920, to a depth of 2715 ft (828 m approx.). Bind with marl pockets 0.58m followed by mottled marl and strong bind with marl on top 3.76m... moving to fireclay at 42m. Coal found at 174m (571 ft), followed by mottled marl: sandstone. <u>SJ35NW345 (87m NW)</u> Records are incomplete in terms of dates pertaining to the sinking of the second shaft. According to BGS, Shaft (032) was sunk to a depth of 1612 ft (approx. 491m).

	Red marl 3.91m, followed by grey porcelaneous limestone 1.47m to red and green marls at 14.88m. Mottled marl with limestone brands at 4.70, moving to blue – green sandy marl at 6.15m. Coal is not referenced within this record. BGS borehole records for the shafts (031) and (032) are partially illegible.
Natural Ground Stability	The site is in an area where the risks from collapsible ground, landslides, compressible deposits, running sand and shrinking and swelling clay are all very low, and ground dissolution hazard is negligible.
Hydrology / Drainage	The site predominantly comprises a mix of tarmac and gravel surface therefore drainage is anticipated to be mainly via surface infiltration with some runoff during periods of heavy rainfall onto Miners Road to the north. The nearest mapped surface watercourse lies 74m west and is identified as a minor brook / stream (unnamed).
Hydrogeology / Groundwater	The aquifer designations of the underlying geological units are: <u>Superficial Deposits:</u> Devensian Till: Secondary aquifer - undifferentiated Groundwater vulnerability: Low <u>Bedrock:</u> Salop Formation - Secondary aquifer A Groundwater vulnerability: Medium The Site is not located in a Source Protection Zone for drinking water abstractions. The nearest recorded surface water abstraction is 1661m to the southwest associated with Fish Farm/Cress Pond Throughflow (Historical). Shallow groundwater is anticipated to be limited to perched water within the made ground, particularly at the interface between granular made ground and the underlying natural cohesive soils.
Excavation / Mining	The site and surrounds are within an area of historic mining activity of the Llay Main Colliery (1916-1962). As part of this assessment SGP have reviewed the Consultants Coal Mining Report (ref: GS-4EK-4QE-512-VWK). A summary of the report's findings is detailed below as well as information reviewed with the Groundsure report (2023). <u>Coal Authority Consultants Report (ref.51003389627001)</u> There are no probable unrecorded shallow workings with worked seams (presumably associated with Llay Colliery) being at depths of 651m (Two Yard) to 903m (Ruabon Yard – Soft 5 qtrs). Two shafts lie to the north of the site, Shaft (ref:332356-031) and Shaft (332356-032). Shaft (031) lies some 80m north and Shaft (032) lies 90m north/northwest of the site. Both shafts were sealed off with concrete, and a puddled clay plug was

	used at depths of 470-497m. The remaining void in the shafts were infilled with colliery spoil in 1968. In 1978, both shafts were capped with a reinforced concrete cap. There are no records of opencast mines or Coal authority managed tips within 500m of the site. There are also no outcrops recorded. There are no remediated sites, site investigations, mine gas or coal mining subsidence related records within 50m of the site boundary.
Landfill / Waste Disposal	The Groundsure Report and BGS mapping indicate no historic landfills are present within 500m of the site. There are however 3 licensed waste sites within the surroundings of the site, one of which includes Astbury landfill, Rossett. The sites identified are detailed below including distances and directions from site. • 399m W - W H Chaloner & Son Ltd (Metal Recycling Site), first recorded in August 1994 and last updated in October 2012. • 395m N – Astbury Landfill (Household, commercial and Industrial wastes), first recorded in August 1994, and last updated in January 2019. • 395m N – Astbury Quarry (Co-Disposal Landfill Site), Caird Environmental Ltd, first recorded in August 1994, last updated in June 2002. Despite the presence of such waste sites within the vicinity of the site (within 500m), due to the distance between the landfill and the site and the underlying cohesive geology, it is not considered to be a source of contamination likely to affect the site. A large colliery spoil mound is present approximately 340m to the south of the site, associate with spoil from the former Llay Colliery. This was first shown in OS mapping in 1949.
Neighbouring Land use / Nearby Contaminative Activities	The site is located within Llay Industrial Estate and is therefore surrounded by a range of commercial / industrial land uses. Identified neighbouring land uses include industrial and commercial facilities including Manton Hire & Sales Limited, Thomas Plant Hire, DMH Tyres, PP Autos and 2 Agricultural. There is also a large factory to the east, Magellan, and the southeast the Independent Twine Manufacturing CO. No significant sources of contamination likely to affect the site have been detected from the neighbouring land uses. There have been 2 Pollution Incidents to Controlled Waters have been reported within 250m., detailed below. • 123m NW ~ 13.09.2002 – Oils and Fuel: Diesel. Category 4 (no impact – water), Category 3 (minor impact - land), Category 4 (no impact – air). • 215m S ~ 24.05.2017 –Category 3 (Minor – land). No further details provided.
Radon	The Site lies within an area where between <1% of homes are estimated to be at or

	above the Radon Action Level.
UXO Risk	The UXO risk map identifies the Site as located within an area of Low Risk. A copy of the UXO risk map is provided in Appendix D.
Nature Conservation	The site has not been identified as being in any statutory or non-statutory designations, and none are identified within 500m of the site. No invasive weeds, such as Japanese Knotweed or Himalayan Balsam were observed during the site visit, although a formal survey has not been undertaken by SGP and not all parts of the site were inspected.

7. Preliminary Conceptual Site Model

7.1. Methodology

7.1.1. Information from the desk study has been used to identify the likely source-pathway-target relationships that may exist at the Site during and following the proposed development. Principal factors that may determine potential sources of contaminants at the site, receptor vulnerability and potential pathways have been identified and each assessed in turn to derive a Conceptual Site Model (CSM).

7.2. On-Site Sources

7.2.1. BGS mapping reports the presence of artificial (made ground) across the site and exposed granular made ground soils were observed within areas absent from hardstanding during the walkover. The depth and composition of made ground soils is unknown and whilst it may contain elevated concentrations of typical urban contaminants including heavy metals, PAHs and asbestos fibres, it is unlikely that commercial land use values will be exceeded. Similarly, railway sidings formerly occupied the site, the presence of which can also result in elevated concentrations of metals, PAHs, asbestos and hydrocarbons.

7.2.2. The site has and is continued to be used as a storage yard and whilst there was no evidence at the time of the site walkover of any drums or fuel stores on the site, it is possible that such materials may have been stored historically. Any historical leaks or spills may have resulted in hydrocarbon impacted soils which could potentially pose a limited vapour risk.

7.2.3. There is no evidence of the placement of colliery spoil on the site and the former buildings in the west which washed and screened colliery waste before deposition were enclosed structures, so loss of colliery waste is unlikely. A large colliery tip is located to the south and it is possible that aeolian deposits from the tip onto the site could and continue to occur. This could result in surface soils with high metal and PAH concentrations, as well as high sulphate.

7.2.4. No shallow mineworkings are reported beneath the site with worked coal seams lying at significant depth (>651m). Given the depth, geological cover and the presence of superficial deposits of Glacial Till the risk of mine gas migration is considered to be low.

7.2.5. The site lies within an area where <1% of homes are estimated to be at or above the Radon Action level according to the Groundsure Report meaning that basic radon protection measures are not required in any buildings or extensions.

7.3. Off-Site Sources

7.3.1. A heating oil tank is located to the immediate west, associated with the current commercial premises. The tank at the time of inspection appeared to be of modern (plastic) construction with no surface staining present. It is however recognised that the existing premises has been

there since at least 1974 and is likely to have been served by an older, metal tank. There is therefore a low to moderate risk that fuel contamination could have extended onto this portion of the site associated with historical leaks or spills although extensive contamination is unlikely.

7.4. Two shafts associated with the former colliery are located to the north / northwest at 80-90m from the site. These have been capped and plug as part of remedial works in the 1960's and 70's. Given the distance from the site and the remedial works which took place, the risk of the migration of mine gas from the shaft to the site are considered to be low.

7.5. Potential Receptors

7.5.1. An industrial land use is proposed for the site involving the construction of new vehicle servicing facility, training facility, office, and car park. Development plans show that the site will be surface by hardstanding in its entirety.

7.5.2. The proposed use of the site would be considered as low sensitivity for a commercial / industrial use with respect to human health.

7.5.3. The principle vulnerable receptors with respect to potential exposure to any soil contamination that may be present for the proposed use will be:

- construction workers who may be exposed to contaminants during preparatory and construction / refurbishment works;
- future site users and site visitors;
- future maintenance workers;
- buildings / structures;
- controlled waters: underlying aquifers.

7.6. Human Health Risk Assessment

7.6.1. The potential for significant contamination to be present that may pose an acute risk to construction workers during the development is considered low to moderate based upon the site history and reviewed information. This is associated with the unknown chemistry of made ground soils which may contain elevated concentrations of heavy metals, PAHs and hydrocarbons as well as incidences of asbestos. Exceedances of commercial land use are unlikely.

7.6.2. As development proposals include site-wide hardstanding cover then the risk of contaminant exposure of any heavy metals, PAHs and asbestos if present within the made ground soil would be negligible with the hardstanding cover preventing the migration pathway.

7.6.3. There is a low but not negligible potential for hydrocarbon impacted soil to be present, associated with the historical railway sidings (treated sleepers and ballast), heating oil tank on

western boundary and historical storage of materials on the site. The presence of hydrocarbon impacted soils if present could pose a potential vapour inhalation risk into the proposed building.

7.7. Property Risk Assessment

7.7.1. The potential for chemical attack on construction materials (polymers) by possible localised soil contaminants is considered to be low to moderate and would be limited to the potential presence of hydrocarbon impacted soils. There is a low but not negligible potential that high sulphate soils associated with colliery spoil / colliery derived wind-blown dust to be present which could present aggressive conditions to concrete.

7.8. Controlled Waters Risk Assessment

7.8.1. The site is in an area of low/moderate sensitivity as far as groundwater is concerned with unproductive Glacial Till (undifferentiated) overlying a Secondary A aquifer within the Salop Formation. The widespread mapped cover of Glacial Till across the site will limit the migration of any mobile contaminants; the risks to the underlying bedrock aquifer are therefore considered to be very low.

7.8.2. The nearest surface watercourse is an unnamed brook at approximately 74m west. The watercourse is at a distance where impacts from the site is considered to be negligible, particularly when compared to that of the wider surrounding area.

7.9. Preliminary Conceptual Site Model (CSM)

7.9.1. The preliminary CSM has been derived for the site using the information described above, describing the potential contamination sources, pathways and receptors and is summarised below in Table 7.1:

Table 8.1: Preliminary Conceptual Site Model

Receptor	Source / Contaminant	Pathway / Exposure	Pollutant Linkage (in absence of mitigation)	Further Works
1. humans – construction workers / future maintenance workers	metals / metalloids / asbestos / PAHs hydrocarbons	dermal contact / ingestion / inhalation – short term exposure	Possible – Made ground of unknown provenance is likely to be present beneath the site surface. The site was formally occupied by railway sidings as part of the Llay Main Colliery. Therefore, there is the potential for elevated typical urban contaminants including heavy metals, PAHs, hydrocarbon and asbestos. Similar contaminants may also be present associated with historical storage of materials on site and heating oil tank on western boundary.	Site investigation including shallow soil sampling to determine the shallow ground conditions and chemistry. <i>mitigated through use of standard occupational hygiene measures; provision of services in clean back-filled trenches</i>
2. humans – future site visitors / workers	metals / metalloids / asbestos / PAHs	dermal contact / ingestion / inhalation	Unlikely – contaminants may be present in made ground; however, thresholds for industrial / commercial use are unlikely to be exceeded. Presence of site-wide hardstanding will provide a physical barrier to reduce exposure to receptors.	None - <i>mitigated through provision of surfaced hardstanding / built development.</i>
	ground gas (methane, carbon dioxide)	accumulation within voids, confined spaces and service runs to toxic concentrations	Unlikely – Worked coal seams are at significant depth (>615m) with significant geological cover including superficial cohesive deposits. Off-site shafts at a distance of 80-90m and have undergone remedial works including clay plug and cap.	None
	radon gas from natural ground		Unlikely – <1% of homes are estimated to be at or above the Action level.	None - Radon protection measures are not required
	VOC vapours from soil / groundwater sources		Possible – Potential sources of hydrocarbons have been identified through historical presence of railway sidings, potential for historical storage of fuels on yard and heating oil tank on western boundary. The presence of fuel impacted soils could pose a risk to future site workers via ingress of vapours into proposed buildings	Site investigation including shallow soil sampling to determine the shallow ground conditions and chemistry.

Receptor	Source / Contaminant	Pathway / Exposure	Pollutant Linkage (in absence of mitigation)	Further Works
3. humans – adjacent site users	metals / metalloids / asbestos / PAHs / hydrocarbons	windblown / dermal contact / ingestion / inhalation	Low Likelihood – Significant concentrations of mobile contaminants which could be remobilised during construction works are unlikely to be present although the presence asbestos fibres cannot be discounted due to the unknown composition and nature of materials stored on the site historically.	Site investigation including shallow soil sampling to determine the shallow ground conditions and chemistry. <i>Dust suppression techniques may be required during construction works</i>
4. property / services	ground gas (methane, carbon dioxide)	accumulation within voids, confined spaces and service runs to flammable concentrations	Unlikely – Worked coal seams are at significant depth (>615m) with significant geological cover including superficial cohesive deposits. Off-site shafts at a distance of 80-90m and have undergone remedial works including clay plug and cap.	No Actions
	pH, sulphate	chemical attack of buried concrete and plastic materials	Possible – Ground containing elevated sulphate cannot be discounted. Significant deposits of colliery waste are not expected, however there is potential for shallow soils containing elevated sulphate associate with wind-blown dust from nearby colliery tip.	Site investigation including shallow soil sampling to determine the shallow ground conditions and chemistry to include testing of foundation bearing strata for pH, soluble sulphate, total sulphate and total sulphur to assess aggressive concrete conditions.
4. vegetation / landscaping	leachable metals / metalloids may be present within made ground / natural soils	plant uptake	Negligible – No evidence of vegetation impacted by site soils. No inclusion of landscaping within proposed development.	No Actions
5. ecosystems / protected species & habitats n/a – no ecosystems / protected habitats in immediate vicinity				
6. surface waters Unnamed surface water brook	leachable metals / metalloids / PAHs / hydrocarbons	migration via shallow groundwater / surface water run-off.	Negligible – Surface watercourse at a significant distance where impact from the site is considered to be negligible compared to the wider area. Widespread cover of hardstanding and surface water drainage system will reduce infiltration / leaching rates	No actions

Receptor	Source / Contaminant	Pathway / Exposure	Pollutant Linkage (in absence of mitigation)	Further Works
7. groundwater – Secondary undifferentiated (superficial aquifer) Secondary A (bedrock aquifer)	leachable metals / metalloids / PAHs / hydrocarbons	migration via saturated zone	Unlikely - Significant mobile contamination on the site is unlikely. Any impact from the site (leaching of made ground) is likely to be negligible compared to the wider surrounding area. Groundwater in superficial deposits is limited to perched water within lenses of sands and gravels. Widespread cover of hardstanding and surface water drainage system will reduce infiltration / leaching rates in any case	No actions

7.10. Other Considerations

Ground Stability – Natural Hazards

- 7.10.1. The site is in an area where the risks from collapsible ground, landslides, compressible deposits, running sand and shrinking and swelling clay are all very low, and ground dissolution is negligible.

UXO Risk Assessment

- 7.10.2. The UXO screening assessment has identified the Site as being located in an area of low risk with regard to potential unexploded ordnance. No further assessment of potential UXO risk is deemed necessary.

8. Conclusions and Recommendations

8.1. Conclusions

- 8.1.1. The site was formerly agricultural fields until the construction of Llay Colliery where the site occupied part of the southern extent of the main works. Railway sidings crossed the site, and two buildings (washery and screens) were present in the west. In the 1960's the colliery closed and by the 1970's the site and wider surrounding area was redeveloped to the existing Llay industrial estate. Since this period the site has remained vacant and is assumed to have been used as an external storage area/yard, a use which remains to this day.
- 8.1.2. Potential on-site contamination is associated with the presence of made ground which is anticipated to be present across the site with an unknown depth and chemistry. The presence of made ground can be associated with typical urban contaminants such as heavy metals, asbestos fibres and PAHs. Such sources can also be associated with the historical presence of railway sidings. Potential sources of hydrocarbons have also been identified (railway sidings and historically stored materials) although significant fuel sources have not been identified, except for an off-site heating oil tank along the western boundary.
- 8.1.3. Significant deposits of colliery spoil which can result in elevated sulphate and aggressive concrete conditions is not expected with no evidence of stockpiling of such materials on site and the Llay colliery processing buildings which were present in the west were enclosed buildings. There is, however, potential that wind-blow dust/soils from the adjacent colliery spoil mound to the south may have occurred resulting in aerial deposition of dusts onto the site surface.
- 8.1.4. No shallow mineworkings have been reported on or within the immediate surrounds with worked seams associated with the colliery being >615m deep. The significant geological cover and overlying superficial cohesive till deposits significantly reduces the likelihood of the migration of deep mine gas. Two shafts are located 80 and 90m to the north / northwest within the former colliery works. Both shafts have been subject to infilling, clay plug and capping with a reinforced shaft. Given the distance from the site and the remedial works which have taken place, the risk of the mines serving as a preferential pathway of mine gas is considered to be very low.
- 8.1.5. Development proposals are for site-wide hardstanding cover (building, road and car-parking) which will break the exposure pathway for most contaminants to future site workers. The main potential risk is associated with exposure of construction workers to made ground soils which may contain elevated contaminant concentrations (although commercial land use values are not expected to be exceeded) and the low/moderate risk that hydrocarbon impacted soils could be present and which could serve as a limited VOC source into the proposed dwelling if present.

8.1.6. The site is located within an area where <1% of homes lie above the Radon Action Level; meaning that radon protection measures are not required in new buildings or extensions.

8.1.7. The continued industrial use of the site is considered to be of low sensitivity with development proposals consisting of a new vehicle servicing facility, training facility, office, and car park. Considering the proposed development, the history of the site and the anticipated contaminants, the risk to human health is low with exposure largely mitigated by the extensive hardstanding cover. The main risk to human health is to construction workers, particularly during any excavation works which may result in the direct contact / inhalation of contaminants, if present.

8.2. Recommendations

8.2.1. It is recommended that a limited intrusive investigation is undertaken to confirm the depth, chemistry and composition of site soils and supplemented with the chemical testing of shallow soils for the potential contaminants identified.

8.2.2. The recommended scope for the investigation is as follows:

- Excavation of 4 trial-pits to a maximum of 3m bgl achieving an overall spacing of 15m².
- Logging and screening of soils with a photoionisation detector (PID) to detect the presence of fuel vapours.
- Collection of representative samples of the made ground and submission for chemical analysis of heavy metals, PAH-16, fractioned hydrocarbons and asbestos.
- Collection of representative samples of foundation bearing strata (made ground and natural) for pH, total sulphate, total sulphur and soluble sulphate to assess aggressive concrete conditions.
- Production of a factual and interpretive contamination assessment report and comparison to chemical data to generic assessment criteria for a commercial / industrial land use scenario with updated conceptual site model and if necessary, outline remedial recommendations.

8.2.3. This report should be submitted to WCBC for approval.

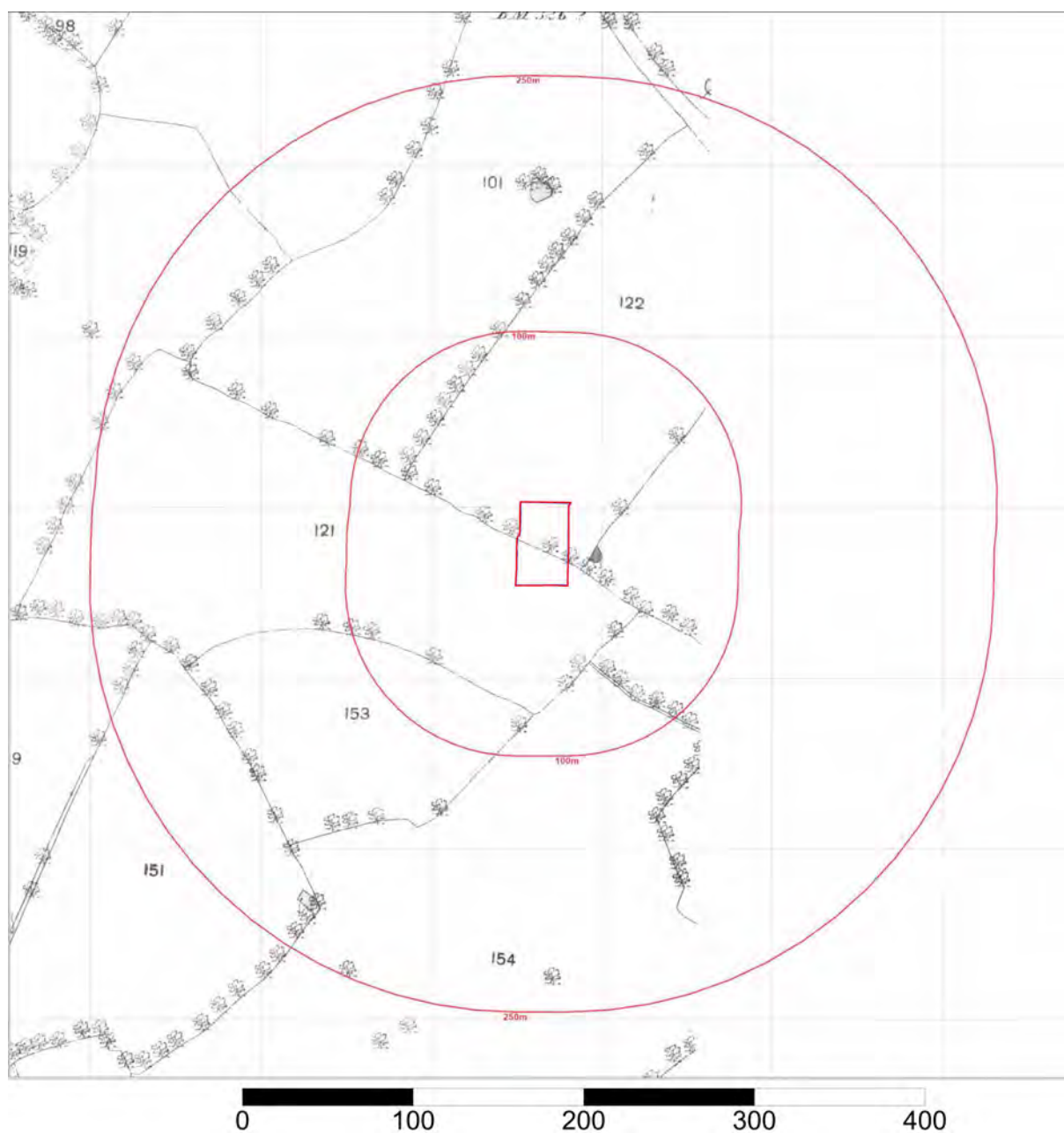
8.3. Limitations

8.3.1. This report has been prepared by SGP for the sole and exclusive use of DMH Tyres Ltd. Reasonable skill, care and diligence has been exercised within the budget available, and in accordance with the technical requirements of the brief. Notwithstanding the efforts made by the professional team in undertaking the assessment and preparing this report, it is possible that other ground conditions and contamination as yet undetected may exist. Reliance on the findings of this report must therefore be limited accordingly. Such reliance must be based on

the whole report and not on extracts which may lead to incomplete or incorrect conclusions when taken out of context.

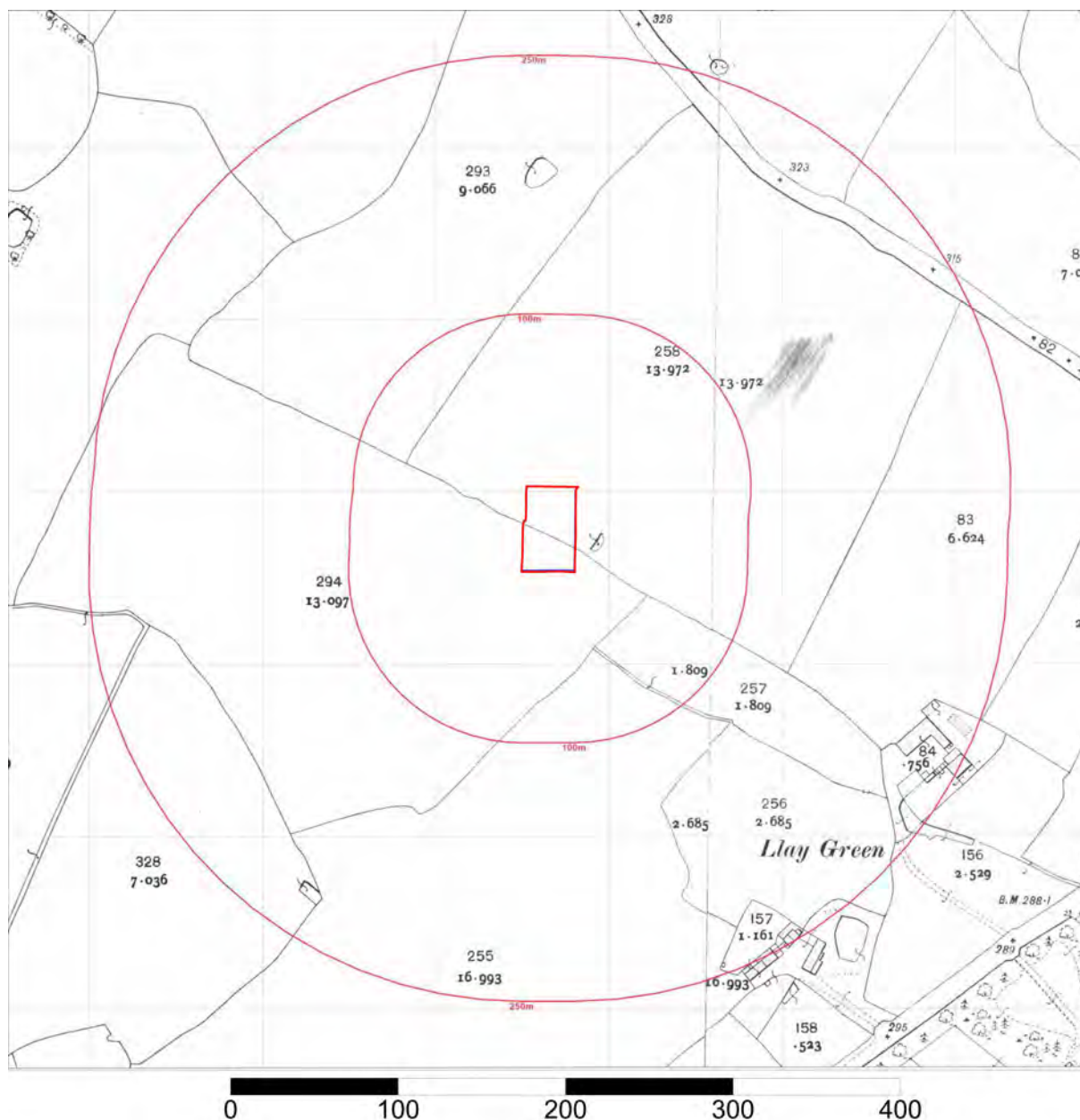
8.3.2. SGP reserves the right to alter any of the foregoing information in the event of new information being disclosed or provided and in the light of changes to legislation, guidelines and responses by the statutory and regulatory authorities.

DRAWINGS



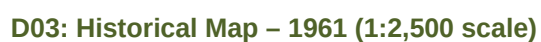
D01: Historical Map – 1875 (1:2,500 scale)

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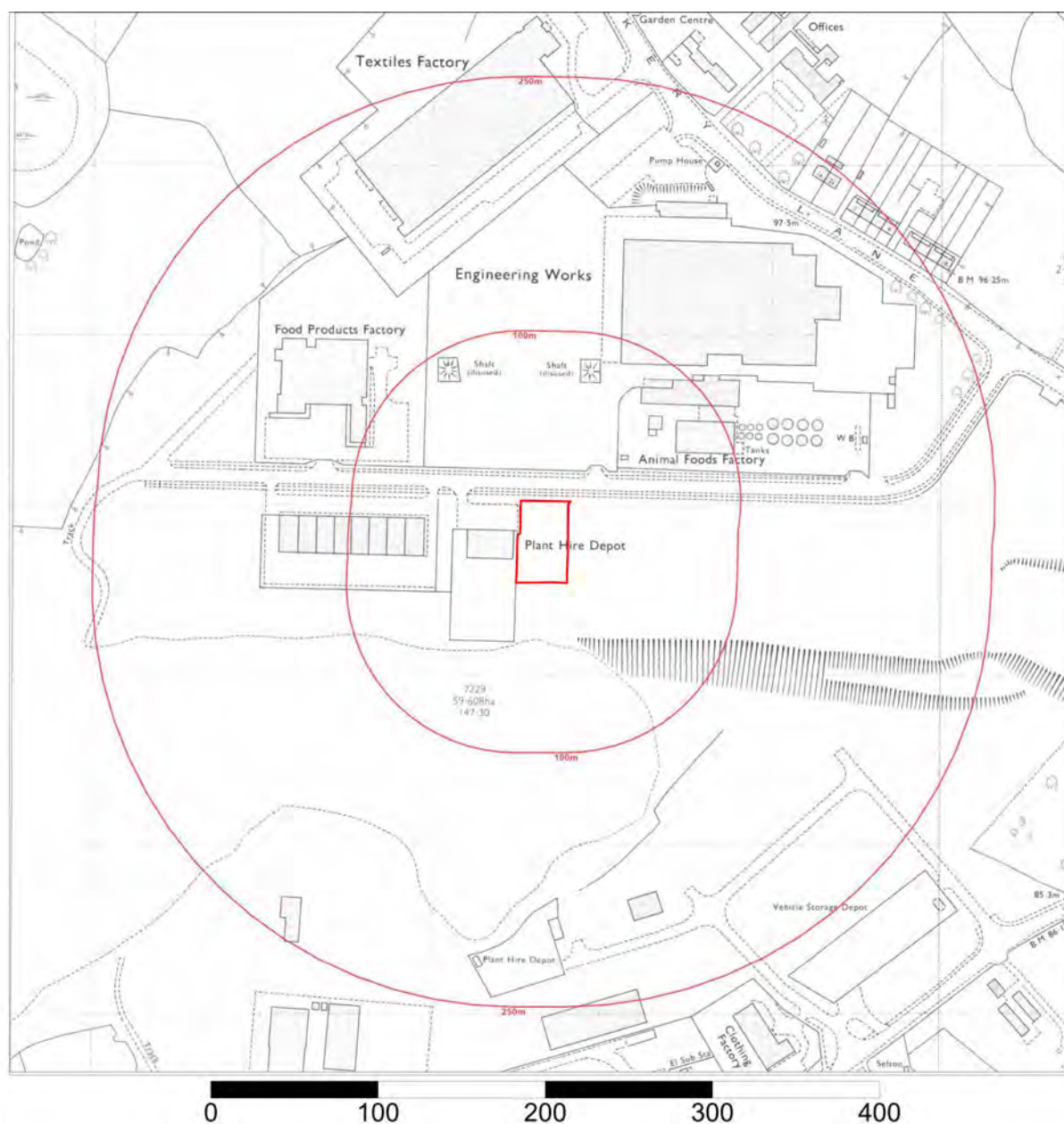


D02: Historical Map – 1912 (1:2,500 scale)

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Smith Grant LLP
Environmental Consultancy



D04: Historical Map – 1974 (1:2,500 scale)

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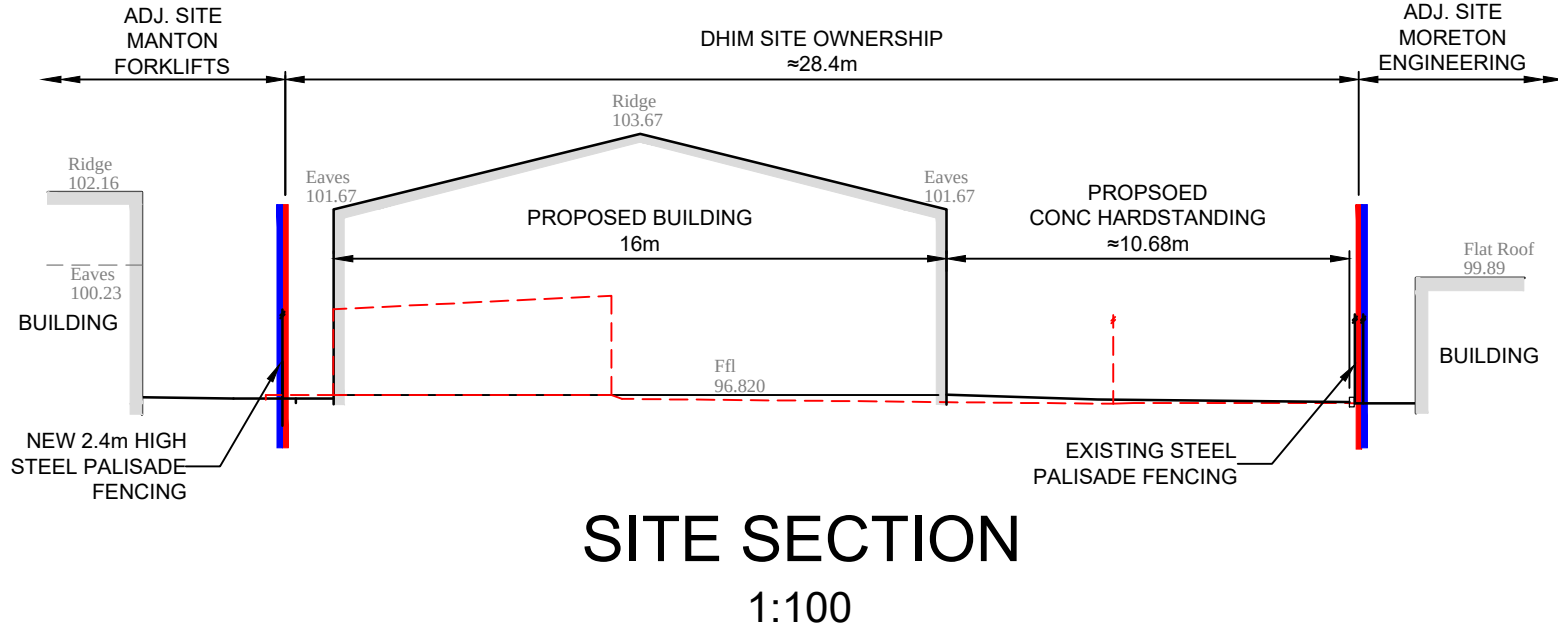
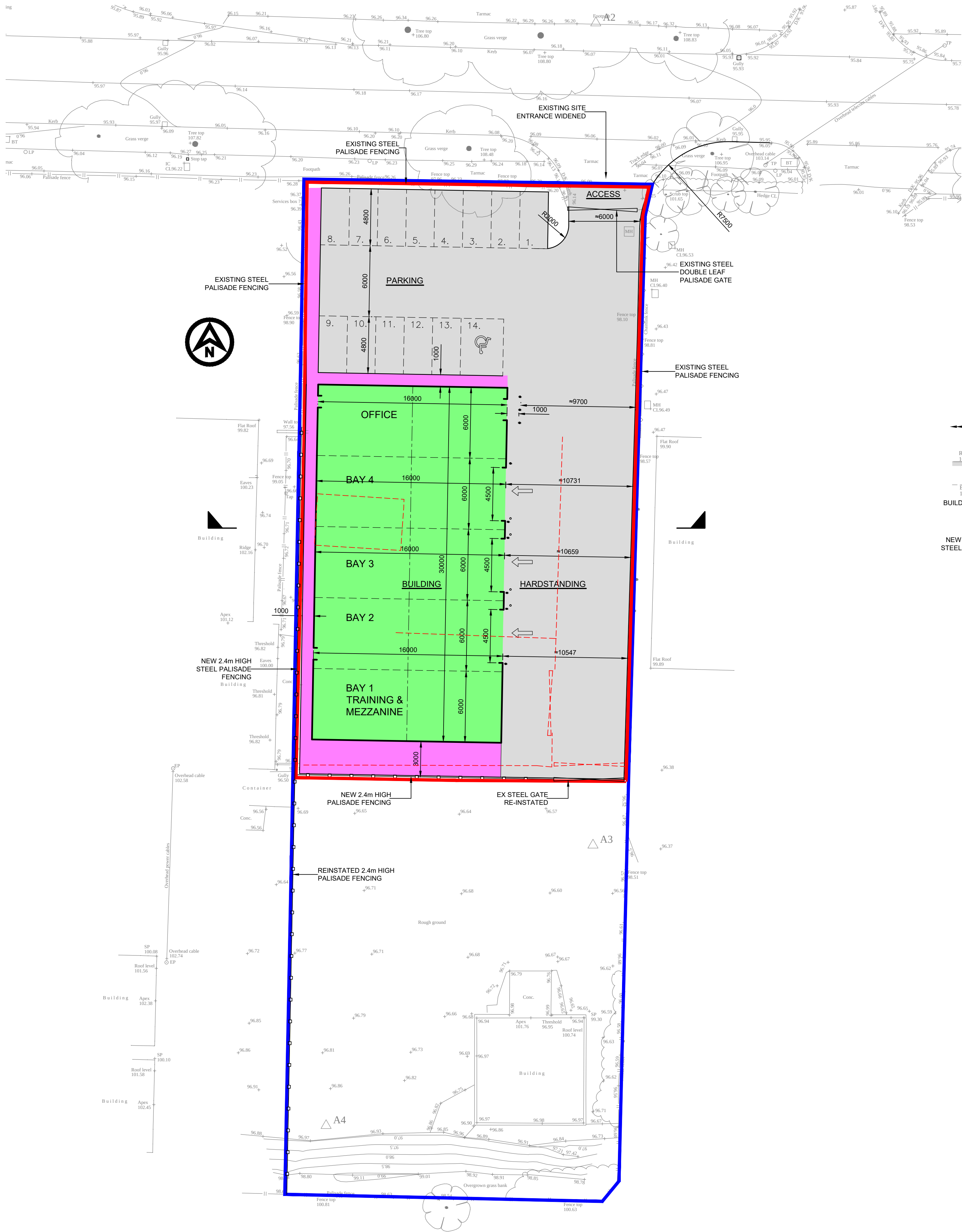


D05: Historical Map – 2003 (1:1,250 scale)

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APPENDIX A

Proposed Site Layout



NOTES
1. THIS DRAWING IS TO BE READ IN CONJUNCTION WITH ALL RELEVANT ENGINEER'S DRAWINGS

- KEY
- NEW BUILDING EXTENTS
 - NEW FOOTWAY
 - NEW HARDSTANDING (ASSUMED CONC)
 - NEW BOLLARDS
 - SITE PLANNING BOUNDARY
 - SITE OWNERSHIP BOUNDARY
 - REMOVED / DEMOLISHED

REV	DATE	DESCRIPTION	BY	CHK	APP

REVISIONS

CLIENT DMH Tyres

PROJECT DMH Tyres Development Minera Rd, Llay

TITLE Proposed Site Layout

Unit 6 Block A
Doc Fennia
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LL55 1TW
01286 671027
info@dtrys.com
www.dtrys.net

Telephone
E-mail
Internet

DRAWN CJ	CHECKED WL	PASSED
DATE 18.1.21	CLIENT'S REF.	
SCALE AT A1 1:200 at A1	AUTOCAD REF.	
DRAWING No. 20258/SK01	REVISION P1	

APPENDIX B

Photographic Record



View to the north-west of the site towards the pile of demolition style materials including plastic sheeting, wood and cables.



View north towards the entrance to the site.



View along the western edge of the site, large HGV trailer parked on site and a small JCB forklift present.



Image southerly of the site as viewed from the access gate. To the immediate west lies the car parking area.



View of the centre of the site, low lying weeds and grass present. Small pile of material including bricks, stone, grasses, wood, plastics etc lies to the centre of the site.



Close up view of the hardstanding / gravelled site surface.



View of the service box (potentially electrical) which lies to the east of the site.



View of the south-east corner of the site with palisade and heras fencing to separate the site from neighbouring Thomas Plant Hire.



Centre of the site consistent with the rest of the site, gravelled surface. Some plastics pipes (waste) lie to the south.



View northerly, towards the car parking area.



Yard to the immediate south of the site, which is accessed via the sites access gate to Miners Road.



The off-site area is gravelled surfaced with a medium sized metal shed building to the southeast of the plot.



Evidence of burning waste on site (small scale) within a metal drum.



Heating oil tank located off-site immediately adjacent to the westerly site boundary.

Off-site (south) area where several drums present. Contents unknown, however the brand Novasens sell coatings, anti-set off powders and non VOC-Solvents.



Remnants of a former bricked wall on site towards the centre of the site.



Tyres stored on site associated with the DMH Tyres compound located opposite the site.



View along the northern boundary of the site, shows the palisade fencing and Miners Road.



View of the site immediate surroundings along Miners Road, plant hire depot adjacent.



Image of service cover located at the entrance to site (north).

APPENDIX C

Groundsure Report (Including Historical Maps)

UNIT 18, MINERS PARK, LLAY INDUSTRIAL ESTATE, LLAY, LL12 0PJ

Order Details

Date: 15/11/2023
Your ref: DMH_Tyres_Ltd_
Our Ref: GS-OLK-W66-117-8T4

Site Details

Location: 332753 356378
Area: 0.14 ha
Authority: [Wrexham - Wrexham County Borough Council](#) ↗



[Summary of findings](#)

[p. 2 >](#) [Aerial image](#)

[p. 9 >](#)

[OS MasterMap site plan](#)

[p.14 >](#) 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
15 >	1.1 >	Historical industrial land uses >	7	5	13	14	-
17 >	1.2 >	Historical tanks >	0	0	5	2	-
18 >	1.3 >	Historical energy features >	0	1	2	6	-
18	1.4	Historical petrol stations	0	0	0	0	-
19 >	1.5 >	Historical garages >	0	0	0	3	-
19	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
20 >	2.1 >	Historical industrial land uses >	10	6	14	18	-
22 >	2.2 >	Historical tanks >	0	0	8	4	-
23 >	2.3 >	Historical energy features >	0	5	5	13	-
24	2.4	Historical petrol stations	0	0	0	0	-
24 >	2.5 >	Historical garages >	0	0	0	6	-
Page	Section	Waste and landfill >	On site	0-50m	50-250m	250-500m	500-2000m
26 >	3.1 >	Active or recent landfill >	0	0	0	1	-
27	3.2	Historical landfill (BGS records)	0	0	0	0	-
27	3.3	Historical landfill (LA/mapping records)	0	0	0	0	-
27	3.4	Historical landfill (EA/NRW records)	0	0	0	0	-
27 >	3.5 >	Historical waste sites >	0	0	0	1	-
28 >	3.6 >	Licensed waste sites >	0	0	0	19	-
33 >	3.7 >	Waste exemptions >	0	0	2	20	-
Page	Section	Current industrial land use >	On site	0-50m	50-250m	250-500m	500-2000m
36 >	4.1 >	Recent industrial land uses >	0	1	32	-	-
38	4.2	Current or recent petrol stations	0	0	0	0	-
38	4.3	Electricity cables	0	0	0	0	-
39	4.4	Gas pipelines	0	0	0	0	-
39	4.5	Sites determined as Contaminated Land	0	0	0	0	-



39	4.6	Control of Major Accident Hazards (COMAH)	0	0	0	0	-
39	4.7	Regulated explosive sites	0	0	0	0	-
39	4.8	Hazardous substance storage/usage	0	0	0	0	-
40 >	4.9 >	Historical licensed industrial activities (IPC) >	0	0	0	2	-
40 >	4.10 >	Licensed industrial activities (Part A(1)) >	0	0	0	4	-
41 >	4.11 >	Licensed pollutant release (Part A(2)/B) >	0	0	5	2	-
42	4.12	Radioactive Substance Authorisations	0	0	0	0	-
43 >	4.13 >	Licensed Discharges to controlled waters >	0	1	4	8	-
45	4.14	Pollutant release to surface waters (Red List)	0	0	0	0	-
45	4.15	Pollutant release to public sewer	0	0	0	0	-
45 >	4.16 >	List 1 Dangerous Substances >	0	0	1	1	-
46 >	4.17 >	List 2 Dangerous Substances >	0	0	0	1	-
46 >	4.18 >	Pollution Incidents (EA/NRW) >	0	0	4	9	-
47	4.19	Pollution inventory substances	0	0	0	0	-
48	4.20	Pollution inventory waste transfers	0	0	0	0	-
48	4.21	Pollution inventory radioactive waste	0	0	0	0	-
Page	Section	Hydrogeology >	On site	0-50m	50-250m	250-500m	500-2000m
49 >	5.1 >	Superficial aquifer >	Identified (within 500m)				
51 >	5.2 >	Bedrock aquifer >	Identified (within 500m)				
52 >	5.3 >	Groundwater vulnerability >	Identified (within 50m)				
53	5.4	Groundwater vulnerability- soluble rock risk	None (within 0m)				
53	5.5	Groundwater vulnerability- local information	None (within 0m)				
54 >	5.6 >	Groundwater abstractions >	0	0	0	0	1
55 >	5.7 >	Surface water abstractions >	0	0	0	0	2
56	5.8	Potable abstractions	0	0	0	0	0
56	5.9	Source Protection Zones	0	0	0	0	-
56	5.10	Source Protection Zones (confined aquifer)	0	0	0	0	-
Page	Section	Hydrology >	On site	0-50m	50-250m	250-500m	500-2000m
57 >	6.1 >	Water Network (OS MasterMap) >	0	0	5	-	-



58 >	6.2 >	Surface water features >	0	0	3	-	-
58 >	6.3 >	WFD Surface water body catchments >	1	-	-	-	-
59 >	6.4 >	WFD Surface water bodies >	0	0	0	-	-
59 >	6.5 >	WFD Groundwater bodies >	1	-	-	-	-
Page	Section	River and coastal flooding	On site	0-50m	50-250m	250-500m	500-2000m
60	7.1	Risk of flooding from rivers and the sea	None (within 50m)				
60	7.2	Historical Flood Events	0	0	0	-	-
60	7.3	Flood Defences	0	0	0	-	-
61	7.4	Areas Benefiting from Flood Defences	0	0	0	-	-
61	7.5	Flood Storage Areas	0	0	0	-	-
62	7.6	Flood Zone 2	None (within 50m)				
62	7.7	Flood Zone 3	None (within 50m)				
Page	Section	Surface water flooding >					
63 >	8.1 >	Surface water flooding >	1 in 30 year, 0.1m - 0.3m (within 50m)				
Page	Section	Groundwater flooding >					
65 >	9.1 >	Groundwater flooding >	Low (within 50m)				
Page	Section	Environmental designations >	On site	0-50m	50-250m	250-500m	500-2000m
66 >	10.1 >	Sites of Special Scientific Interest (SSSI) >	0	0	0	0	2
67	10.2	Conserved wetland sites (Ramsar sites)	0	0	0	0	0
67	10.3	Special Areas of Conservation (SAC)	0	0	0	0	0
67	10.4	Special Protection Areas (SPA)	0	0	0	0	0
67	10.5	National Nature Reserves (NNR)	0	0	0	0	0
68 >	10.6 >	Local Nature Reserves (LNR) >	0	0	0	0	1
68 >	10.7 >	Designated Ancient Woodland >	0	0	0	1	37
70	10.8	Biosphere Reserves	0	0	0	0	0
70	10.9	Forest Parks	0	0	0	0	0
70	10.10	Marine Conservation Zones	0	0	0	0	0
70	10.11	Green Belt	0	0	0	0	0
70	10.12	Proposed Ramsar sites	0	0	0	0	0



71	10.13	Possible Special Areas of Conservation (pSAC)	0	0	0	0	0
71	10.14	Potential Special Protection Areas (pSPA)	0	0	0	0	0
71	10.15	Nitrate Sensitive Areas	0	0	0	0	0
71 >	10.16 >	Nitrate Vulnerable Zones >	0	0	0	2	2
73 >	10.17 >	SSSI Impact Risk Zones >	1	-	-	-	-
74	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
75	11.1	World Heritage Sites	0	0	0	-	-
75	11.2	Area of Outstanding Natural Beauty	0	0	0	-	-
75	11.3	National Parks	0	0	0	-	-
75	11.4	Listed Buildings	0	0	0	-	-
76	11.5	Conservation Areas	0	0	0	-	-
76	11.6	Scheduled Ancient Monuments	0	0	0	-	-
76	11.7	Registered Parks and Gardens	0	0	0	-	-
Page	Section	Agricultural designations >	On site	0-50m	50-250m	250-500m	500-2000m
77 >	12.1 >	Agricultural Land Classification >	Grade 4 (within 250m)				
78	12.2	Open Access Land	0	0	0	-	-
78	12.3	Tree Felling Licences	0	0	0	-	-
78	12.4	Environmental Stewardship Schemes	0	0	0	-	-
78	12.5	Countryside Stewardship Schemes	0	0	0	-	-
Page	Section	Habitat designations	On site	0-50m	50-250m	250-500m	500-2000m
79	13.1	Priority Habitat Inventory	0	0	0	-	-
79	13.2	Habitat Networks	0	0	0	-	-
79	13.3	Open Mosaic Habitat	0	0	0	-	-
79	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
80 >	14.1 >	10k Availability >	Identified (within 500m)				
81 >	14.2 >	Artificial and made ground (10k) >	1	0	0	0	-
82 >	14.3 >	Superficial geology (10k) >	1	0	0	2	-



83	14.4	Landslip (10k)	0	0	0	0	-
84 >	14.5 >	Bedrock geology (10k) >	1	0	1	2	-
85 >	14.6 >	Bedrock faults and other linear features (10k) >	0	0	1	2	-
Page	Section	Geology 1:50,000 scale >	On site	0-50m	50-250m	250-500m	500-2000m
86 >	15.1 >	50k Availability >	Identified (within 500m)				
87 >	15.2 >	Artificial and made ground (50k) >	1	0	0	0	-
88 >	15.3 >	Artificial ground permeability (50k) >	1	0	-	-	-
89 >	15.4 >	Superficial geology (50k) >	1	0	0	2	-
90 >	15.5 >	Superficial permeability (50k) >	Identified (within 50m)				
90	15.6	Landslip (50k)	0	0	0	0	-
90	15.7	Landslip permeability (50k)	None (within 50m)				
91 >	15.8 >	Bedrock geology (50k) >	1	0	1	2	-
92 >	15.9 >	Bedrock permeability (50k) >	Identified (within 50m)				
92 >	15.10 >	Bedrock faults and other linear features (50k) >	0	0	1	2	-
Page	Section	Boreholes >	On site	0-50m	50-250m	250-500m	500-2000m
93 >	16.1 >	BGS Boreholes >	0	0	4	-	-
Page	Section	Natural ground subsidence >					
95 >	17.1 >	Shrink swell clays >	Very low (within 50m)				
96 >	17.2 >	Running sands >	Very low (within 50m)				
97 >	17.3 >	Compressible deposits >	Very low (within 50m)				
99 >	17.4 >	Collapsible deposits >	Very low (within 50m)				
100 >	17.5 >	Landslides >	Very low (within 50m)				
101 >	17.6 >	Ground dissolution of soluble rocks >	Negligible (within 50m)				
Page	Section	Mining and ground workings >	On site	0-50m	50-250m	250-500m	500-2000m
103 >	18.1 >	BritPits >	0	0	2	1	-
104 >	18.2 >	Surface ground workings >	3	5	8	-	-
105 >	18.3 >	Underground workings >	3	0	4	0	0
106	18.4	Underground mining extents	0	0	0	0	-
106	18.5	Historical Mineral Planning Areas	0	0	0	0	-



106 >	18.6 >	Non-coal mining >	0	0	0	1	1
107	18.7	JPB mining areas	None (within 0m)				
107	18.8	The Coal Authority non-coal mining	0	0	0	0	-
107	18.9	Researched mining	0	0	0	0	-
107	18.10	Mining record office plans	0	0	0	0	-
108	18.11	BGS mine plans	0	0	0	0	-
108 >	18.12 >	Coal mining >	Identified (within 0m)				
108	18.13	Brine areas	None (within 0m)				
108	18.14	Gypsum areas	None (within 0m)				
108	18.15	Tin mining	None (within 0m)				
109	18.16	Clay mining	None (within 0m)				
Page	Section	Ground cavities and sinkholes	On site	0-50m	50-250m	250-500m	500-2000m
110	19.1	Natural cavities	0	0	0	0	-
110	19.2	Mining cavities	0	0	0	0	0
110	19.3	Reported recent incidents	0	0	0	0	-
110	19.4	Historical incidents	0	0	0	0	-
111	19.5	National karst database	0	0	0	0	-
Page	Section	Radon >					
112 >	20.1 >	Radon >	Less than 1% (within 0m)				
Page	Section	Soil chemistry >	On site	0-50m	50-250m	250-500m	500-2000m
114 >	21.1 >	BGS Estimated Background Soil Chemistry >	1	0	-	-	-
114	21.2	BGS Estimated Urban Soil Chemistry	0	0	-	-	-
114	21.3	BGS Measured Urban Soil Chemistry	0	0	-	-	-
Page	Section	Railway infrastructure and projects >	On site	0-50m	50-250m	250-500m	500-2000m
115	22.1	Underground railways (London)	0	0	0	-	-
115	22.2	Underground railways (Non-London)	0	0	0	-	-
116	22.3	Railway tunnels	0	0	0	-	-
116 >	22.4 >	Historical railway and tunnel features >	4	0	0	-	-
116	22.5	Royal Mail tunnels	0	0	0	-	-



<u>117</u> >	<u>22.6</u> >	<u>Historical railways</u> >	2	2	2	-	-
117	22.7	Railways	0	0	0	-	-
117	22.8	Crossrail 1	0	0	0	0	-
117	22.9	Crossrail 2	0	0	0	0	-
118	22.10	HS2	0	0	0	0	-



Recent aerial photograph



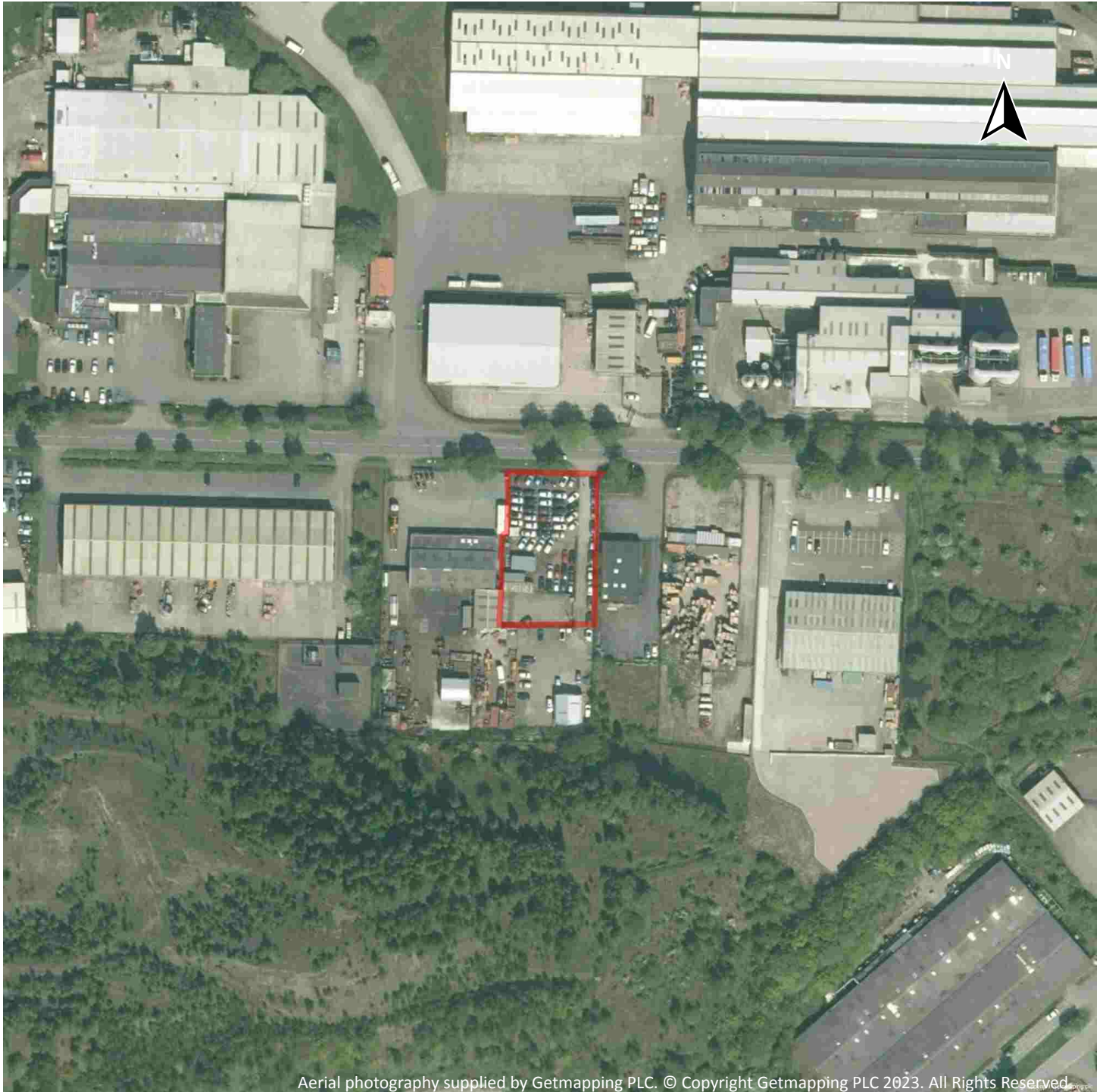
Aerial photography supplied by Getmapping PLC. © Copyright Getmapping PLC 2023. All Rights Reserved

Capture Date: 10/04/2020

Site Area: 0.14ha



Recent site history - 2017 aerial photograph



Capture Date: 07/05/2017

Site Area: 0.14ha



Recent site history - 2009 aerial photograph



Capture Date: 01/06/2009

Site Area: 0.14ha



Recent site history - 2003 aerial photograph



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Capture Date: 04/08/2003

Site Area: 0.14ha



Recent site history - 2000 aerial photograph



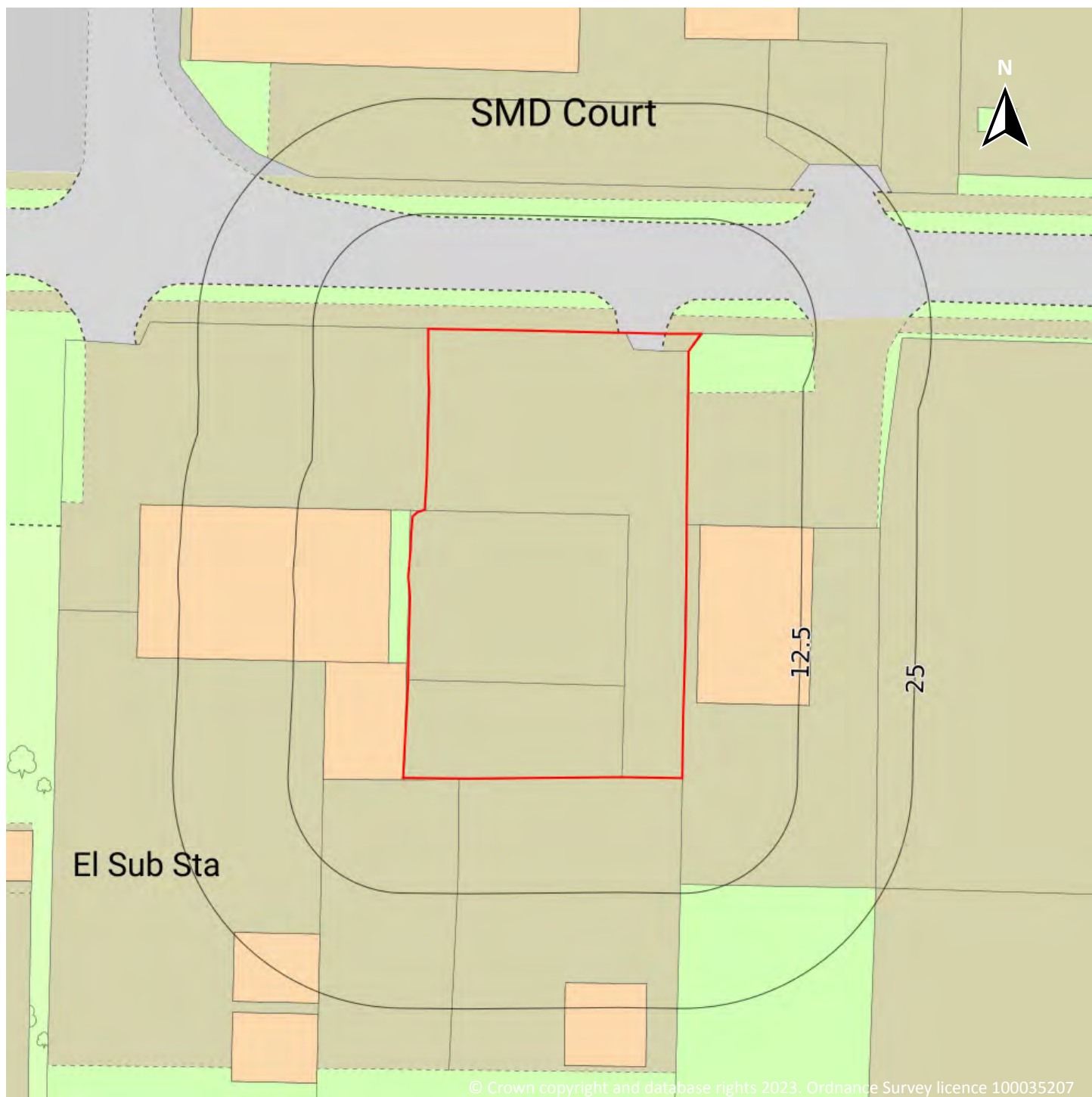
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Capture Date: 04/09/2000

Site Area: 0.14ha



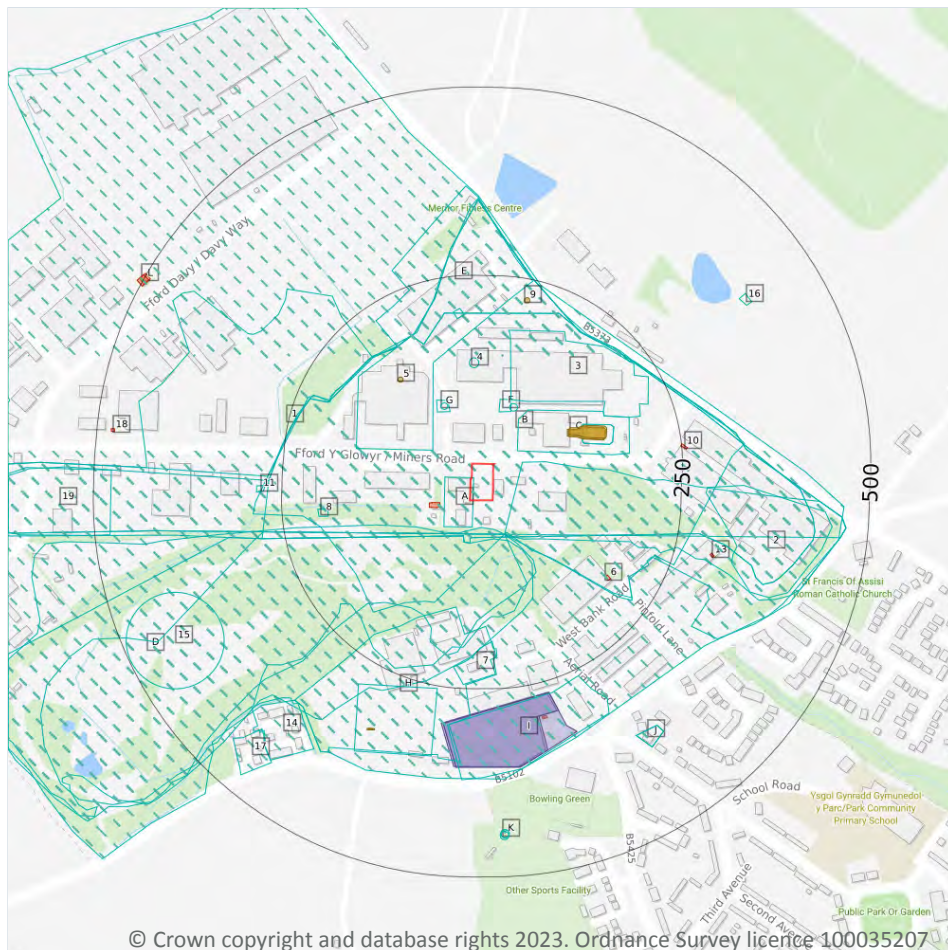
OS MasterMap site plan



Site Area: 0.14ha



1 Past land use



- Site Outline
- Search buffers in metres (m)
- Historical industrial land uses
- Historical tanks
- Historical energy features
- Historical garages

1.1 Historical industrial land uses

Records within 500m

39

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 15](#) >

ID	Location	Land use	Dates present	Group ID
1	On site	Industrial Estate	1992	806998



ID	Location	Land use	Dates present	Group ID
A	On site	Unspecified Depot	1979	818106
B	On site	Unspecified Mine	1960 - 1968	854279
B	On site	Railway Sidings	1960 - 1968	866110
B	On site	Railway Sidings	1949	872492
B	On site	Colliery	1949	872721
B	On site	Colliery	1938	885345
2	26m SE	Refuse Heap	1949	828336
C	35m NE	Unspecified Factory	1979	821309
D	36m S	Unspecified Disused Tip	1979	808655
D	45m S	Refuse Heap	1949	974764
D	48m S	Refuse Heap	1960 - 1968	952510
E	55m NW	Unspecified Factory	1979	885716
F	70m N	Unspecified Disused Shafts	1979	892752
F	75m NE	Unspecified Disused Shafts	1992	975963
G	75m NW	Unspecified Disused Shafts	1979	943034
G	80m NW	Unspecified Disused Shafts	1992	880533
3	88m N	Unspecified Works	1979	829782
C	121m NE	Unspecified Tanks	1979	881487
C	121m NE	Unspecified Tanks	1992	960682
4	127m N	Unspecified Tank	1949	823925
H	143m S	Unspecified Works	1992	959832
7	187m S	Unspecified Depot	1979	818107
8	189m W	Railway Building	1968	819528
E	193m N	Magazine	1949	827262
H	254m S	Unspecified Works	1979	959879
I	259m SE	Unspecified Factory	1979	821310
11	272m W	Railway Building	1960 - 1968	845327
12	283m E	Unspecified Heap	1979	802801



ID	Location	Land use	Dates present	Group ID
14	353m SW	Smithy	1872	843233
J	366m SE	Police Station	1992	853156
J	366m SE	Police Station	1960 - 1979	927695
15	368m SW	Unspecified Disused Workings	1992	842250
16	392m NE	Magazine	1949	827269
17	410m SW	Unspecified Yard	1979	827348
K	438m S	Unspecified Tank	1992	908806
K	438m S	Unspecified Tank	1979	986188
K	440m S	Unspecified Tank	1960 - 1968	978904
19	477m W	Cuttings	1979	869604

This data is sourced from Ordnance Survey / Groundsure.

1.2 Historical tanks

Records within 500m

7

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 ungrouped 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 15 >](#)

ID	Location	Land use	Dates present	Group ID
C	104m NE	Tanks	1984 - 1990	122404
C	105m NE	Tanks	1974	139908
C	107m NE	Tanks	1996	136501
5	143m NW	Unspecified Tank	1961	109552
9	218m N	Unspecified Tank	1961	109551
H	328m SW	Unspecified Tank	1974	146677
H	330m SW	Unspecified Tank	1984 - 1990	139051

This data is sourced from Ordnance Survey / Groundsure.



1.3 Historical energy features

Records within 500m

9

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 ungrouped 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 15 >](#)

ID	Location	Land use	Dates present	Group ID
A	40m SW	Electricity Substation	1984 - 1996	80331
6	181m SE	Electricity Substation	1984 - 1990	66125
10	249m E	Electricity Substation	1984 - 1990	67465
I	294m S	Electricity Substation	1984 - 1990	75285
I	295m S	Electricity Substation	1974 - 1996	84075
13	298m E	Electricity Substation	1959 - 1990	72924
18	476m W	Electricity Substation	1990	60056
L	492m NW	Electricity Substation	1996	69197
L	493m NW	Electricity Substation	1990	78734

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 ungrouped 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**3**

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 ungrouped 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 15 >](#)

ID	Location	Land use	Dates present	Group ID
I	265m S	Vehicle Testing Centre	1996	21802
I	266m S	Vehicle Testing Centre	1984 - 1990	25785
I	266m S	Vehicle Testing Centre	1974	24136

This data is sourced from Ordnance Survey / Groundsure.

1.6 Historical military land

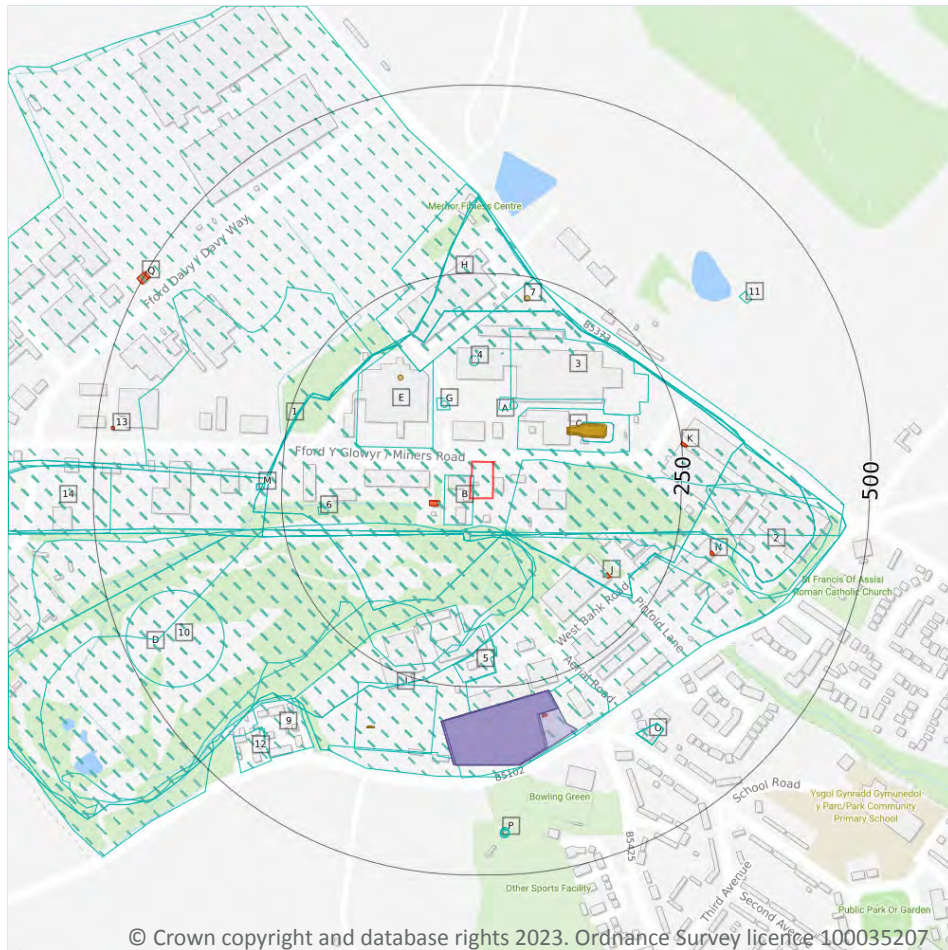
Records within 500m**0**

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



- Site Outline
- Search buffers in metres (m)
- Historical industrial land uses
- Historical tanks
- Historical energy features
- Historical garages

2.1 Historical industrial land uses

Records within 500m

48

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 20](#) >

ID	Location	Land Use	Date	Group ID
1	On site	Industrial Estate	1992	806998
A	On site	Railway Sidings	1949	872492
A	On site	Colliery	1949	872721



ID	Location	Land Use	Date	Group ID
A	On site	Railway Sidings	1968	866110
A	On site	Unspecified Mine	1968	854279
A	On site	Railway Sidings	1960	866110
A	On site	Unspecified Mine	1960	854279
A	On site	Colliery	1938	885345
A	On site	Colliery	1938	885345
B	On site	Unspecified Depot	1979	818106
2	26m SE	Refuse Heap	1949	828336
C	35m NE	Unspecified Factory	1979	821309
D	36m S	Unspecified Disused Tip	1979	808655
D	45m S	Refuse Heap	1949	974764
D	48m S	Refuse Heap	1968	952510
D	48m S	Refuse Heap	1960	952510
E	55m NW	Unspecified Factory	1979	885716
F	70m N	Unspecified Disused Shafts	1979	892752
F	75m NE	Unspecified Disused Shafts	1992	975963
G	75m NW	Unspecified Disused Shafts	1979	943034
G	80m NW	Unspecified Disused Shafts	1992	880533
3	88m N	Unspecified Works	1979	829782
C	121m NE	Unspecified Tanks	1992	960682
C	121m NE	Unspecified Tanks	1979	881487
4	127m N	Unspecified Tank	1949	823925
H	138m NW	Unspecified Factory	1979	885716
I	143m S	Unspecified Works	1992	959832
5	187m S	Unspecified Depot	1979	818107
6	189m W	Railway Building	1968	819528
H	193m N	Magazine	1949	827262
I	254m S	Unspecified Works	1979	959879



ID	Location	Land Use	Date	Group ID
L	259m SE	Unspecified Factory	1979	821310
M	272m W	Railway Building	1968	845327
M	272m W	Railway Building	1960	845327
8	283m E	Unspecified Heap	1979	802801
9	353m SW	Smithy	1872	843233
O	366m SE	Police Station	1992	853156
O	366m SE	Police Station	1968	927695
O	366m SE	Police Station	1979	927695
O	366m SE	Police Station	1960	927695
10	368m SW	Unspecified Disused Workings	1992	842250
11	392m NE	Magazine	1949	827269
12	410m SW	Unspecified Yard	1979	827348
P	438m S	Unspecified Tank	1992	908806
P	438m S	Unspecified Tank	1979	986188
P	440m S	Unspecified Tank	1968	978904
P	440m S	Unspecified Tank	1960	978904
14	477m W	Cuttings	1979	869604

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 20 >](#)

ID	Location	Land Use	Date	Group ID
C	104m NE	Tanks	1984	122404
C	104m NE	Tanks	1986	122404
C	104m NE	Tanks	1990	122404



ID	Location	Land Use	Date	Group ID
C	104m NE	Tanks	1990	122404
C	105m NE	Tanks	1974	139908
C	107m NE	Tanks	1996	136501
E	143m NW	Unspecified Tank	1961	109552
7	218m N	Unspecified Tank	1961	109551
I	328m SW	Unspecified Tank	1974	146677
I	330m SW	Unspecified Tank	1984	139051
I	330m SW	Unspecified Tank	1986	139051
I	330m SW	Unspecified Tank	1990	139051

This data is sourced from Ordnance Survey / Groundsure.

2.3 Historical energy features

Records within 500m

23

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 20 >](#)

ID	Location	Land Use	Date	Group ID
B	40m SW	Electricity Substation	1996	80331
B	43m SW	Electricity Substation	1984	80331
B	43m SW	Electricity Substation	1986	80331
B	43m SW	Electricity Substation	1990	80331
B	43m SW	Electricity Substation	1990	80331
J	181m SE	Electricity Substation	1984	66125
J	181m SE	Electricity Substation	1986	66125
J	181m SE	Electricity Substation	1990	66125
K	249m E	Electricity Substation	1984	67465
K	249m E	Electricity Substation	1990	67465
L	294m S	Electricity Substation	1984	75285



ID	Location	Land Use	Date	Group ID
L	294m S	Electricity Substation	1986	75285
L	294m S	Electricity Substation	1990	75285
L	294m S	Electricity Substation	1990	75285
L	295m S	Electricity Substation	1996	84075
L	295m S	Electricity Substation	1974	84075
N	298m E	Electricity Substation	1959	72924
N	298m E	Electricity Substation	1984	72924
N	298m E	Electricity Substation	1990	72924
13	476m W	Electricity Substation	1990	60056
Q	492m NW	Electricity Substation	1996	69197
Q	493m NW	Electricity Substation	1990	78734
Q	493m NW	Electricity Substation	1990	78734

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

6

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'.

Features are displayed on the Past land use - un-grouped map on [page 20 >](#)

ID	Location	Land Use	Date	Group ID
L	265m S	Vehicle Testing Centre	1996	21802

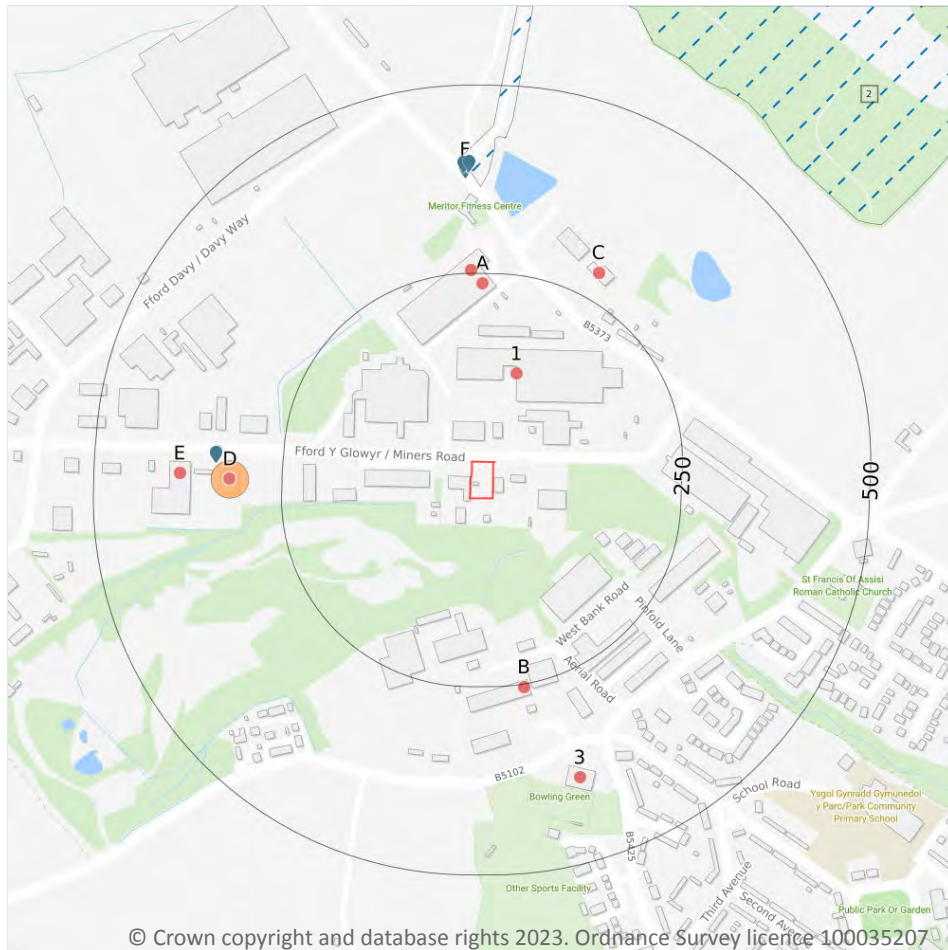


ID	Location	Land Use	Date	Group ID
L	266m S	Vehicle Testing Centre	1986	25785
L	266m S	Vehicle Testing Centre	1990	25785
L	266m S	Vehicle Testing Centre	1990	25785
L	266m S	Vehicle Testing Centre	1984	25785
L	266m S	Vehicle Testing Centre	1974	24136

This data is sourced from Ordnance Survey / Groundsure.



3 Waste and landfill



- Site Outline
- Search buffers in metres (m)
- Active or recent landfill
- Historical waste sites
- Licensed waste sites
- Waste exemptions

3.1 Active or recent landfill

Records within 500m

1

Active or recently closed landfill sites under Environment Agency/Natural Resources Wales regulation. Features are displayed on the Waste and landfill map on [page 26](#) >

ID	Location	Details
2	365m N	Operator: W R G Environmental Ltd Site Address: Astbury Landfill, Dark Lane, Burton, Wrexham, Clwyd, LL12 OAE WML Number: 37116 EPR Reference: CAI002 Landfill type: A4 : Household, Commercial & Industrial Waste Landfill Status: Modified IPPC Reference: - EPR Number: EAEP\EA/EPR/FP3894FP/V008



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

0

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.

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

3.5 Historical waste sites

Records within 500m

1

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

Features are displayed on the Waste and landfill map on [page 26](#) >

ID	Location	Address	Further Details	Date
D	294m W	Site Address: Miners Road, Miners Road, Llay Industrial Estate, WREXHAM, Clwyd, LL12 0PJ	Type of Site: Waste Transfer Station Planning application reference: CB2654 Description: The work will involve the construction of a waste transfer station. The work will involve the construction of 4 waste transfer units with associated access road and car parking. Detailed plans have been submitted to Wrexham City Council to go to committee early 1998. An application (ref: CB2654) for Detailed Planning permission was submitted to Wrexham B.C. on 12th October 1998. Data source: Historic Planning Application Data Type: Point	-

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

3.6 Licensed waste sites

Records within 500m	19
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Active or recently closed waste sites under Environment Agency/Natural Resources Wales regulation.

Features are displayed on the Waste and landfill map on [page 26 >](#)

ID	Location	Details		
D	339m W	Site Name: W H Chaloner & Son Ltd Site Address: W H Chaloner & Son Ltd, Miners Road, Llay Industrial Estate, Wrexham, Clwyd, LL12 0PJ Correspondence Address: -	Type of Site: Metal Recycling Site (mixed MRS's) Size: Unknown Environmental Permitting Regulations (Waste) Licence Number: CHA002 EPR reference: ZP3594FN/V008 Operator: W H Chaloner & Son Limited Waste Management licence No: 37135 Annual Tonnage: 0	Issue Date: 20/07/1995 Effective Date: - Modified: 23/10/2012 Surrendered Date: 0 Expiry Date: 0 Cancelled Date: 0 Status: Modified
D	339m W	Site Name: - Site Address: W H Chaloner & Son Ltd, Llay Industrial Estate, Wrexham, Clwyd, LL12 0PJ Correspondence Address: -	Type of Site: Metal Recycling Site (mixed MRS's) Size: - Environmental Permitting Regulations (Waste) Licence Number: ZP3594FN EPR reference: - Operator: W H Chaloner & Son Limited Waste Management licence No: - Annual Tonnage: 24999	Issue Date: 20/07/1995 Effective Date: 20/07/1995 Modified: - Surrendered Date: - Expiry Date: - Cancelled Date: - Status: Effective



ID	Location	Details		
D	339m W	Site Name: - Site Address: W H Chaloner & Son Ltd, Llay Industrial Estate, Wrexham, Clwyd, LL12 0PJ Correspondence Address: -	Type of Site: Metal Recycling Site (mixed MRS's) Size: - Environmental Permitting Regulations (Waste) Licence Number: ZP3594FN EPR reference: - Operator: W H Chaloner & Son Limited Waste Management licence No: - Annual Tonnage: 24999	Issue Date: 20/07/1995 Effective Date: 20/07/1995 Modified: - Surrendered Date: - Expiry Date: - Cancelled Date: - Status: Effective
D	339m W	Site Name: W H Chaloner & Sons Ltd Site Address: Miners Road, Llay Industrial Estate, Llay, Wrexham, LL12 0PJ Correspondence Address: Park House, Pulford, Chester, Cheshire, CH4 9DG	Type of Site: Metal Recycling Site (mixed MRS's) Size: 25000 tonnes Environmental Permitting Regulations (Waste) Licence Number: CHA002 EPR reference: - Operator: Chaloner W H & Son Ltd Waste Management licence No: 37135 Annual Tonnage: 0	Issue Date: 20/07/1995 Effective Date: - Modified: 29/11/2002 Surrendered Date: - Expiry Date: - Cancelled Date: - Status: Modified
D	339m W	Site Name: W H Chaloner & Son Ltd Site Address: W H Chaloner & Son Ltd, Miners Road, Llay Industrial Estate, Wrexham, Clwyd, LL12 0PJ Correspondence Address: -	Type of Site: Metal Recycling Site (mixed MRS's) Size: 25000 tonnes Environmental Permitting Regulations (Waste) Licence Number: CHA002 EPR reference: EA/EPR/ZP3594FN/V008 Operator: W H Chaloner & Son Limited Waste Management licence No: 37135 Annual Tonnage: 24999	Issue Date: 20/07/1995 Effective Date: - Modified: 23/10/2012 Surrendered Date: - Expiry Date: - Cancelled Date: - Status: Modified
D	339m W	Site Name: - Site Address: W H Chaloner & Son Ltd, Llay Industrial Estate, Wrexham, Clwyd, LL12 0PJ Correspondence Address: -	Type of Site: Metal Recycling Site (mixed MRS's) Size: Unknown Environmental Permitting Regulations (Waste) Licence Number: ZP3594FN EPR reference: - Operator: - Waste Management licence No: 37135 Annual Tonnage: 24999	Issue Date: 20/07/1995 Effective Date: 20/07/1995 Modified: - Surrendered Date: - Expiry Date: - Cancelled Date: - Status: Effective



ID	Location	Details		
D	339m W	Site Name: - Site Address: W H Chaloner & Son Ltd, Llay Industrial Estate, Wrexham, Wrexham, LL12 0PJ Correspondence Address: -	Type of Site: - Size: Unknown Environmental Permitting Regulations (Waste) Licence Number: ZP3594FN EPR reference: - Operator: W H Chaloner & Son Limited Waste Management licence No: 0 Annual Tonnage: 24999	Issue Date: 20/07/1995 Effective Date: 20/07/1995 Modified: - Surrendered Date: - Expiry Date: - Cancelled Date: - Status: Effective
D	339m W	Site Name: - Site Address: W H Chaloner & Son Ltd, Llay Industrial Estate, Clwyd, Wrexham, Wrexham, LL12 0PJ Correspondence Address: -	Type of Site: - Size: Unknown Environmental Permitting Regulations (Waste) Licence Number: ZP3594FN EPR reference: - Operator: W H Chaloner & Son Limited Waste Management licence No: 37135 Annual Tonnage: 24999	Issue Date: 20/07/1995 Effective Date: 20/07/1995 Modified: - Surrendered Date: - Expiry Date: - Cancelled Date: - Status: Effective
F	387m N	Site Name: Astbury Landfill (rossett) Site Address: Dark Lane, Burton, Rossett, Wrexham, LL12 0AE Correspondence Address: Wrg Waste Services Ltd, Ground Floor West, 900, Pavilion Drive, Nothampton Business Park, Northampton, NN4 7RG	Type of Site: Household, Commercial & Industrial Waste Landfill Size: 25000 tonnes Environmental Permitting Regulations (Waste) Licence Number: CAI002 EPR reference: - Operator: Caird Environmental Ltd Waste Management licence No: 37116 Annual Tonnage: 0	Issue Date: 17/08/1994 Effective Date: - Modified: 29/01/2003 Surrendered Date: - Expiry Date: - Cancelled Date: - Status: Modified
F	395m N	Site Name: - Site Address: Astbury (Rossett) Landfill, Dark Lane, Burton, Wrexham, Clwyd, LL12 0AE Correspondence Address: -	Type of Site: Household, Commercial & Industrial Waste Landfill Size: - Environmental Permitting Regulations (Waste) Licence Number: FP3894FP EPR reference: - Operator: W R G Environmental Ltd Waste Management licence No: - Annual Tonnage: 0	Issue Date: 11/01/2019 Effective Date: 11/01/2019 Modified: - Surrendered Date: - Expiry Date: - Cancelled Date: - Status: Effective



ID	Location	Details		
F	395m N	Site Name: - Site Address: Astbury (Rossett) Landfill, Dark Lane, Burton, Wrexham, Clwyd, LL12 OAE Correspondence Address: -	Type of Site: Household, Commercial & Industrial Waste Landfill Size: - Environmental Permitting Regulations (Waste) Licence Number: FP3894FP EPR reference: - Operator: W R G Environmental Ltd Waste Management licence No: - Annual Tonnage: 0	Issue Date: 11/01/2019 Effective Date: 11/01/2019 Modified: - Surrendered Date: - Expiry Date: - Cancelled Date: - Status: Effective
F	395m N	Site Name: - Site Address: Astbury Landfill (rossett), Burton, Wrexham, Wrexham, LL12 OAE Correspondence Address: -	Type of Site: - Size: Unknown Environmental Permitting Regulations (Waste) Licence Number: FP3894FP EPR reference: - Operator: W R G Environmental Ltd Waste Management licence No: 0 Annual Tonnage: 0	Issue Date: 17/08/1994 Effective Date: 17/08/1994 Modified: - Surrendered Date: - Expiry Date: - Cancelled Date: - Status: Effective
F	395m N	Site Name: - Site Address: Astbury Landfill (rossett), Burton, Clwyd, Wrexham, Wrexham, LL12 OAE Correspondence Address: -	Type of Site: - Size: Unknown Environmental Permitting Regulations (Waste) Licence Number: FP3894FP EPR reference: - Operator: W R G Environmental Ltd Waste Management licence No: 37116 Annual Tonnage: 0	Issue Date: 17/08/1994 Effective Date: 17/08/1994 Modified: - Surrendered Date: - Expiry Date: - Cancelled Date: - Status: Effective
F	395m N	Site Name: Astbury Landfill (rossett) Site Address: Astbury Landfill, Dark Lane, Burton, Wrexham, Clwyd, LL12 OAE Correspondence Address: -	Type of Site: Household, Commercial & Industrial Waste Landfill Size: 25000 tonnes Environmental Permitting Regulations (Waste) Licence Number: CAI002 EPR reference: EA/EPR/FP3894FP/V008 Operator: W R G Environmental Ltd Waste Management licence No: 37116 Annual Tonnage: 0	Issue Date: 17/08/1994 Effective Date: - Modified: 03/03/2014 Surrendered Date: - Expiry Date: - Cancelled Date: - Status: Modified



ID	Location	Details		
F	395m N	Site Name: Astbury Landfill (rossett) Site Address: Astbury Landfill, Dark Lane, Burton, Wrexham, Clwyd, LL12 0AE Correspondence Address: Wrg Waste Services Ltd, Ground Floor West, 900, Pavilion Drive, Northampton Business Park, Northampton, Northants, NN4 7RG	Type of Site: Household, Commercial & Industrial Waste Landfill Size: 25000 tonnes Environmental Permitting Regulations (Waste) Licence Number: CAI002 EPR reference: - Operator: Wrg Environmental Ltd Waste Management licence No: 37116 Annual Tonnage: 0	Issue Date: 17/08/1994 Effective Date: - Modified: 01/10/2007 Surrendered Date: - Expiry Date: - Cancelled Date: - Status: Modified
F	395m N	Site Name: - Site Address: Astbury Landfill (rossett), Burton, Wrexham, Clwyd, LL12 0AE Correspondence Address: -	Type of Site: Household, Commercial & Industrial Waste Landfill Size: Unknown Environmental Permitting Regulations (Waste) Licence Number: FP3894FP EPR reference: - Operator: - Waste Management licence No: 37116 Annual Tonnage: 0	Issue Date: 17/08/1994 Effective Date: 17/08/1994 Modified: - Surrendered Date: - Expiry Date: - Cancelled Date: - Status: Effective
F	395m N	Site Name: Astbury Landfill (rossett) Site Address: Dark Lane, Burton, Rossett, Wrexham, LL12 0AE Correspondence Address: Astbury Landfill (rossett), Dark Lane, Burton, Rossett, Wrexham, LL12 0AE	Type of Site: Household, Commercial & Industrial Waste Landfill Size: >= 75000 tonnes Environmental Permitting Regulations (Waste) Licence Number: CAI002 EPR reference: - Operator: Caird Environmental Ltd Waste Management licence No: 37116 Annual Tonnage: 0	Issue Date: 17/08/1994 Effective Date: - Modified: 29/01/2003 Surrendered Date: - Expiry Date: - Cancelled Date: - Status: Modified
F	395m N	Site Name: Astbury Quarry Site Address: Dark Lane, Burton, Rossett, Wrexham, LL12 0AE Correspondence Address: Deerplay, Bacup Road, Cliviger, Burnley, Lancashire, BB11 3RL	Type of Site: Co-Disposal Landfill Site Size: >= 75000 tonnes Environmental Permitting Regulations (Waste) Licence Number: CAI002 EPR reference: - Operator: Caird Environmental Ltd Waste Management licence No: 37116 Annual Tonnage: 0	Issue Date: 17/08/1994 Effective Date: - Modified: 09/07/2002 Surrendered Date: - Expiry Date: - Cancelled Date: - Status: Modified



ID	Location	Details		
F	396m N	Site Name: Astbury Landfill (rossett) Site Address: Astbury Landfill, Dark Lane, Burton, Wrexham, Clwyd, LL12 OAE Correspondence Address: -	Type of Site: Household, Commercial & Industrial Waste Landfill Size: Unknown Environmental Permitting Regulations (Waste) Licence Number: CAI002 EPR reference: FP3894FP/V008 Operator: W R G Environmental Ltd Waste Management licence No: 37116 Annual Tonnage: 0	Issue Date: 17/08/1994 Effective Date: - Modified: 03/03/2014 Surrendered Date: 0 Expiry Date: 0 Cancelled Date: 0 Status: Modified

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

3.7 Waste exemptions

Records within 500m	22
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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 26 >](#)

ID	Location	Site	Reference	Category	Sub-Category	Description
1	120m N	-	WEX298950	Using waste exemption	Not on a Farm	Use of waste to manufacture finished goods
A	236m N	1 Prospect Estate, Llay Industrial Estate North, Wrexham, Wrexham, LL12 OPB	NRW-WME001183	Treating waste exemption	Waste Exemption - Non-Agricultural	Screening and blending of waste
A	254m N	UNIT 2, NORTHBROOK INDUSTRIAL ESTATE, VINCENT AVENUE, SOUTHAMPTON, SO16 6PB	WEX094344	Storing waste exemption	Not on a farm	Storage of waste in a secure place
A	254m N	UNIT 2, NORTHBROOK INDUSTRIAL ESTATE, VINCENT AVENUE, SOUTHAMPTON, SO16 6PB	WEX094344	Storing waste exemption	Not on a farm	Storage of waste in secure containers
B	255m S	Unit B, Llay Industrial Estate, West Bank Road, Wrexham, LL12 OPZ	WEX252920	Treating waste exemption	Not on a farm	Preparatory treatments (baling, sorting, shredding etc)



ID	Location	Site	Reference	Category	Sub-Category	Description
B	255m S	Unit B, Llay Industrial Estate, West Bank Road, Wrexham, LL12 OPZ	WEX252920	Using waste exemption	Not on a farm	Use of waste to manufacture finished goods
C	286m NE	Halo Plastics Ltd, Vinyl GB Ltd, Rackery Lane, Llay, Wrexham, Wreccsam, LL12 OPB	NRW-WME068624	Using waste exemption	Not on a farm	Use of waste to manufacture finished goods
C	286m NE	P M Dromgoole & Sons Agricultural Limited, Lower Rackery Farm, Dark Lane, Burton, Flintshire, LL120PB	NRW-WME035342	Using waste exemption	Not on a farm	Use of waste in construction
C	286m NE	-	WEX332641	Using waste exemption	Not on a farm	Use of waste to manufacture finished goods
C	286m NE	-	WEX355074	Treating waste exemption	Not on a farm	Recovery of scrap metal
C	286m NE	-	WEX298947	Using waste exemption	Not on a Farm	Use of waste to manufacture finished goods
D	320m W	WH Chaloner & Son Ltd, W H Chaloner & Son Ltd, Miners Road, Llay Industrial Estate, Llay, Wrexham, Wreccsam, LL12 OPJ	NRW-WME051874	Storing waste exemption	Not on a farm	Storage of waste in a secure place
D	321m W	MINERS ROAD, LLAY INDUSTRIAL ESTATE, LLAY, WREXHAM, LL12 OPJ	WEX092257	Storing waste exemption	Not on a farm	Storage of waste in a secure place
D	321m W	wrexham county bourough council, Unit 12, Miners Road, Llay Industrial Estate, Llay, Wreccsam, Wrexham, LL120PJ	NRW-WME022216	Storing waste exemption	Not on a farm	Storage of waste in a secure place
D	321m W	WH Chaloner & Son Ltd, W H Chaloner & Son Ltd, Miners Road, Llay Industrial Estate, Llay, Wreccsam, LL120PJ	NRW-WME023190	Storing waste exemption	Not on a farm	Storage of waste in a secure place
D	321m W	Miners Road, Llay Industrial Estate, Wrexham, Wreccsam, LL12 OPJ	NRW-WME001363	Storing waste exemption	Waste Exemption - Non-Agricultural	Storage of waste in a secure place

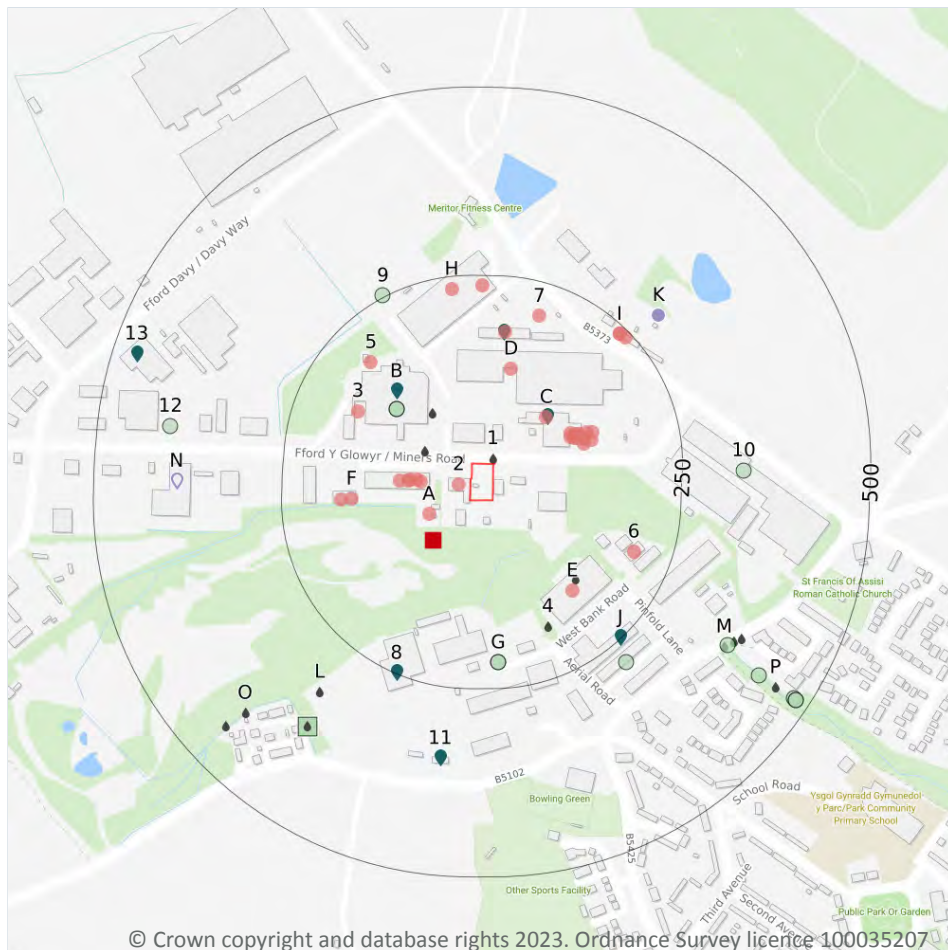


ID	Location	Site	Reference	Category	Sub-Category	Description
D	321m W	Miners Road, Llay Industrial Estate, Wrexham, Wrexham, LL12 0PJ	NRW-WME001363	Treating waste exemption	Waste Exemption - Non-Agricultural	Preparatory treatments (baling, sorting, shredding etc)
D	321m W	Miners Road, Llay Industrial Estate, Wrexham, Wrexham, LL12 0PJ	NRW-WME001363	Treating waste exemption	Waste Exemption - Non-Agricultural	Treatment of waste wood and waste plant matter by chipping, shredding, cutting or pulverising
E	386m W	R.A & C.E Platt Ltd, Miners Road, Llay Industrial Estate, Wrexham, Wrexham, LL120PJ	NRW-WME029416	Treating waste exemption	-	Treatment of waste wood and waste plant matter by chipping, shredding, cutting or pulverising
E	386m W	R.A & C.E Platt Ltd, Miners Road, Llay Industrial Estate, Wrexham, Wrexham, LL120PJ	NRW-WME029416	Treating waste exemption	-	Preparatory treatments (baling, sorting, shredding etc)
E	386m W	R.A & C.E Platt Ltd, Miners Road, Llay Industrial Estate, Wrexham, Wrexham, LL120PJ	NRW-WME029416	Storing waste exemption	-	Storage of waste in a secure place
3	389m S	LLAY ROAD, LLAY, WREXHAM, LL12 0TH	WEX182934	Disposing of waste exemption	Not on a farm	Burning waste in the open

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



4 Current industrial land use



- Site Outline
- Search buffers in metres (m)
- Recent industrial land uses
- Historical licensed industrial activities
- Part A(1) industrial activities
- Licensed pollutant release (Part A(2)/B)
- Licensed Discharges to controlled waters
- List 1 Dangerous Substances
- List 2 Dangerous Substances
- Pollution Incidents (EA/NRW)

4.1 Recent industrial land uses

Records within 250m

33

Current potentially contaminative industrial sites.

Features are displayed on the Current industrial land use map on [page 36](#) >

ID	Location	Company	Address	Activity	Category
2	15m W	Manton Hire & Sales Ltd	Manton Hire Ltd, Miners Road, Llay Industrial Estate, Llay, Clwyd, LL12 0PJ	Lifting and Handling Equipment	Industrial Products
A	57m SW	Electricity Sub Station	Clwyd, LL12	Electrical Features	Infrastructure and Facilities



ID	Location	Company	Address	Activity	Category
A	66m W	O T S	Unit 1 Miners Road, Llay Industrial Estate, Llay, Wrexham, Clwyd, LL12 0PJ	Service Industry Equipment Repairs	Repair and Servicing
A	71m W	D M H Tyres Ltd	Unit 1, Miners Road, Llay Industrial Estate, Llay, Clwyd, LL12 0PJ	Vehicle Repair, Testing and Servicing	Repair and Servicing
A	81m W	P P Autos	2 Miners Road, Llay Industrial Estate, Llay, Wrexham, Clwyd, LL12 0PJ	Vehicle Repair, Testing and Servicing	Repair and Servicing
A	82m W	Reyton Wire Ltd	Unit 2, Miners Road, Llay Industrial Estate, Llay, Clwyd, LL12 0PJ	Cable, Wire and Fibre Optics	Industrial Products
C	93m NE	2 Agriculture	Miners Road, Llay Industrial Estate, Llay, Wrexham, Clwyd, LL12 0PJ	Animal Feeds, Pet Foods, Hay and Straw	Foodstuffs
A	93m W	Premier Installations	Unit 3, Miners Road, Llay Industrial Estate, Llay, Clwyd, LL12 0PJ	Construction Completion Services	Construction Services
C	107m NE	Tank	Clwyd, LL12	Tanks (Generic)	Industrial Features
C	109m NE	Tank	Clwyd, LL12	Tanks (Generic)	Industrial Features
C	112m NE	Tank	Clwyd, LL12	Tanks (Generic)	Industrial Features
C	114m NE	Tank	Clwyd, LL12	Tanks (Generic)	Industrial Features
C	116m NE	Tank	Clwyd, LL12	Tanks (Generic)	Industrial Features
C	119m NE	Tank	Clwyd, LL12	Tanks (Generic)	Industrial Features
C	122m E	Tank	Clwyd, LL12	Tanks (Generic)	Industrial Features
C	125m NE	Tank	Clwyd, LL12	Tanks (Generic)	Industrial Features
D	129m N	Recycling Business	Clwyd, LL12	Recycling Centres	Infrastructure and Facilities
C	129m NE	Tank	Clwyd, LL12	Tanks (Generic)	Industrial Features
C	133m E	Tank	Clwyd, LL12	Tanks (Generic)	Industrial Features
C	137m NE	Tank	Clwyd, LL12	Tanks (Generic)	Industrial Features
F	157m W	B M Autocare	Unit 1 Bc Trading Estate, Miners Road, Llay Industrial Estate, Llay, Clwyd, LL12 0PJ	Vehicle Repair, Testing and Servicing	Repair and Servicing
E	160m SE	Independen t Twine Manufacturi ng Co Ltd	Independent Twine Company, West Bank Road, Llay Industrial Estate, Llay, Clwyd, LL12 0PZ	Ropes, Nets and Cordage	Industrial Products
3	167m NW	Electricity Sub Station	Clwyd, LL12	Electrical Features	Infrastructure and Facilities



ID	Location	Company	Address	Activity	Category
F	171m W	Cyroblast Deflashing UK Ltd	Unit 2, Bc Trading Estate, Miners Road, Llay Industrial Estate, Llay, Clwyd, LL12 0PJ	Rubber, Silicones and Plastics	Industrial Products
D	176m N	A-n-I Drain Contractors	Suite 5 Llay Business Centre, Rackery Lane, Llay, Wrexham, Clwyd, LL12 0PB	Civil Engineers	Engineering Services
5	190m NW	Electricity Sub Stations	Clwyd, LL12	Electrical Features	Infrastructure and Facilities
6	199m SE	N G Jones Commercial Resprays	Unit 3 Off, Pinfold Lane, Llay Industrial Estate, Llay, Clwyd, LL12 0PX	Vehicle Repair, Testing and Servicing	Repair and Servicing
7	205m N	Pumping Station	Clwyd, LL12	Water Pumping Stations	Industrial Features
H	233m N	Play Revolution	Unit G Llay Industrial Units Llay Industrial Estate, Rackery Lane, Llay, Wrexham, Clwyd, LL12 0PB	Baby, Nursery and Playground Equipment	Consumer Products
H	236m N	I & S Cars	Llay Industrial Estate, Rackery Lane, Llay, Wrexham, Clwyd, LL12 0PB	Secondhand Vehicles	Motoring
I	240m NE	Ecovyn	1, Rackery Lane, Llay, Wrexham, Clwyd, LL12 0PB	Rubber, Silicones and Plastics	Industrial Products
I	240m NE	Easy-trim - Ecovyn	1, Rackery Lane, Llay, Wrexham, Clwyd, LL12 0PB	Rubber, Silicones and Plastics	Industrial Products
I	242m NE	N L H Logistics	2, Rackery Lane, Llay, Wrexham, Clwyd, LL12 0PB	Distribution and Haulage	Transport, Storage and Delivery

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

2

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.

Features are displayed on the Current industrial land use map on [page 36 >](#)

ID	Location	Details	
K	294m NE	Operator: Magellan Aerospace Corporation Ltd Address: Rackery Lane, Llay, Wrexham, Clwyd, LL12 0PB Process: Inorganic Chemical Processes Permit Number: AO6880	Original Permit Number: IPCAPP Date Approved: 21-4-1995 Effective Date: 25-4-1995 Status: Superseded By Variation
K	294m NE	Operator: Magellan Aerospace Corporation Ltd Address: Rackery Lane, Llay, Wrexham, Clwyd, LL12 0PB Process: Inorganic Chemical Processes Permit Number: BD0150	Original Permit Number: IPCMINVAR Date Approved: 24-11-1998 Effective Date: 30-11-1998 Status: Revoked - Now Ippc

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

4.10 Licensed industrial activities (Part A(1))

Records within 500m

4

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 36 >](#)

ID	Location	Details	
N	390m W	Operator: 2 AGRICULTURE LTD Installation Name: LLAY FEED MILL EPR/AP3337HF Process: - Permit Number: AP3337HF Original Permit Number: AP3337HF	EPR Reference: - Issue Date: 08/03/2011 Effective Date: 08/03/2011 Last date noted as effective: 01/12/2016 Status: EFFECTIVE



ID	Location	Details	
N	390m W	Operator: 2 Agriculture Ltd Installation Name: Llay Feed 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: AP3337HF Original Permit Number: -	EPR Reference: - Issue Date: 21/01/2022 Effective Date: 21/01/2022 Last date noted as effective: 25/05/2023 Status: Effective
N	390m W	Operator: VION FOOD GROUP LIMITED Installation Name: LLAY FEED MILL Process: ANIMAL VEGETABLE AND FOOD; TREATING ETC VEGETABLE RAW MATERIALS FOR FOOD >300T/D Permit Number: RP3835SY Original Permit Number: RP3835SY	EPR Reference: - Issue Date: 13/04/2006 Effective Date: 13/04/2006 Last date noted as effective: 17/11/2015 Status: SUPERCEDED
N	390m W	Operator: VION AGRICULTURE LTD Installation Name: LLAY FEED MILL EPR/AP3337HF Process: ANIMAL VEGETABLE AND FOOD; TREATING ETC VEGETABLE RAW MATERIALS FOR FOOD >300T/D Permit Number: AP3337HF Original Permit Number: AP3337HF	EPR Reference: - Issue Date: 08/03/2011 Effective Date: 08/03/2011 Last date noted as effective: 17/11/2015 Status: TRANSFER 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

7

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 36 >](#)

ID	Location	Address	Details	
C	94m NE	Cymru Country Feeds Ltd, Miners Road, Llay, Wrexham, Llay, LL12 0PJ	Process: Animal and Plant/Vegetable Processes Status: Historical Permit Permit Type: Part B	Enforcement: Enforcement Notified Date of enforcement: 14/02/2002 Comment: Animal feed compounding process



ID	Location	Address	Details	
B	138m NW	Sharp Manufacturing Company of UK, Sharp House, Davy Way, Llay Industrial Estate, Wrexham, LL12 OPG	Process: Surface Cleaning Status: Historical Permit Permit Type: Part B	Enforcement: No Enforcement Notified. Date of enforcement: No Enforcement Notified. Comment: No Enforcement Notified.
D	176m N	Arvin Meritor Hvs Limited, Rackery Lane, Llay, Wrexham, LL12 OPB	Process: Coating Processes Status: Historical Permit Permit Type: Part B	Enforcement: No Enforcement Notified. Date of enforcement: No Enforcement Notified. Comment: No Enforcement Notified.
J	248m SE	Star County Textile Services Ltd, Unit 4, Aerial Road, Llay Industrial Estate, Llay, Wrexham, LL12 OTU	Process: Dry Cleaning Status: Historical Permit Permit Type: Part B	Enforcement: No Enforcement Notified. Date of enforcement: No Enforcement Notified. Comment: No Enforcement Notified.
8	249m SW	Marshalls Mono Limited, Llay Industrial Estate, Llay, Wrexham, LL14 OTL	Process: Other Mineral Processes Status: Historical Permit Permit Type: Part B	Enforcement: No Enforcement Notified. Date of enforcement: No Enforcement Notified. Comment: No Enforcement Notified.
11	344m S	Clwyd Concrete Products Ltd, Llay Road, Llay Wrexham, LL12 OTL	Process: Other Mineral Processes Status: Current Permit Permit Type: Part B	Enforcement: No Enforcement Notified. Date of enforcement: No Enforcement Notified. Comment: No Enforcement Notified.
13	468m W	Magellan Aerospace Metal Treatments, Miners Road, Llay, Wrexham, LL12 OPB	Process: Surface Treatment of Metal Processes Status: Current Permit Permit Type: Part B	Enforcement: No Enforcement Notified. Date of enforcement: No Enforcement Notified. Comment: No Enforcement 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

13

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 36 >](#)

ID	Location	Address	Details	
1	7m NE	MERITOR HEAVY VEHICLE SYSTEMS LTD, MERITOR HEAVY VEHICLE SYSTEMS, RACKERY LANE, LLAY, WREXHAM, LL12 0PB	Effluent Type: TRADE DISCHARGES - SITE DRAINAGE Permit Number: CG0392001 Permit Version: 1 Receiving Water: SINGRET BROOK VIA MAINS DRAIN	Status: SURRENDERED UNDER EPR 2010 Issue date: 30/04/2001 Effective Date: 30/04/2001 Revocation Date: 23/09/2011
A	64m NW	MERITOR HEAVY VEHICLE SYSTEMS LTD, MERITOR HEAVY VEHICLE SYSTEMS, RACKERY LANE, LLAY, WREXHAM, LL12 0PB	Effluent Type: TRADE DISCHARGES - SITE DRAINAGE Permit Number: CG0393001 Permit Version: 1 Receiving Water: SINGRET BROOK VIA DRAIN	Status: SURRENDERED UNDER EPR 2010 Issue date: 30/04/2001 Effective Date: 30/04/2001 Revocation Date: 23/09/2011
B	85m NW	LLAY MAIN COLLIERY	Effluent Type: UNSPECIFIED Permit Number: CM0142801 Permit Version: 1 Receiving Water: RIVER ALYN	Status: CONSENT EXPIRED - TIME LIMIT Issue date: 23/01/1967 Effective Date: 23/01/1967 Revocation Date: 12/01/1996
E	151m SE	LLAY IND ESTATE	Effluent Type: UNSPECIFIED Permit Number: CM0060002 Permit Version: 1 Receiving Water: SINGRET BROOK	Status: CONSENT EXPIRED - TIME LIMIT Issue date: 14/10/1969 Effective Date: 14/10/1969 Revocation Date: 06/02/1995
4	182m SE	MARSHALLS MONO PLC LLAY WORKS, MARSHALLS MONO PLC, LLAY WORKS, LLAY INDUSTRIAL ESTATE, LLAY WREXHAM, LL12 0TL	Effluent Type: TRADE DISCHARGES - SITE DRAINAGE Permit Number: CG0401501 Permit Version: 1 Receiving Water: TO GROUND	Status: REVOKED (WRA 91, S88 & SCHED 10 AS AMENDED BY ENV ACT 1995) Issue date: 10/01/2003 Effective Date: 10/01/2003 Revocation Date: 22/06/2009
L	323m SW	LLAY MAIN COLLIERY COAL WASHERY PLA, LLAY MAIN COLLIERY COAL WASHERY, COAL WASHERY PLANT	Effluent Type: UNSPECIFIED Permit Number: CM0023101 Permit Version: 1 Receiving Water: UN-NAMED TRIB. OF ALYN	Status: CONSENT EXPIRED - TIME LIMIT Issue date: 24/06/1964 Effective Date: 24/06/1964 Revocation Date: 20/02/1986



ID	Location	Address	Details	
M	363m SE	llay Chapel Lane CSO, opposite Garden Centre, Behind 18 Birch Court, Wrexham, Wrexham, LL12 OTU	Effluent Type: SEWAGE DISCHARGES - SEWER STORM OVERFLOW - WATER COMPANY Permit Number: CG0358401 Permit Version: 0 Receiving Water: Afon Alyn Tributary	Status: Effective Issue date: 18/09/2019 Effective Date: 18/09/2019 Revocation Date: -
L	369m SW	MARSHALLS MONO PLC LLAY WORKS, MARSHALLS MONO PLC, LLAY WORKS, LLAY INDUSTRIAL ESTATE, LLAY WREXHAM, LL12 OTL	Effluent Type: TRADE DISCHARGES - SITE DRAINAGE Permit Number: CG0401401 Permit Version: 1 Receiving Water: UN NAMED WATERCOURSE	Status: REVOKED (WRA 91, S88 & SCHED 10 AS AMENDED BY ENV Issue date: 21/07/2003 Effective Date: 21/07/2003 Revocation Date: 22/06/2009
M	370m SE	llay Chapel Lane CSO opposite Garden Centre, Behind 18 Birch Court, WREXHAM, LL12 OTU	Effluent Type: SEWAGE DISCHARGES - SEWER STORM OVERFLOW - WATER COMPANY Permit Number: CG0358401 Permit Version: 2 Receiving Water: Afon Alyn Tributary	Status: Effective Issue date: 18/09/2019 Effective Date: 18/09/2019 Revocation Date: -
M	378m SE	CHAPEL LANE OPPOSITE GARDEN CENTRE, CHAPEL LANE OPPOSITE GARDEN CENT, OPPOSITE GARDEN CENTRE LLAY, LLAY	Effluent Type: SEWAGE DISCHARGES - SEWER STORM OVERFLOW - WATER COMPANY Permit Number: CG0358401 Permit Version: 1 Receiving Water: AFON ALYN TRIBUTARY	Status: Effective Issue date: 21/07/1994 Effective Date: 21/07/1994 Revocation Date: -
O	410m SW	PLOT 2 & 3, OLD SMITHY COTTAGE, LLAY, WREXHAM, NORTH WALES, LL12 OTL	Effluent Type: SEWAGE DISCHARGES - FINAL/TREATED EFFLUENT - NOT WATER COMPANY Permit Number: CG0449101 Permit Version: 1 Receiving Water: TRIBUTARY OF RIVER ALYN	Status: NEW CONSENT (WRA 91, S88 & SCHED 10 AS AMENDED BY Issue date: 08/02/2007 Effective Date: 08/02/2007 Revocation Date: -
O	441m SW	OLD SMITHY COTTAGE, CEFN Y BEDD ROAD, LLAY, NEAR WREXHAM, NORTH WALES, LL12 OTL	Effluent Type: SEWAGE DISCHARGES - FINAL/TREATED EFFLUENT - NOT WATER COMPANY Permit Number: CG0409801 Permit Version: 1 Receiving Water: TRIBUTARY OF AFON ALYN	Status: NEW CONSENT (WRA 91, S88 & SCHED 10 AS AMENDED BY Issue date: 25/06/2003 Effective Date: 25/06/2003 Revocation Date: -



ID	Location	Address	Details	
P	449m SE	PUMPING STATION ON DEVELOPMENT LAND, OFF LLAY ROAD, WREXHAM, WALES, UNITED KINGDOM, LL12 0TX	Effluent Type: SEWAGE DISCHARGES - PUMPING STATION - NOT WATER COMPANY Permit Number: CG0413901 Permit Version: 0 Receiving Water: SINGRET BROOK	Status: Effective Issue date: 22/01/2004 Effective Date: 22/01/2004 Revocation Date: -

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
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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
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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	2
----------------------------	----------

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.

Features are displayed on the Current industrial land use map on [page 36](#) >

ID	Location	Name	Status	Receiving Water	Authorised Substances
A	73m SW	Trefn Eng Ltd,wrexham	Not Active	-	Cadmium
L	370m SW	Marshalls Mono Plc	Not Active	-	Mercury (other), Cadmium

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



4.17 List 2 Dangerous Substances

Records within 500m

1

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.

Features are displayed on the Current industrial land use map on [page 36 >](#)

ID	Location	Name	Status	Receiving Water	Authorised Substances
L	370m SW	Marshalls Mono Plc	Active	None	Chromium, Copper, Iron, Zinc

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

4.18 Pollution Incidents (EA/NRW)

Records within 500m

13

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 36 >](#)

ID	Location	Details	
B	123m NW	Incident Date: 13/09/2002 Incident Identification: 107555 Pollutant: Oils and Fuel Pollutant Description: Diesel	Water Impact: Category 4 (No Impact) Land Impact: Category 3 (Minor) Air Impact: Category 4 (No Impact)
B	123m NW	Incident Date: 13/09/2002 Incident Identification: 107555 Pollutant: Oils and Fuel Pollutant Description: Diesel	Water Impact: Category 4 (No Impact) Land Impact: Category 3 (Minor) Air Impact: Category 4 (No Impact)
G	215m S	Incident Date: 24/05/2017 Incident Identification: 1702743 Pollutant: - Pollutant Description: -	Water Impact: No Details Land Impact: Category 3 (Minor) Air Impact: No Details
G	215m S	Incident Date: 24/05/2017 Incident Identification: 1702743 Pollutant: Organic Chemicals / Products Pollutant Description: Hydrocarbons	Water Impact: No Details Land Impact: Category 3 (Minor) Air Impact: No Details
9	252m NW	Incident Date: 29/01/2016 Incident Identification: 1407151 Pollutant: Inert Materials and Wastes Pollutant Description: Other Inert Material or Waste	Water Impact: - Land Impact: Category 4 (No Impact) Air Impact: Category 3 (Minor)



ID	Location	Details	
J	278m SE	Incident Date: 21/09/2015 Incident Identification: 1374653 Pollutant: Specific Waste Materials Pollutant Description: Commercial Waste	Water Impact: - Land Impact: Category 4 (No Impact) Air Impact: Category 4 (No Impact)
10	331m E	Incident Date: 22/12/2014 Incident Identification: 1302359 Pollutant: Specific Waste Materials Pollutant Description: Metal Wastes	Water Impact: - Land Impact: Category 4 (No Impact) Air Impact: Category 3 (Minor)
M	366m SE	Incident Date: 03/02/2005 Incident Identification: 291092 Pollutant: Oils and Fuel Pollutant Description: Cutting Oils	Water Impact: Category 2 (Significant) Land Impact: Category 4 (No Impact) Air Impact: Category 4 (No Impact)
12	403m W	Incident Date: 04/12/2013 Incident Identification: 1180861 Pollutant: Specific Waste Materials Pollutant Description: Asbestos	Water Impact: - Land Impact: Category 4 (No Impact) Air Impact: Category 4 (No Impact)
P	422m SE	Incident Date: 14/04/2003 Incident Identification: 150789 Pollutant: Organic Chemicals/Products Pollutant Description: Other Organic Chemical or Product	Water Impact: Category 3 (Minor) Land Impact: Category 4 (No Impact) Air Impact: Category 4 (No Impact)
P	479m SE	Incident Date: 30/04/2001 Incident Identification: 3861 Pollutant: Sewage Materials Pollutant Description: Storm Sewage	Water Impact: Category 3 (Minor) Land Impact: Category 4 (No Impact) Air Impact: Category 3 (Minor)
P	481m SE	Incident Date: 27/12/2001 Incident Identification: 49674 Pollutant: Sewage Materials Pollutant Description: Crude Sewage	Water Impact: Category 3 (Minor) Land Impact: Category 4 (No Impact) Air Impact: Category 4 (No Impact)
P	481m SE	Incident Date: 27/12/2001 Incident Identification: 49674 Pollutant: Sewage Materials Pollutant Description: Crude Sewage	Water Impact: Category 3 (Minor) 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

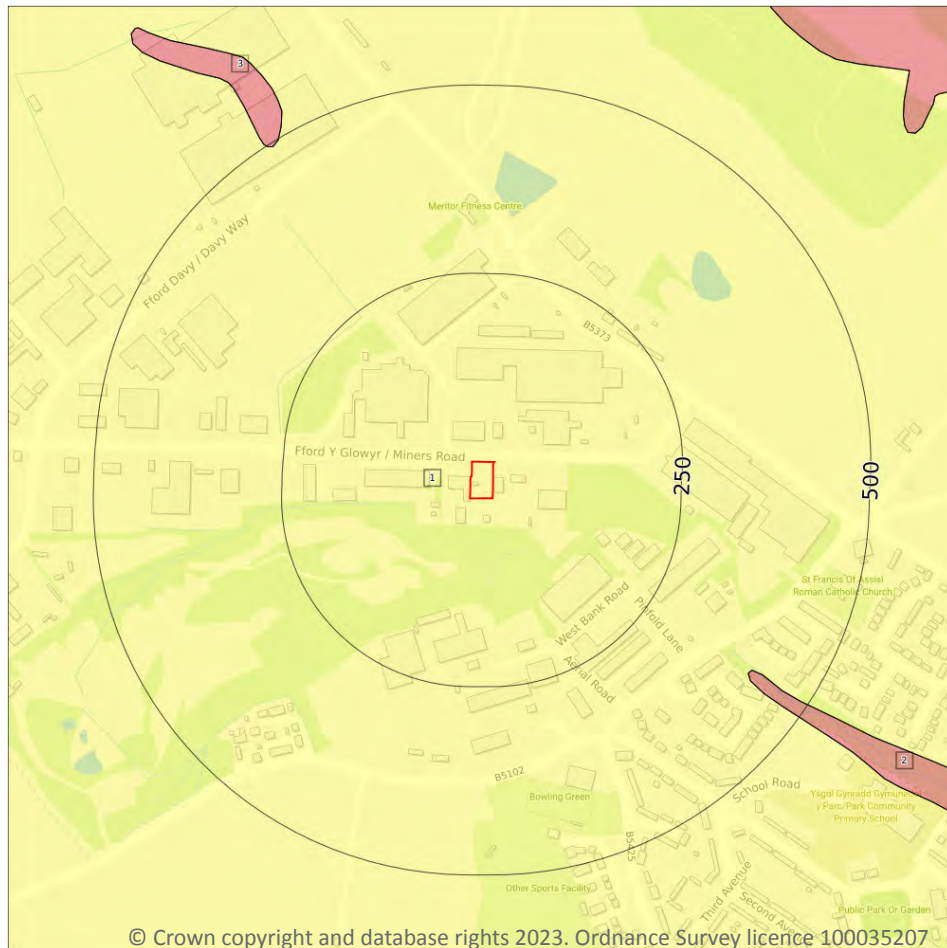
0

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

3

Aquifer status of groundwater held within superficial geology.

Features are displayed on the Hydrogeology map on [page 49 >](#)

ID	Location	Designation	Description
1	On site	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
2	411m SE	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

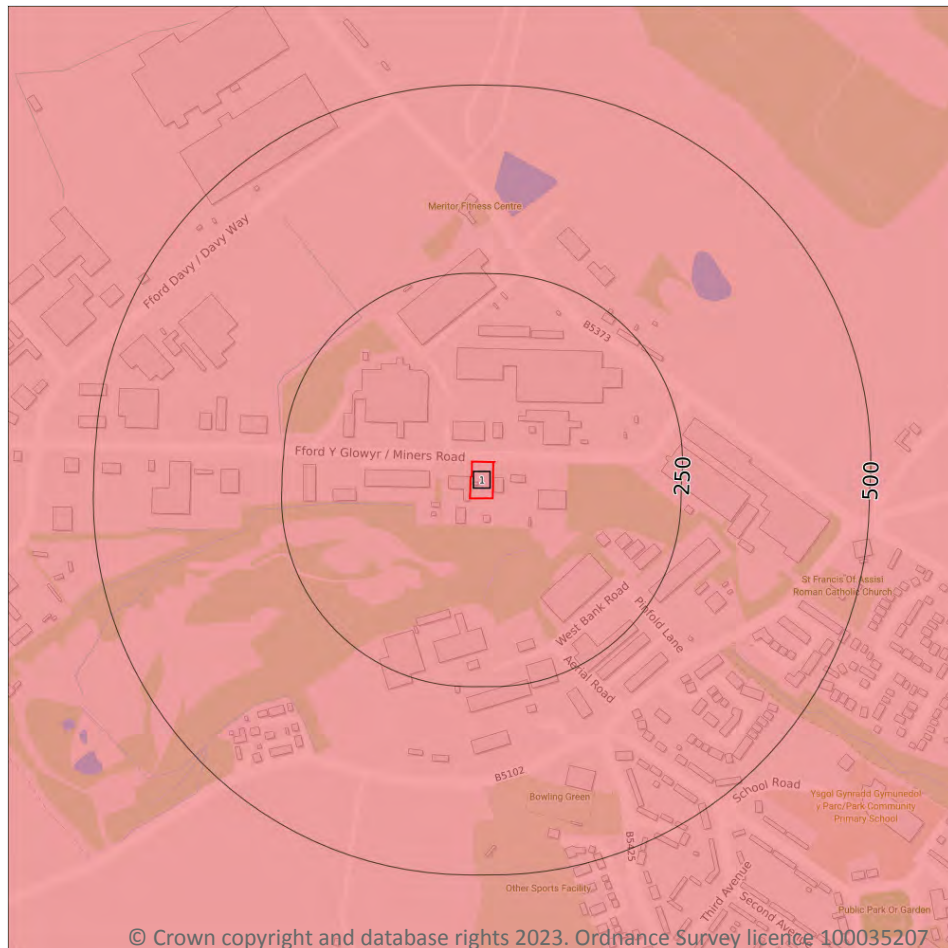


ID	Location	Designation	Description
3	495m NW	Secondary A	Permeable layers capable of supporting water supplies at a local rather than strategic scale, and in some cases forming an important source of base flow to rivers. These are generally aquifers formerly classified as minor aquifers

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

1

Aquifer status of groundwater held within bedrock geology.

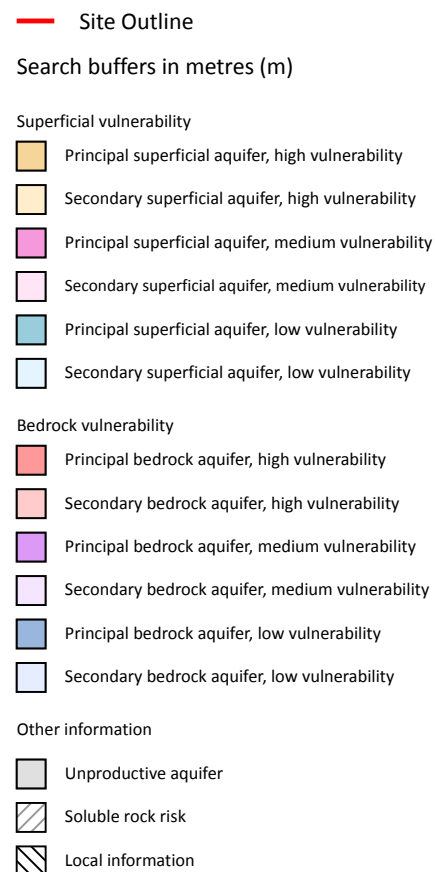
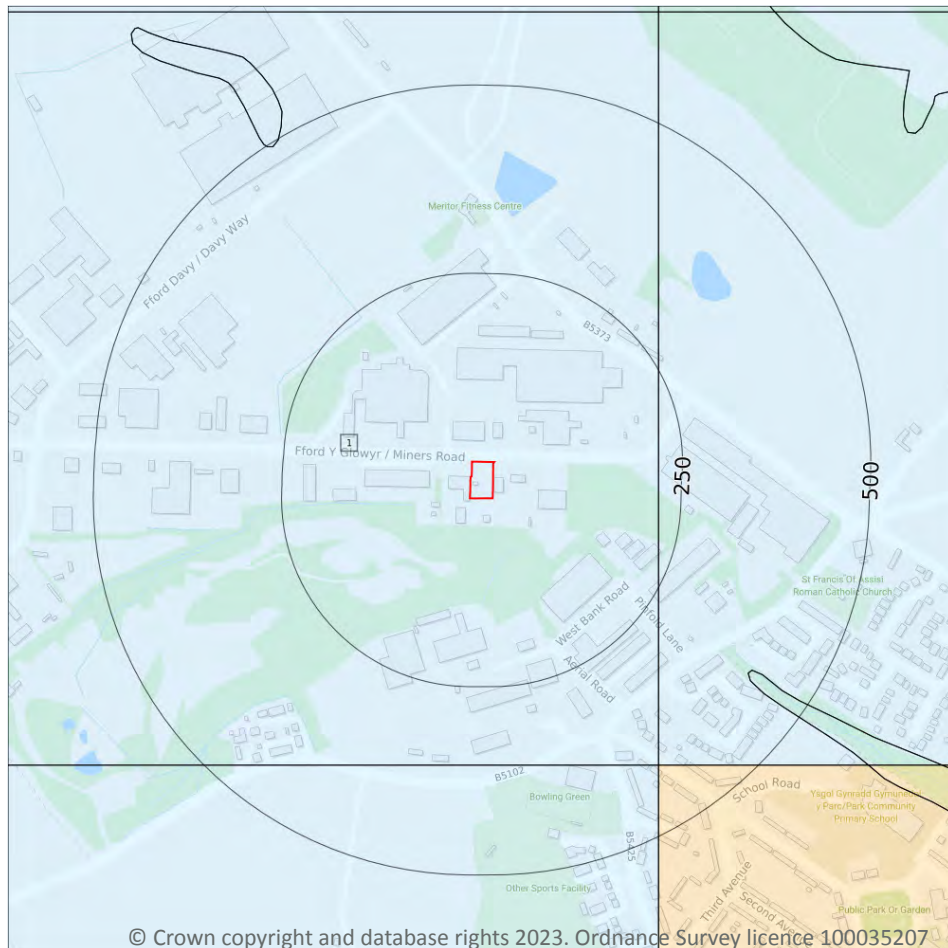
Features are displayed on the Bedrock aquifer map on [page 51](#) >

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

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



Groundwater vulnerability



5.3 Groundwater vulnerability

Records within 50m

1

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 52 >](#)



ID	Location	Summary	Soil / surface	Superficial geology	Bedrock geology
1	On site	Summary Classification: Secondary superficial aquifer - Low Vulnerability Combined classification: Productive Bedrock Aquifer, Productive Superficial Aquifer	Leaching class: Low Infiltration value: <40% Dilution value: 300-550mm/year	Vulnerability: Low Aquifer type: Secondary Thickness: >10m Patchiness value: >90% Recharge potential: Medium	Vulnerability: Low 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
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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.

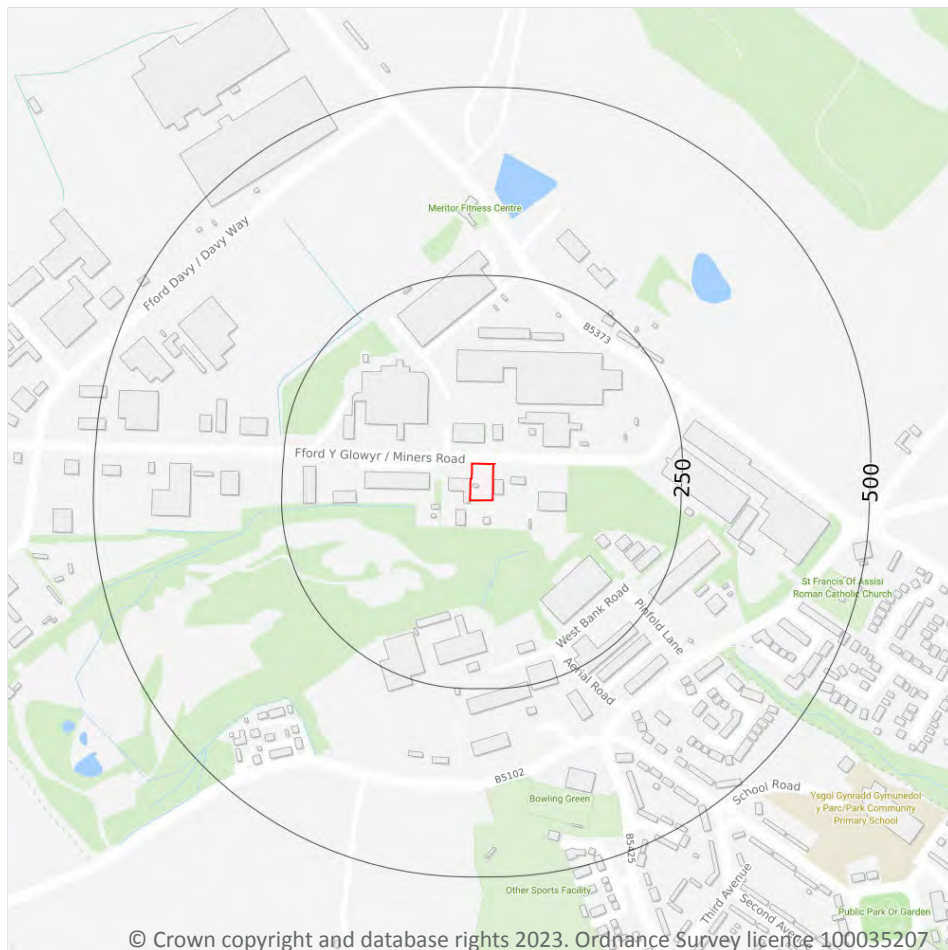
5.5 Groundwater vulnerability- local information

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
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

1

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 54](#) >



ID	Location	Details	
-	1976m NE	Status: Historical Licence No: 24/67/9/0146 Details: General Farming & Domestic Direct Source: EAW Groundwater Point: BOREHOLE Data Type: Point Name: Lister Easting: 334500 Northing: 357380	Annual Volume (m ³): - Max Daily Volume (m ³): - Original Application No: - Original Start Date: 07/10/1974 Expiry Date: - Issue No: 100 Version Start Date: 07/10/1974 Version End Date: -

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

5.7 Surface water abstractions

Records within 2000m

2

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 54 >](#)

ID	Location	Details	
-	1661m SW	Status: Historical Licence No: 24/67/8/0094 Details: Fish Farm/Cress Pond Throughflow Direct Source: EAW Surface Water Point: RIVER CEGIDOG Data Type: Point Name: Morgan Easting: 331280 Northing: 355580	Annual Volume (m ³): - Max Daily Volume (m ³): - Original Application No: - Original Start Date: 01/04/1991 Expiry Date: - Issue No: 100 Version Start Date: 01/04/1991 Version End Date: -
-	1949m SE	Status: Historical Licence No: 24/67/8/0052 Details: Mineral Washing Direct Source: EAW Surface Water Point: RIVER ALYN Data Type: Point Name: Tarmac Limited Easting: 334480 Northing: 355400	Annual Volume (m ³): 166929 Max Daily Volume (m ³): 545.52 Original Application No: - Original Start Date: 14/06/1968 Expiry Date: - Issue No: 102 Version Start Date: 01/01/2008 Version End Date: -

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



5.8 Potable abstractions

Records within 2000m

0

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.

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



- 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

5

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

Features are displayed on the Hydrology map on [page 57 >](#)

ID	Location	Type of water feature	Ground level	Permanence	Name
A	74m W	Inland river not influenced by normal tidal action.	On ground surface	Watercourse contains water year round (in normal circumstances)	-



ID	Location	Type of water feature	Ground level	Permanence	Name
B	78m S	Inland river not influenced by normal tidal action.	On ground surface	Watercourse contains water year round (in normal circumstances)	-
B	78m S	Inland river not influenced by normal tidal action.	On ground surface	Watercourse contains water year round (in normal circumstances)	-
B	78m S	Inland river not influenced by normal tidal action.	On ground surface	Watercourse contains water year round (in normal circumstances)	-
C	238m NW	Inland river not influenced by normal tidal action.	On ground surface	Watercourse contains water year round (in normal circumstances)	-

This data is sourced from the Ordnance Survey.

6.2 Surface water features

Records within 250m

3

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 57 >](#)

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 57 >](#)

ID	Location	Type	Water body catchment	Water body ID	Operational catchment	Management catchment
1	On site	River WB catchment	Alyn - Hope to Dee	GB111067052173	Alyn	Dee

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 57 >](#)

ID	Location	Type	Name	Water body ID	Overall rating	Chemical rating	Ecological rating	Year
-	1475m W	River	Alyn - Hope to Dee	GB111067052173	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 57 >](#)

ID	Location	Name	Water body ID	Overall rating	Chemical rating	Quantitative	Year
2	On site	Dee Carboniferous Coal Measures	GB41102G204800	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

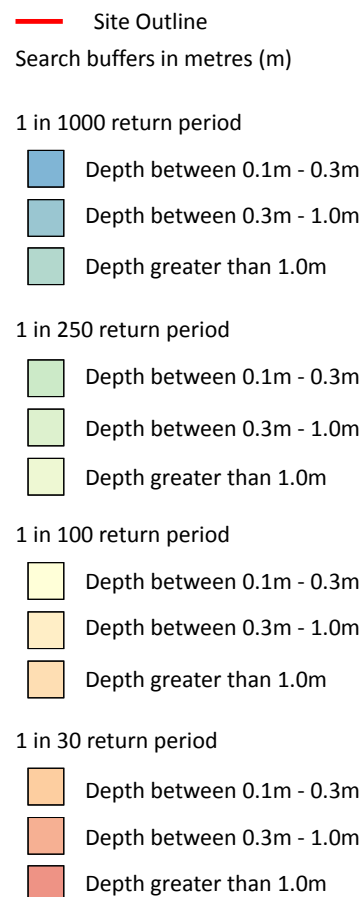
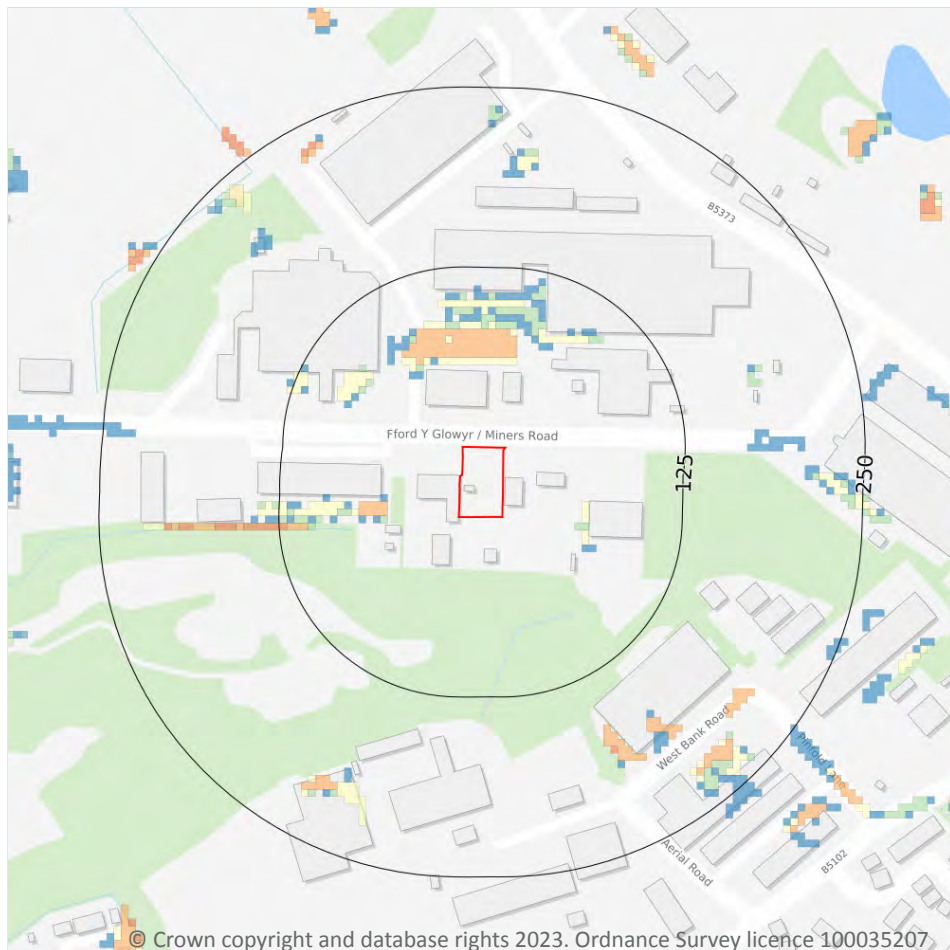
0

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

1 in 30 year, 0.1m - 0.3m

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.

Features are displayed on the Surface water flooding map on [page 63 >](#)

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.

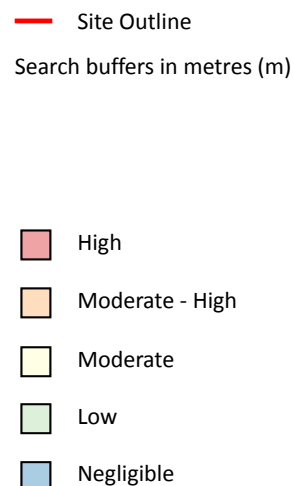
The table below shows the maximum flood depths for a range of return periods for the site.

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 Ambiantal Risk Analytics.



9 Groundwater flooding



9.1 Groundwater flooding

Highest risk on site

Low

Highest risk within 50m

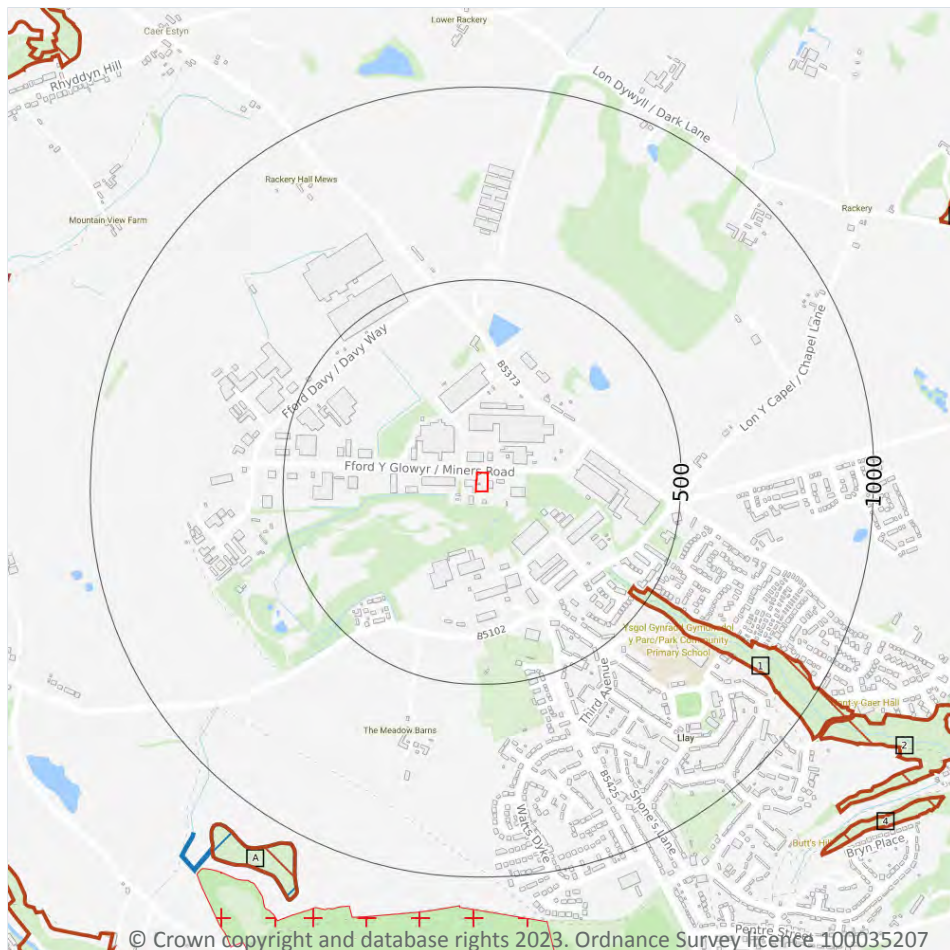
Low

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 65 >](#)

This data is sourced from Ambiantal Risk Analytics.

10 Environmental designations



- Site Outline
- Search buffers in metres (m)
- Sites of Special Scientific Interest (SSSI)
- + Local Nature Reserves (LNR)
- Designated Ancient Woodland

10.1 Sites of Special Scientific Interest (SSSI)

Records within 2000m

2

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 66](#) >

ID	Location	Name	Data source
A	1032m SW	Llay Bog	Natural Resources Wales



ID	Location	Name	Data source
-	1649m E	Chwarel Singret	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	0
-----------------------------	----------

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.

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



10.6 Local Nature Reserves (LNR)

Records within 2000m

1

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.

Features are displayed on the Environmental designations map on [page 66 >](#)

ID	Location	Name	Data source
3	1076m S	Alyn Waters	Natural Resources Wales

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

10.7 Designated Ancient Woodland

Records within 2000m

38

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 66 >](#)

ID	Location	Name	Woodland Type
1	452m SE	Unknown	Ancient Semi Natural Woodland
A	1032m SW	Unknown	Ancient Semi Natural Woodland
2	1072m SE	Unknown	Ancient Semi Natural Woodland
4	1275m SE	Unknown	Ancient Semi Natural Woodland
B	1317m NW	Unknown	Ancient Semi Natural Woodland
-	1324m NW	Unknown	Ancient Semi Natural Woodland
5	1343m NE	Unknown	Ancient Semi Natural Woodland
6	1415m W	Unknown	Ancient Semi Natural Woodland
-	1417m W	Unknown	Ancient Semi Natural Woodland
-	1465m W	Unknown	Ancient Semi Natural Woodland
-	1485m W	Unknown	Ancient Semi Natural Woodland
10	1497m NW	Unknown	Ancient Semi Natural Woodland



ID	Location	Name	Woodland Type
-	1518m W	Unknown	Ancient Semi Natural Woodland
-	1529m SE	Unknown	Restored Ancient Woodland Site
-	1580m NE	Unknown	Ancient Semi Natural Woodland
-	1581m W	Unknown	Ancient Semi Natural Woodland
-	1625m SE	Unknown	Restored Ancient Woodland Site
-	1632m W	Unknown	Restored Ancient Woodland Site
-	1633m SE	Unknown	Restored Ancient Woodland Site
-	1661m W	Unknown	Restored Ancient Woodland Site
-	1697m SW	Unknown	Ancient Semi Natural Woodland
-	1750m SE	Unknown	Restored Ancient Woodland Site
-	1777m W	Unknown	Ancient Semi Natural Woodland
-	1788m NE	Unknown	Restored Ancient Woodland Site
-	1798m SE	Unknown	Ancient Semi Natural Woodland
-	1820m SE	Unknown	Restored Ancient Woodland Site
-	1831m E	Unknown	Restored Ancient Woodland Site
-	1833m S	Unknown	Ancient Semi Natural Woodland
-	1877m S	Unknown	Ancient Semi Natural Woodland
-	1884m NW	Unknown	Ancient Semi Natural Woodland
-	1886m E	Unknown	Ancient Semi Natural Woodland
-	1888m W	Unknown	Ancient Semi Natural Woodland
-	1891m SE	Unknown	Ancient Semi Natural Woodland
-	1902m SE	Unknown	Restored Ancient Woodland Site
-	1921m E	Unknown	Restored Ancient Woodland Site
-	1954m SE	Unknown	Ancient Semi Natural Woodland
-	1964m SE	Unknown	Restored Ancient Woodland Site
-	1983m SE	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

4

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.

Location	Name	Type	NVZ ID	Status
297m N	-	Surface Water	707	New

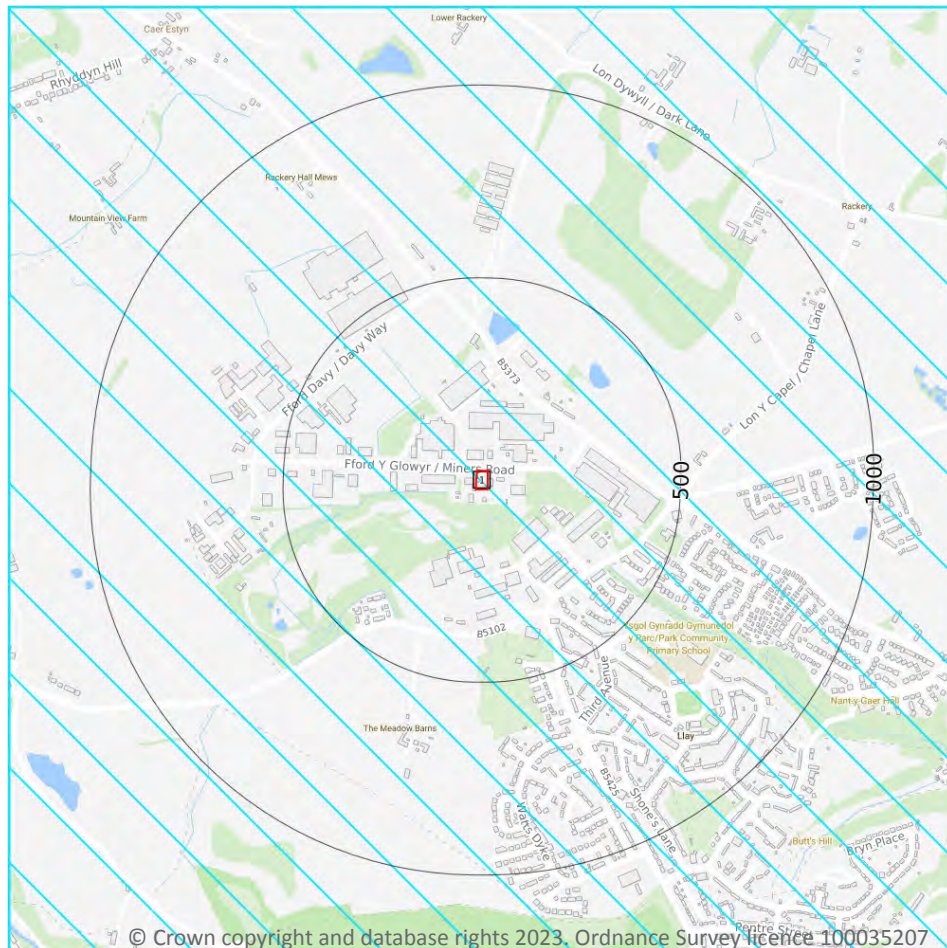


Location	Name	Type	NVZ ID	Status
297m N	Pulford Brook NVZ	Surface Water	707	Existing
1310m E	Pulford Brook NVZ	Surface Water	707	Existing
1310m E	-	Surface Water	707	New

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



SSSI Impact Zones and Units



- Site Outline
- Search buffers in metres (m)
- SSSI Impact Risk Zones
- SSSI Units
- Not recorded
- Favourable
- Unfavourable - Recovering
- Unfavourable - No change
- Unfavourable - Declining
- Partially destroyed
- Destroyed

10.17 SSSI Impact Risk Zones

Records on site

1

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.

Features are displayed on the SSSI Impact Zones and Units map on [page 73](#) >

ID	Location	Type of developments requiring consultation
1	On site	Air pollution - Livestock & poultry units with floorspace > 500m ² , slurry lagoons & digestate stores > 4000m ² . Combustion - General combustion processes >50MW energy input. Incl: energy from waste incineration, other incineration, landfill gas generation plant, pyrolysis/gasification, anaerobic digestion, sewage treatment works, other incineration/ combustion



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

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

0

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.

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

4

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 77](#) >

ID	Location	Classification	Description
2	50m SW	Grade 4	Poor quality agricultural land
3	54m S	Grade 3b	Moderate quality agricultural land
4	115m SW	Grade 4	Poor quality agricultural land

ID	Location	Classification	Description
5	215m SW	Grade 4	Poor 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

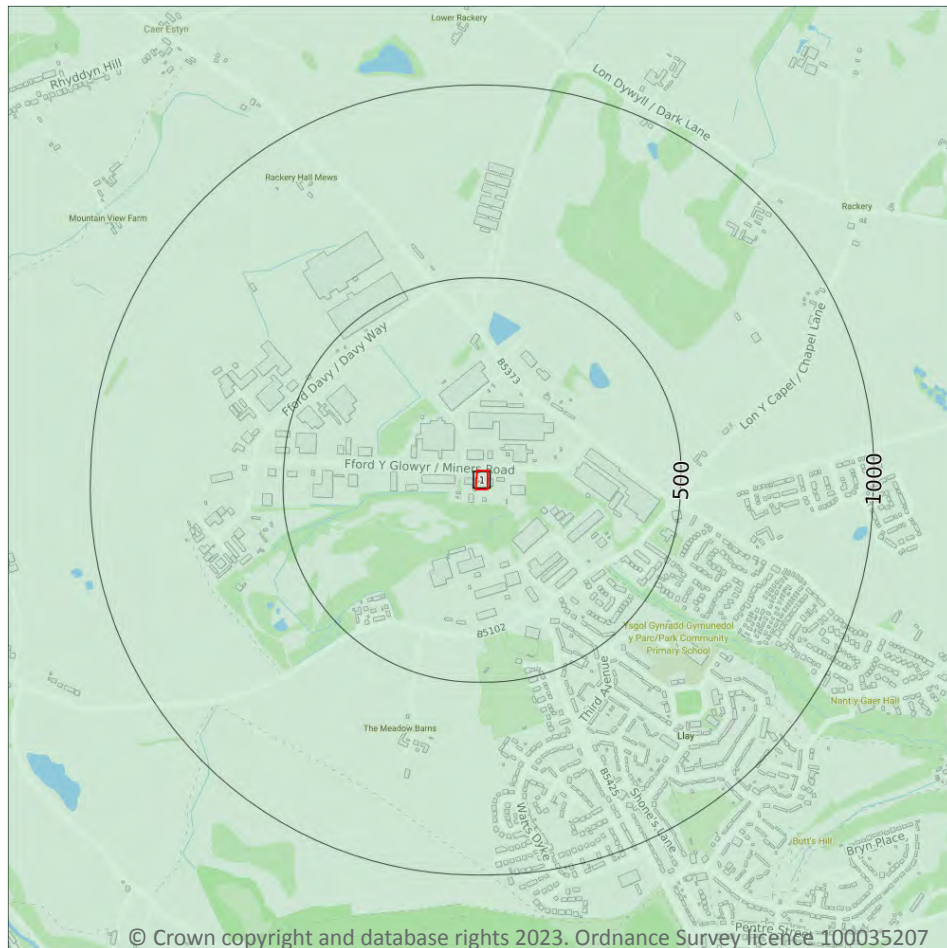
0

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.

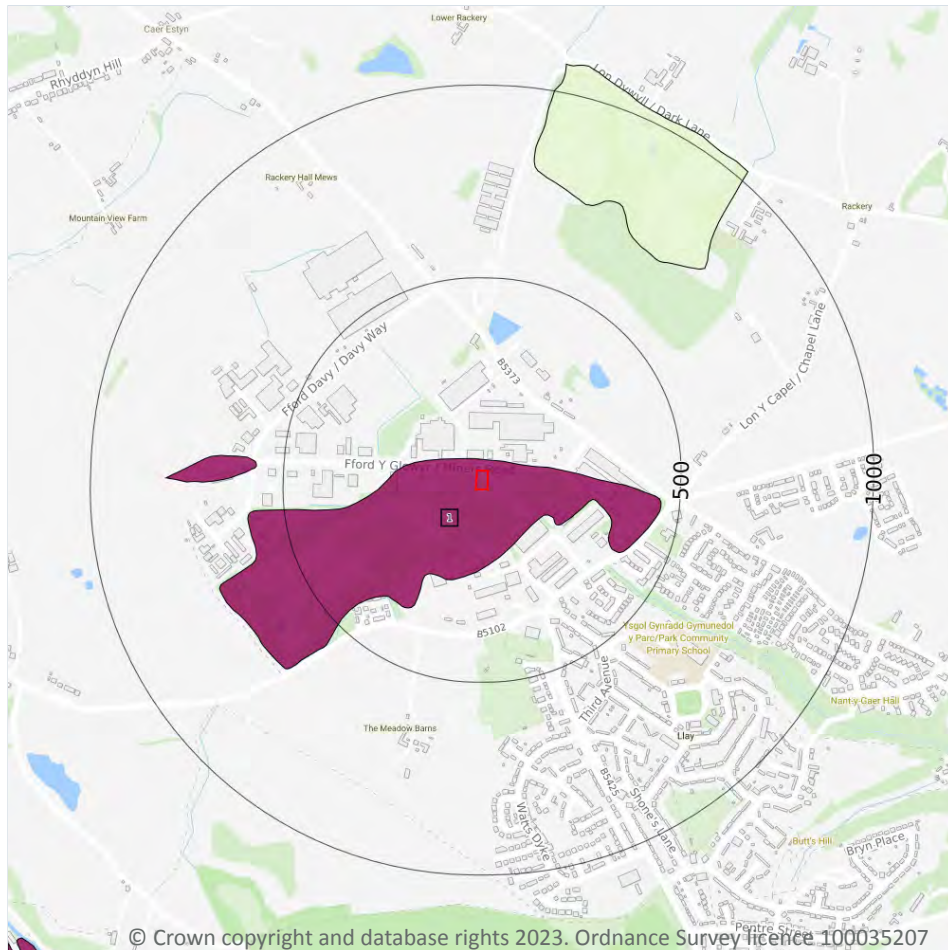
Features are displayed on the Geology 1:10,000 scale - Availability map on [page 80](#) >

ID	Location	Artificial	Superficial	Bedrock	Mass movement	Sheet No.
1	On site	Full	Full	Full	Full	SJ35NW

This data is sourced from the British Geological Survey.



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



- Site Outline**
- Search buffers in metres (m)**
- Reclaimed ground
 - Made ground
 - Worked ground
 - Infilled ground
 - Disturbed ground
 - Landscaped ground

14.2 Artificial and made ground (10k)

Records within 500m

1

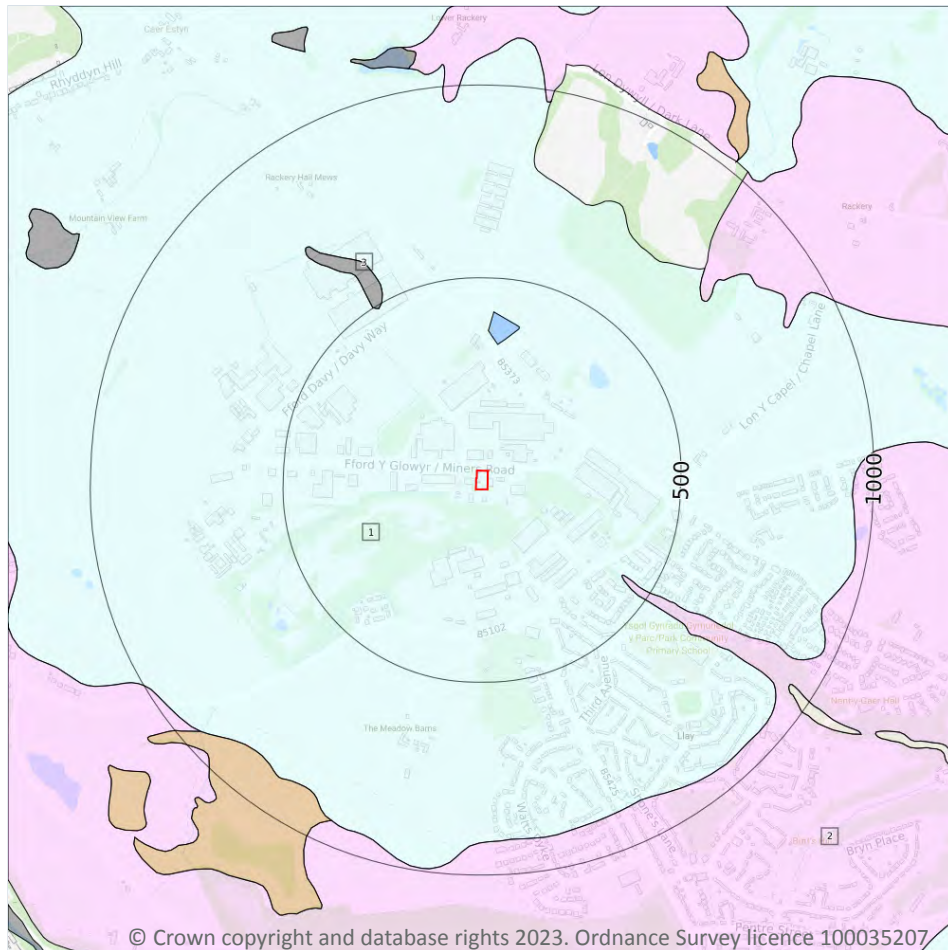
Details of made, worked, infilled, disturbed and landscaped ground at 1:10,000 scale. Artificial ground can be associated with potentially contaminated material, unpredictable engineering conditions and instability.

Features are displayed on the Geology 1:10,000 scale - Artificial and made ground map on [page 81](#) >

ID	Location	LEX Code	Description	Rock description
1	On site	MGR-ARTDP	Made Ground (Undivided)	Artificial Deposit

This data is sourced from the British Geological Survey.

Geology 1:10,000 scale - Superficial



Site Outline

Search buffers in metres (m)

Landslip (10k)

Superficial geology (10k)
Please see table for more details.

14.3 Superficial geology (10k)

Records within 500m

3

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.

Features are displayed on the Geology 1:10,000 scale - Superficial map on [page 82](#) >

ID	Location	LEX Code	Description	Rock description
1	On site	TILL-DMTN	Till - Diamicton	Diamicton
2	415m SE	GFDU-XSV	Glaciofluvial Deposits - Sand And Gravel	Sand And Gravel
3	491m NW	ALV-C	Alluvium - Clay (unlithified Deposits Coding Scheme)	Clay

This data is sourced from the British Geological Survey.



14.4 Landslip (10k)

Records within 500m

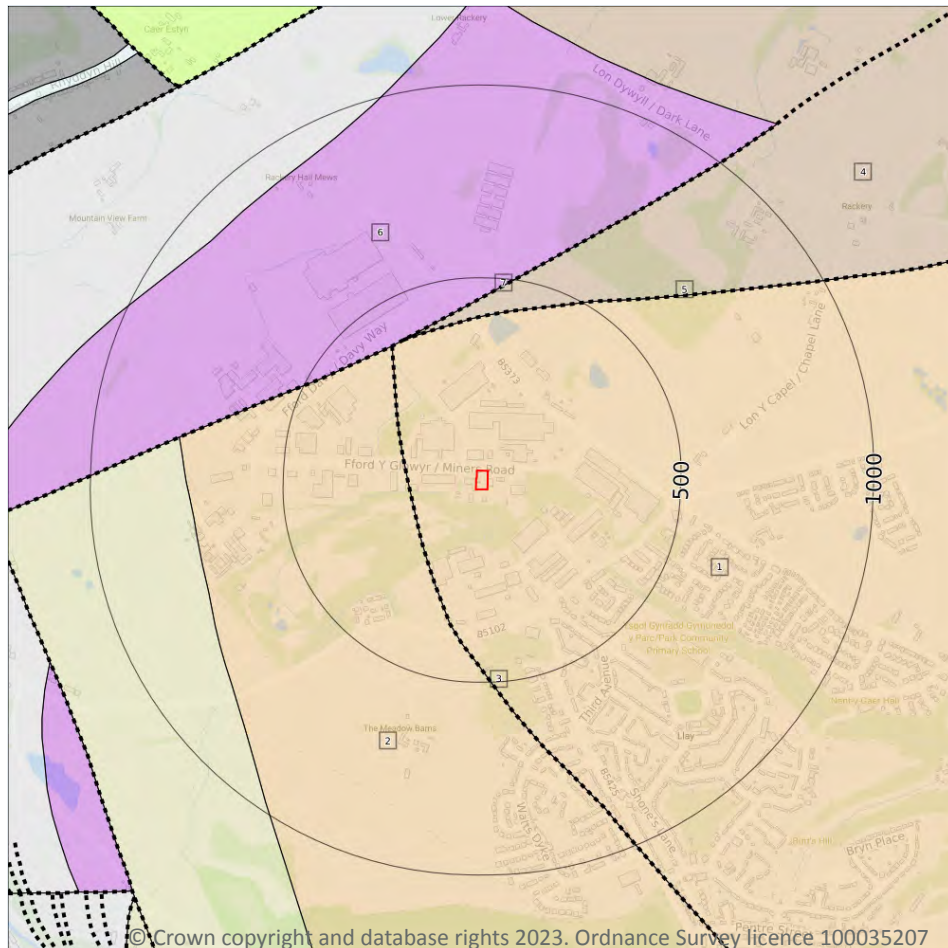
0

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



— Site Outline

Search buffers in metres (m)

.... Bedrock faults and other linear features (10k)

Bedrock geology (10k)
Please see table for more details.

14.5 Bedrock geology (10k)

Records within 500m

4

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.

Features are displayed on the Geology 1:10,000 scale - Bedrock map on [page 84](#) >

ID	Location	LEX Code	Description	Rock age
1	On site	SAL-MDSC	Salop Formation - Mudstone, Sandstone And Conglomerate	Cisuralian Epoch - Westphalian D Sub-age
2	167m W	SAL-MDSC	Salop Formation - Mudstone, Sandstone And Conglomerate	Cisuralian Epoch - Westphalian D Sub-age
4	382m N	KNSF-SDST	Kinnerton Sandstone Formation - Sandstone	Early Triassic Epoch



ID	Location	LEX Code	Description	Rock age
6	389m NW	ETM-MDSC	Etruria Formation - Mudstone, Sandstone And Conglomerate	Westphalian Age

This data is sourced from the British Geological Survey.

14.6 Bedrock faults and other linear features (10k)

Records within 500m

3

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.

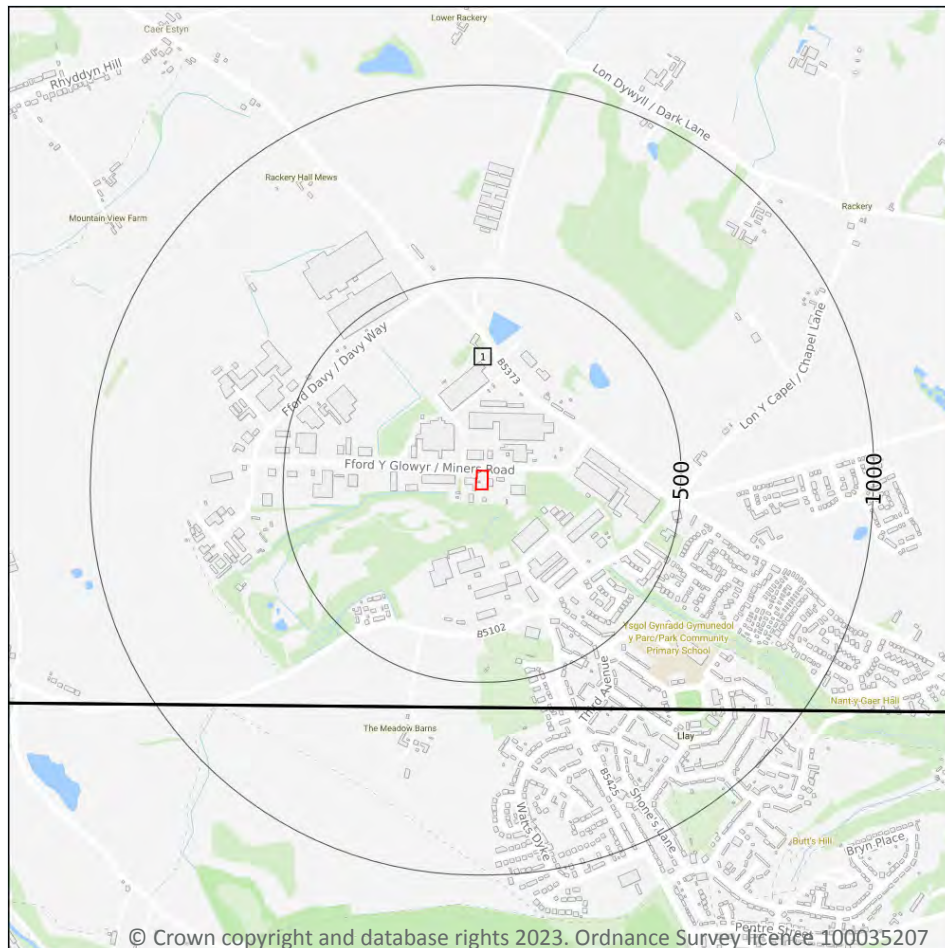
Features are displayed on the Geology 1:10,000 scale - Bedrock map on [page 84](#) >

ID	Location	Category	Description
3	167m W	FAULT	Normal fault, inferred
5	382m N	FAULT	Normal fault, inferred
7	389m NW	FAULT	Normal fault, inferred

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.

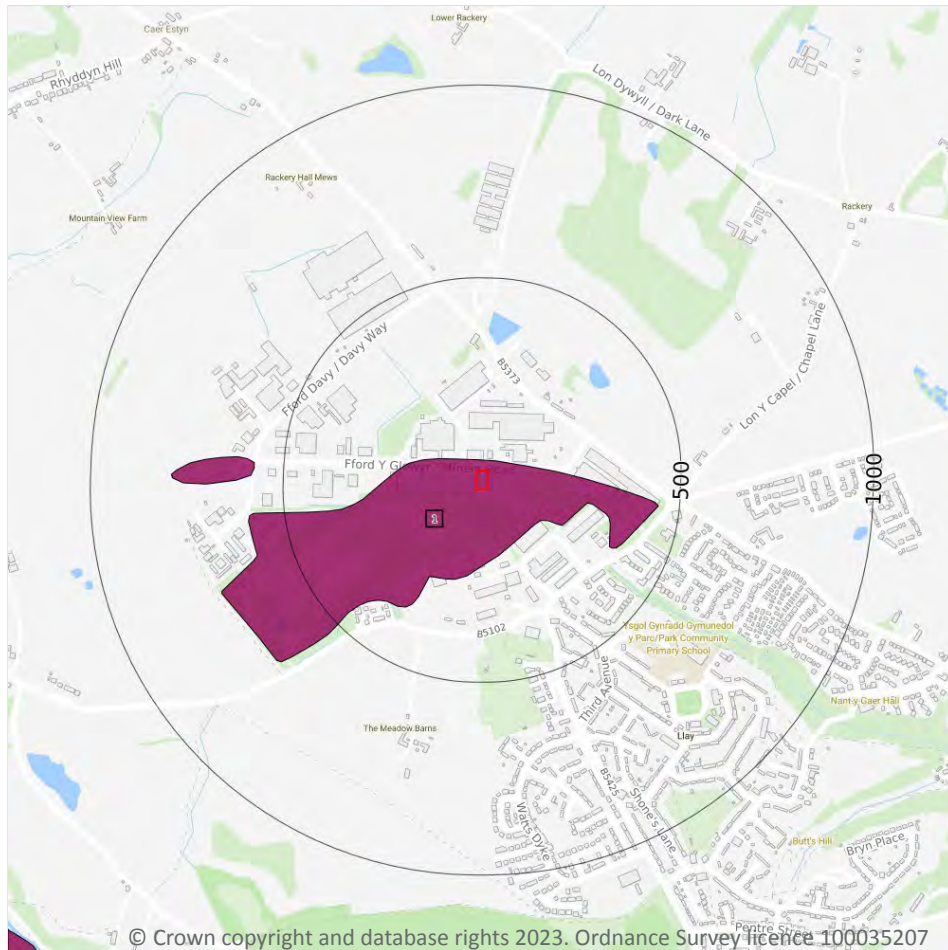
Features are displayed on the Geology 1:50,000 scale - Availability map on [page 86](#) >

ID	Location	Artificial	Superficial	Bedrock	Mass movement	Sheet No.
1	On site	Full	Full	Full	Full	EW108_flint_v4

This data is sourced from the British Geological Survey.



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



- Site Outline
- Search buffers in metres (m)
- Made ground
 - Worked ground
 - Infilled ground
 - Disturbed ground
 - Landscaped ground

15.2 Artificial and made ground (50k)

Records within 500m

1

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.

Features are displayed on the Geology 1:50,000 scale - Artificial and made ground map on [page 87](#) >

ID	Location	LEX Code	Description	Rock description
1	On site	MGR-ARTDP	MADE GROUND (UNDIVIDED)	ARTIFICIAL DEPOSIT

This data is sourced from the British Geological Survey.



15.3 Artificial ground permeability (50k)

Records within 50m

1

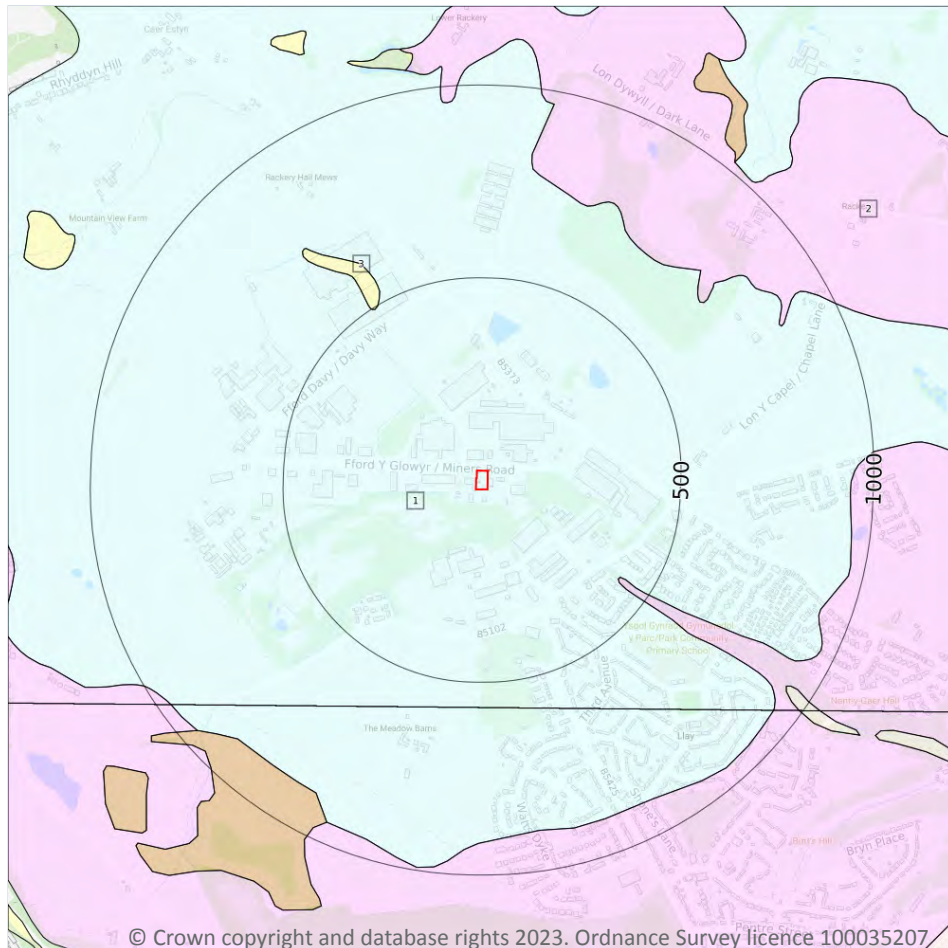
A qualitative classification of estimated rates of vertical movement of water from the ground surface through the unsaturated zone of any artificial deposits (the zone between the land surface and the water table).

Location	Flow type	Maximum permeability	Minimum permeability
On site	Mixed	Very High	Low

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 89](#) >

ID	Location	LEX Code	Description	Rock description
1	On site	TILLD-DMTN	TILL, DEVANSIAN	DIAMICTON
2	411m SE	GFSDD-XSV	GLACIOFLUVIAL SHEET DEPOSITS, DEVANSIAN	SAND AND GRAVEL
3	495m NW	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	Mixed	High	Low

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

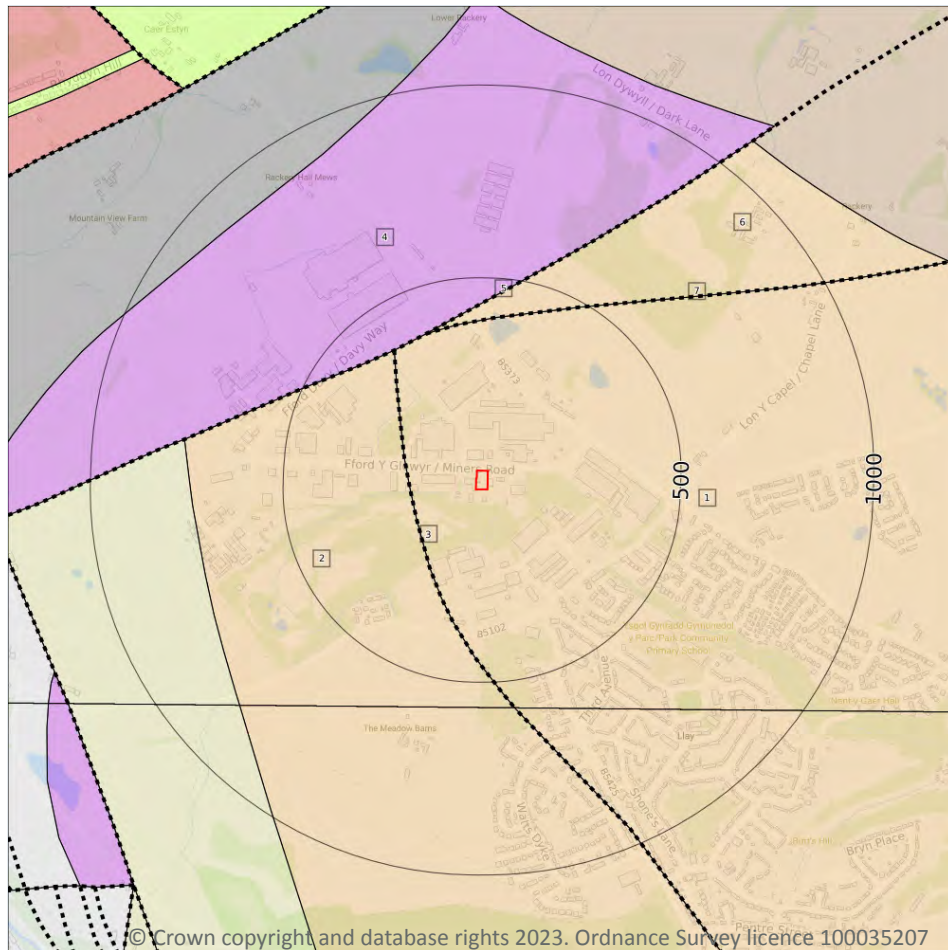
0

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

4

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 91](#) >

ID	Location	LEX Code	Description	Rock age
1	On site	SAL-MDSC	SALOP FORMATION - MUDSTONE, SANDSTONE AND CONGLOMERATE	WESTPHALIAN
2	166m W	SAL-MDSC	SALOP FORMATION - MUDSTONE, SANDSTONE AND CONGLOMERATE	WESTPHALIAN



ID	Location	LEX Code	Description	Rock age
4	376m NW	ETM-MDSC	ETRURIA FORMATION - MUDSTONE, SANDSTONE AND CONGLOMERATE	WESTPHALIAN
6	378m N	SAL-MDSC	SALOP FORMATION - MUDSTONE, SANDSTONE AND CONGLOMERATE	WESTPHALIAN

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	Moderate	Low

This data is sourced from the British Geological Survey.

15.10 Bedrock faults and other linear features (50k)

Records within 500m

3

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.

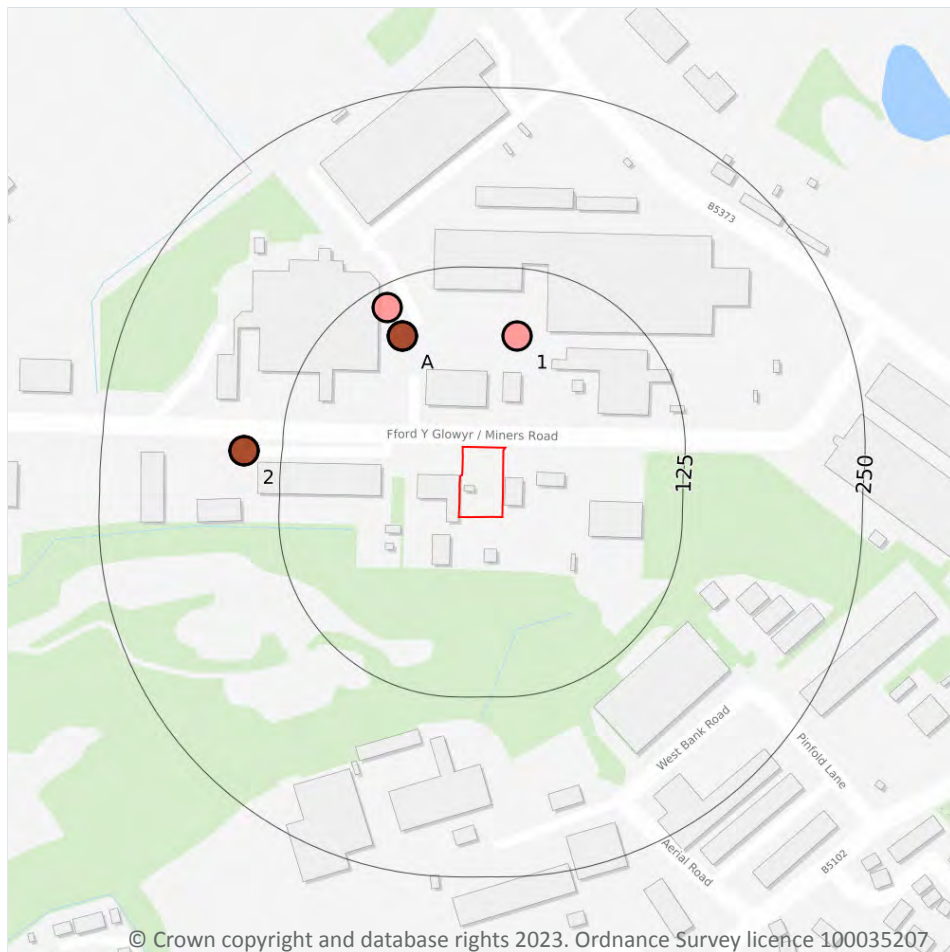
Features are displayed on the Geology 1:50,000 scale - Bedrock map on [page 91](#) >

ID	Location	Category	Description
3	166m W	FAULT	Fault, inferred, displacement unknown
5	376m NW	FAULT	Fault, inferred, displacement unknown
7	378m N	FAULT	Fault, inferred, displacement unknown

This data is sourced from the British Geological Survey.



16 Boreholes



— Site Outline
Search buffers in metres (m)

- Confidential
- 0 - 10m
- 10 - 30m
- 30m+
- Unknown

16.1 BGS Boreholes

Records within 250m

4

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.

Features are displayed on the Boreholes map on [page 93](#) >

ID	Location	Grid reference	Name	Length	Confidential	Web link
1	78m N	332790 356480	LLAY MAIN COLLIERY 1	827.3	N	154205 ↗
A	88m NW	332710 356480	LLAY MAIN 2A	-1.0	N	154550 ↗
A	110m NW	332700 356500	NO.1 WEST DRIFT LLAY	113.39	N	154610 ↗



ID	Location	Grid reference	Name	Length	Confidential	Web link
2	152m W	332600 356400	LLAYMAIN COLLIERY	-1.0	N	154309 ↗

This data is sourced from the British Geological Survey.



17 Natural ground subsidence - Shrink swell clays



- Site Outline
- Search buffers in metres (m)
- ☐ No data
 - ☐ Negligible
 - ☒ Very low
 - ☐ Low
 - ☐ Moderate
 - ☐ High

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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 95 >](#)

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

1

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.

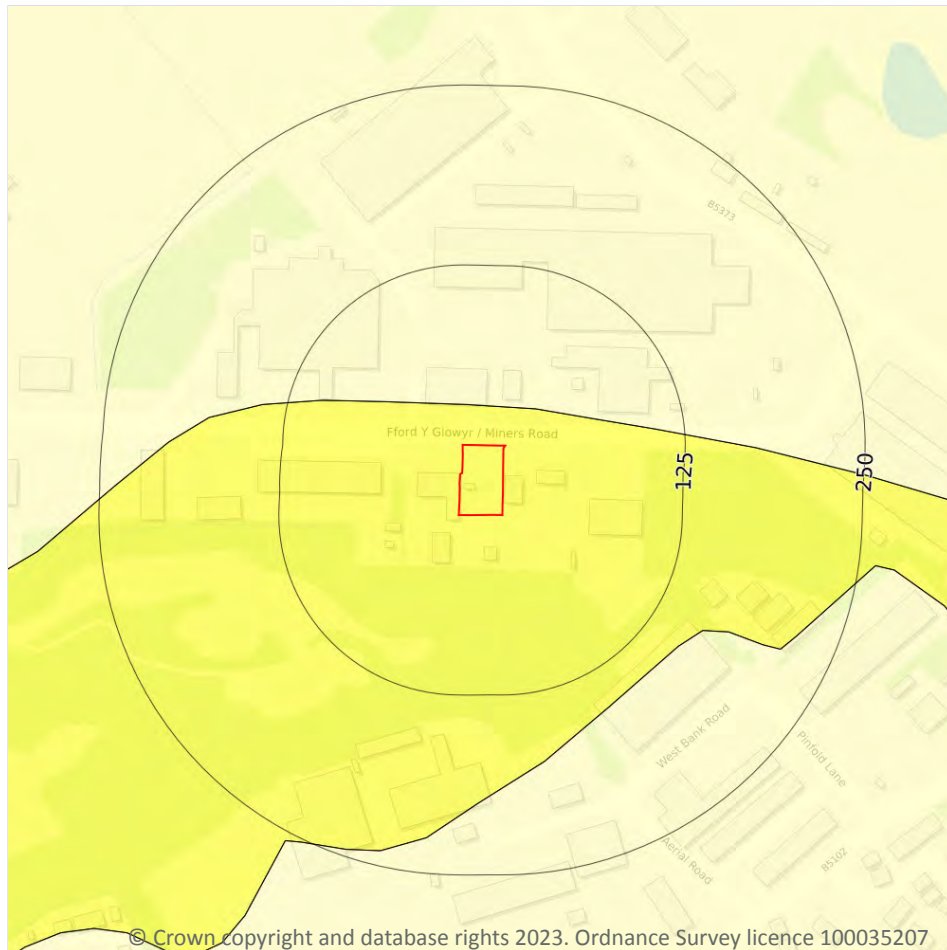
Features are displayed on the Natural ground subsidence - Running sands map on [page 96 >](#)

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



- Site Outline
- Search buffers in metres (m)
- ☐ No data
 - ☐ Negligible
 - ☒ Very low
 - ☐ Low
 - ☐ Moderate
 - ☐ High

17.3 Compressible deposits

Records within 50m

2

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 97 >](#)

Location	Hazard rating	Details
On site	Very low	Compressibility and uneven settlement problems are not likely to be significant on the site for most land uses.
27m N	Negligible	Compressible strata are not thought to occur.



This data is sourced from the British Geological Survey.



Natural ground subsidence - Collapsible deposits



- 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 99](#) >

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



- Site Outline
- Search buffers in metres (m)
- ☐ No data
 - ☐ Negligible
 - ☐ Very low
 - ☐ Low
 - ☐ Moderate
 - ☐ High

17.5 Landslides

Records within 50m

1

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 100](#) >

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.

This data is sourced from the British Geological Survey.



Natural ground subsidence - Ground dissolution of soluble rocks



- 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 101 >](#)

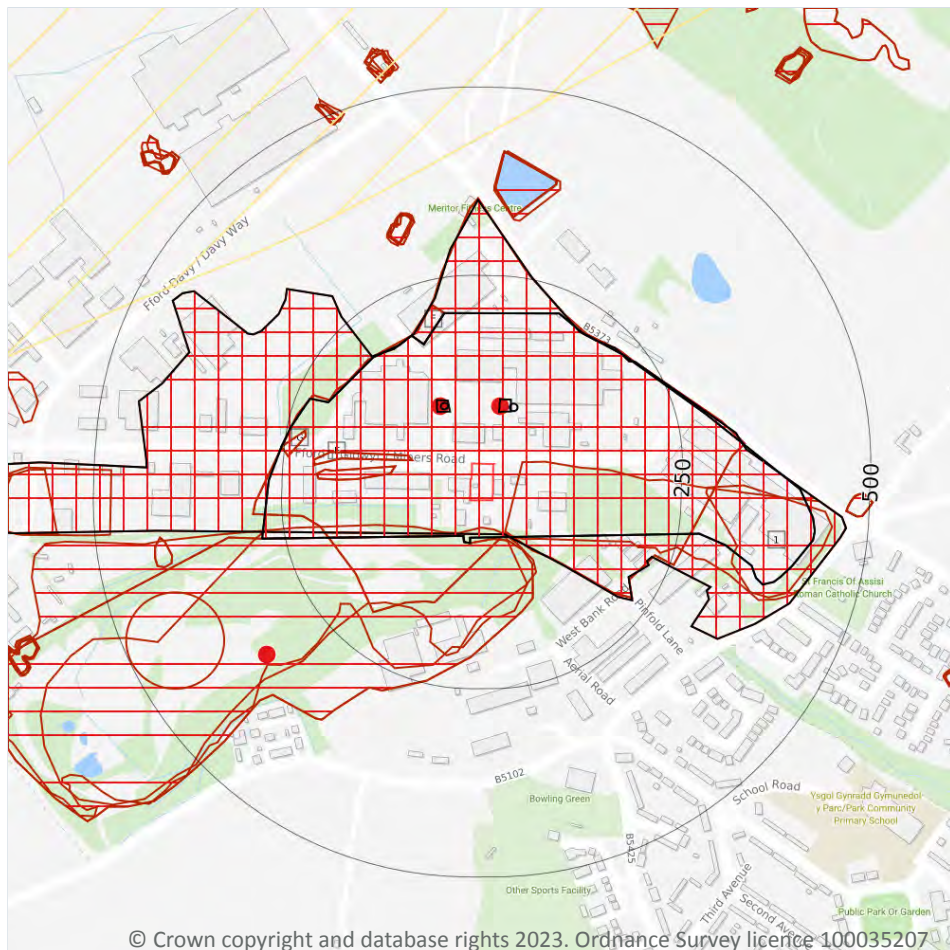
Location	Hazard rating	Details
On site	Negligible	Soluble rocks are either not thought to be present within the ground, or not prone to dissolution. Dissolution features are unlikely to be present.



This data is sourced from the British Geological Survey.



18 Mining and ground workings



- Site Outline
- Search buffers in metres (m)
- BritPits
- Surface ground workings
- Underground workings
- Underground mining extents
- Historical mineral planning areas
- TCA non-coal mining
- 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 BritPits

Records within 500m

3

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.

Features are displayed on the Mining and ground workings map on [page 103](#) >

ID	Location	Details	Description
A	77m N	Name: Llay Main Colliery, No. 1 Shaft Address: Llay, WREXHAM, Clwyd Commodity: Coal, Deep Status: Ceased	Type: Working is wholly underground, access by shaft, adit or drift. Working may be termed Colliery, Mine, Drift Mine, Slant, Level, Adit or Ingoing Eye (Ingaun Ee - Scots) Status description: Site which, at date of entry, has ceased to extract minerals. May be considered as Closed by operator. May be considered to have Active, Dormant or Expired planning permissions by Mineral Planning Authority
D	87m NW	Name: Llay Main Colliery, No. 2 Shaft Address: Llay, WREXHAM, Clwyd Commodity: Coal, Deep Status: Ceased	Type: Working is wholly underground, access by shaft, adit or drift. Working may be termed Colliery, Mine, Drift Mine, Slant, Level, Adit or Ingoing Eye (Ingaun Ee - Scots) Status description: Site which, at date of entry, has ceased to extract minerals. May be considered as Closed by operator. May be considered to have Active, Dormant or Expired planning permissions by Mineral Planning Authority
C	338m SW	Name: Llay Main Colliery Tip Address: Llay, WREXHAM, Clwyd Commodity: Colliery Spoil Status: Active	Type: Tip at a mine, quarry or other location from which mineral is being extracted. Working may be termed Slate Waste Tip, Shale Bing, Coal Tip or Coal Bing Status description: Site which is actively extracting mineral products, or in the case of wharfs and rail depots, is actively handing minerals

This data is sourced from the British Geological Survey.

18.2 Surface ground workings

Records within 250m	16
----------------------------	-----------

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.

Features are displayed on the Mining and ground workings map on [page 103](#) >

ID	Location	Land Use	Year of mapping	Mapping scale
A	On site	Colliery	1938	1:10560
A	On site	Colliery	1938	1:10560
B	On site	Colliery	1949	1:10560
1	26m SE	Refuse Heap	1949	1:10560
C	36m S	Unspecified Disused Tip	1979	1:10000



ID	Location	Land Use	Year of mapping	Mapping scale
C	45m S	Refuse Heap	1949	1:10560
C	48m S	Refuse Heap	1968	1:10560
C	48m S	Refuse Heap	1960	1:10560
E	79m W	Pond	1968	1:10560
E	79m W	Pond	1960	1:10560
E	102m W	Pond	1968	1:10560
E	102m W	Pond	1960	1:10560
F	171m NW	Ponds	1968	1:10560
F	171m NW	Ponds	1960	1:10560
G	224m W	Pond	1968	1:10560
G	224m W	Pond	1960	1:10560

This is data is sourced from Ordnance Survey/Groundsure.

18.3 Underground workings

Records within 1000m

7

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

Features are displayed on the Mining and ground workings map on [page 103 >](#)

ID	Location	Land Use	Year of mapping	Mapping scale
A	On site	Unspecified Mine	1968	1:10560
A	On site	Unspecified Mine	1960	1:10560
B	On site	Colliery	1949	1:10560
A	70m N	Unspecified Disused Shafts	1979	1:10000
A	75m NE	Unspecified Disused Shafts	1992	1:10000
D	75m NW	Unspecified Disused Shafts	1979	1:10000
D	80m NW	Unspecified Disused Shafts	1992	1:10000

This is data is sourced from Ordnance Survey/Groundsure.



18.4 Underground mining extents

Records within 500m

0

This data identifies underground mine workings that could present a potential risk, including adits and seam workings. These features have been identified from BGS Geological mapping and mine plans sourced from the BGS and various collections and sources.

This data is sourced from 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 and ground workings map on [page 103 >](#)

ID	Location	Name	Commodity	Class	Likelihood
4	376m NW	Not available	Vein Mineral	A	Underground mine workings are uncommon, although the geology is similar to that worked elsewhere. Potential for difficult ground conditions are unlikely and are at a level where they need not be considered.
-	892m NW	Not available	Iron Ore (Bedded)	B	Underground mine workings may have occurred in the past or current mines may be working at significant depth to modern engineering standards. Potential for difficult ground conditions are unlikely and are at a level where they need not be considered.

This data is sourced from the British Geological Survey.



18.7 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.

18.8 The Coal Authority non-coal mining

Records within 500m

0

This data provides an indication of the potential zone of influence of recorded underground non-coal mining workings. Any and all analysis and interpretation of Coal Authority Data in this report is made by Groundsure, and is in no way supported, endorsed or authorised by the Coal Authority. The use of the data is restricted to the terms and provisions contained in this report. Data reproduced in this report may be the copyright of the Coal Authority and permission should be sought from Groundsure prior to any re-use.

This data is sourced from The Coal Authority.

18.9 Researched mining

Records within 500m

0

This data indicates areas of potential mining identified from alternative or archival sources, including; BGS Geological paper maps, Lidar data, aerial photographs (from World War II onwards), archaeological data services, websites, Tithe maps, and various text/plans from collected books and reports. Some of this data is approximate and Groundsure have interpreted the resultant risk area and, where possible, specific areas of risk have been captured.

This data is sourced from Groundsure.

18.10 Mining record office plans

Records within 500m

0

This dataset is representative of Mining Record Office and/or plan extents held by Groundsure and should be considered approximate. Where possible, plans have been located and any specific areas of risk they depict have been captured.

This data is sourced from Groundsure.



18.11 BGS mine plans

Records within 500m

0

This dataset is representative of BGS mine plans held by Groundsure and should be considered approximate. Where possible, plans have been located and any specific areas of risk they depict have been captured.

This data is sourced from Groundsure.

18.12 Coal mining

Records on site

1

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

Location	Details
On site	The site is located within a coal mining area as defined by the Coal Authority. A Consultants Coal Mining Report is recommended to further assess coal mining issues at the site. This can be ordered directly through Groundsure or your preferred search provider.

This data is sourced from the Coal Authority.

18.13 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.

18.14 Gypsum areas

Records on site

0

Generalised areas that may be affected by gypsum extraction.

This data is sourced from British Gypsum.

18.15 Tin mining

Records on site

0

Generalised areas that may be affected by historical tin mining.

This data is sourced from Groundsure.



18.16 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 Ground cavities and sinkholes

19.1 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.

19.2 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.

19.3 Reported recent incidents

Records within 500m

0

This data identifies sinkhole information gathered from media reports and Groundsure's own records. This data goes back to 2014 and includes relative accuracy ratings for each event and links to the original data sources. The data is updated on a regular basis and should not be considered a comprehensive catalogue of all sinkhole events. The absence of data in this database does not mean a sinkhole definitely has not occurred during this time.

This data is sourced from Groundsure.

19.4 Historical incidents

Records within 500m

0

This dataset comprises an extract of 1:10,560, 1:10,000, 1:2,500 and 1:1,250 scale historical Ordnance Survey maps held by Groundsure, dating back to the 1840s. It shows shakeholes, deneholes and other 'holes' as noted on these maps. Dene holes are medieval chalk extraction pits, usually comprising a narrow shaft with a number of chambers at the base of the shaft. Shakeholes are an alternative name for suffusion sinkholes, most commonly found in the limestone landscapes of North Yorkshire but also extensively noted around the Brecon Beacons National Park.

Not all 'holes' noted on Ordnance Survey mapping will necessarily be present within this dataset.



This data is sourced from Groundsure.

19.5 National karst database

Records within 500m

0

This is a comprehensive database of national karst information gathered from a wide range of sources. BGS have collected data on five main types of karst feature: Sinkholes, stream links, caves, springs, and incidences of associated damage to buildings, roads, bridges and other engineered works.

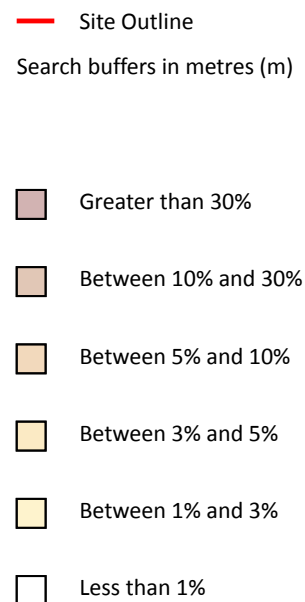
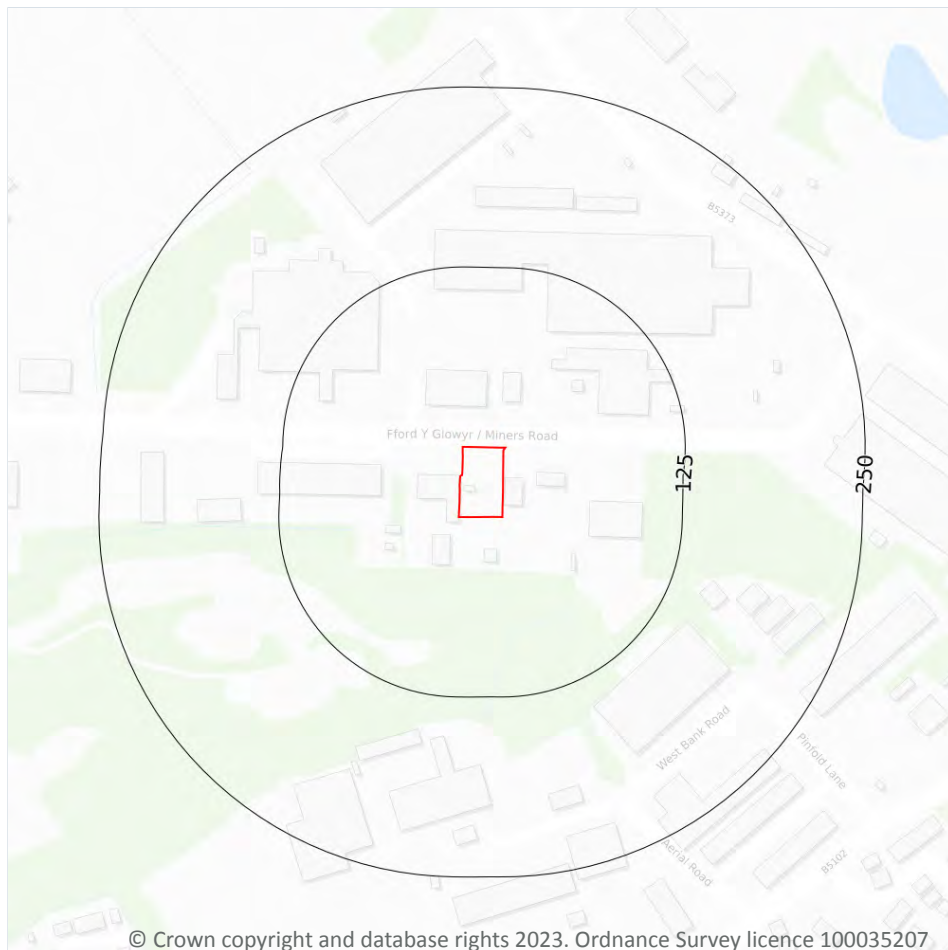
Since the database was set up in 2002 data covering most of the evaporite karst areas of the UK have now been added, along with data covering about 60% of the Chalk, and 35% of the Carboniferous Limestone outcrops. Many of the classic upland karst areas have yet to be included. Recorded so far are: Over 800 caves, 1300 stream sinks, 5600 springs, 10,000 sinkholes.

The database is not yet complete, and not all records have been verified. The absence of data does not mean that karst features are not present at a site. A reliability rating is included with each record.

This data is sourced from the British Geological Survey.



20 Radon



20.1 Radon

Records on site

1

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 112](#) >

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



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



21 Soil chemistry

21.1 BGS Estimated Background Soil Chemistry

Records within 50m

1

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 km². 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 km²; 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 - 200 mg/kg	60 - 120 mg/kg	1.8 mg/kg	60 - 90 mg/kg	15 mg/kg

This data is sourced from the British Geological Survey.

21.2 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 km²).

This data is sourced from the British Geological Survey.

21.3 BGS Measured Urban Soil Chemistry

Records within 50m

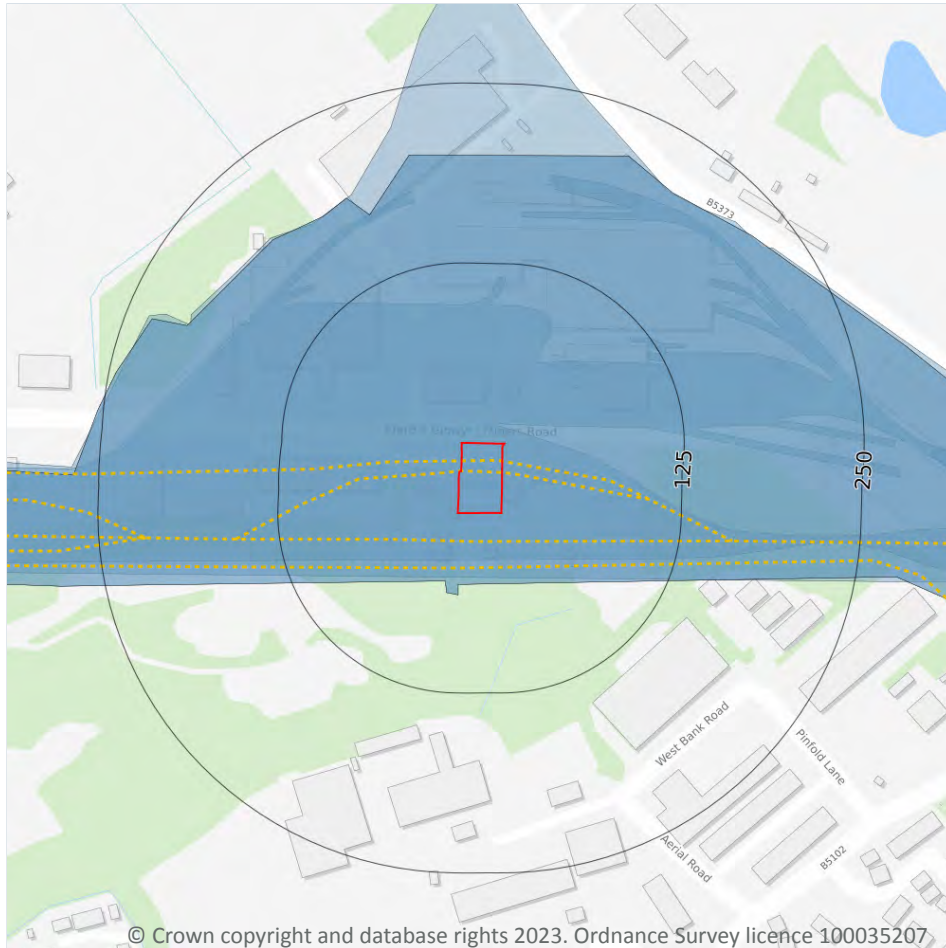
0

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 km².

This data is sourced from the British Geological Survey.



22 Railway infrastructure and projects



- Site Outline
- Search buffers in metres (m)
- C1 Crossrail 1 Stations
- Crossrail 1 Route
- C2 Crossrail 2 Stations
- Crossrail 2 Route
- Crossrail 2 Worksites
- Crossrail 2 Safeguarding
- Crossrail 2 Headhouses
- Railway stations
- Active railways
- Active tunnels
- Abandoned railways
- Historic railways
- Historic tunnels
- Underground stations
- Underground Lines
- Royal Mail tunnels
- HS2 optimised route
- HS2 Stations
- HS2 Depots
- HS2 Surface Safeguarding
- HS2 Subsurface Safeguarding

22.1 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.

22.2 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.

22.3 Railway tunnels

Records within 250m

0

Railway tunnels taken from contemporary Ordnance Survey mapping.

This data is sourced from the Ordnance Survey.

22.4 Historical railway and tunnel features

Records within 250m

4

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.

Features are displayed on the Railway infrastructure and projects map on [page 115 >](#)

Location	Land Use	Year of mapping	Mapping scale
On site	Mineral Railway Sidings	1961	2500
On site	Railway Sidings	1949	10560
On site	Railway Sidings	1968	10560
On site	Railway Sidings	1960	10560

This data is sourced from Ordnance Survey/Groundsure.

22.5 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.



22.6 Historical railways

Records within 250m**6**

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

Features are displayed on the Railway infrastructure and projects map on [page 115 >](#)

Location	Description
On site	Razed
On site	Razed
20m S	Razed
38m S	Razed
217m W	Razed
217m W	Razed

This data is sourced from OpenStreetMap.

22.7 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.

22.8 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.

22.9 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.



22.10 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> ↗.

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Site Details:

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LL12 0PJ

Client Ref: DMH_Tyres_Ltd_
Report Ref: GS-SN8-PUW-KYG-VS2
Grid Ref: 332765, 356378

Map Name: County Series

Map date: 1872-1875

Scale: 1:2,500

Printed at: 1:2,500



Surveyed 1872
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Edition N/A
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Surveyed 1875
Revised 1875
Edition N/A
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Levelled N/A

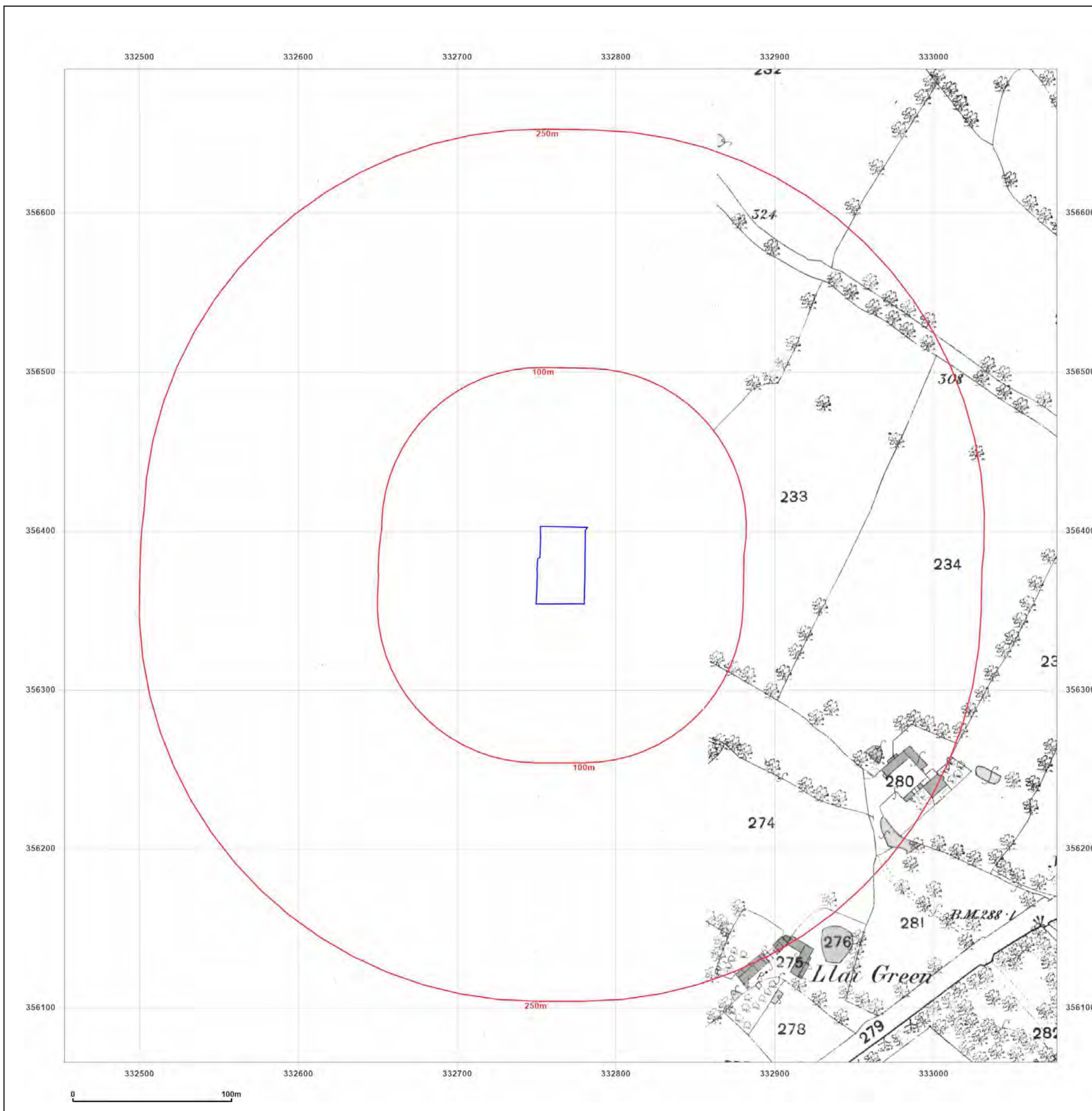


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LL12 0PJ

Client Ref: DMH_Tyres_Ltd_
Report Ref: GS-SN8-PUW-KYG-VS2
Grid Ref: 332765, 356378

Map Name: County Series

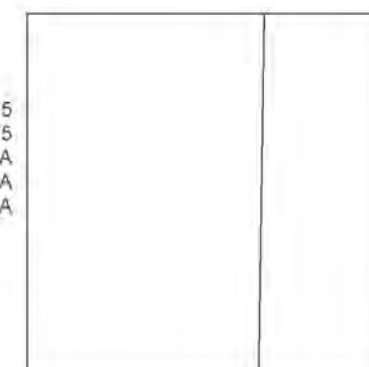
Map date: 1875

Scale: 1:2,500

Printed at: 1:2,500



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Revised 1875
Edition N/A
Copyright N/A
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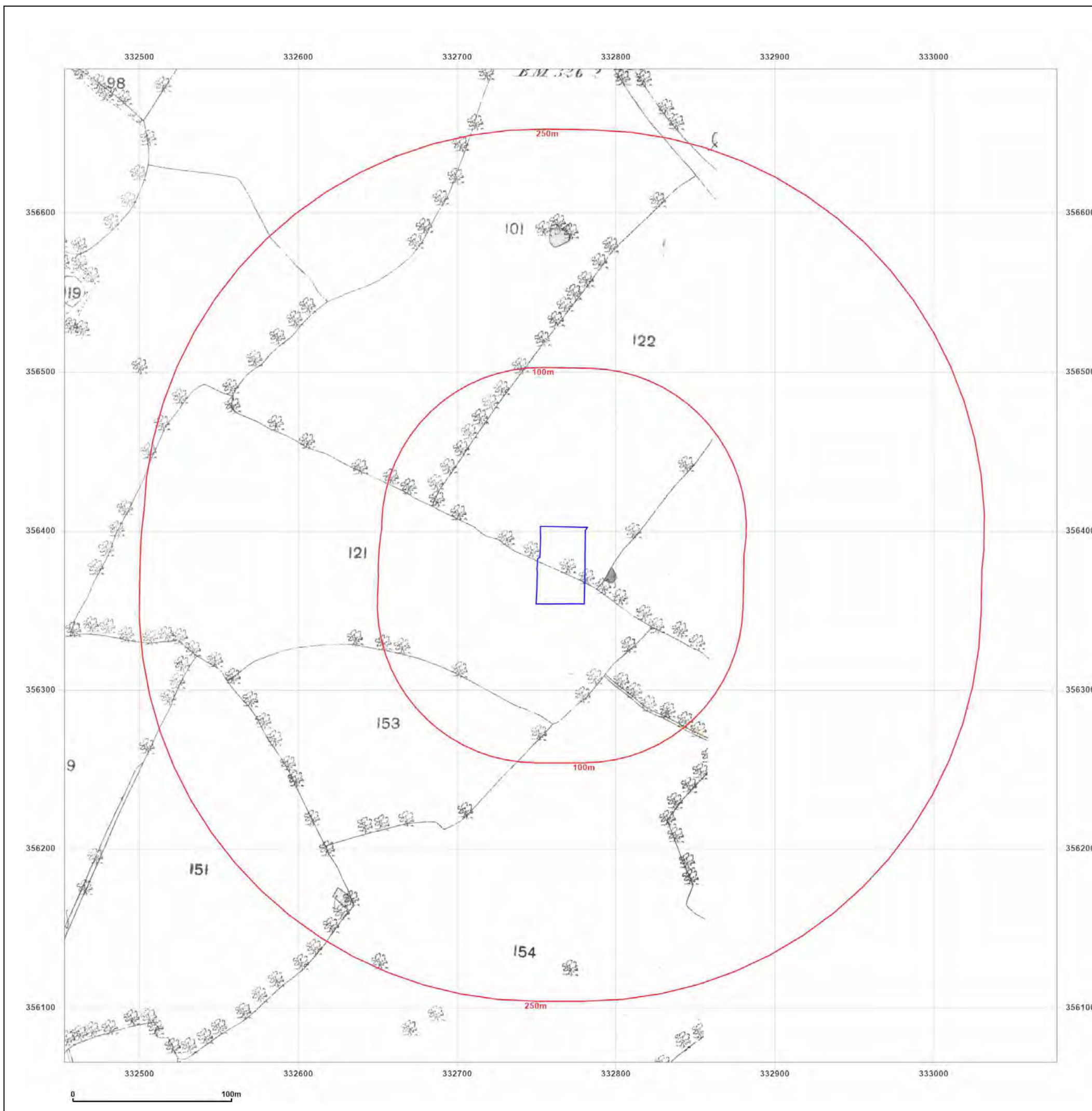


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LL12 0PJ

Client Ref: DMH_Tyres_Ltd_
Report Ref: GS-SN8-PUW-KYG-VS2
Grid Ref: 332765, 356378

Map Name: County Series

Map date: 1899

Scale: 1:2,500

Printed at: 1:2,500



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Edition N/A
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Revised 1899
Edition N/A
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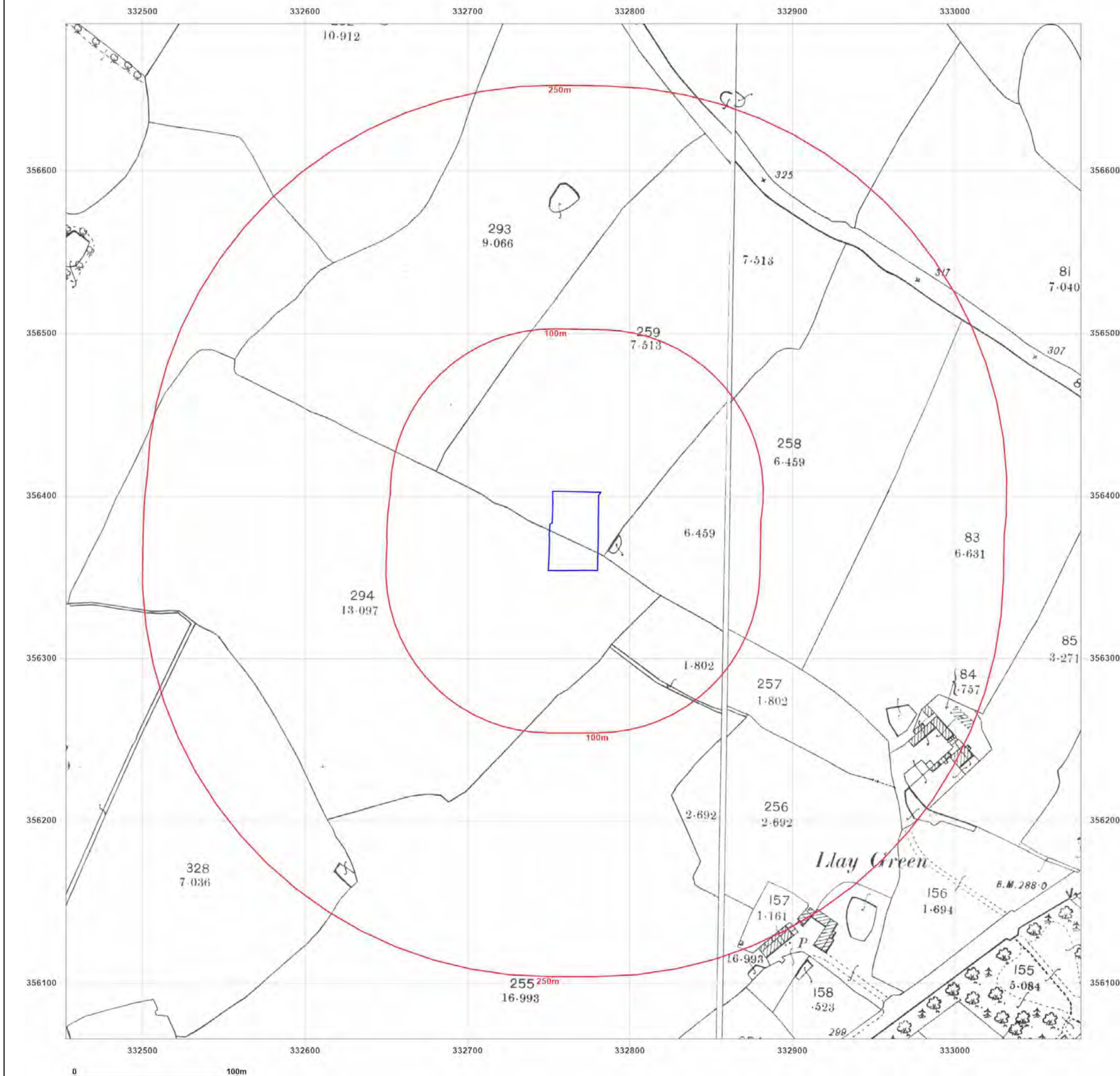


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LL12 0PJ

Client Ref: DMH_Tyres_Ltd_
Report Ref: GS-SN8-PUW-KYG-VS2
Grid Ref: 332765, 356378

Map Name: County Series

Map date: 1912

Scale: 1:2,500

Printed at: 1:2,500



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Edition N/A
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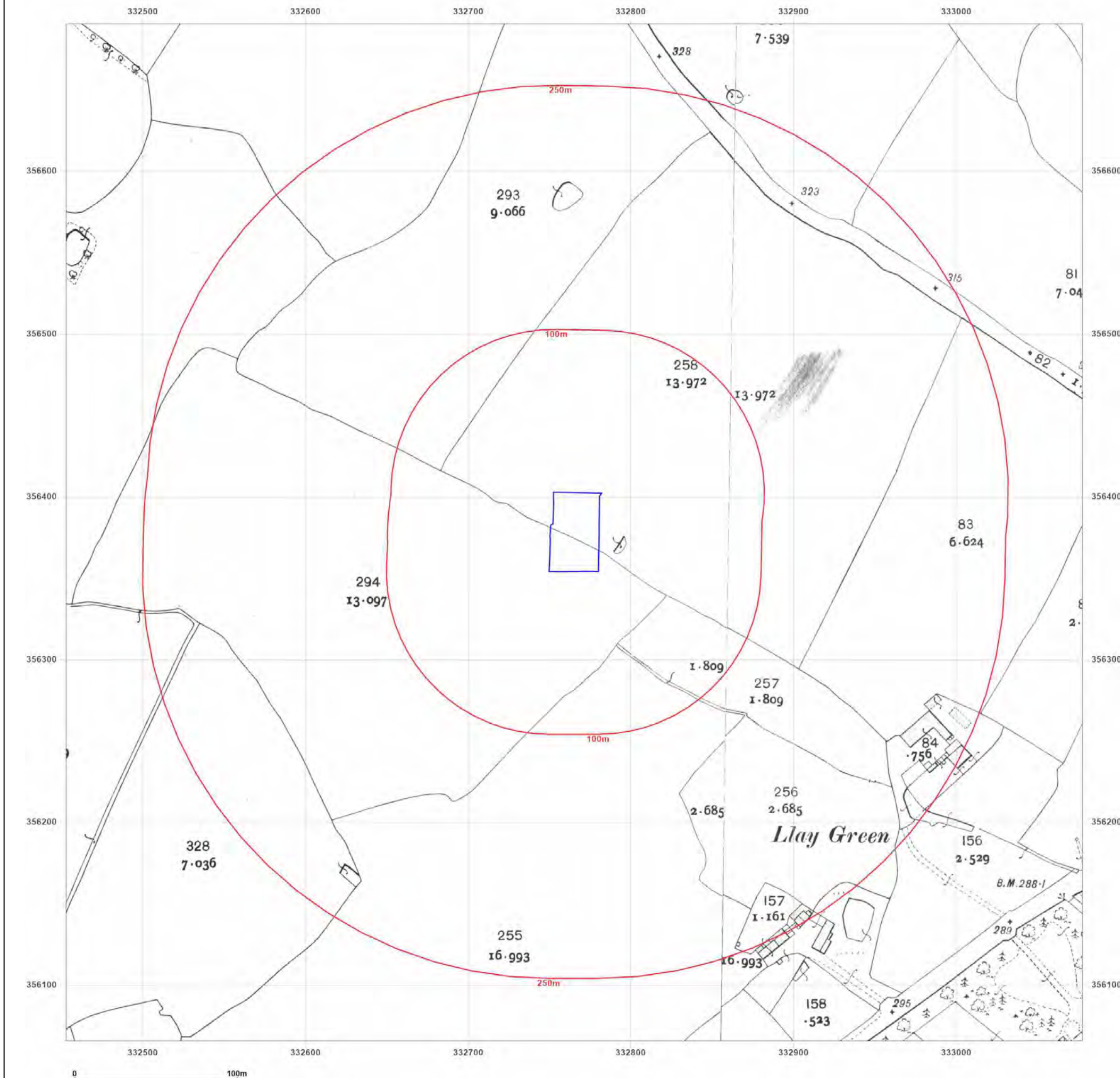


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LL12 0PJ

Client Ref: DMH_Tyres_Ltd_
Report Ref: GS-SN8-PUW-KYG-VS2
Grid Ref: 332765, 356378

Map Name: National Grid

Map date: 1961

Scale: 1:2,500

Printed at: 1:2,500



Surveyed 1961
Revised 1961
Edition N/A
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Levelled 1959

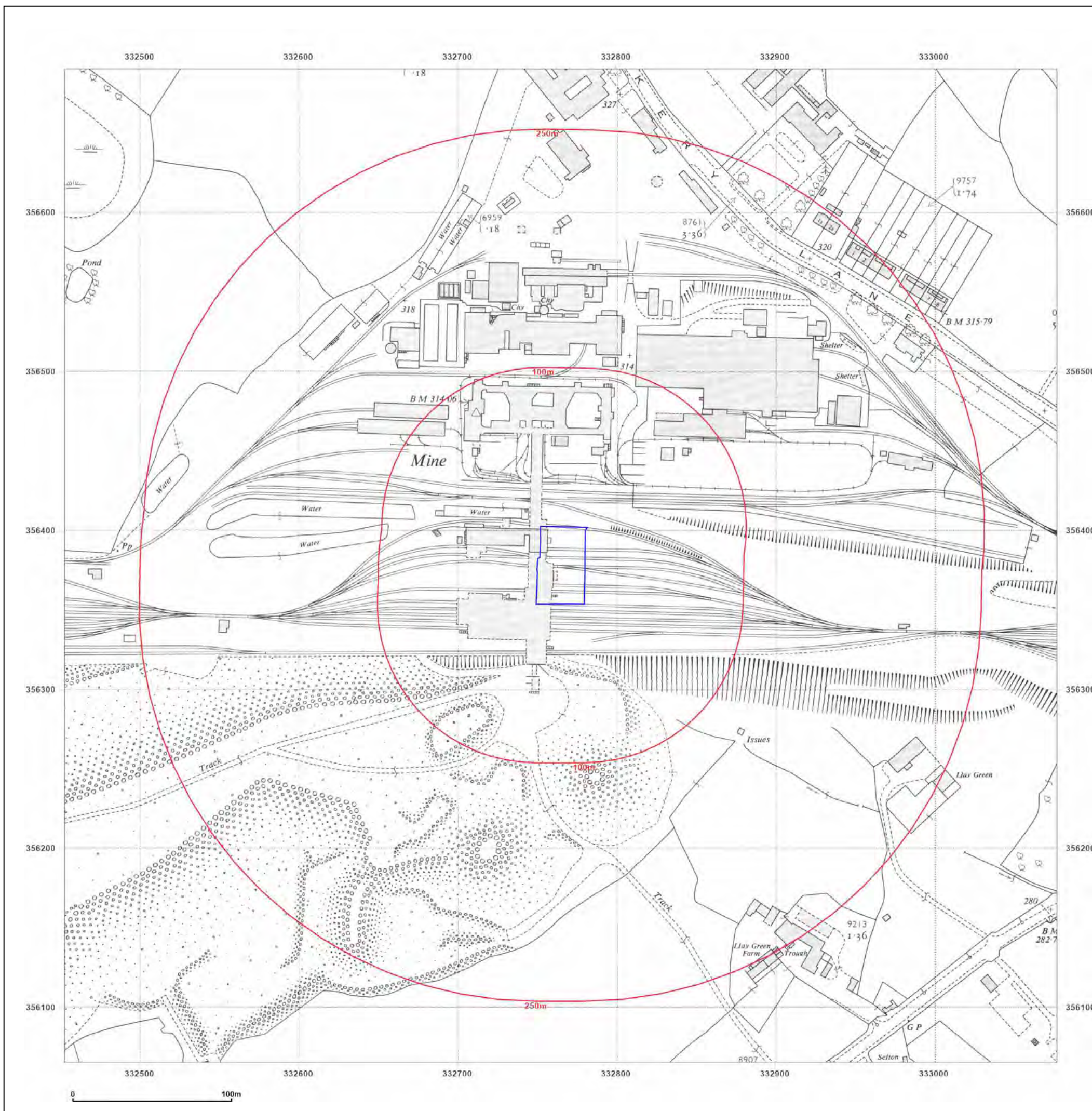


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Client Ref: DMH_Tyres_Ltd_
Report Ref: GS-SN8-PUW-KYG-VS2
Grid Ref: 332765, 356378

Map Name: National Grid

Map date: 1962

Scale: 1:2,500

Printed at: 1:2,500



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Revised N/A
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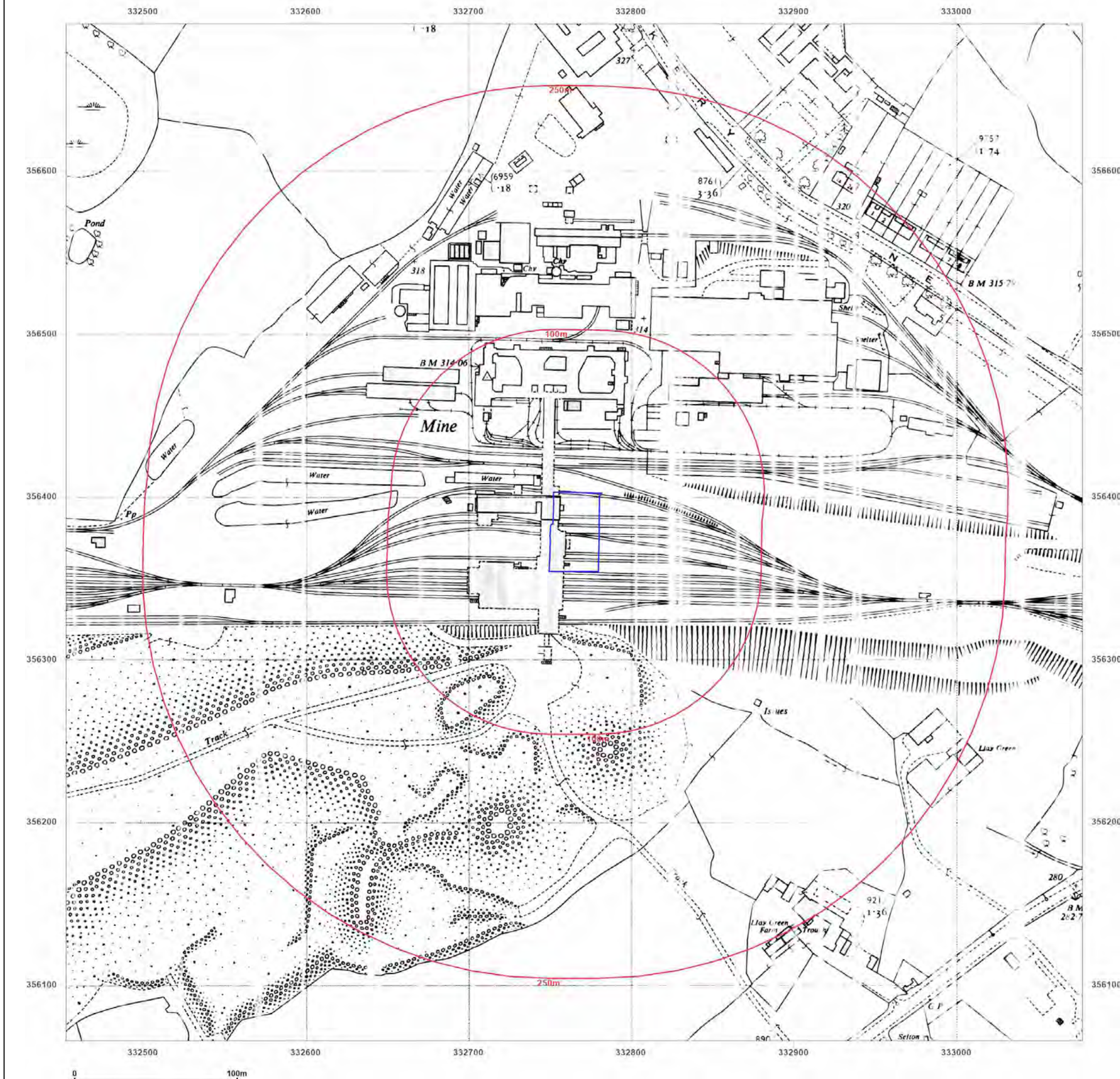


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Client Ref: DMH_Tyres_Ltd_
Report Ref: GS-SN8-PUW-KYG-VS2
Grid Ref: 332765, 356378

Map Name: National Grid

Map date: 1974

Scale: 1:2,500

Printed at: 1:2,500



Surveyed 1974
Revised 1974
Edition N/A
Copyright 1975
Levelled 1959

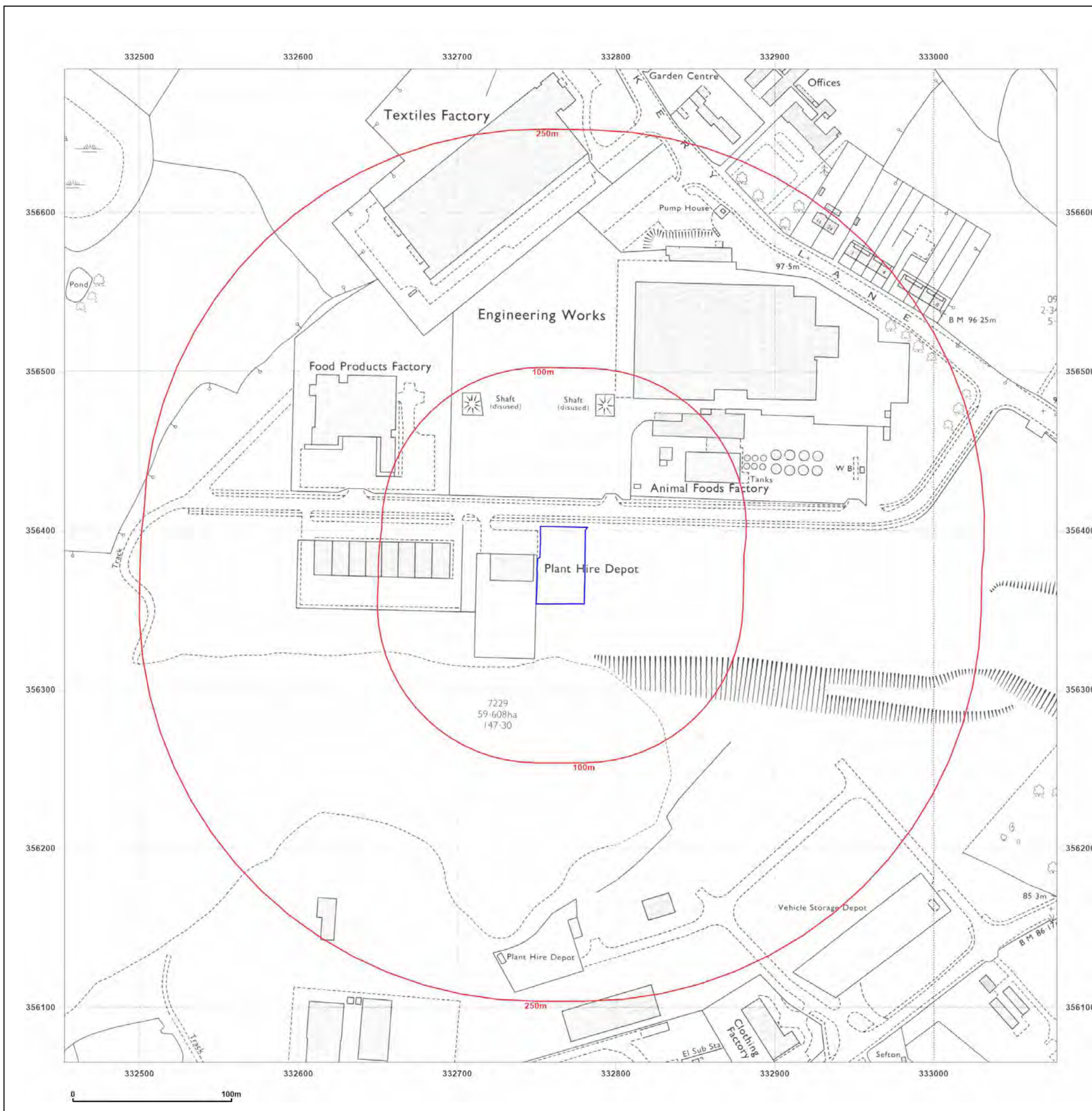


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Client Ref: DMH_Tyres_Ltd_
Report Ref: GS-SN8-PUW-KYG-VS2
Grid Ref: 332765, 356378

Map Name: National Grid

Map date: 1973-1975

Scale: 1:2,500

Printed at: 1:2,500



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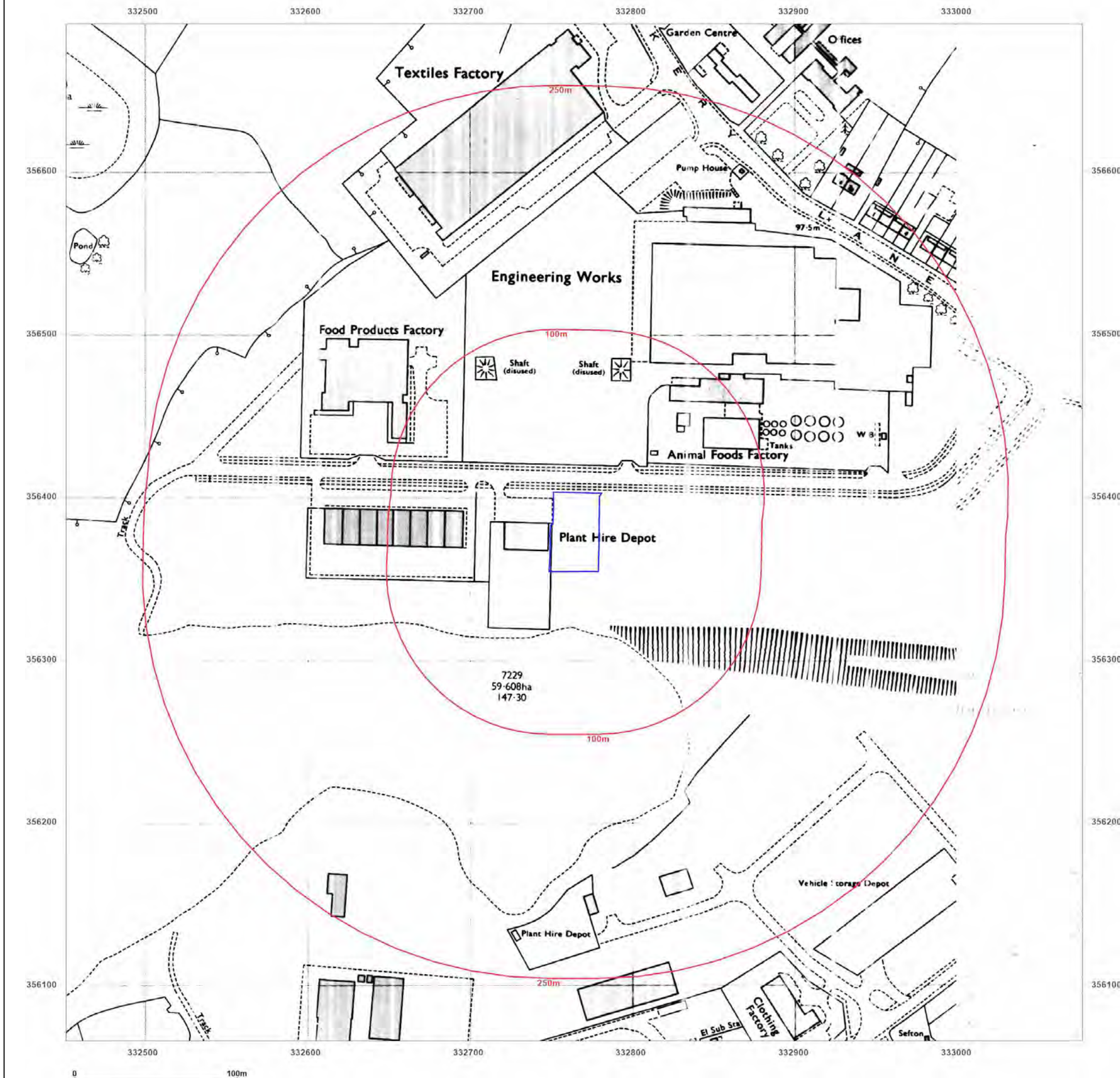


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Report Ref: GS-SN8-PUW-KYG-VS2
Grid Ref: 332765, 356378

Map Name: National Grid

Map date: 1975-1980

Scale: 1:2,500

Printed at: 1:2,500



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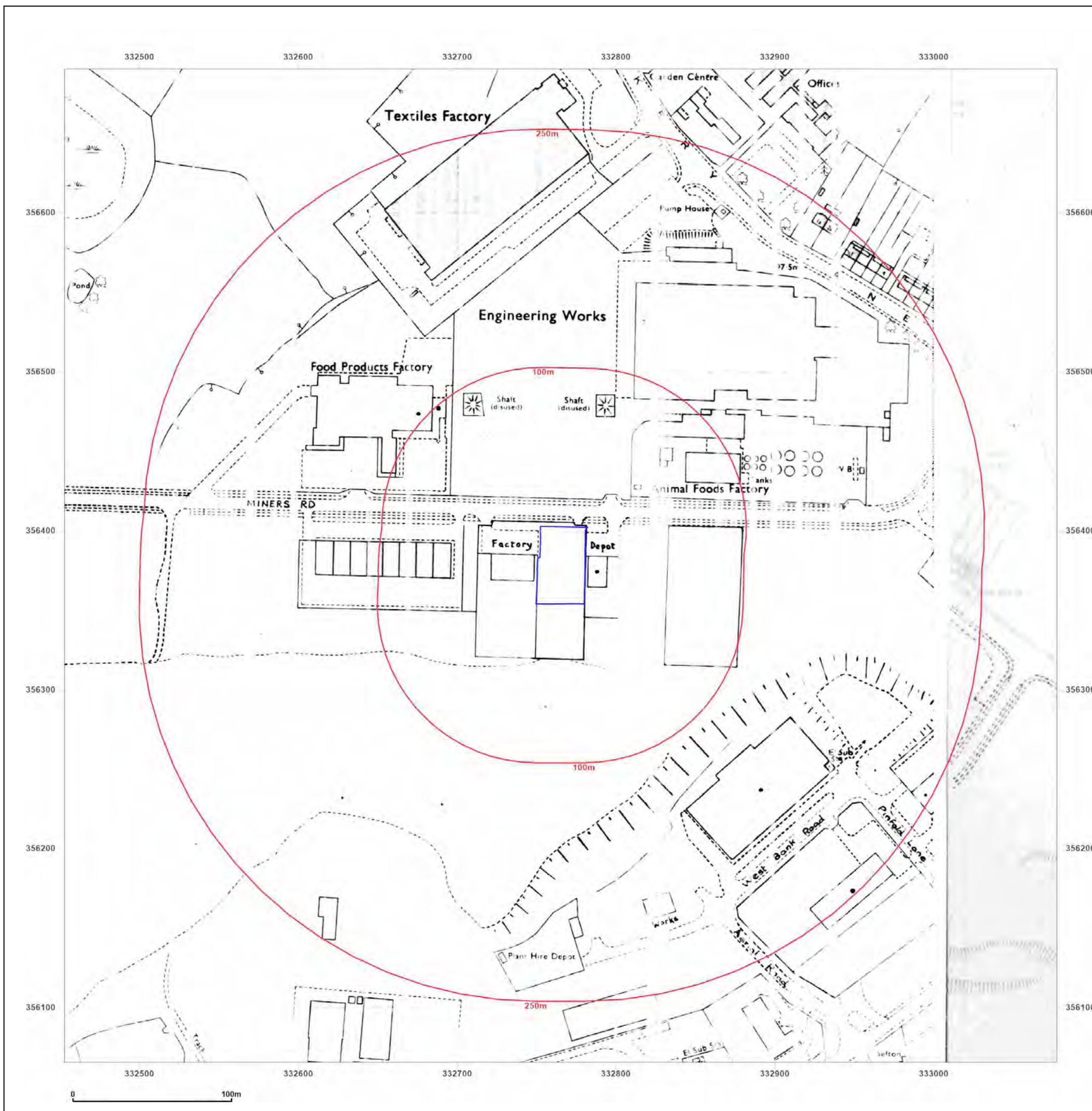


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Client Ref: DMH_Tyres_Ltd_
Report Ref: GS-SN8-PUW-KYG-VS2
Grid Ref: 332765, 356378

Map Name: National Grid

Map date: 1980-1984

Scale: 1:2,500

Printed at: 1:2,500



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Edition N/A
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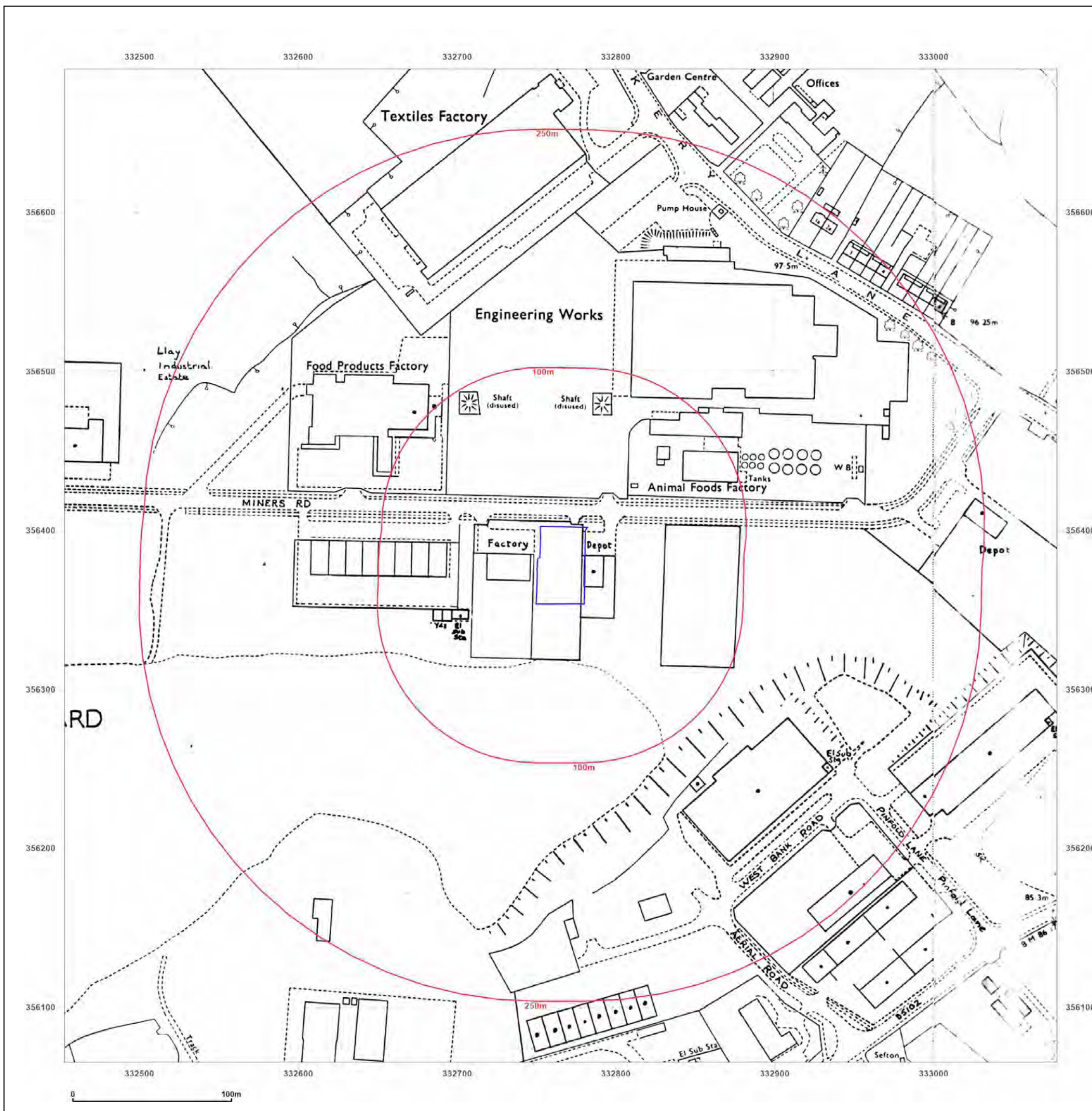


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Client Ref: DMH_Tyres_Ltd_
Report Ref: GS-SN8-PUW-KYG-VS2
Grid Ref: 332765, 356378

Map Name: National Grid

Map date: 1984-1986

Scale: 1:2,500

Printed at: 1:2,500



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Surveyed 1959
Revised 1984
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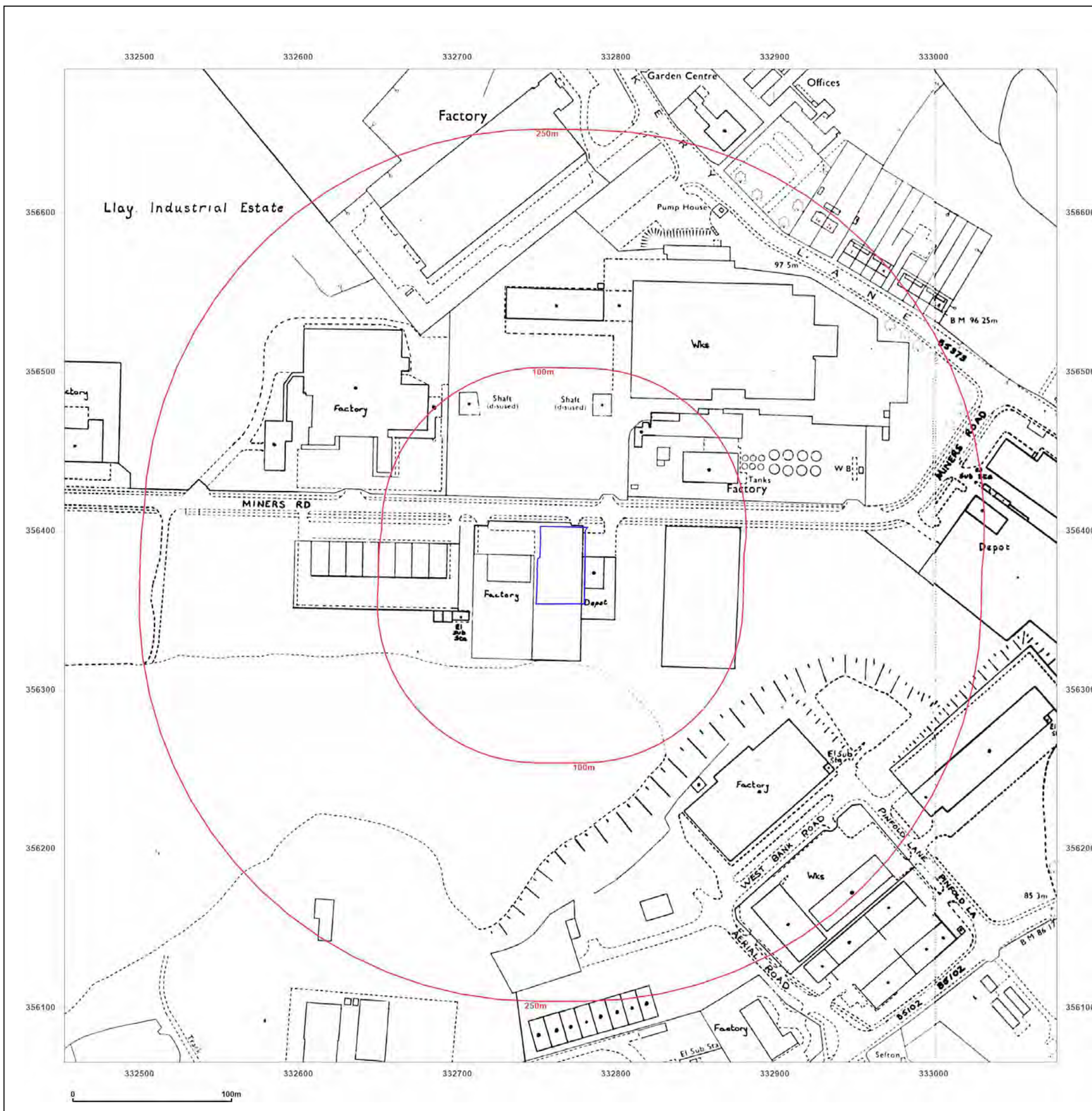


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Client Ref: DMH_Tyres_Ltd_
Report Ref: GS-SN8-PUW-KYG-VS2
Grid Ref: 332765, 356378

Map Name: National Grid

Map date: 1990

Scale: 1:2,500

Printed at: 1:2,500



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Revised N/A
Edition N/A
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Levelled 1959

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Revised N/A
Edition N/A
Copyright 1990
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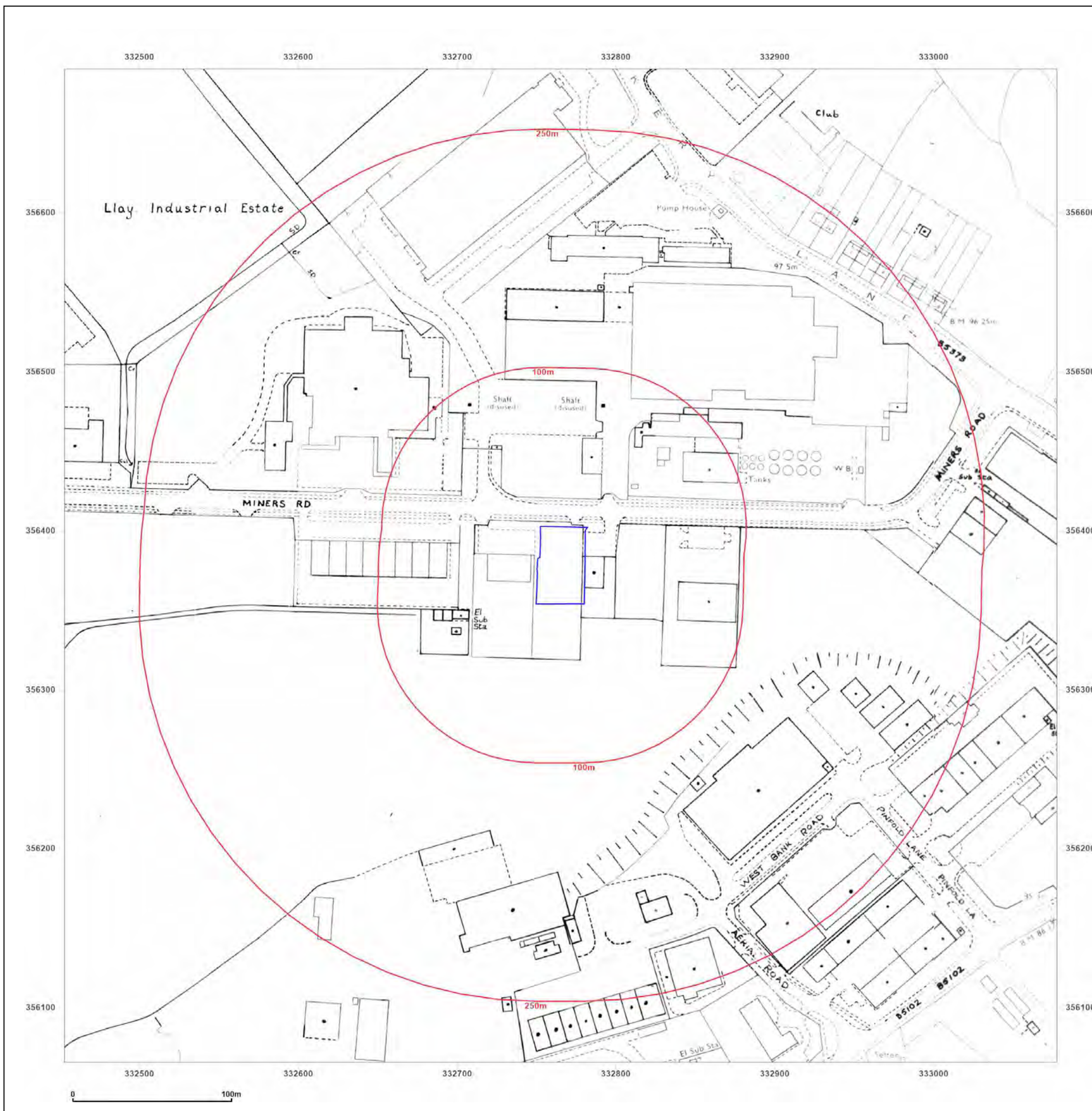


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Client Ref: DMH_Tyres_Ltd_
Report Ref: GS-SN8-PUW-KYG-VS2
Grid Ref: 332765, 356378

Map Name: National Grid

Map date: 1990-1991

Scale: 1:2,500

Printed at: 1:2,500



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Surveyed N/A
Revised N/A
Edition N/A
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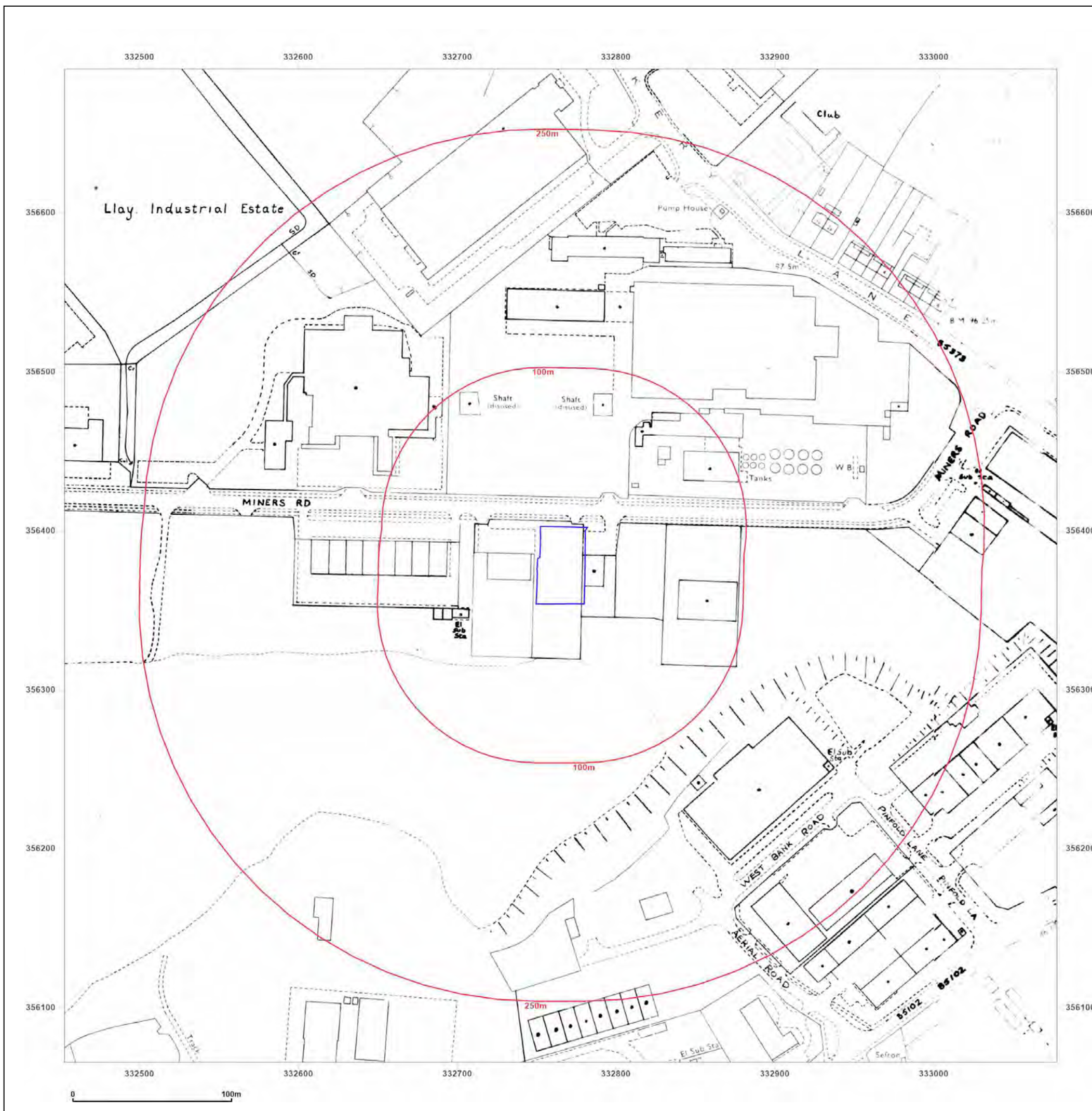


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LL12 0PJ

Client Ref: DMH_Tyres_Ltd_
Report Ref: GS-SN8-PUW-KYG-VS2
Grid Ref: 332765, 356378

Map Name: National Grid

Map date: 1991-1993

Scale: 1:2,500

Printed at: 1:2,500



Surveyed N/A
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Edition N/A
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Revised N/A
Edition N/A
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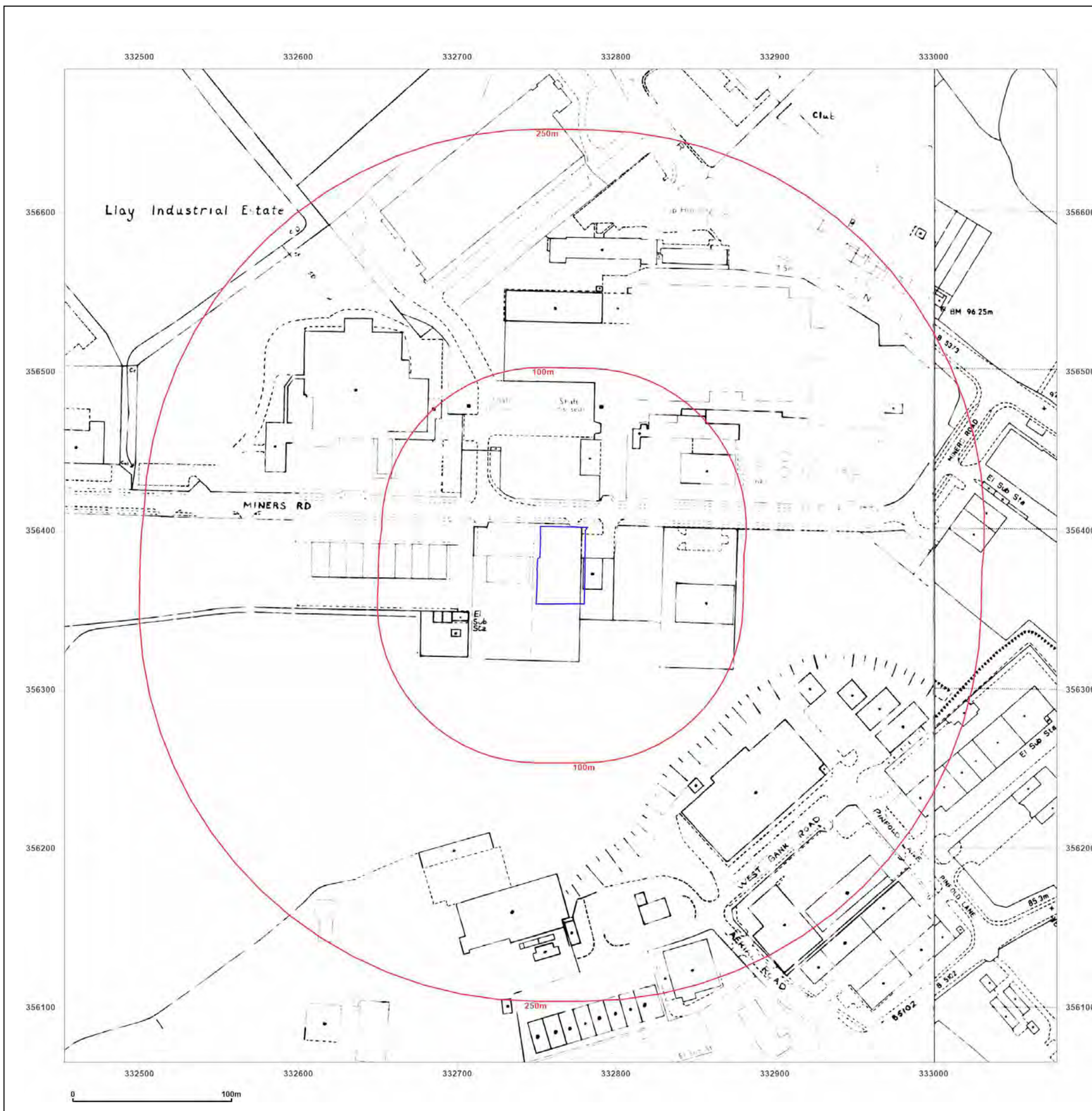


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Client Ref: DMH_Tyres_Ltd_
Report Ref: GS-SN8-PUW-KYG-VS2
Grid Ref: 332765, 356378

Map Name: National Grid

Map date: 1993

Scale: 1:2,500

Printed at: 1:2,500



Surveyed N/A
Revised N/A
Edition N/A
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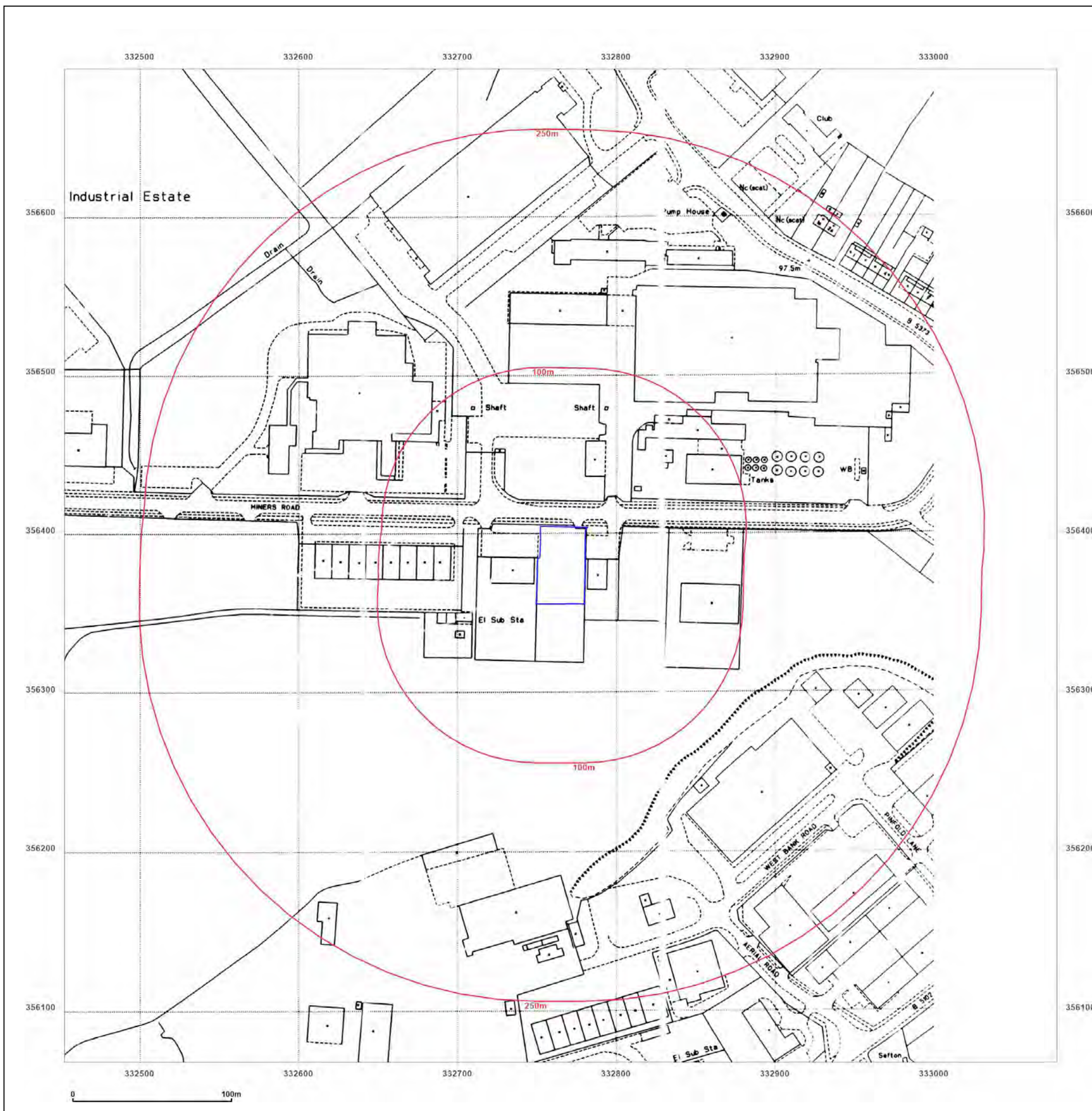


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Client Ref: DMH_Tyres_Ltd_
Report Ref: GS-SN8-PUW-KYG-VS2
Grid Ref: 332765, 356378

Map Name: LandLine

Map date: 2003

Scale: 1:1,250

Printed at: 1:1,250



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LL12 0PJ

Client Ref: DMH_Tyres_Ltd_
Report Ref: GS-SN8-PUW-KYG-VS2
Grid Ref: 332765, 356378

Map Name: County Series

Map date: 1900

Scale: 1:10,560

Printed at: 1:10,560



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Revised N/A
Edition N/A
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Surveyed N/A
Revised N/A
Edition N/A
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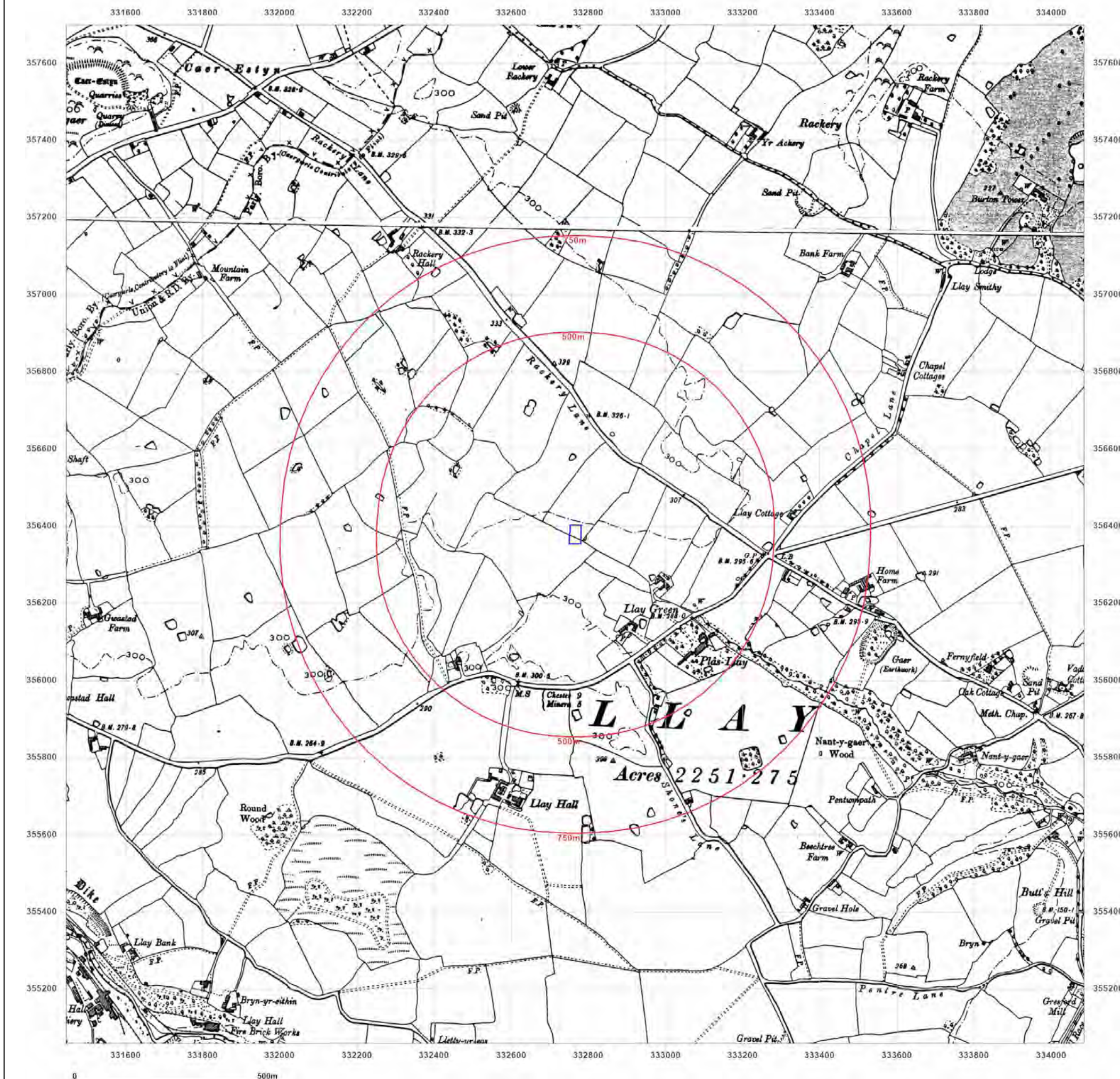


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Site Details:

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INDUSTRIAL ESTATE, LLAY,
LL12 0PJ

Client Ref: DMH_Tyres_Ltd_
Report Ref: GS-SN8-PUW-KYG-VS2
Grid Ref: 332765, 356378

Map Name: County Series

Map date: 1900

Scale: 1:10,560

Printed at: 1:10,560



Surveyed 1872
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Edition N/A
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Surveyed 1871
Revised 1900
Edition N/A
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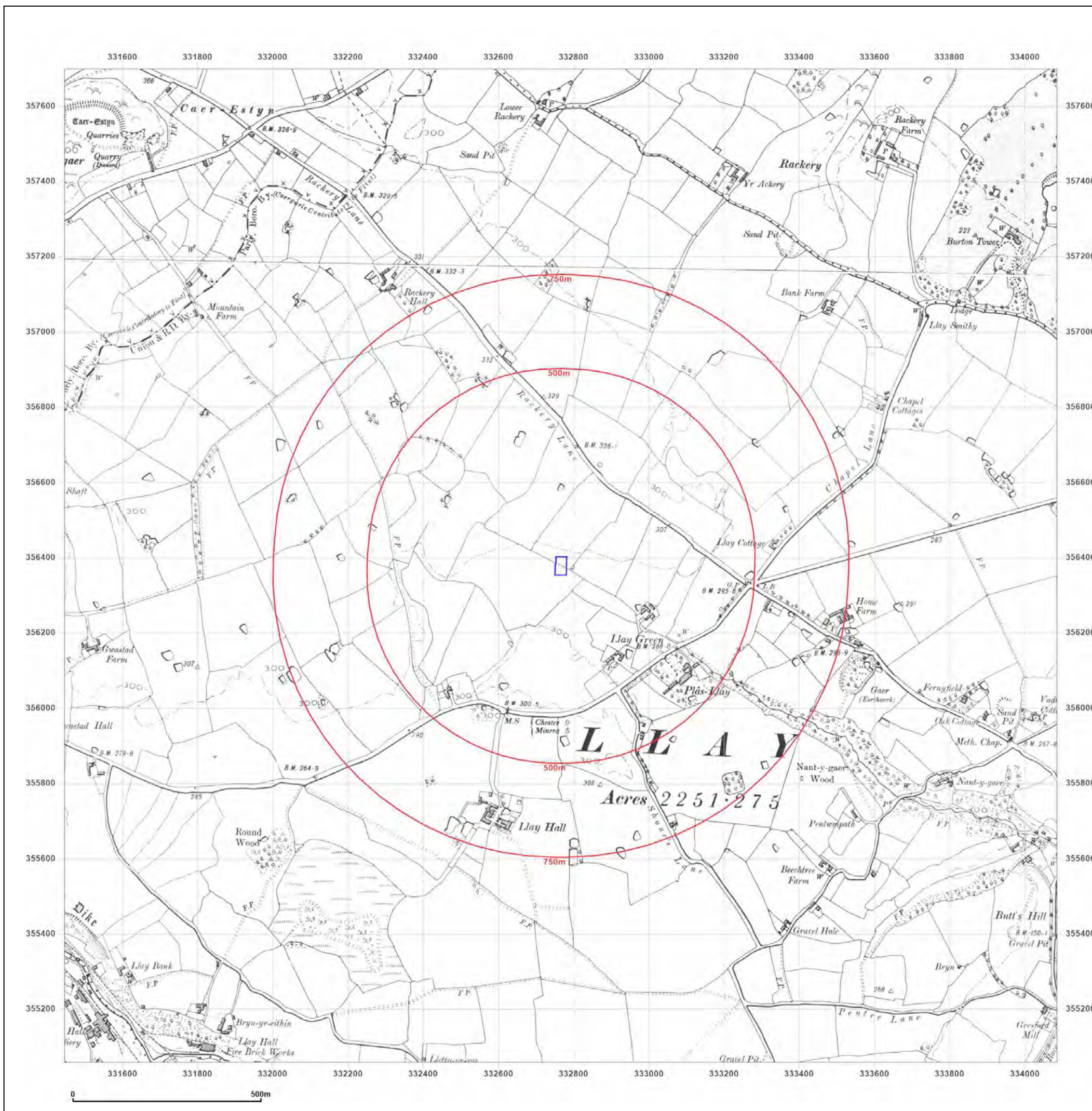


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INDUSTRIAL ESTATE, LLAY,
LL12 0PJ

Client Ref: DMH_Tyres_Ltd_
Report Ref: GS-SN8-PUW-KYG-VS2
Grid Ref: 332765, 356378

Map Name: County Series

Map date: 1909

Scale: 1:10,560

Printed at: 1:10,560



Surveyed 1871
Revised 1909
Edition N/A
Copyright N/A
Levelled N/A

Surveyed 1871
Revised 1909
Edition N/A
Copyright N/A
Levelled N/A

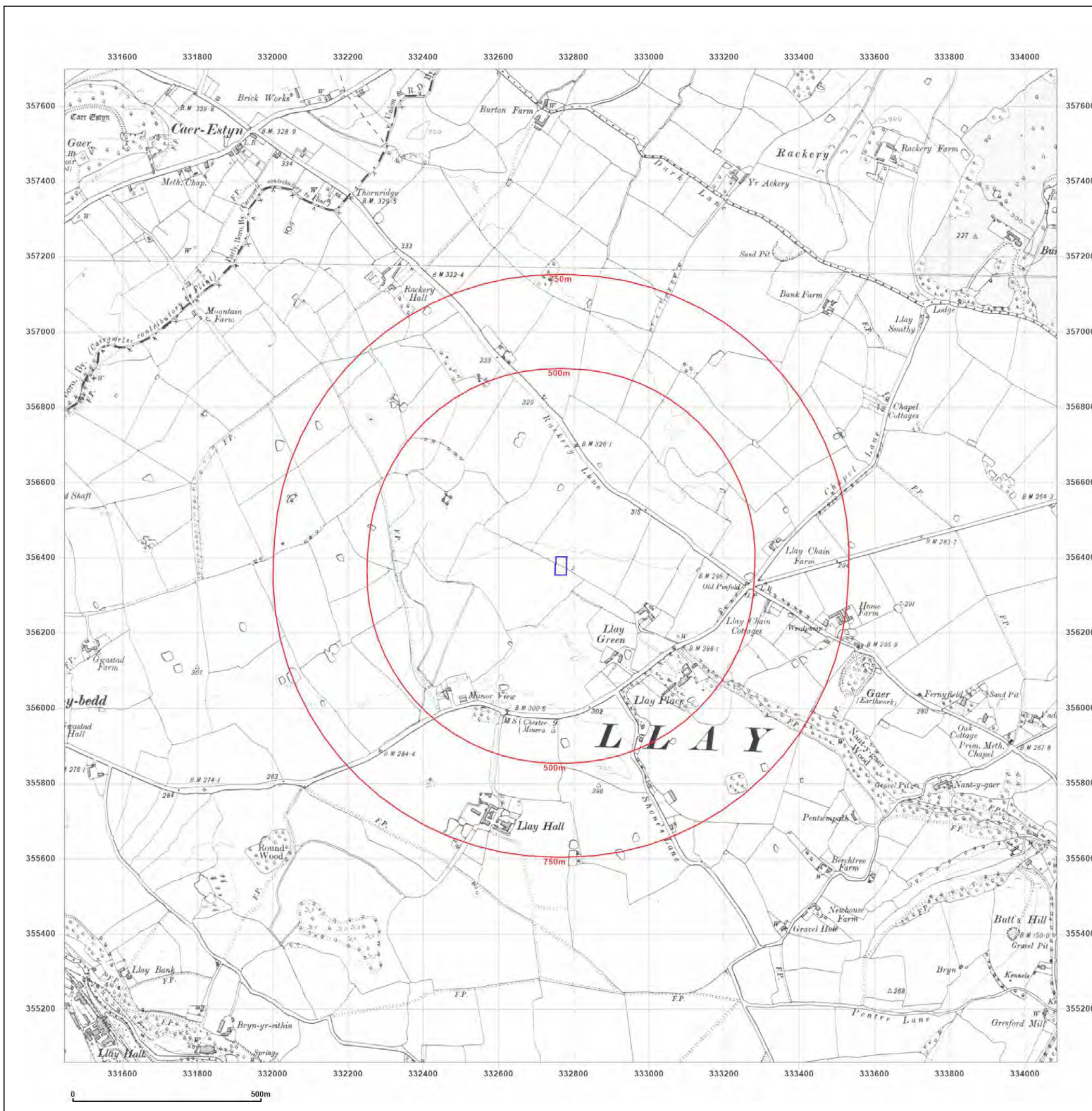


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LL12 0PJ

Client Ref: DMH_Tyres_Ltd_
Report Ref: GS-SN8-PUW-KYG-VS2
Grid Ref: 332765, 356378

Map Name: County Series

Map date: 1938

Scale: 1:10,560

Printed at: 1:10,560



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Edition 1938
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Revised 1938
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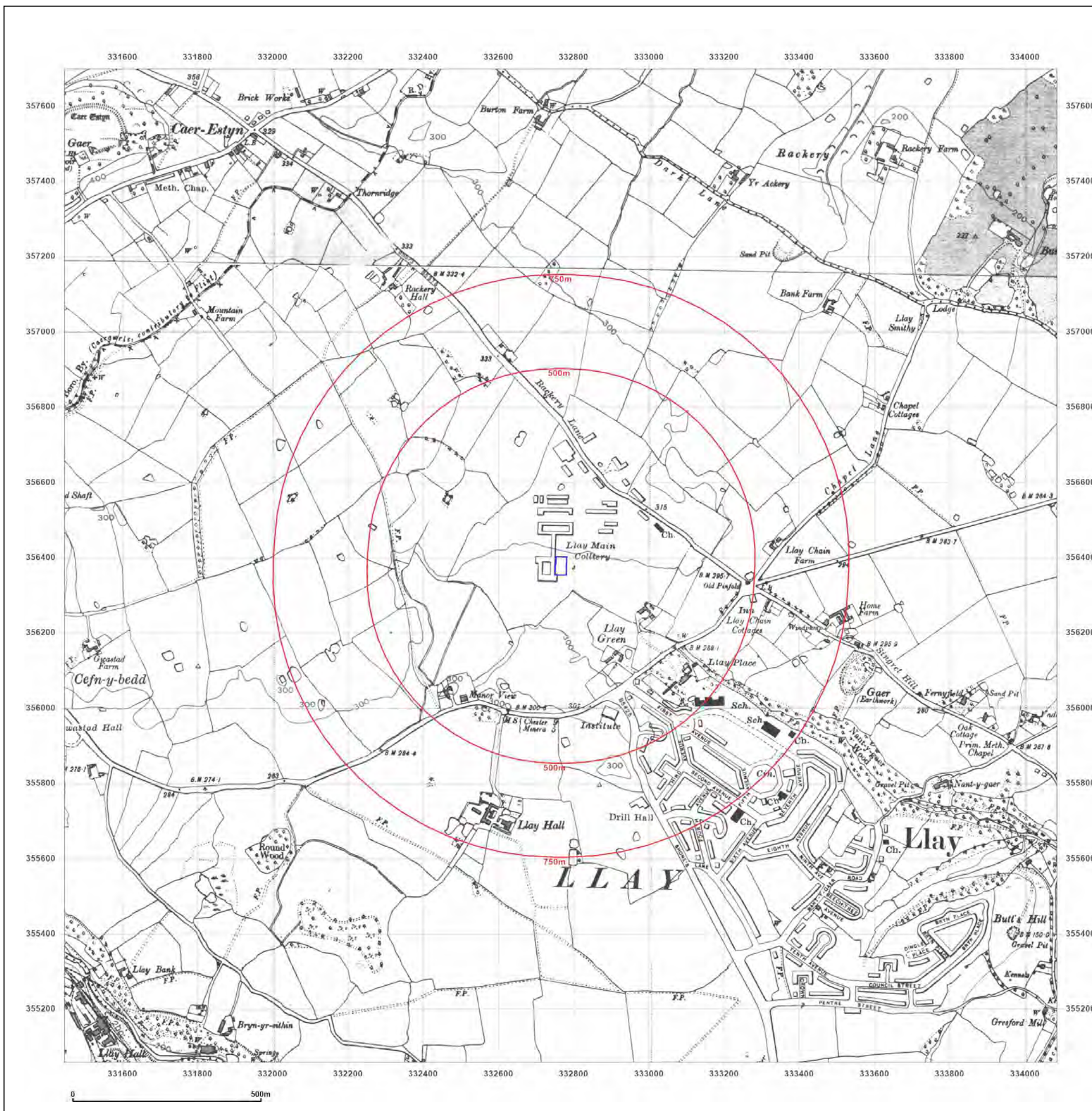


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Site Details:

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INDUSTRIAL ESTATE, LLAY,
LL12 0PJ

Client Ref: DMH_Tyres_Ltd_
Report Ref: GS-SN8-PUW-KYG-VS2
Grid Ref: 332765, 356378

Map Name: County Series

Map date: 1949

Scale: 1:10,560

Printed at: 1:10,560



Surveyed 1871
Revised 1949
Edition N/A
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Surveyed 1871
Revised 1949
Edition N/A
Copyright N/A
Levelled N/A

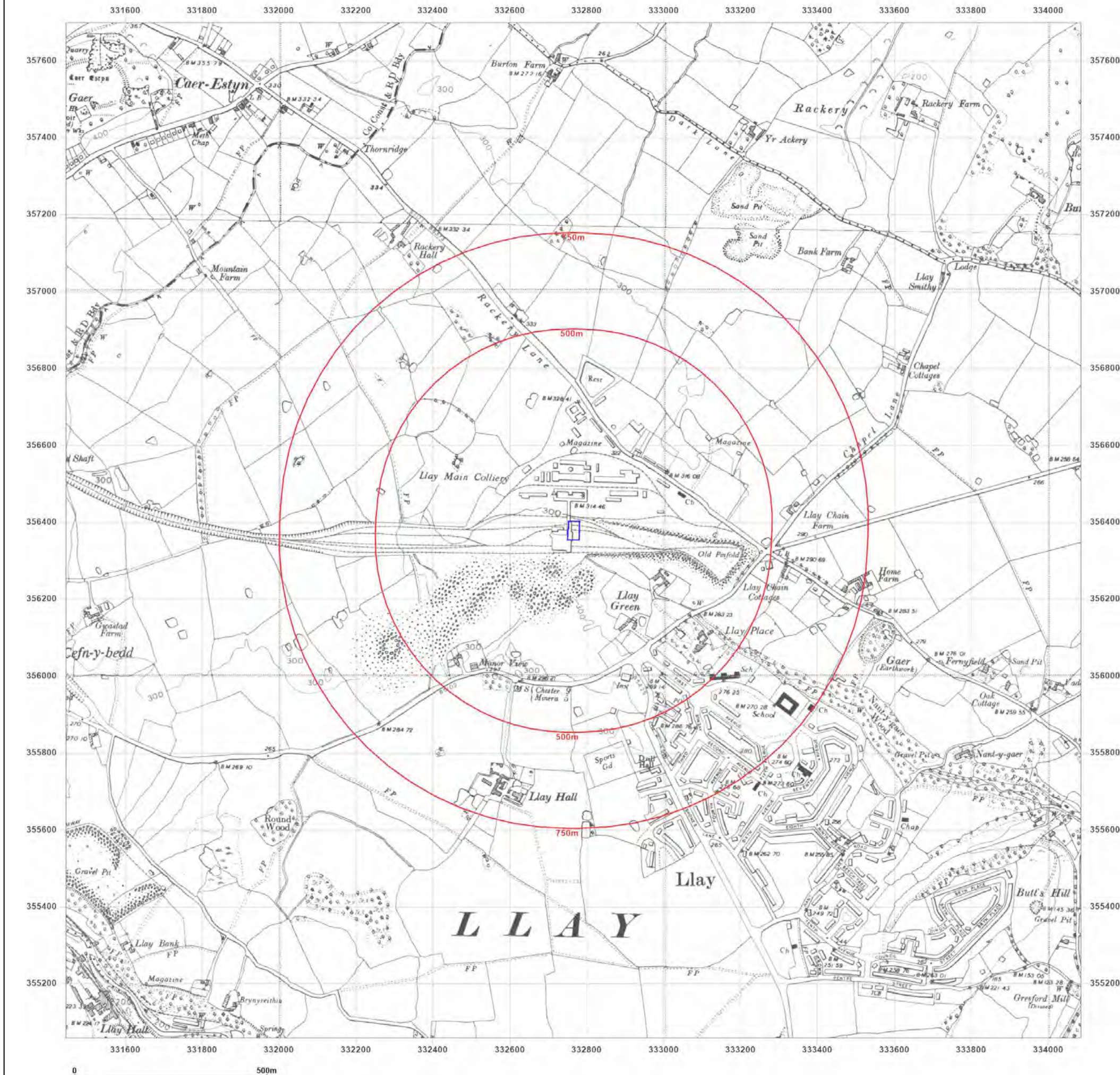


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LL12 0PJ

Client Ref: DMH_Tyres_Ltd_
Report Ref: GS-SN8-PUW-KYG-VS2
Grid Ref: 332765, 356378

Map Name: Provisional

Map date: 1960

Scale: 1:10,560

Printed at: 1:10,560



Surveyed 1871
Revised 1960
Edition N/A
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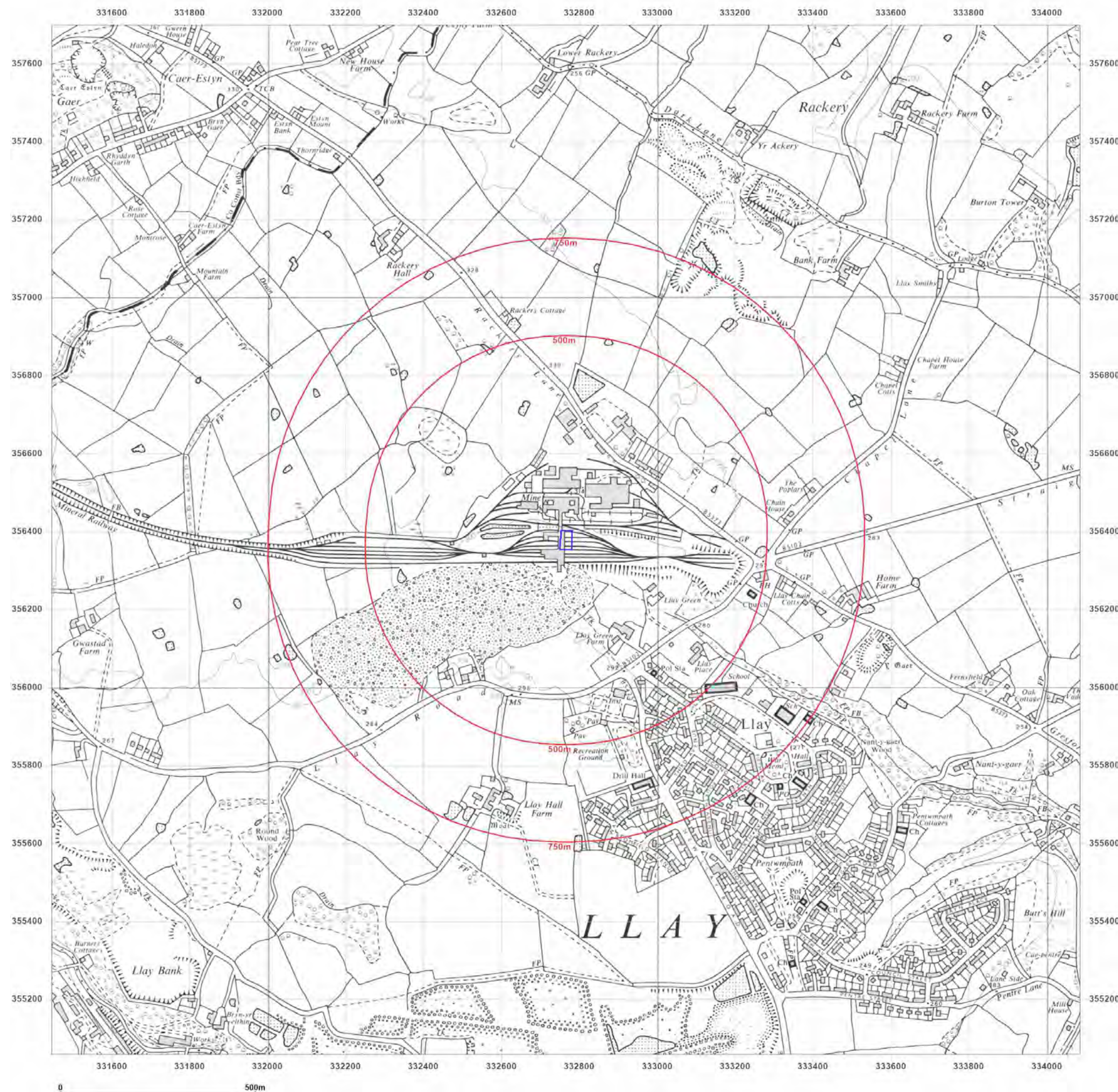


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Site Details:

UNIT 18, MINERS PARK, LLAY
INDUSTRIAL ESTATE, LLAY,
LL12 0PJ

Client Ref: DMH_Tyres_Ltd_
Report Ref: GS-SN8-PUW-KYG-VS2
Grid Ref: 332765, 356378

Map Name: Provisional

Map date: 1968

Scale: 1:10,560

Printed at: 1:10,560



Surveyed 1968
Revised 1968
Edition N/A
Copyright N/A
Levelled N/A

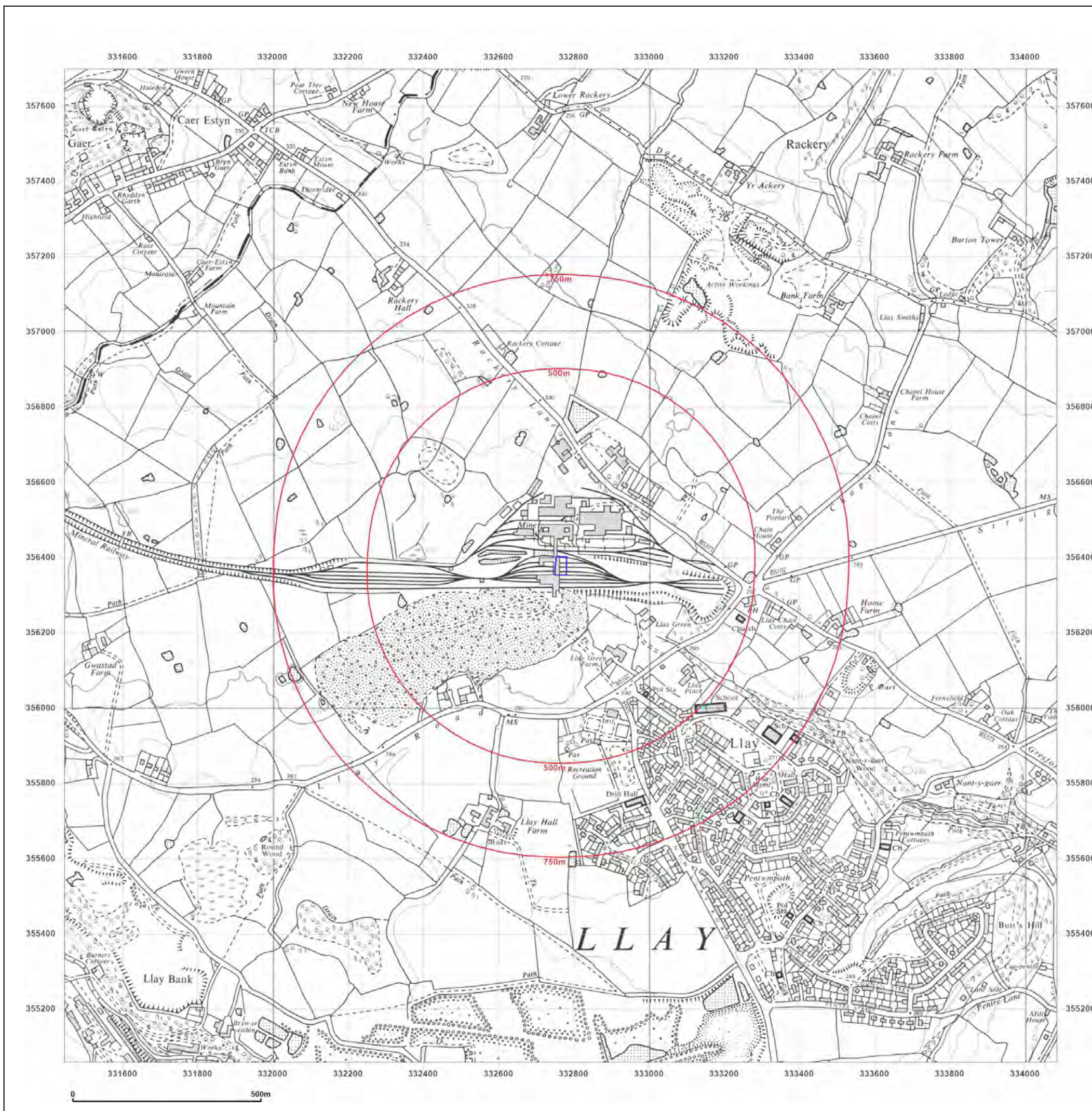


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E: info@groundsure.com
W: www.groundsure.com

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Production date: 15 November 2023

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



Site Details:

UNIT 18, MINERS PARK, LLAY
INDUSTRIAL ESTATE, LLAY,
LL12 0PJ

Client Ref: DMH_Tyres_Ltd_
Report Ref: GS-SN8-PUW-KYG-VS2
Grid Ref: 332765, 356378

Map Name: National Grid

Map date: 1981

Scale: 1:10,000

Printed at: 1:10,000



Surveyed 1974
Revised 1981
Edition N/A
Copyright 1981
Levelled 1976

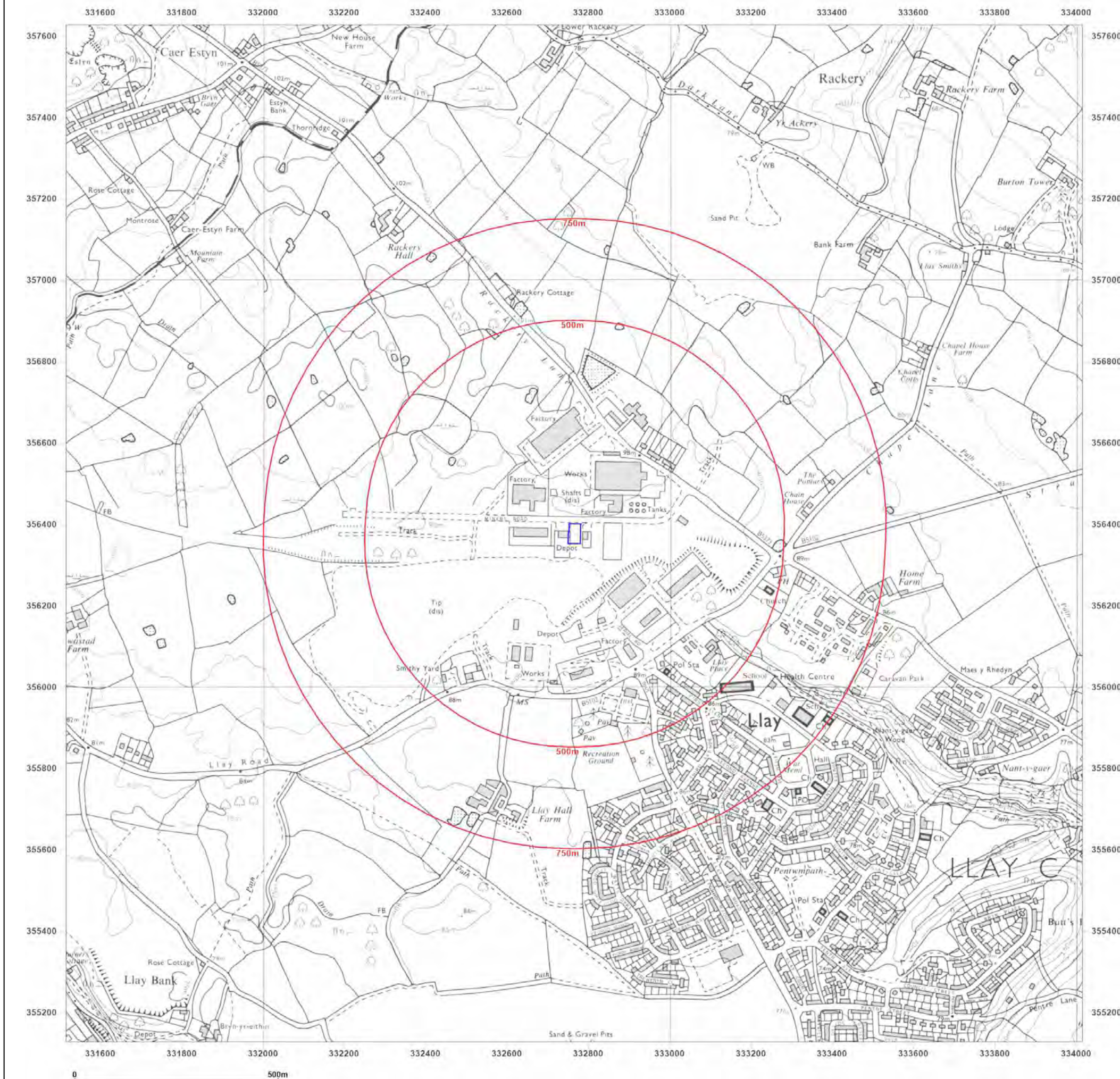


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Site Details:

UNIT 18, MINERS PARK, LLAY
INDUSTRIAL ESTATE, LLAY,
LL12 0PJ

Client Ref: DMH_Tyres_Ltd_
Report Ref: GS-SN8-PUW-KYG-VS2
Grid Ref: 332765, 356378

Map Name: National Grid

Map date: 1992

Scale: 1:10,000

Printed at: 1:10,000



Surveyed 1990
Revised 1992
Edition N/A
Copyright N/A
Levelled N/A

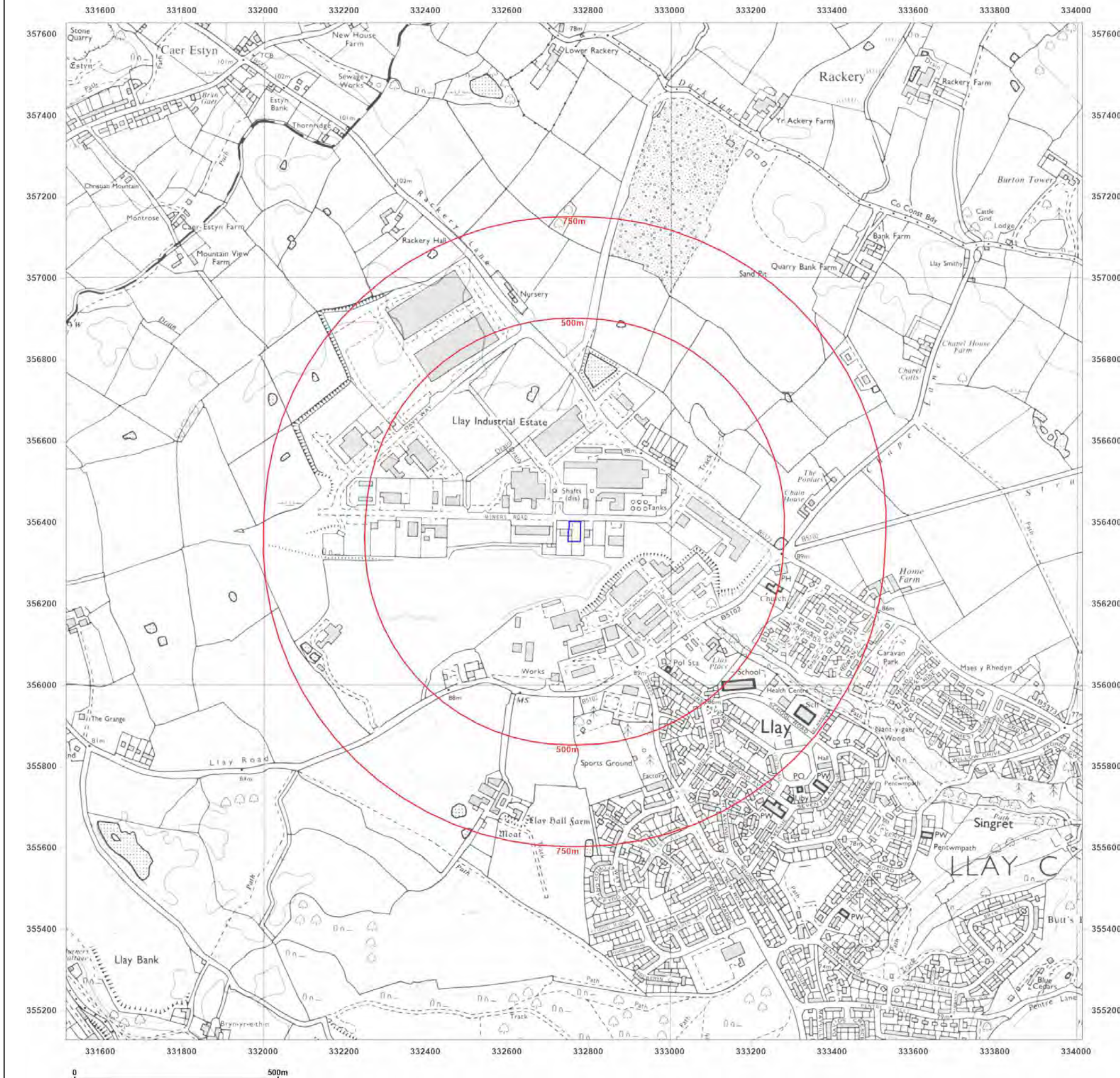


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Site Details:

UNIT 18, MINERS PARK, LLAY
INDUSTRIAL ESTATE, LLAY,
LL12 0PJ

Client Ref: DMH_Tyres_Ltd_
Report Ref: GS-SN8-PUW-KYG-VS2
Grid Ref: 332765, 356378

Map Name: National Grid

Map date: 2001

Scale: 1:10,000

Printed at: 1:10,000

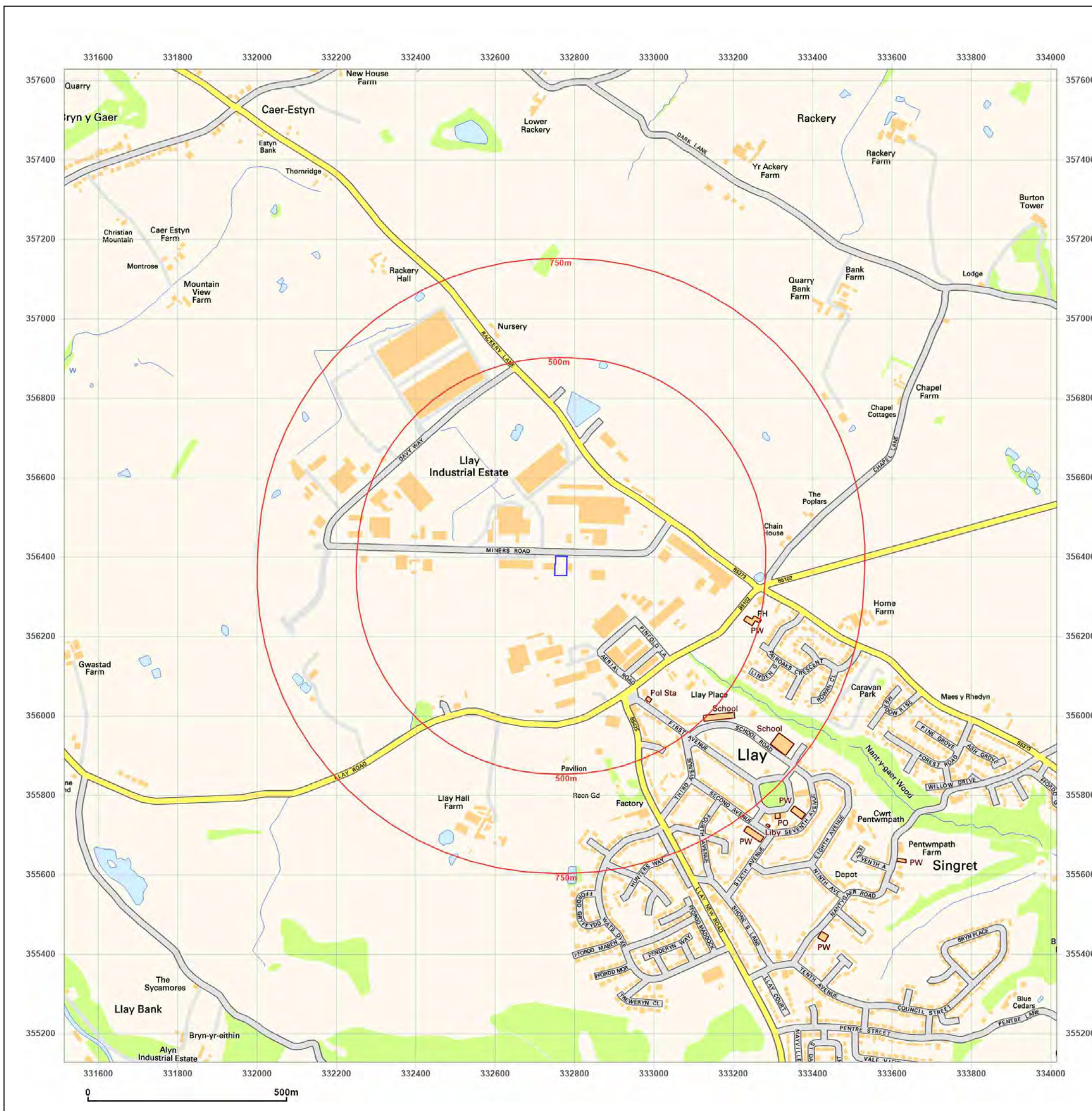


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Production date: 15 November 2023

Map legend available at:
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Site Details:

UNIT 18, MINERS PARK, LLAY
INDUSTRIAL ESTATE, LLAY,
LL12 0PJ

Client Ref: DMH_Tyres_Ltd_
Report Ref: GS-SN8-PUW-KYG-VS2
Grid Ref: 332765, 356378

Map Name: National Grid

Map date: 2010

Scale: 1:10,000

Printed at: 1:10,000

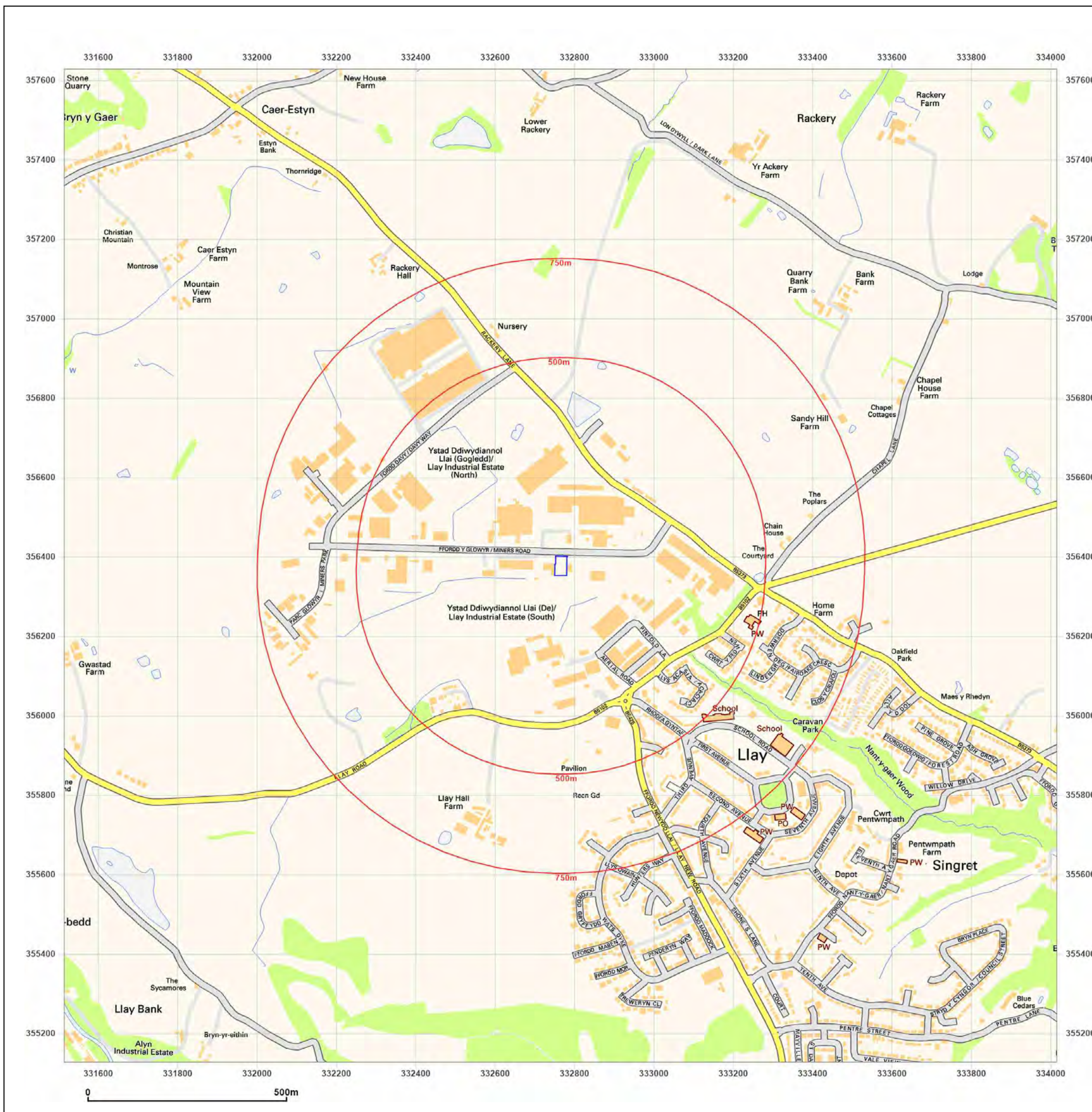


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Production date: 15 November 2023

Map legend available at:
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Site Details:

UNIT 18, MINERS PARK, LLAY
INDUSTRIAL ESTATE, LLAY,
LL12 0PJ

Client Ref: DMH_Tyres_Ltd_
Report Ref: GS-SN8-PUW-KYG-VS2
Grid Ref: 332765, 356378

Map Name: National Grid

Map date: 2023

Scale: 1:10,000

Printed at: 1:10,000

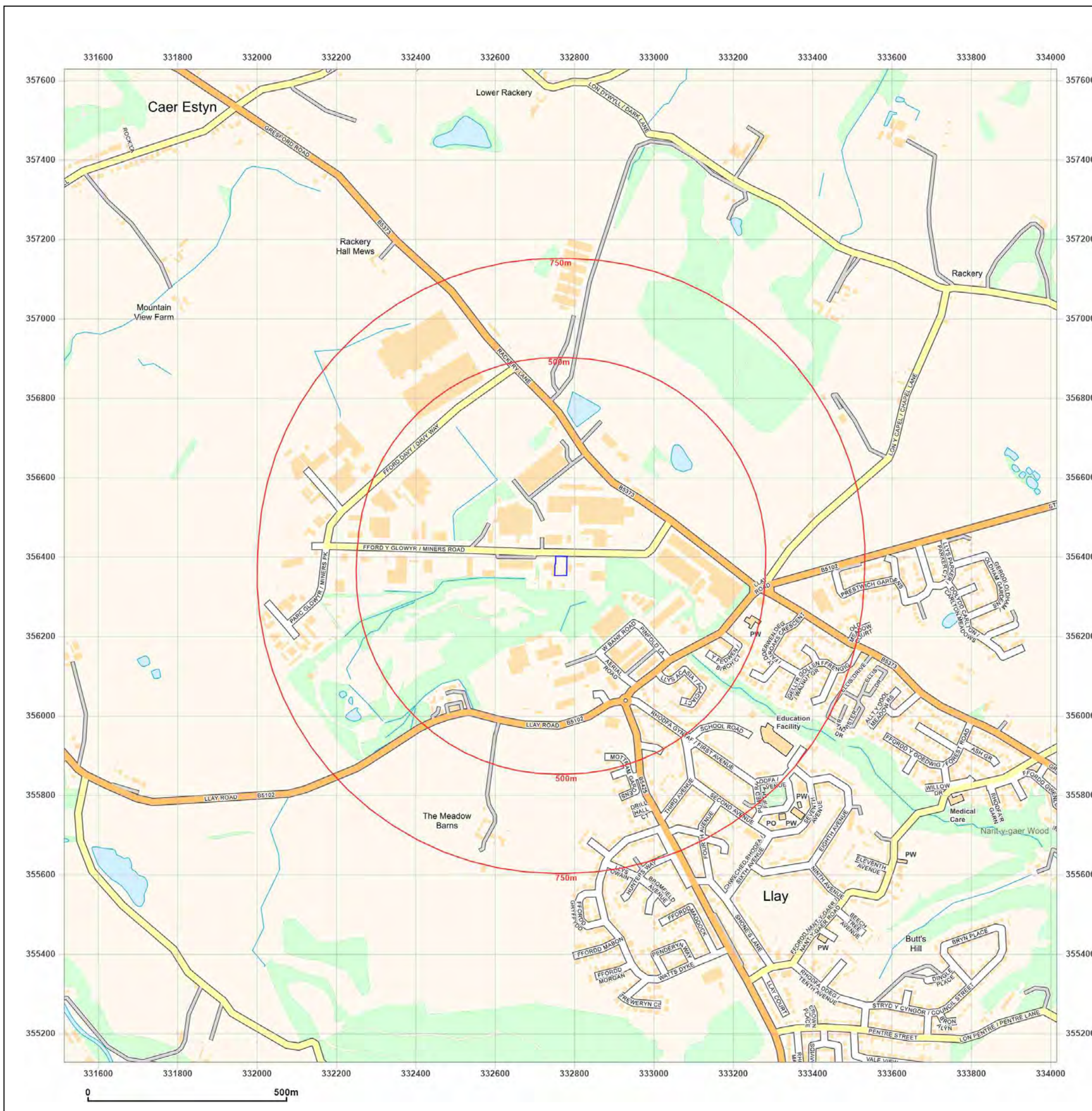


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Production date: 15 November 2023

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



APPENDIX D

UXO Screening Report

UNEXPLODED BOMB RISK MAP



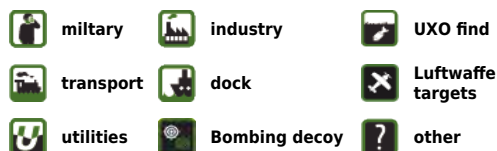
SITE LOCATION

Location: LL12 0PJ,
Map Centre: 332429,356380



LEGEND

- High:** Areas indicated as having a bombing density of 50 bombs per 1000acre or higher.
- Moderate:** Areas indicated as having a bombing density of 15 to 49 bombs per 1000acre.
- Low:** Areas indicated as having 15 bombs per 1000acre or less.



How to use your Unexploded Bomb (UXB) risk map?

The map indicates the potential for Unexploded Bombs (UXB) to be present as a result of World War Two (WWII) bombing.

You can incorporate the map into your preliminary risk assessment* for potential Unexploded Ordnance (UXO) for a site. Using this map, you can make an informed decision as to whether more in-depth detailed risk assessment* is necessary.

What do I do if my site is in a moderate or high risk area?

Generally, we recommend that a detailed UXO desk study and risk assessment is undertaken for sites in a moderate or high UXB risk area.

Similarly, if your site is near to a designated Luftwaffe target or bombing decoy then additional detailed research is recommended.

More often than not, this further detailed research will conclude that the potential for a significant UXO hazard to be present on your site is actually low.

Never plan site work or undertake a risk assessment using these maps alone. More detail is required, particularly where there may be a source of UXO from other military operations which are not reflected on these maps.

If my site is in a low risk area, do I need to do anything?

If both the map and other research confirms that there is a low potential for UXO to be present on your site then, subject to your own comfort and risk tolerance, works can proceed with no special precautions.

A low risk really means that there is no greater probability of encountering UXO than anywhere else in the UK.

If you are unsure whether other sources of UXO may be present, you can ask for one of our **pre-desk study assessments (PDSA)**

If I have any questions, who do I contact?

tel: **+44 (0) 1993 886682**

email: **uxo@zetica.com**

web: **www.zeticauxo.com**

The information in this UXB risk map is derived from a number of sources and should be used in conjunction with the accompanying notes on our website: (<https://zeticauxo.com/downloads-and-resources/risk-maps/>)

Zetica cannot guarantee the accuracy or completeness of the information or data used and cannot accept any liability for any use of the maps. These maps can be used as part of a technical report or similar publication, subject to acknowledgment. The copyright remains with Zetica Ltd.

It is important to note that this map is not a UXO risk assessment and should not be reported as such when reproduced.

*Preliminary and detailed UXO risk assessments are advocated as good practice by industry guidance such as CIRIA C681 'Unexploded Ordnance (UXO), a guide for the construction industry'.

APPENDIX E

Coal Authority Coal Mining Consultants Report



The Coal
Authority

Consultants Coal Mining Report

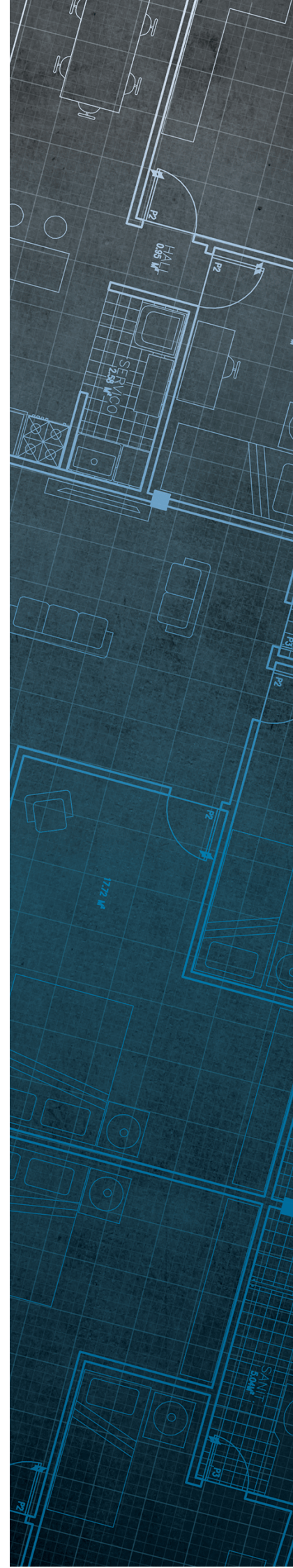
Unit 18, Miners Park, Llay Industrial
Estate, Llay, LI12 0pj
Wrexham

Date of enquiry:
Date enquiry received:
Issue date:

15 November 2023
15 November 2023
15 November 2023

Our reference:
Your reference:

51003389627001
GS-4EK-4QE-512-VWK



Consultants

Coal Mining Report

This report is based on and limited to the records held by the Coal Authority at the time the report was produced.

Client name

GROUNDSURE LIMITED

Enquiry address

Unit 18, Miners Park, Llay Industrial Estate, Llay,
LI12 0pj
Wrexham

How to contact us

0345 762 6848 (UK)
+44 (0)1623 637 000 (International)

200 Lichfield Lane
Mansfield
Nottinghamshire
NG18 4RG

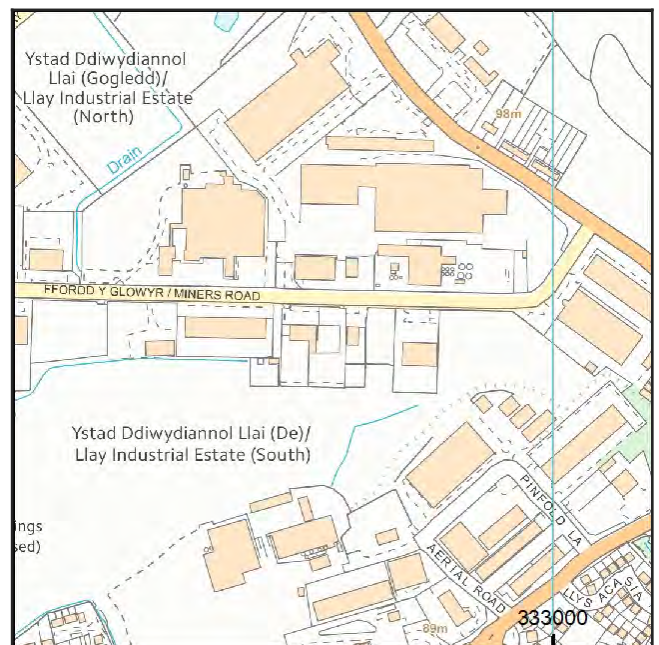
www.groundstability.com

 @coalauthority

 /company/the-coal-authority

 /thecoalauthority

 /thecoalauthority



Approximate position of property



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Section 1 – Mining activity and geology

Past underground mining

Colliery	Seam	Mineral	Coal Authority reference	Depth (m)	Direction to working	Dipping rate of seam worked (degrees)	Dipped direction of seam worked	Extraction thickness (cm)	Year last mined
unnamed	TWO YARD	Coal	3A5Z	651	South	10.0	East	150	1928
unnamed	TWO YARD	Coal	3A61	664	South	10.0	East	150	1923
unnamed	MAIN	Coal	39XY	665	South	15.0	East	200	1960
unnamed	QUAKER	Coal	3A4M	667	South	18.0	South-West	180	1962
unnamed	TWO YARD	Coal	3A5Y	689	West	13.8	East	150	1932
unnamed	CROWN	Coal	3AD7	698	South-West	24.8	East	120	1959
unnamed	MAIN	Coal	39XZ	713	South	15.0	East	200	1960
unnamed	MAIN	Coal	39XX	713	South-West	15.0	East	200	1960
unnamed	TWO YARD	Coal	3A62	714	East	10.0	East	150	1955
unnamed	QUAKER	Coal	3A4P	719	South-East	6.0	North-East	180	1962
unnamed	MAIN	Coal	39Y6	732	South	8.0	North-East	230	1960
unnamed	MAIN	Coal	39Y0	735	Beneath Property	13.4	South-East	200	1960
unnamed	WALL AND BENCH	Coal	3A28	756	South	20.7	North-East	80	1941
unnamed	MAIN	Coal	39Y7	769	East	8.0	North-East	230	1960
unnamed	RUABON YARD (SOFT 5 QTRS)	Coal	3A4Y	774	South	15.5	N/A	100	1966
unnamed	RUABON YARD (SOFT 5 QTRS)	Coal	3A4V	777	South	21.3	North-East	100	1966
unnamed	RUABON YARD (SOFT 5 QTRS)	Coal	3A56	817	South	9.6	North-East	100	1966
unnamed	RUABON YARD (SOFT 5 QTRS)	Coal	3A58	903	East	8.9	East	100	1962

Probable unrecorded shallow workings

None.

Spine roadways at shallow depth

No spine roadway recorded at shallow depth.

Mine entries

Entry type	Reference	Grid reference	Treatment description	Mineral	Conveyancing details
Shaft	332356-031	332710 356478	The insets in this shaft were sealed with concrete. A puddled clay plug was put in at 470m depth. The remainder of the shaft was filled with colliery waste in 1969. In 1978 the fill was dug out to 5.8m and a reinforced concrete plug was constructed. The shaft was refilled and a reinforced concrete cap was set at 1m b.g.l.	Coal	
Shaft	332356-032	332793 356477	The insets in this shaft were sealed with concrete. A puddled clay plug was constructed at 497m depth. The remainder of the shaft was filled with colliery spoil in 1968. In 1978 a reinforced concrete cap was set into the shaft walls at 2m b.g.l.	Coal	

Abandoned mine plan catalogue numbers

The following abandoned mine plan catalogue numbers intersect with some, or all, of the enquiry boundary:

14285	13239	NW530
11815	12911	NW528
NW550	NW529	

Please contact us on 0345 762 6848 to determine the exact abandoned mine plans you require based on your needs.

Outcrops

No outcrops recorded.

Geological faults, fissures and breaklines

No faults, fissures or breaklines recorded.

Opencast mines

None recorded within 500 metres of the enquiry boundary.

Coal Authority managed tips

None recorded within 500 metres of the enquiry boundary.

Section 2 – Investigative or remedial activity

Please refer to the 'Summary of findings' map (on separate sheet) for details of any activity within the area of the site boundary.

Site investigations

None recorded within 50 metres of the enquiry boundary.

Remediated sites

None recorded within 50 metres of the enquiry boundary.

Coal mining subsidence

The Coal Authority has not received a damage notice or claim for the subject property, or any property within 50 metres of the enquiry boundary, since 31 October 1994.

There is no current Stop Notice delaying the start of remedial works or repairs to the property.

The Coal Authority is not aware of any request having been made to carry out preventive works before coal is worked under section 33 of the Coal Mining Subsidence Act 1991.

Mine gas

None recorded within 500 metres of the enquiry boundary.

Mine water treatment schemes

None recorded within 500 metres of the enquiry boundary.

Section 3 – Licensing and future mining activity

Future underground mining

None recorded.

Coal mining licensing

None recorded within 200 metres of the enquiry boundary.

Court orders

None recorded.

Section 46 notices

No notices have been given, under section 46 of the Coal Mining Subsidence Act 1991, stating that the land is at risk of subsidence.

Withdrawal of support notices

The property is not in an area where a notice to withdraw support has been given.

The property is not in an area where a notice has been given under section 41 of the Coal Industry Act 1994, cancelling the entitlement to withdraw support.

Payments to owners of former copyhold land

The property is not in an area where a relevant notice has been published under the Coal Industry Act 1975/Coal Industry Act 1994.

Section 4 – Further information

The following potential risks have been identified and as part of your risk assessment should be investigated further.

Future development

If development proposals are being considered, technical advice relating to both the investigation of coal and former coal mines and their treatment should be obtained before beginning work on site. All proposals should apply specialist engineering practice required for former mining areas. No development should be undertaken that intersects, disturbs or interferes with any coal or coal mines without first obtaining the permission of the Coal Authority.

MINE GAS: Please note, if there are no recorded instances of mine gas within 500m of the enquiry boundary, this does not mean that mine gas is not present within the vicinity. The Coal Authority Mine Gas data is limited to only those sites where a Mine Gas incident has been recorded. Developers should be aware that the investigation of coal seams, mine workings or mine entries may have the potential to generate and/or displace underground gases. Associated risks both to the development site and any neighbouring land or properties should be fully considered when undertaking any ground works. The need for effective measures to prevent gases migrating onto any land or into any properties, either during investigation or remediation work, or after development must also be assessed and properly addressed. In these instances, the Coal Authority recommends that a more detailed Gas Risk Assessment is undertaken by a competent assessor.

Development advice

The site is within an area of historical coal mining activity. Should you require advice and/or support on understanding the mining legacy, its risks to your development or what next steps you need to take, please contact us.

For further information on specific site or ground investigations in relation to any issues raised in Section 4, please call us on 0345 762 6848 or email us at groundstability@coal.gov.uk.

Section 5 – Data definitions

The datasets used in this report have limitations and assumptions within their results. For more guidance on the data and the results specific to the enquiry boundary, please **call us on 0345 762 6848** or **email us at groundstability@coal.gov.uk**.

Past underground coal mining

Details of all recorded underground mining relative to the enquiry boundary. Only past underground workings where the enquiry boundary is within 0.7 times the depth of the workings (zone of likely physical influence) allowing for seam inclination, will be included.

Probable unrecorded shallow workings

Areas where the Coal Authority believes there to be unrecorded coal workings that exist at or close to the surface (less than 30 metres deep).

Spine roadways at shallow depth

Connecting roadways either, working to working, or, surface to working, both in-seam and cross measures that exist at or close to the surface (less than 30 metres deep), either within or within 10 metres of the enquiry boundary.

Mine entries

Details of any shaft or adit either within, or within 100 metres of the enquiry boundary including approximate location, brief treatment details where known, the mineral worked from the mine entry and conveyance details where the mine entry has previously been sold by the Authority or its predecessors British Coal or the National Coal Board.

Abandoned mine plan catalogue numbers

Plan numbers extracted from the abandoned mines catalogue containing details of coal and other mineral abandonment plans deposited via the Mines Inspectorate in accordance with the Coal Mines Regulation Act and Metalliferous Mines Regulation Act 1872. A maximum of 9 plan extents that intersect with the enquiry boundary will be included. This does not infer that the workings and/or mine entries shown on the abandonment plan will be relevant to the site/property boundary.

Outcrops

Details of seam outcrops will be included where the enquiry boundary intersects with a conjectured or actual seam outcrop location (derived by either the British Geological Survey or the Coal Authority) or intersects with a defined 50 metres buffer on the coal (dip) side of the outcrop. An indication of whether the Coal Authority believes the seam to be of sufficient thickness and/or quality to have been worked will also be included.

Geological faults, fissures and breaklines

Geological disturbances or fractures in the bedrock. Surface fault lines (British Geological Survey derived data) and fissures and breaklines (Coal Authority derived data) intersecting with the enquiry boundary will be included. In some circumstances faults, fissures or breaklines have been known to contribute to surface subsidence damage as a consequence of underground coal mining.

Opencast mines

Opencast coal sites from which coal has been removed in the past by opencast (surface) methods and where the enquiry boundary is within 500 metres of either the licence area, site boundary, excavation area (high wall) or coaling area.

Coal Authority managed tips

Locations of disused colliery tip sites owned and managed by the Coal Authority, located within 500 metres of the enquiry boundary.

Site investigations

Details of site investigations within 50 metres of the enquiry boundary where the Coal Authority has received information relating to coal mining risk investigation and/or remediation by third parties.

Remediated sites

Sites where the Coal Authority has undertaken remedial works either within or within 50 metres of the enquiry boundary following report of a hazard relating to coal mining under the Coal Authority's Emergency Surface Hazard Call Out procedures.

Coal mining subsidence

Details of alleged coal mining subsidence claims made since 31 October 1994 either within or within 50 metres of the enquiry boundary. Where the claim relates to the enquiry boundary confirmation of whether the claim was accepted, rejected or whether liability is still being determined will be given. Where the claim has been discharged, whether this was by repair, payment of compensation or a combination of both, the value of the claim, where known, will also be given.

Details of any current 'Stop Notice' deferring remedial works or repairs affecting the property/site, and if so the date of the notice.

Details of any request made to execute preventative works before coal is worked under section 33 of the Coal Mining Subsidence Act 1991. If yes, whether any person withheld consent or failed to comply with any request to execute preventative works.

Mine gas

Reports of alleged mine gas emissions received by the Coal Authority, either within or within 500 metres of the enquiry boundary that subsequently required investigation and action by the Coal Authority to mitigate the effects of the mine gas emission. Please note, if there are no recorded instances of mine gas reported, this does not mean that mine gas is not present within the vicinity. The Coal Authority Mine Gas data is limited to only those sites where a Mine Gas incident has been recorded.

Mine water treatment schemes

Locations where the Coal Authority has constructed or operates assets that remove pollutants from mine water prior to the treated mine water being discharged into the receiving water body.

These schemes are part of the UK's strategy to meet the requirements of the Water Framework Directive. Schemes fall into 2 basic categories: Remedial – mitigating the impact of existing pollution or Preventative – preventing a future pollution incident.

Mine water treatment schemes generally consist of one or more primary settlement lagoons and one or more reed beds for secondary treatment. A small number are more specialised process treatment plants.

Future underground mining

Details of all planned underground mining relative to the enquiry boundary. Only those future workings where the enquiry boundary is within 0.7 times the depth of the workings (zone of likely physical influence) allowing for seam inclination will be included.

Coal mining licensing

Details of all licenses issued by the Coal Authority either within or within 200 metres of the enquiry boundary in relation to the under taking of surface coal mining, underground coal mining or underground coal gasification.

Court orders

Orders in respect of the working of coal under the Mines (Working Facilities and Support) Acts of 1923 and 1966 or any statutory modification or amendment thereof.

Section 46 notices

Notice of proposals relating to underground coal mining operations that have been given under section 46 of the Coal Mining Subsidence Act 1991.

Withdrawal of support notices

Published notices of entitlement to withdraw support and the date of the notice. Details of any revocation notice withdrawing the entitlement to withdraw support given under Section 41 of the Coal Industry Act 1994.

Payment to owners of former copyhold land

Relevant notices which may affect the property and any subsequent notice of retained interests in coal and coal mines, acceptance or rejection notices and whether any compensation has been paid to a claimant.

Approximate position of the enquiry boundary shown 

Disused mine shaft 

