

CONTAMINATED LAND PHASE 1 ASSESSMENT

Land at

Clough House Barn Clough House

Lane Wardle Rochdale OL12 9PL

HME
CIVIL ENGINEERING
CONSULTANTS

STRUCTURAL | ENVIRONMENTAL | GEOTECHNICAL



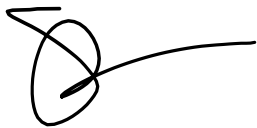
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Contents

1.	INTRODUCTION	5
1.1	Appointment.....	5
1.2	Proposed Development.....	5
1.3	Objectives and Scope.....	5
1.4	Limitations.....	6
2.	SITE DESCRIPTION	7
2.1	Background	7
2.2	Site Layout and description	7
3.	SITE HISTORY	8
3.1	Historical Maps	8
3.2	Summary	9
4.	ENVIRONMENTAL SETTING	10
4.1	Geology.....	10
4.2	Contaminated Land Register	10
4.3	Mining & Ground Stability	11
4.5	Hydrogeology	13
4.6	Hydrology.....	13
4.7	Contaminated Land & Landfill Activities.....	13
4.8	Sensitive Land Uses	14
4.9	Radon	14
5.	POTENTIAL POLLUTANT LINKAGES.....	15
5.1	General	15
5.2	Potential Sources of Contamination.....	15
5.3	Potential Contaminants of Concern	16
5.4	Potentially Significant Contaminants of Concern	16
5.5	Ground Gas Considerations.....	16
5.6	Potential Pathways	17
5.7	Potential Receptors.....	18
5.8	Off-Site Receptors.....	19
5.9	Flora.....	19

5.10	Buildings & Services	19
5.11	Controlled Waters	19
5.12	Preliminary Conceptual Model	20
5.13	Potentially Significant Pollutant Linkages	20
6.	RECOMMENDATIONS.....	23
6.1	Introduction	23
6.2	Intrusive works	23
6.4	Ground Gas Considerations.....	24
6.5	Other Considerations.....	24
APPENDIX A – Drawings & Photographs.....		25
APPENDIX B - GroundSure		29
APPENDIX C – Preliminary Conceptual Model.....		30

1. INTRODUCTION

1.1 Appointment

- 1.1.1 HME Civil Engineering Consultants (HME) has been commissioned by James Campbell Associates to prepare a Phase 1 Preliminary Risk Assessment (PRA) for a parcel of land at Clough House Barn, Clough House Lane, Wardle, Rochdale, OL12 9PL (hereafter referred to as 'the site').
- 1.1.2 The PRA will assess the potential risks associated with contamination considering a change of use to residential (with homegrown produce). The assessment is in accordance with current guidance for land affected by contamination (LCRM and BS10175).
- 1.1.3 The site location and layout are presented on James Campbell Associates Drawing 25.3588. A copy of the drawing is presented in Appendix A.
- 1.1.4 This report is solely for the use of the named client and their professional advisers, no liability to other parties is accepted. Should the client not act upon specific, reasonable advice contained in the report, no responsibility is accepted for the consequences.
- 1.1.5 In order to produce this assessment a Groundsure Enviro Insight report has been procured along with Historical Maps also from Groundsure Insights. These are interrogated throughout the report and presented in Appendix B.

1.2 Proposed Development

- 1.2.1 This report has been prepared to support a planning application for the construction of a series of residential dwellings together with access, parking and private garden areas.
- 1.2.2 The proposed development layout for the site is presented on 'Proposed Site Plan' by James Campbell Associates Limited Drawing No: 25.3588, a copy of which is presented in Appendix A.

1.3 Objectives and Scope

- 1.3.1 The objective of this report is to provide a qualitative assessment of the potential risks from contamination and ground with consideration to the proposed end use residential (with homegrown produce).

1.3.2 To achieve the objective HME will undertake the following:

- Carry out a site inspection and collect photographs
- Review the relevant background information available for the site, including:
 - Recent Ordnance Survey Maps
 - Site Specific GroundSure Reports
 - Site Specific Historical Maps
 - Coal Authority Website
 - Drawings provided by James Campbell Associates Ltd
- Develop a preliminary conceptual site model in accordance with guidance to identify potentially significant pollutant linkages specific to the proposed development
- Establish areas of potential concern based on identified risks and/or potential risks

1.4 Limitations

1.4.1 The conclusions and recommendations presented in this report are the result of our professional interpretation of the information currently available. HME reserves the right to amend the conclusions and recommendations if further information becomes available.

1.4.2 However, it should be noted that much of the information has been derived from reports written by others and HME takes no responsibility for the accuracy of that information. Notwithstanding the above, the reports reviewed have all been written by professional environmental consultants with a duty of care to provide relevant and accurate information.

1.4.3 This report does not include an invasive plant species assessment.

2. SITE DESCRIPTION

2.1 Background

- 2.1.1 The site was an irregular shaped parcel of land accessed from Clough House Lane in Wardle, Rochdale. The site lies approximately 4km north east of Rochdale centre. The surrounding area comprised a small complex of residential buildings adjacent to Clough House Lane and surrounded by farmland.
- 2.1.2 The National Grid Reference for the center of the site is approximately 390818 416924. The site location is illustrated on James Campbell Associates Drawing No. 25.3588, a copy of which is included in Appendix A.

2.2 Site Layout and description

- 2.2.1 A site walkover was undertaken by an HME Engineer on 22/07/2026. Site photos reflecting the site condition at the time of inspection are included in Appendix A.
- 2.2.2 The site comprised an agricultural barn and an area of rough hardstanding. The site was bounded on all sides by a drystone wall forming the boundary with gated access to the road and another gate in the east providing access to fields to the south.
- 2.2.3 The ground level sloped steeply to the south with a stream following a meandering path present approximately 20m south of the site.
- 2.2.4 A layby was present immediately west of the development site with a small wooden cabinet and above ground oil tank connecting to the agricultural barn.
- 2.2.5 There was no visual or olfactory evidence for the presence of contamination during the site walkover.

3. SITE HISTORY

3.1 Historical Maps

Historical mapping and environmental records indicate that the site has been used for industrial purposes since the mid-20th century. The precise operations involved foam production which may have included storage and handling of chemicals. The below assessment has been undertaken utilizing the information purchased from Groundsure. These maps are included in Appendix B.

Table 1: Historical Map summary

Map Scale Type	Map Date	Scale	Key Observations
Small Scale	1851	1:10,560	The site area was marked as a Woollen Mill with a complex of buildings marked. A small building appears to be marked at the site. Clough House is denoted immediately north east of the site. A Sluice and Weir for a reservoir were marked approximately 20m north west of the site. A gasometer was marked approximately 250m east of the site and approximately 260m west of the site. Coal Pits are marked approximately 300m south west and 400m south west of the site.
Small Scale	1890 - 1891	1:10,560	The Reservoir is denoted approximately 20m to the north west of the site. 'Tenters' (a simple wooden structure on which cloth was stretched after the fulling process consisting of wooden posts and) are marked 80m north of the site and 200m north east of the site.
Large Scale	1890	1:2,500	The site appears undeveloped. Clough House Woollen Mill is marked with a complex of buildings to the west of the site and south of the Reservoir. A Weir and Tanks are marked approximately 140m west of the site. Tanks are marked approximately 220m north east of the site associated with Wardle Mill. Small reservoir structures were marked approximately 250m north east of the site.
Small Scale	1908-1909	1:10,560	Clough House Mill is marked as disused.
Large Scale	1910	1:2,500	A chimney and tank are marked approximately 60m west and 80m west of the site respectively.
Small Scale	1928-1931	1:10,560	No significant changes noted.
Large Scale	1930	1:2,500	Most of the buildings forming Clough House Mill are cleared of structures with a tank remaining. Heaped ground is marked approximately 150m west of the site with a line structure denoted as a 'Level' indicated.
Large Scale	1937	1:2,500	The tank is no longer marked at Clough House Mill. Marshy ground is indicated immediately west of the Reservoir.
Small Scale	1938	1:10,560	The tank is marked at Clough House Mill.
Small Scale	1949	1:10,560	No significant changes noted.
Large Scale	1963-1964	1:1,250	The heaped ground noted approximately 150m west of the site is now marked as a Slag Heap adjacent to Clough House Lane.

		1:2,500	Clough House Farm Cottages is marked and is assumed to refer to the buildings immediately north of the site. A small building is marked approximately 60m south of the site adjacent to Cough House Beck
Small Scale	1967-1968	1:10,560	No significant changes noted.
Large Scale	1976-1979	1:1,250 1:2,500	No significant changes noted.
Small Scale	1988	1:10,000	No significant changes noted.
S Large Scale	1988-1989	1:1,250	The existing building and site boundary is marked. The former Reservoir is marked as 'Marsh' and no structures indicated.
Large Scale	1989	1:1,250	No significant changes noted.
Large Scale	1992	1:1,250	No significant changes noted.
Small Scale	2001	1:10,000	No significant changes noted.
Large Scale	2003	1:1,250	No significant changes noted. Marshy ground is marked at the former Reservoir.
Small Scale	2010	1:10,000	No significant changes noted.
Small Scale	2025	1:10,000	No significant changes noted.

3.2 Summary

Ordnance Survey map records mark a possible building at the site 1851. The site appeared undeveloped between 1890 and 1988 when the existing building and site boundary was marked. On immediately surrounding land Clough House Woollen Mill and an adjacent Reservoir were marked immediately north west of the site. The Mill was noted as disused from at least 1908 and buildings and structures were cleared by 1937. The Reservoir was marked as marsh in 1988. In the wider area surrounding the site woollen mills and gasometers were marked more than 200m from the site. A Coal Pit was marked more than 300m to the south west of the site.

4. ENVIRONMENTAL SETTING

4.1 Geology

- 4.1.1 The geological conditions at the site have been interpreted using data from the Groundsure Insight Report, which sources information from the British Geological Survey (BGS).

4.1.2 Made Ground

- 4.1.3 There is no specific record of made ground beneath the site according to the Insight report; however, given the ground level drops away on the southern boundary the presence of made ground across parts of the site is considered likely. Artificial ground is recorded 24m north west of the site, relating to the reservoir associated with Clough House Mill.

4.1.4 Superficial Geology

- 4.1.5 According to the BGS and GroundSure report Superficial Deposits in the form of Glacial Till. Further site-specific investigation would be required to confirm the nature and thickness of these deposits.

4.1.6 Bedrock Geology

- 4.1.7 The underlying bedrock geology comprises undifferentiated strata of Pennine Lower Coal Measures Formation, a sequence of interbedded mudstones, siltstones and sandstones.

4.1.8 Faults / Linear Features

- 4.1.9 No active geological faults or major linear features are recorded on site. A fault was recorded 5m west of the site oriented approximately north east to south west.

4.2 Contaminated Land Register

- 4.2.1 There are no known entries for the site under Part 2A of the Environmental Protection Act 1990.

4.3 Mining & Ground Stability

- 4.3.1 According to the Mining and Remediation Authority online map viewer, the site exists within the coal mining reporting area. The area surrounding the site falls within a Coal Mining Reporting Area.
- 4.3.2 A 'Consultants Coal Mining Report' was purchased for the site (Coal Authority Report ref: 5 51003579446001). The report provides a detailed record of Coal Authority records relating to the site, summarised in table 3 below and included in appendix D.

Summary of Consultants Coal Mining Report Ref: 51003579446001	
MINING ACTIVITY AND GEOLOGY	
Underground Coal Mining	Past mining recorded: The Lower Mountain Coal seam is recorded 897m below the site. No unrecorded shallow workings were anticipated.
Mine entries	None recorded within 20 metres of the enquiry boundary
Abandoned mine plan catalogue numbers	One abandonment plan was recorded
Outcrops	No outcrops are 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.
INVESTIGATIVE OR REMEDIAL ACTIVITY	
Site investigations	No recorded within 50 metres of the enquiry boundary.
Remediated sites	None recorded within 50 metres of the enquiry boundary.

Summary of Consultants Coal Mining Report Ref: 51003579446001

MINING ACTIVITY AND GEOLOGY

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.

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.

- 4.3.3 Based upon the available Coal Authority information, mine workings are not anticipated beneath the site that require intrusive investigations. .
- 4.3.3 It is considered that this Coal Mining Risk Assessment has been able to demonstrate that the ground conditions are sufficiently understood to ensure that the development will be safe and stable.

4.5 Hydrogeology

- 4.5.1 According to Environment Agency classifications included in the Insight Report:
- The superficial deposits beneath the site are designated as Secondary A aquifers. These are permeable layers capable of supporting local water supplies and may provide base flow to nearby rivers or streams.
 - The underlying bedrock is also classified as a Secondary A aquifer, sharing similar hydrogeological characteristics.
- 4.5.2 The site is not located within any groundwater Source Protection Zone (SPZ), reducing regulatory sensitivity.
- 4.5.3 There are no recorded groundwater abstractions within 250m of the site.

4.6 Hydrology

- 4.6.1 The nearest surface water feature was Clough House Brook recorded approximately 23m south of the site.
- 4.6.2 There are no recorded licensed discharges to controlled waters within 250 m of the site.
- 4.6.3 The site was not within 50m of a high risk flood event according to Environment Agency (EA) mapping. This indicates a low probability of flooding from rivers or the sea, under both current and future climate scenarios.

4.7 Contaminated Land & Landfill Activities

- 4.7.1 According to the Groundsure Insight Report, there are no current landfill sites or licensed waste management facilities recorded on-site or within 250m.
- 4.7.2 There were no pollution incidents recorded within 250m of the site.
- 4.7.3 The site is not located within proximity to any high-risk industrial sites, including:

- Hazardous substance storage/usage
- COMAH (Control of Major Accident Hazards) facilities

4.8 Sensitive Land Uses

- 4.8.1 The site is located within an Impact Risk Zone of a Site of Special Scientific Interest (SSSIs).
- 4.8.2 The site is not situated within a designated Nitrate Vulnerable Zone (NVZ).

4.9 Radon

- 4.9.1 According to the UK Radon Maps published by the UK Health Security Agency (UKHSA) and the British Geological Survey (BGS), the site was located within an area where less than 1% of homes are estimated to exceed the radon Action Level.
- 4.9.2 In accordance with Building Regulations (Approved Document C) and guidance from UKHSA, no radon protection measures are required for any new residential development on this site.
- 4.9.3 While radon is a naturally occurring radioactive gas, it is a significant health risk when allowed to accumulate in indoor air over time. Therefore, design-phase mitigation should be addressed by the project architect and structural engineer in consultation with Building Control.

5. POTENTIAL POLLUTANT LINKAGES

5.1 General

- 5.1.1 This section identifies the potential sources of contamination, the relevant pathways, and the associated receptors that may be present or affected as part of the redevelopment of the site. This assessment has been undertaken with specific consideration for the proposed residential end use with potential for homegrown produce, which carries a heightened sensitivity to contamination.
- 5.1.2 A preliminary conceptual site model (CSM) has been developed and is presented in Appendix C, providing a qualitative overview of:
- Potential sources of contamination: Historical or current land uses both on-site and nearby that may have introduced pollutants.
 - Pathways for contamination migration: Mechanisms through which contaminants may travel from source to receptor, including human exposure routes and environmental transport processes.
 - Potential receptors: Future site users (residents), controlled waters (e.g., groundwater or surface water), the wider environment, and property/buildings.

5.2 Potential Sources of Contamination

- 5.2.1 The historical review records a possible building at the site 1851. The site appeared undeveloped between 1890 and 1988 when the existing building and site boundary was marked. An above ground oil tank was present immediately west of the site.
- 5.2.2 The Groundsure Insight Report also identifies multiple potentially contaminative land uses within 250m of the site. Commercial uses were noted on immediately surrounding land with Clough House Woollen Mill and an adjacent Reservoir were marked immediately north west of the site.
- 5.2.2 The Mill was noted as disused from at least 1908 and buildings and structures were cleared by 1937. The Reservoir was marked as marsh in 1988. In the wider area surrounding the site woollen mills and gasometers were marked more than 200m from the site. A Coal Pit was marked more than 300m to the south west of the site.

- 5.2.3 These land uses are commonly associated with a range of potential contaminants such as hydrocarbons, solvents, heavy metals, and asbestos-containing materials (ACMs).
- 5.2.4 The site was developed at the time of inspection and the site levels had been constructed with excavation and fill to form a level area. The presence of made ground in areas is considered likely.

5.3 Potential Contaminants of Concern

- 5.3.1 Based on the site's historical uses and surrounding context, the following classes of contaminants may be of concern:
- Metals and metalloids (e.g., lead, arsenic, copper)
 - Petroleum hydrocarbons (e.g., diesel, lubricating oils)
 - PAHs (from coal storage, wood processing, or fuel combustion)
 - Volatile organic compounds (VOCs) (from industrial solvents or degreasers)
 - Asbestos-containing materials (ACMs)
 - Ground gases (e.g., methane or carbon dioxide from made ground or nearby landfills)

5.4 Potentially Significant Contaminants of Concern

- 5.4.1 Based on the site's industrial history and proximity to historical contaminative land uses, a range of potentially significant contaminants may be present in soils or shallow groundwater. These have been identified with reference to typical contaminants associated with the former road and Electrical Substation along with commercial and industrial uses noted on surrounding land.

5.5 Ground Gas Considerations

- 5.5.1 Current UK best practice guidance considers ground gas assessment and characterisation for a site separately for different types of development. Two situations are identified in assessment:
- 'Situation A' covers all forms of development (residential and industrial/commercial developments), other than low rise residential development; and

- 'Situation B' is defined as the specific development of low-rise (one to three storeys in height) housing with beam and block floors, vented sub-floor void and gardens.

5.5.2 The development is classified as characteristic Situation B. Based upon available records with the infilled reservoir 20m north west of the site the gas generation potential at the site considered moderate. For the proposed development ground gas monitoring & the assessment for gas protection measures are required.

5.6 Potential Pathways

5.6.1 The likelihood of risk to receptors is governed by the existence of viable contaminant-pathway-receptor (C-P-R) linkages. With respect to the proposed redevelopment of the site for residential use with homegrown produce, the following human health exposure pathways have been identified:

- Dermal contact with contaminated soils (e.g., during gardening or play)
- Ingestion of contaminated soils or homegrown vegetables (e.g., due to uptake of contaminants)
- Inhalation of contaminated dust or vapours from impacted soils or made ground, particularly during groundworks or dry weather
- Leaching of contaminants into soil pore water, potentially affecting plant health and uptake into homegrown produce.
- Indoor inhalation of ground gases (e.g. methane, carbon dioxide) or organic vapours (e.g. VOCs) that could migrate from made ground into residential buildings via permeable soils or service conduits.
- Vertical migration of contaminants via dissolution or suspension in percolating rainwater, potentially reaching shallow groundwater and aquifers.
- Lateral migration of leachate in perched water through more permeable lenses in the made ground or natural strata, with potential to affect both on-site and off-site receptors. Subsurface services, piling, and foundation structures may act as preferential pathways.
- Direct contact with buried services (e.g. water pipes, ducts) by aggressive contaminants (e.g. hydrocarbons, sulphate) may pose a corrosion or integrity risk.

- Building materials in contact with elevated levels of sulphate or extremes of pH may be at risk of degradation, particularly affecting concrete and masonry elements.

These pathways will form the basis of the conceptual site model (CSM) and require further consideration in any subsequent Phase 2 intrusive investigation.

5.7 Potential Receptors

5.7.1 The following site-specific receptors may be affected by contamination depending on the viability of source–pathway–receptor linkages:

5.7.2 Future Site Users

5.7.3 The proposed end-use of the site is residential with potential for homegrown produce. As such, future residents represent a highly sensitive receptor group, particularly children and those engaging in gardening activities.

5.7.4 Key risks include:

- Ingestion of contaminated soils or homegrown vegetables (particularly with uptake of metals or organic contaminants).
- Inhalation of dust, vapours, or fibres (including asbestos, if present).
- Dermal contact with contaminated soils during recreational or gardening activities.

5.7.5 These exposures are most relevant in garden areas, open spaces, and potentially under unsealed surface treatments.

5.7.6 The inhalation of ground gases or vapours indoors is also a concern, particularly if significant made ground or volatile contaminants are present beneath future buildings.

5.7.7 Construction Workers

5.7.8 Construction and groundwork personnel may encounter contaminated materials during shallow excavations, particularly in made ground. Asbestos-containing materials (ACMs), if present, may become airborne during disturbance, posing a respiratory hazard.

5.7.9 The short duration of exposure and use of standard PPE and robust site-specific RAMS (Risk Assessments and Method Statements) are generally expected to

mitigate risk from most contaminants. However, heightened caution is warranted in the presence of asbestos or hydrocarbon-impacted soils.

5.8 Off-Site Receptors

- 5.8.1 Surrounding land uses include residential properties immediately to the north and of the site. These off-site human receptors may be at risk from airborne pollutants—particularly asbestos fibres or contaminated dust—should these be released during demolition or site development activities.

5.9 Flora

- 5.9.1 Vegetation introduced as part of landscaping schemes or ecological mitigation may be impacted by soil contaminants. Certain heavy metals (e.g., lead, arsenic, zinc) are known to be phytotoxic at elevated concentrations, potentially inhibiting plant growth and affecting soil health.

5.10 Buildings & Services

- 5.10.1 Subsurface services (e.g., water supply, drainage, and utility infrastructure) may be at risk from direct contact with organic contaminants, such as hydrocarbons and solvents, which may degrade protective coatings or cause long-term corrosion. This is particularly relevant in the presence of volatile or aggressive substances in made ground.

5.11 Controlled Waters

- 5.11.1 Clough House Brook was present 23m south of the site. These features represent potential surface water receptors, especially if contaminant migration occurs via runoff or lateral leachate movement.
- 5.11.2 Both the Superficial Deposits and underlying bedrock are classified as Secondary A Aquifers by the Environment Agency. These aquifers are permeable and capable of supporting local water supplies and may also contribute to base flow in nearby streams or brooks. As such, they are considered sensitive controlled water receptors.

5.12 Preliminary Conceptual Model

- 5.12.1 Based on the identified sources, pathways, and receptors, a Preliminary Conceptual Site Model (CSM) has been developed. It outlines the plausible pollutant linkages that may be active or potentially active under the proposed site redevelopment for residential use with homegrown produce.
- 5.12.2 The identified source-pathway-receptor linkages are summarised in the table below and in Appendix C. These form the basis of the site's preliminary risk assessment and guide recommendations for further investigation.

5.13 Potentially Significant Pollutant Linkages

- 5.13.1 A number of potentially significant pollutant linkages (SPRLs) have been identified based on the desk-based assessment. These relate primarily to risks affecting human health, controlled waters, and buildings/services.
- 5.13.2 **Link 1:** Human health (on-site and off-site) – Direct exposure to made ground or contaminated soils via ingestion, inhalation of dust, or dermal contact, potentially affecting both residents and domestic pets.
- 5.13.3 **Link 2:** Inhalation of windblown particulates – Potential for airborne migration of contaminated dust or asbestos fibres, affecting both on-site users and adjacent residential areas.
- 5.13.4 **Link 3:** Contamination of homegrown produce – Uptake of contaminants by vegetables grown in site soils, potentially leading to bioaccumulation.
- 5.13.5 **Link 4:** Ingestion of contaminated produce – Direct human exposure through dietary intake of crops grown in impacted soil, especially relevant for sensitive populations (e.g., children).
- 5.13.6 **Link 5:** Inhalation of ground gases – The presence of made ground and underlying coal measures introduces the potential for ground gas generation (e.g., methane, carbon dioxide). If ground gases migrate into indoor environments, they may pose a risk to human health via inhalation, particularly in enclosed spaces with poor ventilation.
- 5.13.7 **Link 6:** Inhalation of volatile organic compounds (VOCs) – In the presence of petroleum hydrocarbons or solvents, volatilisation into indoor air may occur. Vapour intrusion pathways could lead to chronic exposure risks for future residents if VOCs migrate into buildings.

5.13.8 **Link 7:** Property and ecological receptors – Direct contact between construction materials, underground utilities, flora, and fauna with elevated concentrations of contaminants (e.g., sulphates, hydrocarbons, metals) could result in:

- Material degradation or corrosion
- Phytotoxicity to landscaped flora
- Harm to soil invertebrates or microbiota

5.13.9 **Link 8:** Lateral leaching to surface water – Dissolution or suspension of contaminants within soil pore water may result in lateral migration within perched water bodies. Potential pathways include permeable layers in the made ground or natural strata, and man-made features such as underground services, pile foundations, or utility trenches. These could allow contaminants to reach on-site or off-site surface water receptors, including River Roch and nearby drainage features.

5.13.10 **Link 9:** Leaching to groundwater – Vertical migration of contaminants through the soil profile, particularly in areas lacking a cohesive clay layer (e.g., Glacial Till), could lead to impacts on the Secondary A aquifer within the bedrock. Structural features such as deep foundations or piles may provide preferential pathways for contaminant movement, increasing the risk to controlled waters.

Link	Source	Hazard	Transport Mechanism	Pathway	Medium of exposure	Receptor	Risk Summary
1	Contaminated soils	Direct contact /ingestion of soil or dust	Direct contact with contaminated soils	Dermal contact/ingestion of soil at surface	Soil	Human (on site/ off site) domestic pets	Medium – potential in garden areas
2	Contaminated soils	Particulate inhalation	Wind blown particulates	Inhalation of particulates	Air	Human (on site/ off site) domestic pets	Low
3	Contaminated soils	Impaired produce growth	Uptake of contaminants by homegrown produce resulting in loss	Uptake during growth	Vegetable produce	Property (domestic produce)	Medium – potential homegrown vegetables
4	Contaminated soils	Ingestion of contaminants	Uptake of contaminants by homegrown produce	Consumption of home grown produce	Vegetable produce	Humans	Medium – potential homegrown vegetables
5	Contaminated soils / coal measures	Inhalation of ground gas	Degradation of contaminants generating ground gas through unsaturated zone to soil leading to inhalation	Inhalation of gases	Air	Humans (on site/off site, domestic pets)	Medium – potential shallow workings
6	Contaminated soils	Vapour inhalation	Volatilisation of organic compounds through unsaturated zone of soil leading to inhalation	Inhalation of vapours	Air	Human (on site/ off site) domestic pets	Low – no significant sources identified
7	Contaminated soils	Damage of structures / services	Direct contact of contaminants with building structures/services	Direct contact	Soil/Water	Flora, services, concrete	Low – no significant sources identified
8	Contaminated soils	Degradation of perched water quality	Dissolution or suspension of contaminants into perched waters and migration to on-site and off-site receptors	Dissolution or suspension	Water	Perched waters, surface water	Low – no significant sources identified
9	Contaminated soils	Pollution of underlying groundwater	Dissolution or suspension of contaminants into groundwaters	Dissolution or suspension	Water	Groundwater	Medium – potential to Wrigley Brook

6. RECOMMENDATIONS

6.1 Introduction

- 6.1.1 Based on the findings of this Preliminary Risk Assessment, potential risks to human health, controlled waters, flora, fauna, and property (including buried services) have been identified. These risks are primarily associated with the presence of made ground, the historical industrial uses noted to the east of the site, and possible ground gas generation associated with shallow coal workings.

The identified potential pollutant linkages represent plausible risks that warrant further assessment. A Phase 2 intrusive site investigation is recommended to:

- Characterise ground conditions
- Confirm the presence or absence of contamination
- Assess the viability and severity of each pollutant linkage
- Support the development of appropriate remediation or mitigation strategies (if required)

The scope of investigation should be designed in accordance with LCRM, BS10175, and CIRIA C665 guidance, tailored to the proposed residential end-use with homegrown produce.

6.2 Intrusive works

- 6.2.1 The proposed investigation should include the drilling of boreholes across the site to confirm stratigraphy and assess the depth, nature, and variability of made ground. This will help identify any significant contamination or ground gas generation potential.
- 6.2.2 The boreholes should be positioned to cover areas of proposed garden spaces, open areas, and building footprints, with consideration for former structures and suspect contamination zones.
- 6.2.3 In-situ geotechnical strength testing should be undertaken during the drilling programme. Soil samples should be recovered for both chemical and geotechnical laboratory analysis.
- 6.3.4 All samples intended for chemical analysis must be:
- Collected in appropriate containers

- Immediately stored in pre-cooled cool boxes
- Dispatched to the laboratory within 24 hours to maintain integrity

6.3.5 The investigation should be supervised by a suitably qualified geoenvironmental engineer, responsible for logging ground conditions and managing sample handling protocols.

6.4 Ground Gas Considerations

6.4.1 Ground gas monitoring (in accordance with CIRIA C665) is required to assess risks from methane, carbon dioxide, and volatile compounds.

6.5 Other Considerations

6.9.1 To inform surface water management strategies, it may be necessary to undertake soakaway testing in accordance with BRE Digest 365. These results will support the design of sustainable drainage systems (SuDS).

6.9.2 In addition, it is recommended that the developer:

- Consult with the local water utility provider
- Complete a UK Water Industry Research (UKWIR) risk assessment for water pipe material selection, based on the contamination profile of site soils

This ensures that the selected materials (e.g., barrier pipe vs. standard MDPE) are compatible with soil conditions, safeguarding long-term service integrity.

APPENDIX A – Drawings & Photographs

Clough House
Cottages

Clough
House

The
Barn

2
to 3
1

EXISTING BLOCK PLAN
1:200

Clough House
Cottages

Clough
House

The
Barn

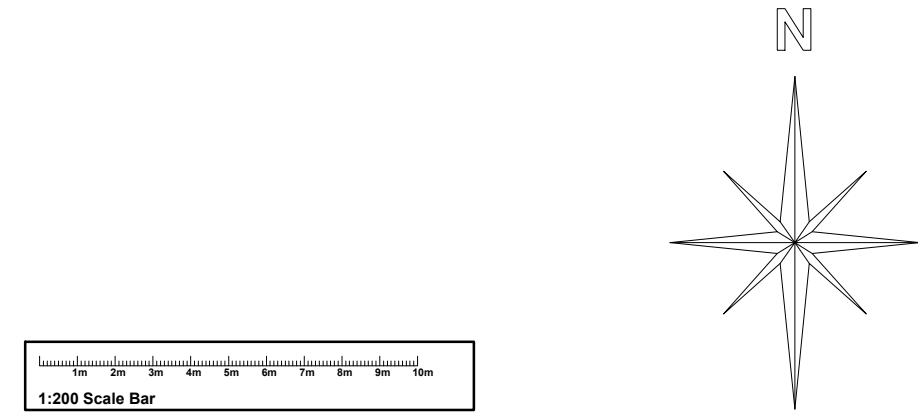
2
to 3
1

Client and contractor to liaise with neighbouring
property to ensure permission is granted to use
any existing drainage connections that sit outside
of the proposal site ownership.
Branch new drainage into the existing site
drainage system. Assumed combined drainage
system.
Existing rainwater drainage is to
be retained.

PROPOSED BLOCK PLAN
1:200

This drawing is provided as a document to gain either Planning Permission or Building Regulation approval purposes only. It is not a guarantee that Planning Permission will be granted.
This drawing and all contents are the copyright of James Campbell Associates Ltd. No copies to be made from the drawing & details within unless authorised by James Campbell Associates Ltd.
The contract for the works is between the client and his / her contractor. Contractor to visit site, study the details provided within the drawing and be familiar with both the work to be carried out in accordance with the details provided. Any stated dimension must be checked prior to any form of construction. All works and materials to comply with all relevant British Standards and carry a genuine BBA certificate. The materials specified within this drawing are a guide for the contractor as they are recognised materials with genuine SBA certificates etc. Any contractor who decides to use any different materials than that noted on the drawing must inform James Campbell Associates Ltd.
Any discrepancies discovered or items found that where not visible at the time of the initial survey should be reported to James Campbell Associates Ltd for consultation with our client.

CONSTRUCTION NOTES:-



DRAWING TITLE
EXISTING & PROPOSED BLOCK PLANS

JCA

JAMES CAMPBELL ASSOCIATES LTD
CHARTERED ARCHITECTURAL SERVICES



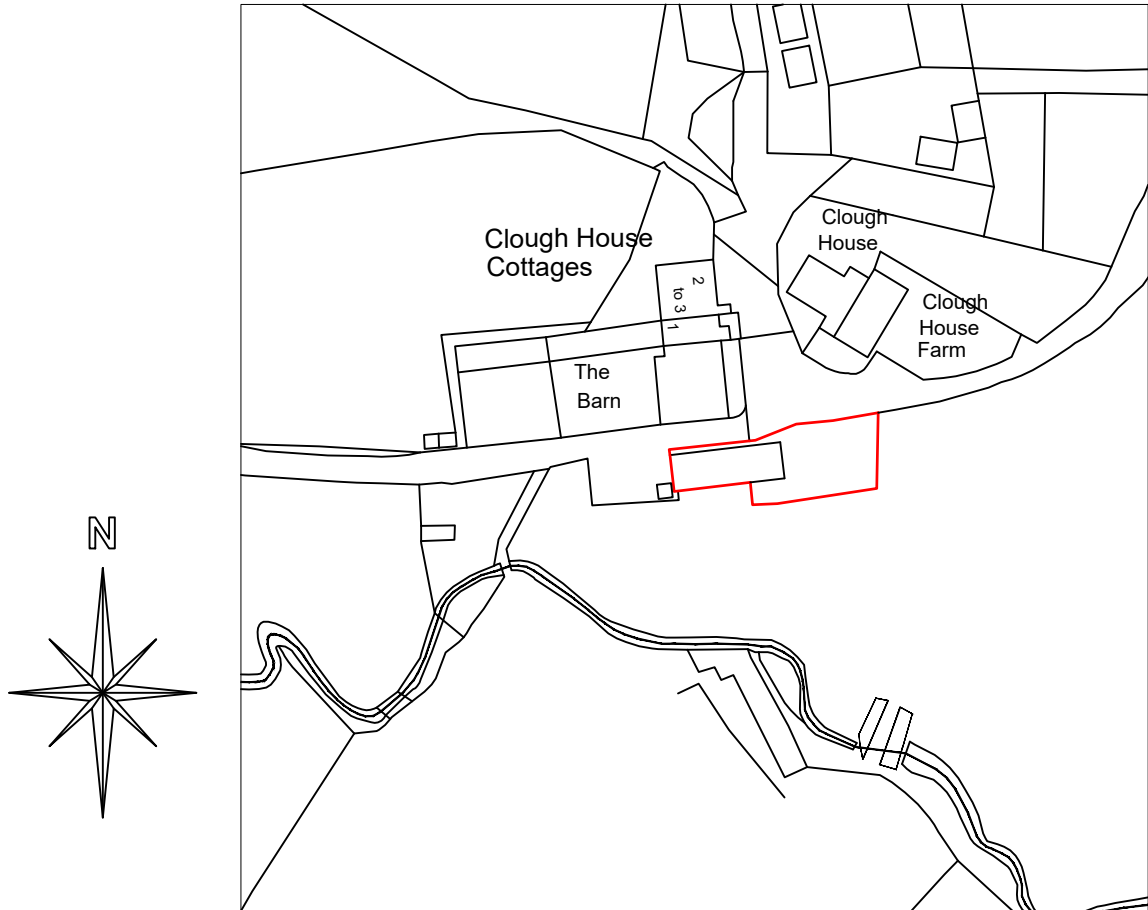
Campbell House
173 Rochdale Road
Firgrove
Rochdale
OL16 3BN

Tel: 01706 354888
Mob: 07817 623183
Email: admin@jamescampbellassociates.co.uk
Web: www.jamescampbellassociates.co.uk

PROJECT
PROPOSED BARN CONVERSION

LOCATION
Clough House Barn
Wardle

DRAWN:-	Aiden Phillips-Whalley	DRAWING NUMBER:- 25.3588.4A
DATE:-	July 2025	
SCALE:-	1:200 @ A1	
ISSUE:-	A	



Scale 1:1250

SITE LOCATION PLAN



General view to the west across the site looking at the building



General view to the south west from Clough House Lane looking across the site



General view to the south of the southern boundary and sloping ground to the south



General view to the west across the southern half of the site



General view to the east of the eastern boundary with an above ground oil tank immediately adjacent and connecting to the site



General view to the north west from land to the south of the site

APPENDIX B - GroundSure



Map name:	County Series
Map date:	1851
Scale:	1:10,560
Printed at:	1:10,560

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

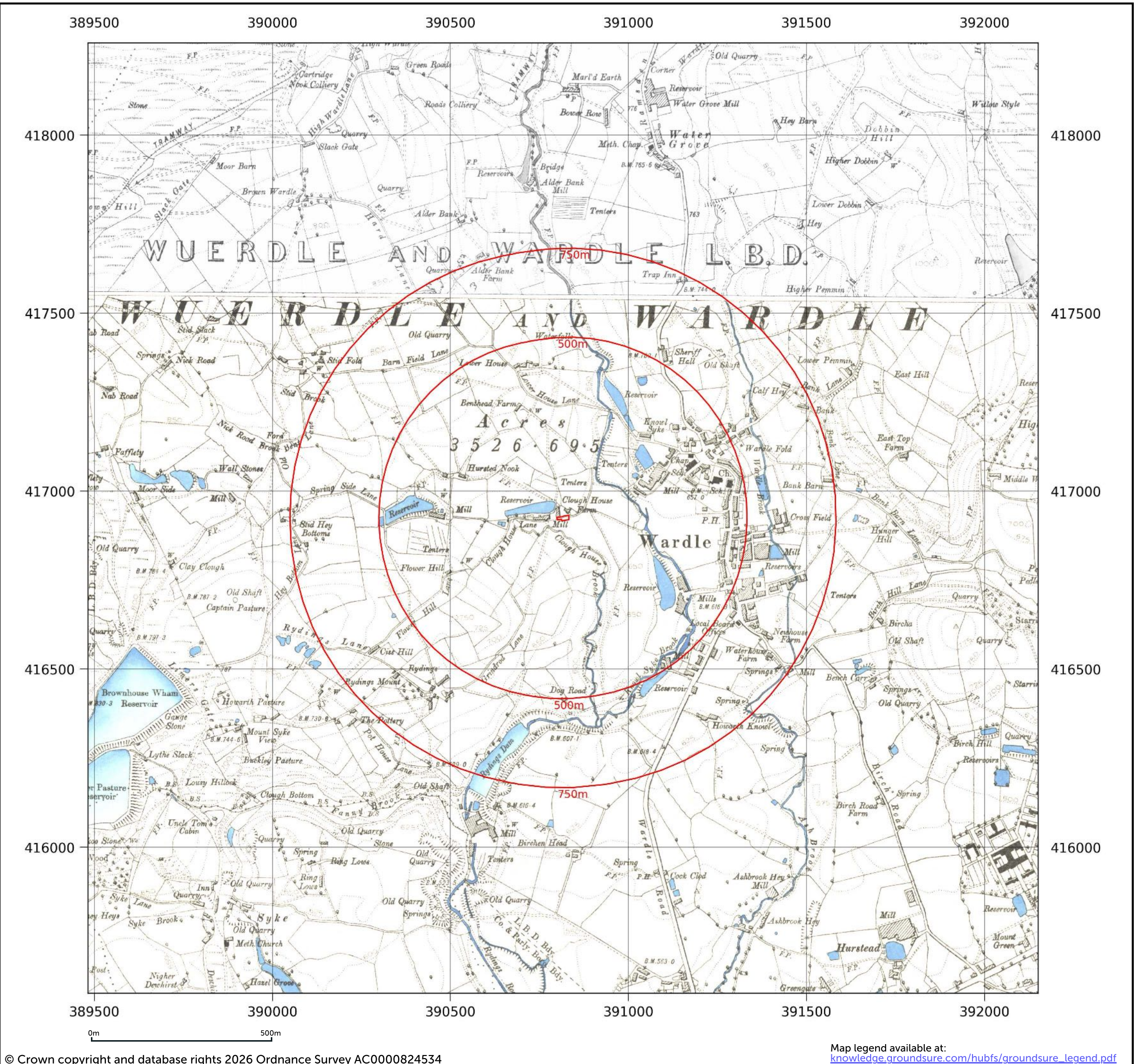
Site details:	CLOUGH HOUSE BARN, CLOUGH HOUSE LANE, WARDLE, ROCHDALE, OL12 9PL
Client ref:	CLOUGH HOUSE BARN
Report ref:	GS-XZV-MTN-J94-37E
Grid ref:	390818.28, 416924.02
Production date:	25 June 2026

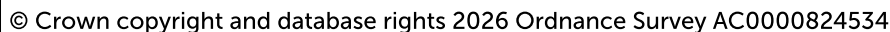
Map name:	County Series
Map date:	1890-1891
Scale:	1:10,560
Printed at:	1:10,560



Date: 1891 Surveyed: 1891 Revised: 1891
Date: 1890 Surveyed: 1890 Revised: 1890

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01273 257 755





Date: 1928
Surveyed: 1848
Revised: 1928

Map legend available at:
knowledge.groundsure.com/hubfs/groundsure_legend.pdf

Site details: CLOUGH HOUSE BARN, CLOUGH HOUSE LANE, WARDLE, ROCHDALE, OL12 9PL

Client ref: CLOUGH HOUSE BARN

Report ref: GS-XZV-MTN-J94-37E

Grid ref: 390818.28, 416924.02

Production date: 25 June 2026

Map name: County Series

Map date: 1938

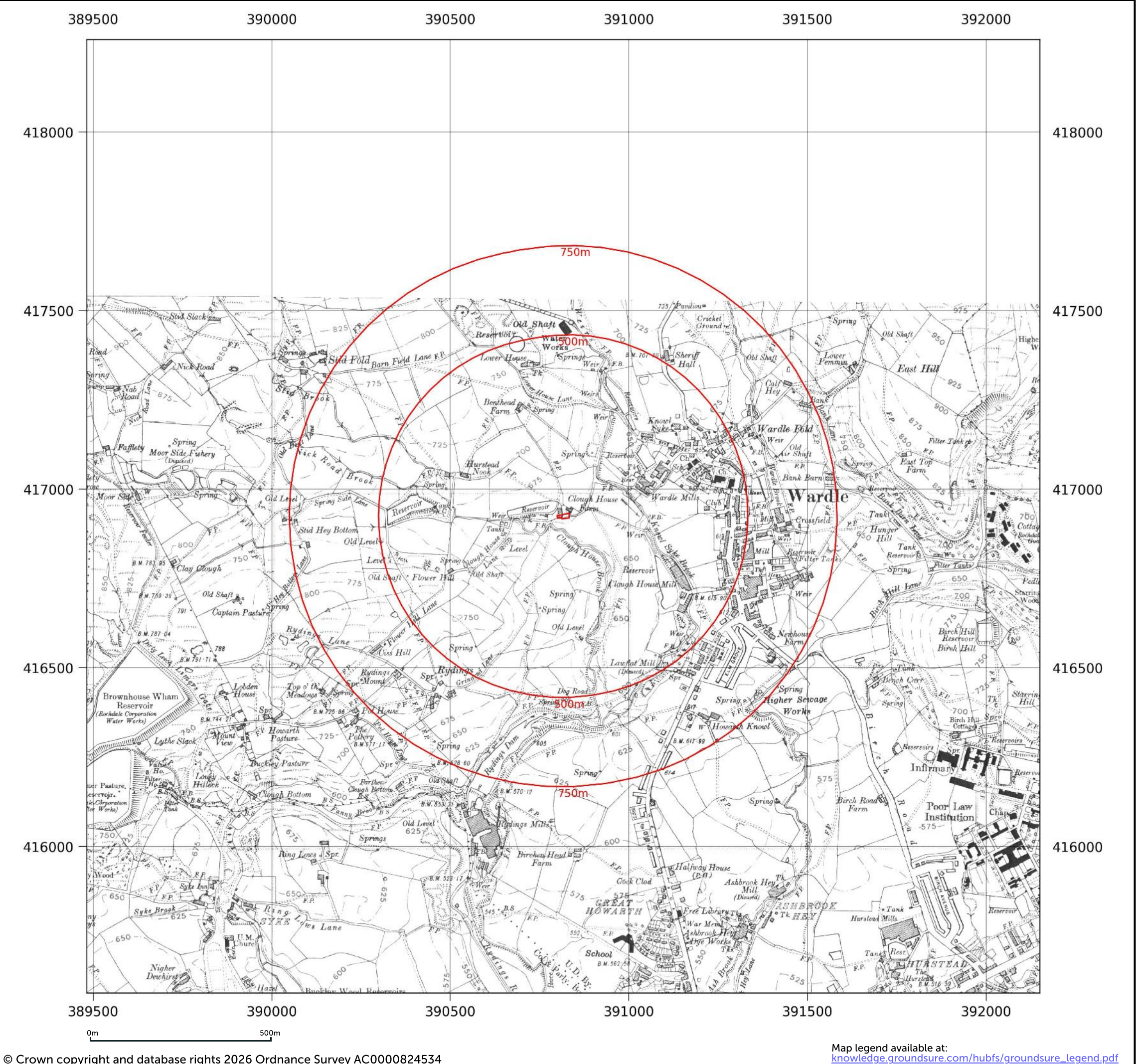
Scale: 1:10,560

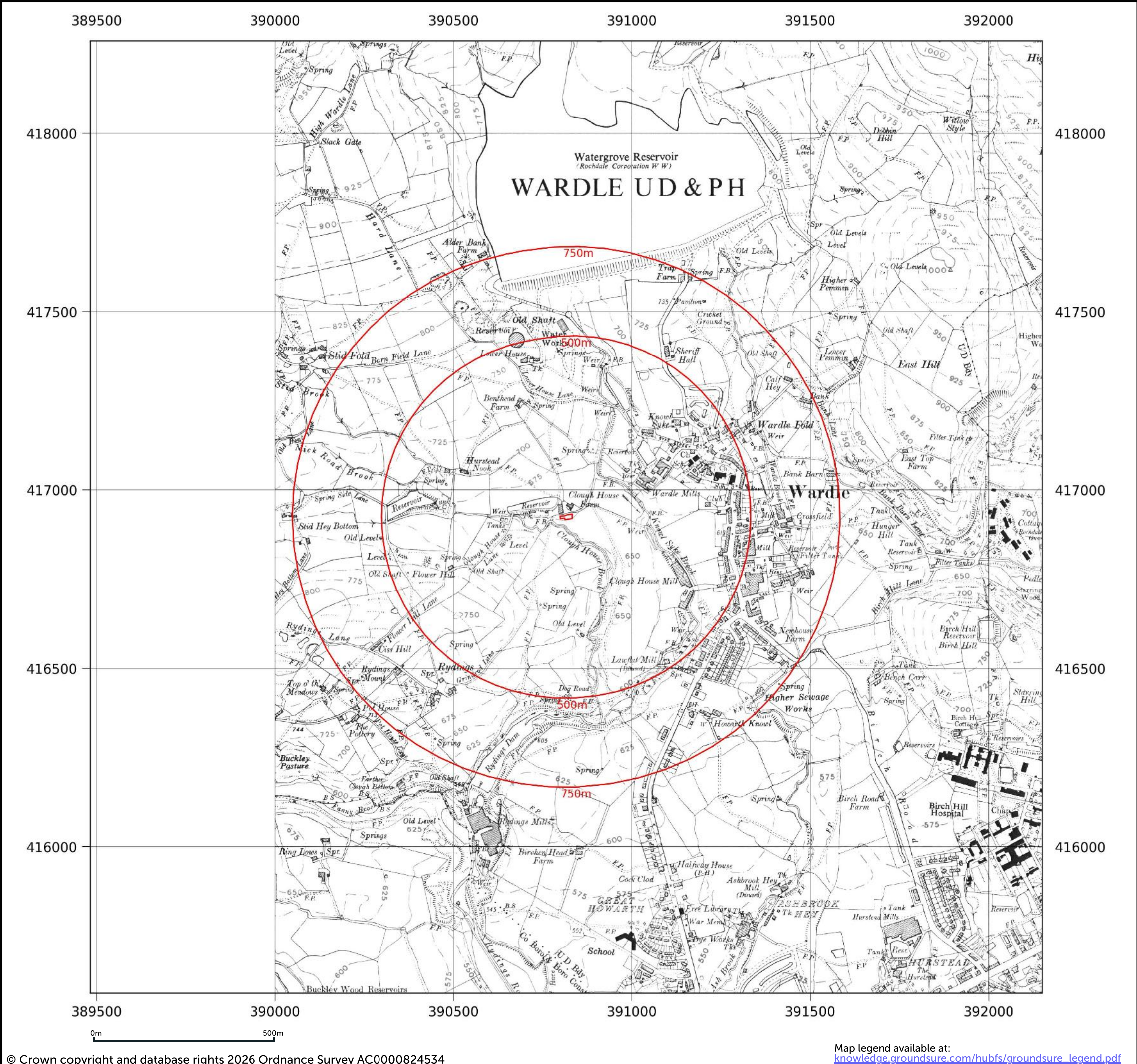
Printed at: 1:10,560



Date: 1938
Surveyed: 1848
Revised: 1938

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Site details:	CLOUGH HOUSE BARN, CLOUGH HOUSE LANE, WARDLE, ROCHDALE, OL12 9PL
Client ref:	CLOUGH HOUSE BARN
Report ref:	GS-XZV-MTN-J94-37E
Grid ref:	390818.28, 416924.02
Production date:	25 June 2026

Map name:	Provisional
Map date:	1949
Scale:	1:10,560
Printed at:	1:10,560

Date: 1949
Surveyed: 1949
Revised: 1949

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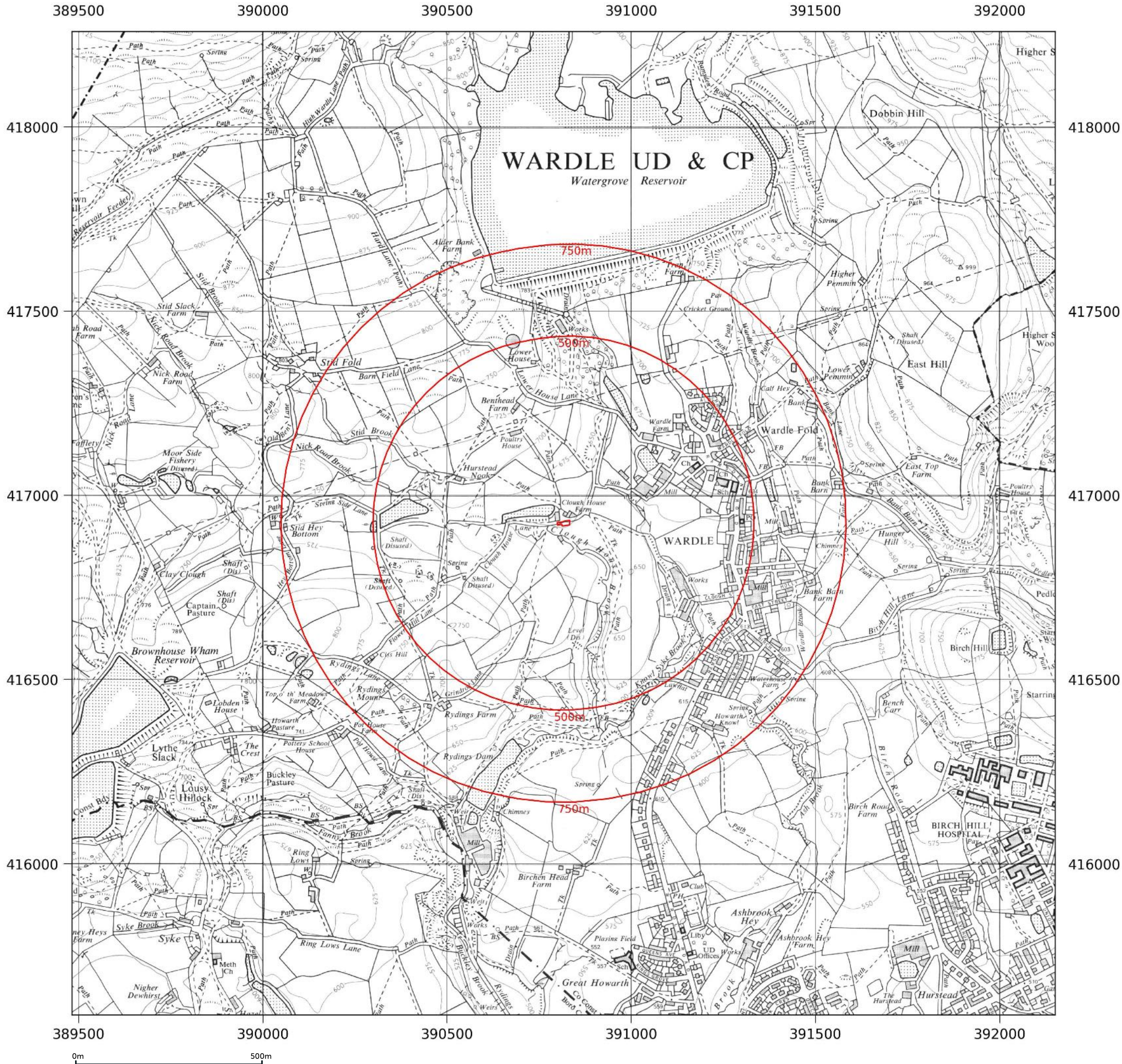
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Client ref:	CLOUGH HOUSE BARN
Report ref:	GS-XZV-MTN-J94-37E
Grid ref:	390818.28, 416924.02
Production date:	25 June 2026

Map name:	Provisional
Map date:	1967-1968
Scale:	1:10,560
Printed at:	1:10,560



Date: 1967 Surveyed: 1967 Revised: 1967	Date: 1968 Surveyed: 1968 Revised: 1968
---	---

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Site details: CLOUGH HOUSE BARN, CLOUGH HOUSE LANE, WARDLE, ROCHDALE, OL12 9PL

Client ref: CLOUGH HOUSE BARN

Report ref: GS-XZV-MTN-J94-37E

Grid ref: 390818.28, 416924.02

Production date: 25 June 2026

Map name: National Grid

Map date: 1976-1979

Scale: 1:10,000

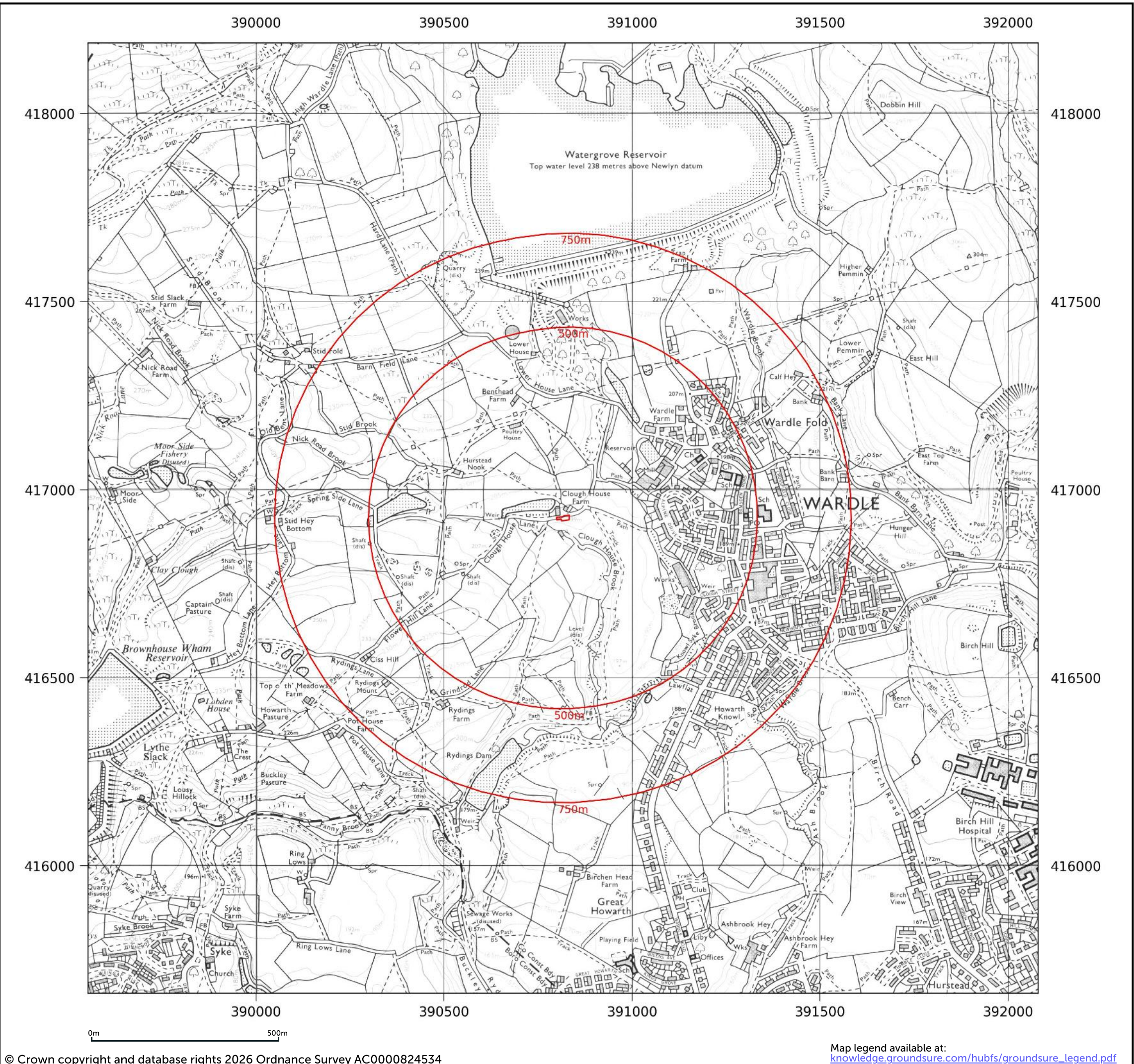
Printed at: 1:10,000



Date: 1979
Surveyed: 1975
Revised: 1979

Date: 1976
Surveyed: 1975
Revised: 1976

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Site details: CLOUGH HOUSE BARN,
CLOUGH HOUSE LANE,
WARDLE, ROCHDALE, OL12
9PL

Client ref: CLOUGH HOUSE BARN

Report ref: GS-XZV-MTN-J94-37E

Grid ref: 390818.28, 416924.02

Production date: 25 June 2026

Map name: National Grid

Map date: 1989

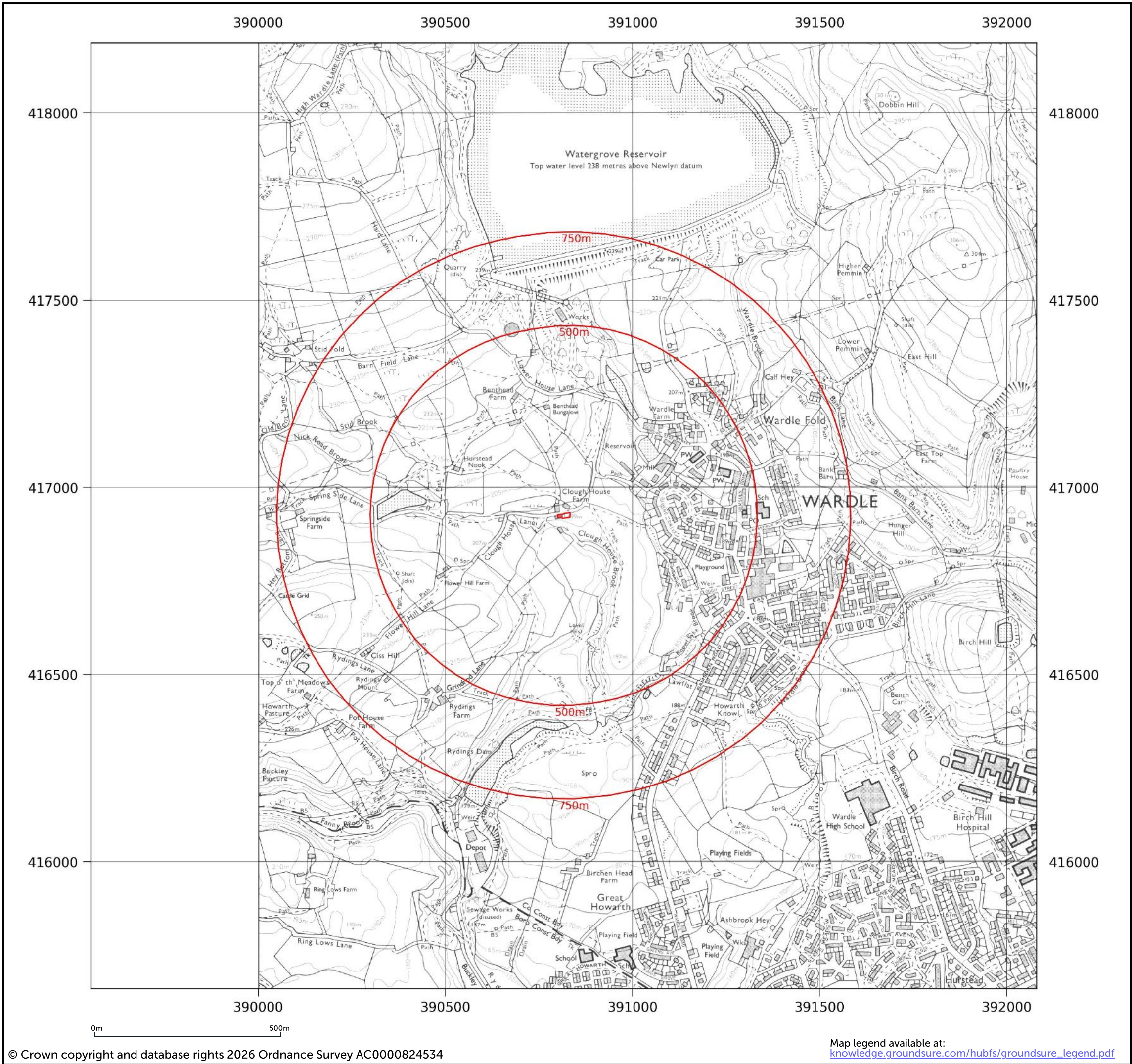
Scale: 1:10,000

Printed at: 1:10,000



Date: 1989
Surveyed: 1983
Revised: 1989

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Site details:

CLOUGH HOUSE BARN,
CLOUGH HOUSE LANE,
WARDLE, ROCHDALE, OL12
9PL

Client ref:

CLOUGH HOUSE BARN

Report ref:

GS-XZV-MTN-J94-37E

Grid ref:

390818.28, 416924.02

Production date:

25 June 2026

Map name:

National Grid

Map date:

2001

Scale:

1:10,000

Printed at:

1:10,000

N

W

E

S

Date: 2001

Date: 2001

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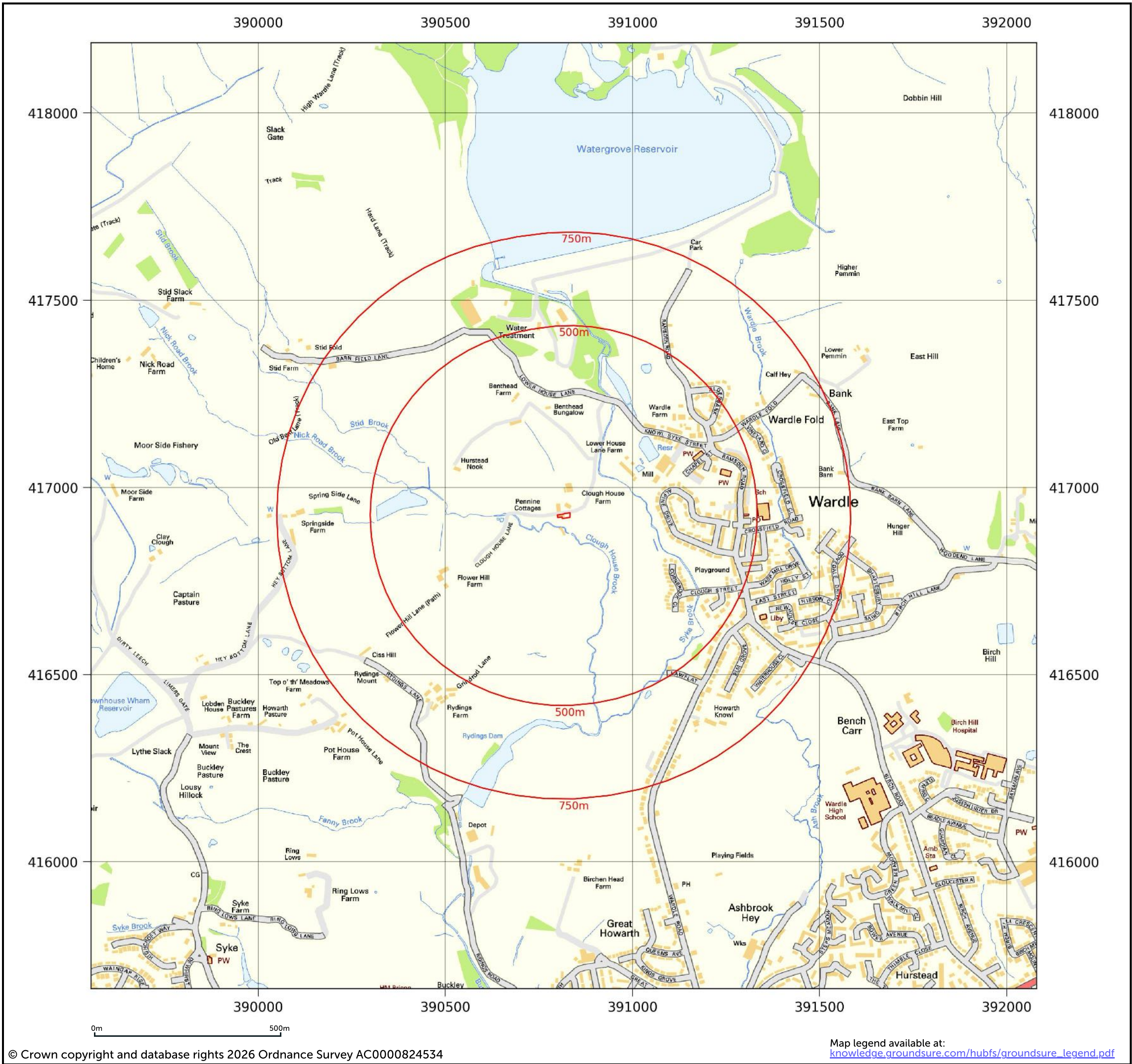
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Client ref:	CLOUGH HOUSE BARN
Report ref:	GS-XZV-MTN-J94-37E
Grid ref:	390818.28, 416924.02
Production date:	25 June 2026

Map name:	National Grid
Map date:	2010
Scale:	1:10,000
Printed at:	1:10,000



Date: 2010	Date: 2010
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Site details:

CLOUGH HOUSE BARN,
CLOUGH HOUSE LANE,
WARDLE, ROCHDALE, OL12
9PL

Client ref:

CLOUGH HOUSE BARN

Report ref:

GS-XZV-MTN-J94-37E

Grid ref:

390818.28, 416924.02

Production date:

25 June 2026

Map name:

National Grid

Map date:

2015

Scale:

1:10,000

Printed at:

1:10,000

N

W

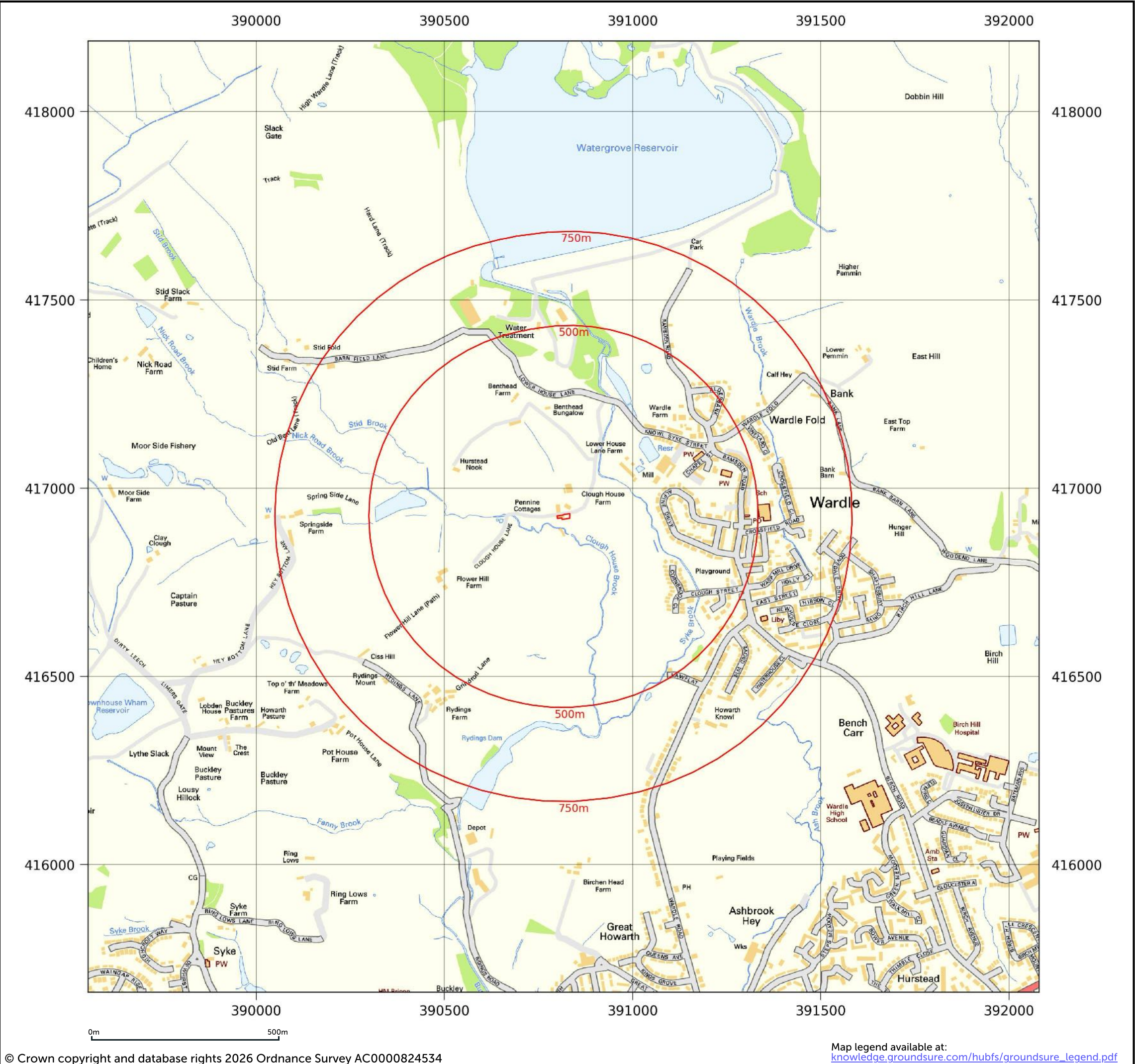
E

S

Date: 2015

Date: 2015

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info@groundsure.com
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Site details:

CLOUGH HOUSE BARN,
CLOUGH HOUSE LANE,
WARDLE, ROCHDALE, OL12
9PL

Client ref:

CLOUGH HOUSE BARN

Report ref:

GS-XZV-MTN-J94-37E

Grid ref:

390818.28, 416924.02

Production date:

25 June 2026

Map name:

National Grid

Map date:

2025

Scale:

1:10,000

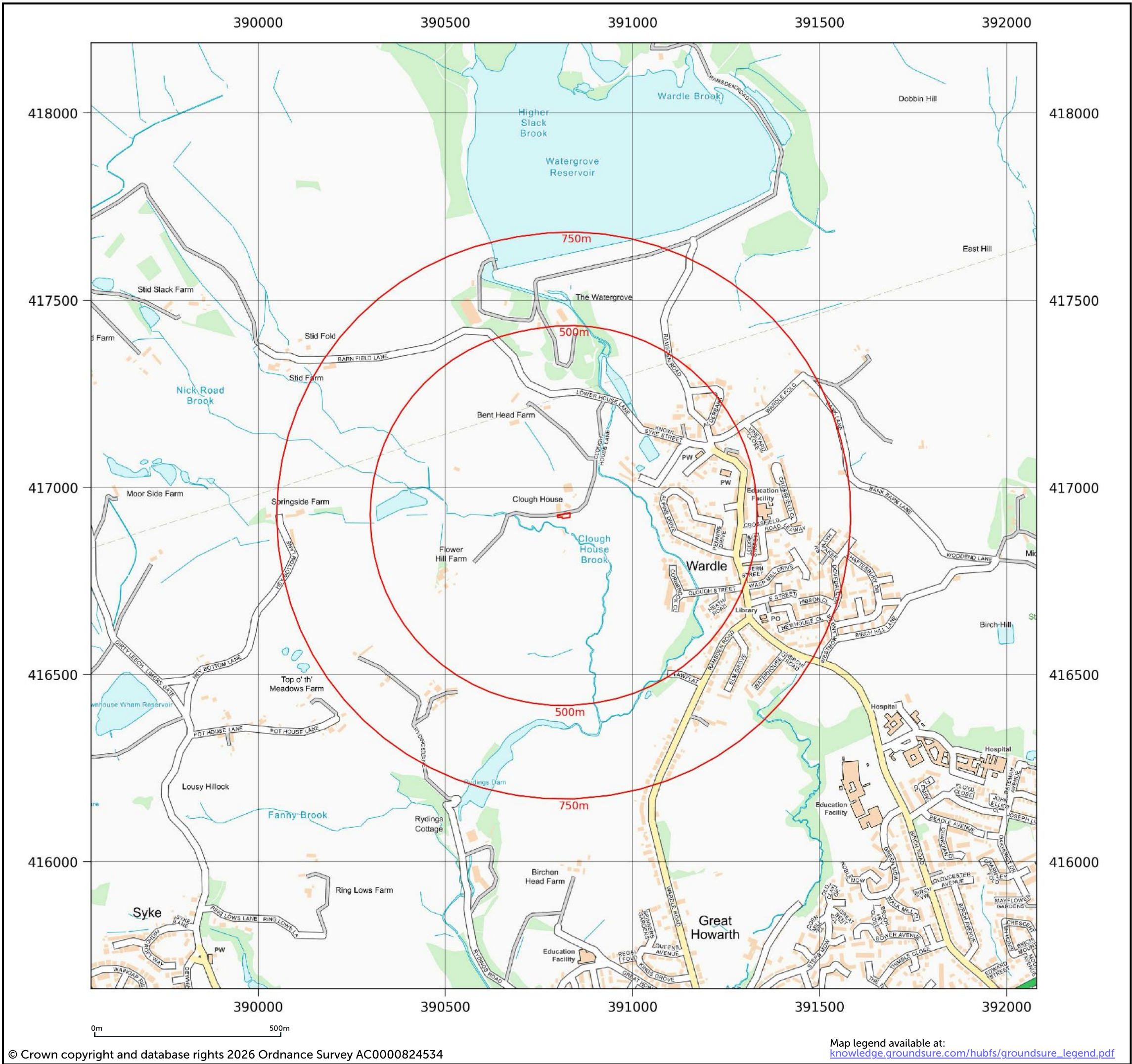
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Date: 2025

Date: 2025

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info@groundsure.com
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Site details:

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WARDLE, ROCHDALE, OL12
9PL

Client ref:

CLOUGH HOUSE BARN

Report ref:

GS-XZV-MTN-J94-37E

Grid ref:

390818.28, 416924.02

Production date:

25 June 2026

Map name:

County Series

Map date:

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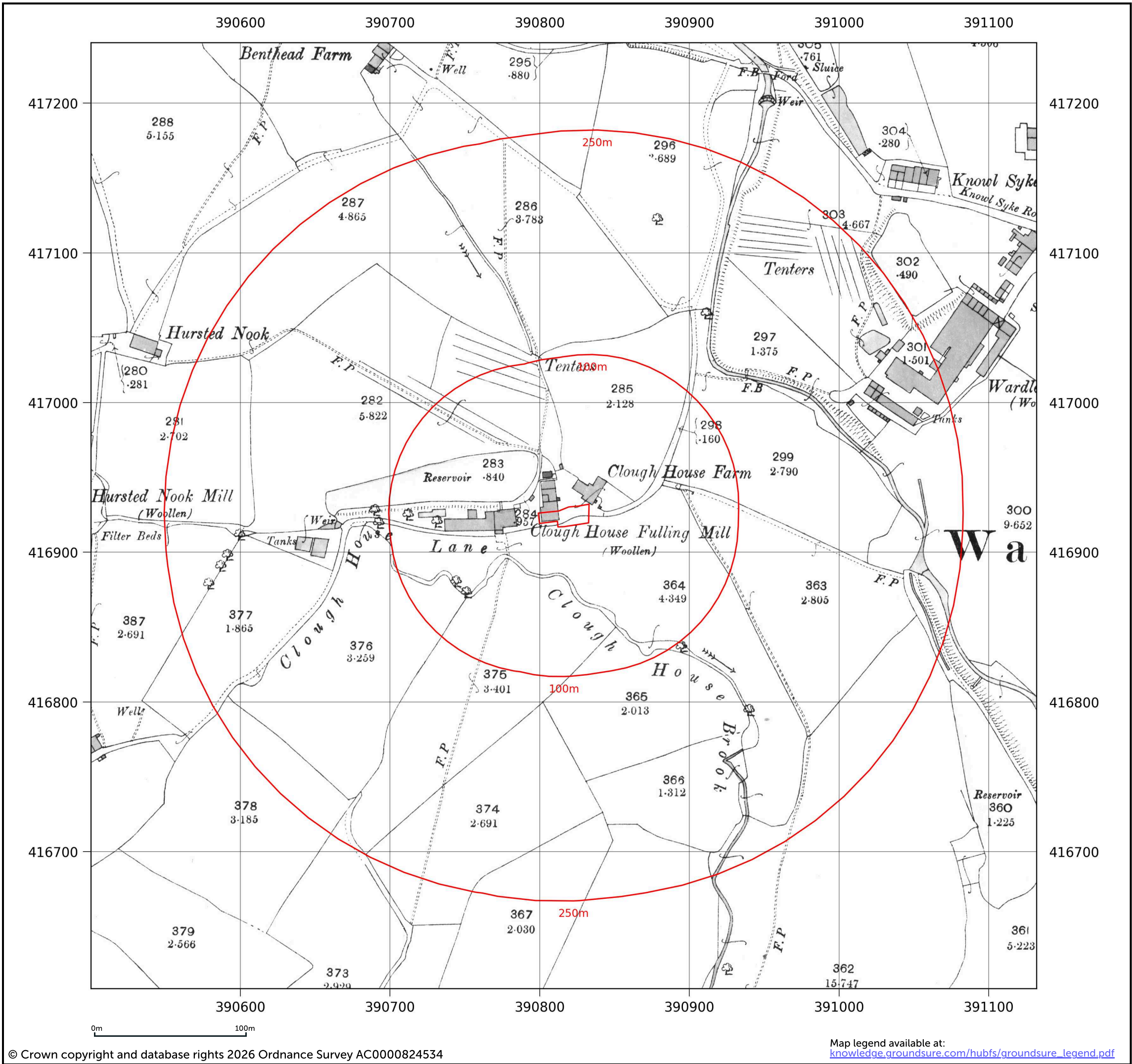
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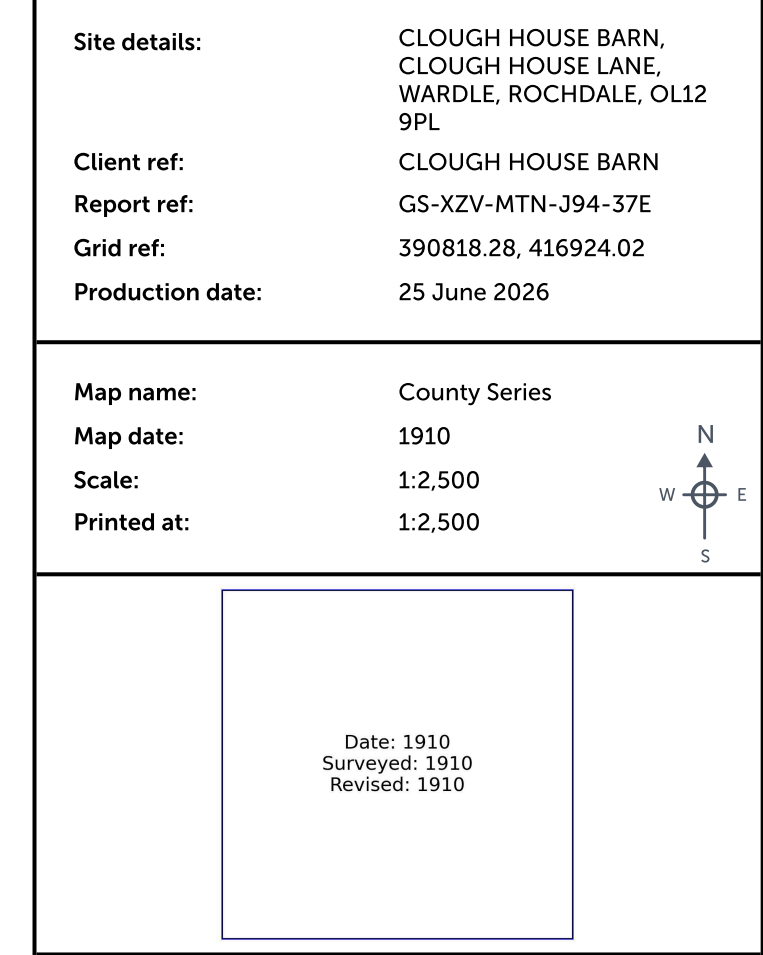
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Surveyed: 1890
Revised: 1890

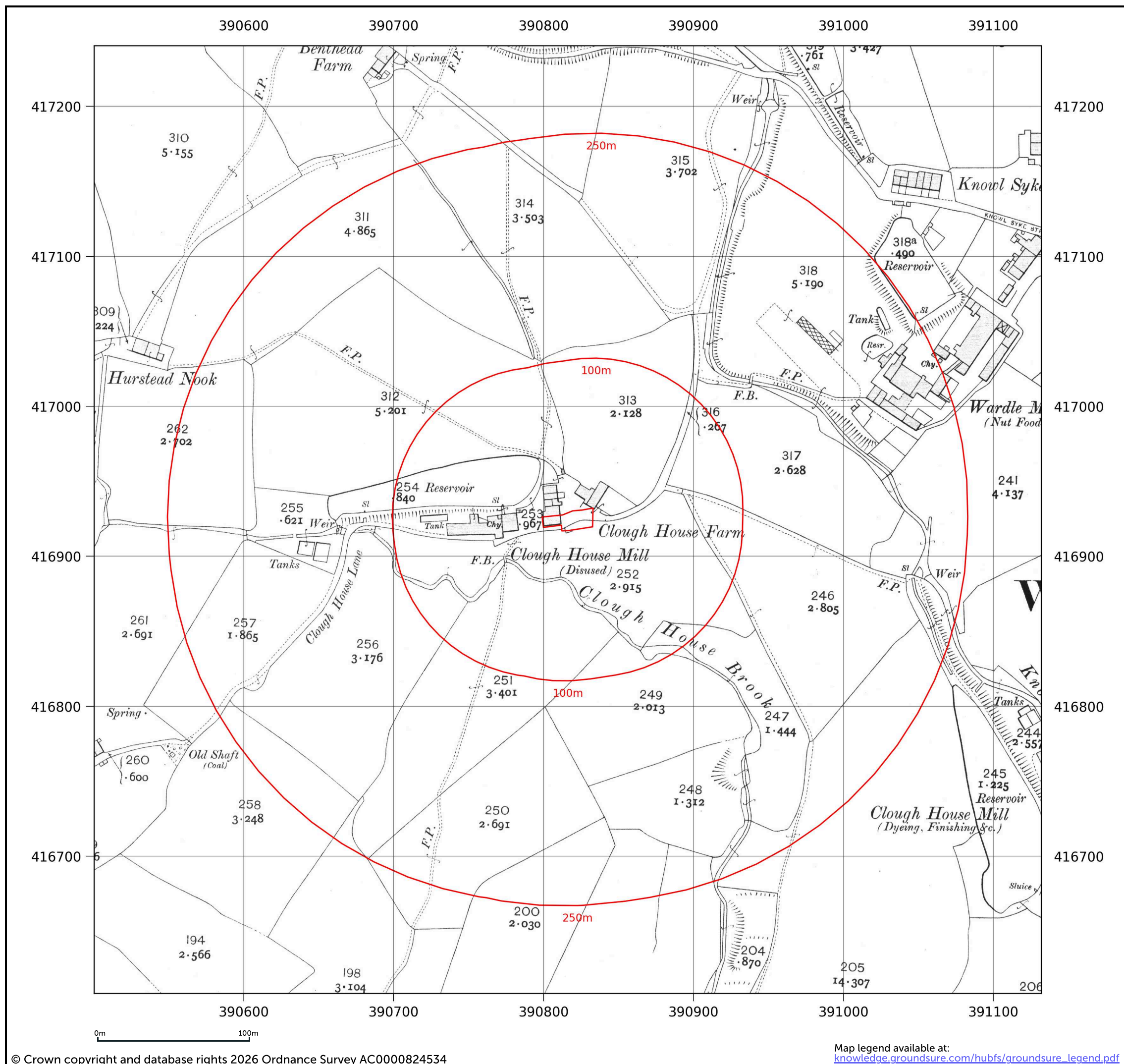
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info@groundsure.com
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Groundsure
LOCATION INTELLIGENCE

Ordnance Survey
Licensed Data



Site details:

CLOUGH HOUSE BARN,
CLOUGH HOUSE LANE,
WARDLE, ROCHDALE, OL12
9PL

Client ref:

CLOUGH HOUSE BARN

Report ref:

GS-XZV-MTN-J94-37E

Grid ref:

390818.28, 416924.02

Production date:

25 June 2026

Map name:

County Series

Map date:

1930

Scale:

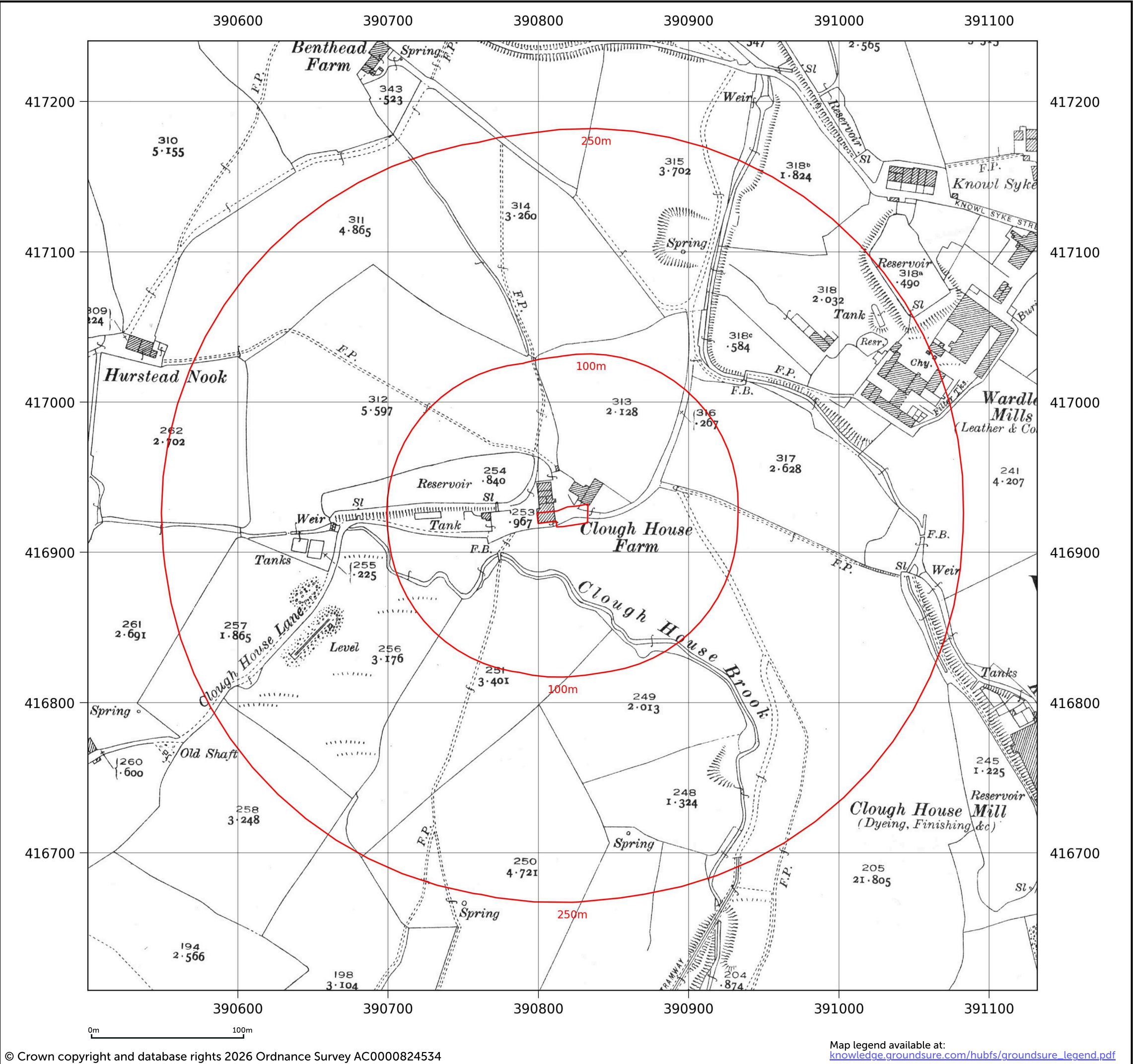
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1:2,500

Date: 1930
Surveyed: 1930
Revised: 1930

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WARDLE, ROCHDALE, OL12
9PL

Client ref:

CLOUGH HOUSE BARN

Report ref:

GS-XZV-MTN-J94-37E

Grid ref:

390818.28, 416924.02

Production date:

25 June 2026

Map name:

County Series

Map date:

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Scale:

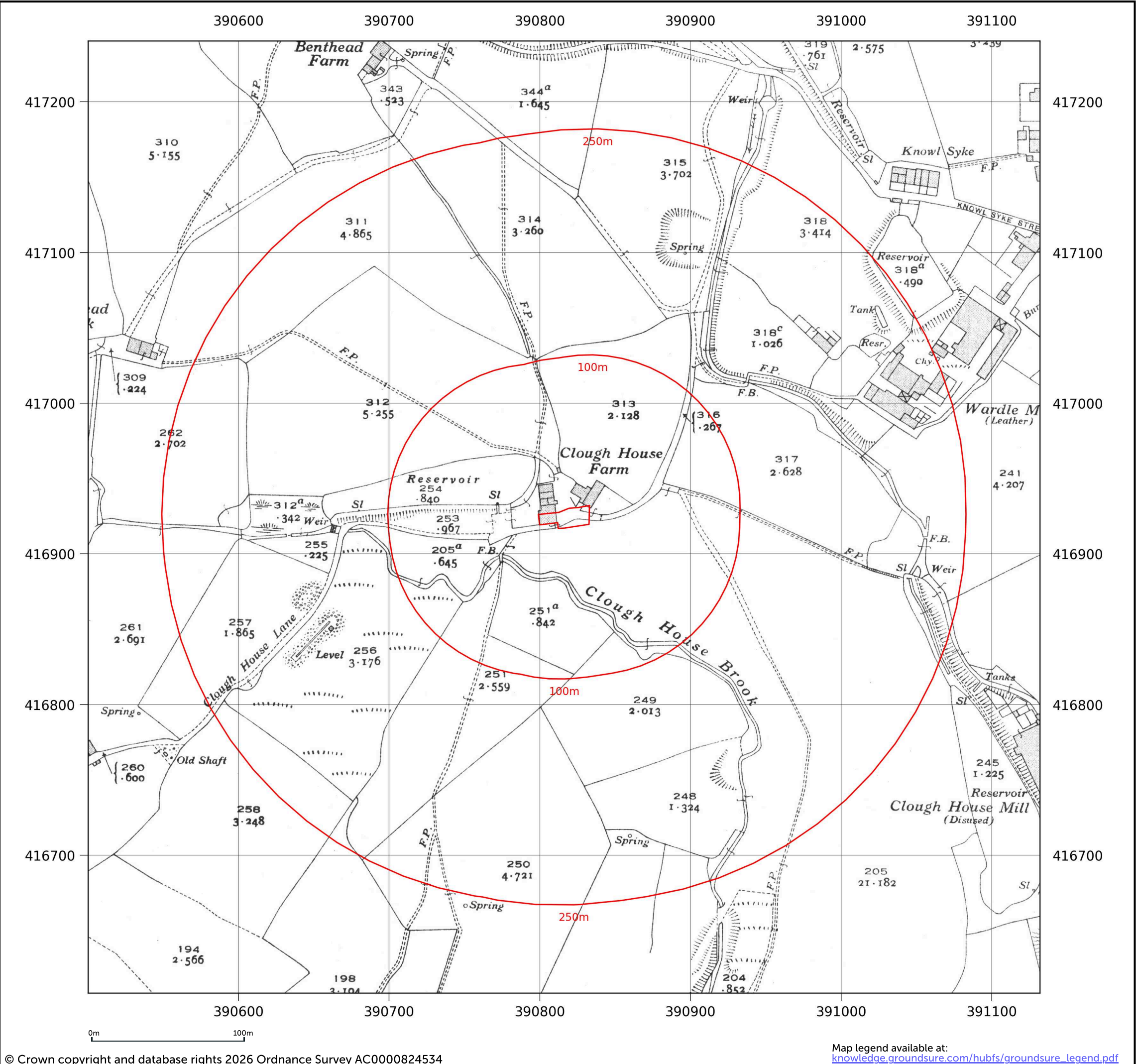
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1:2,500

Date: 1937
Surveyed: 1937
Revised: 1937

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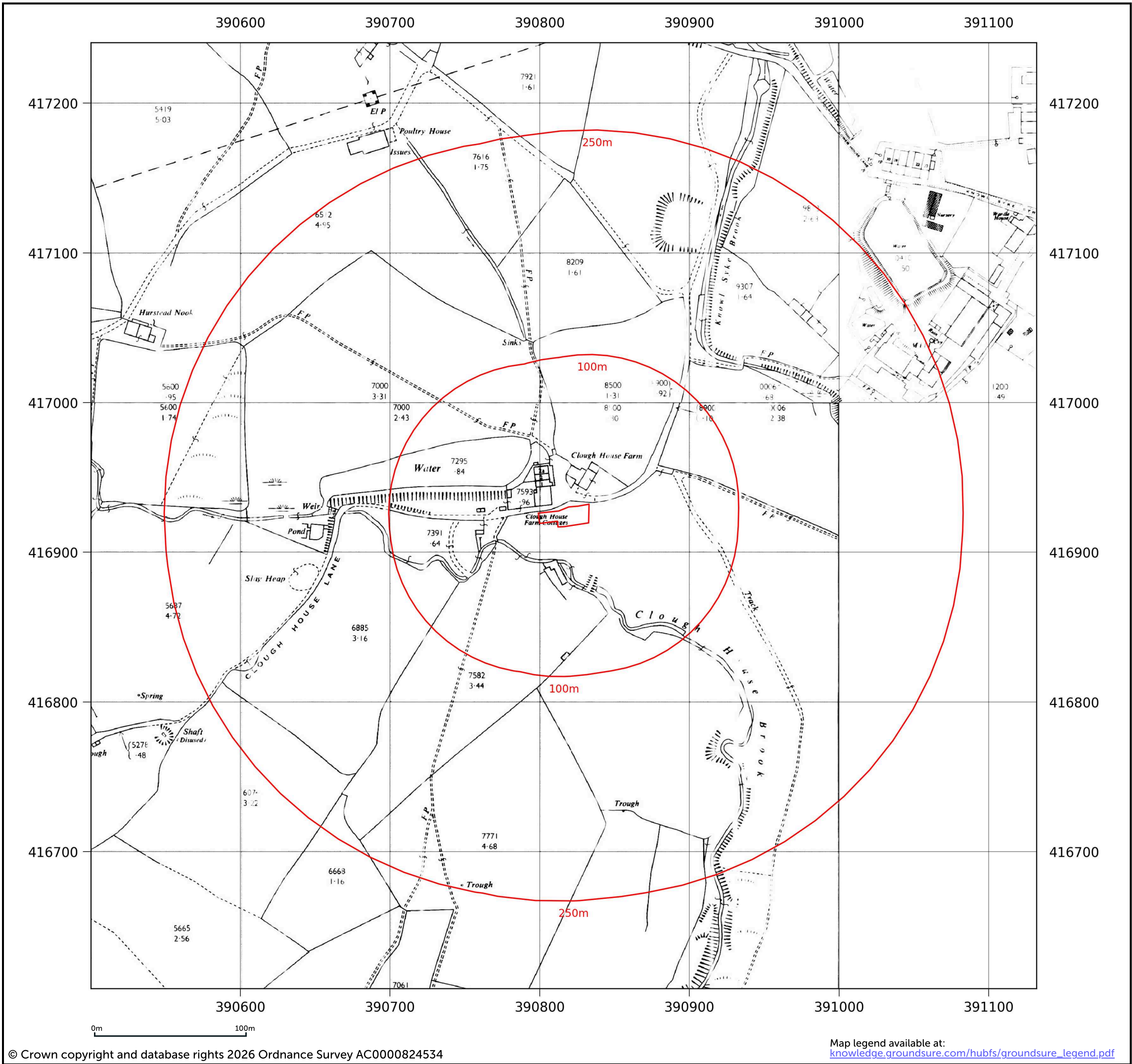
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Client ref:	CLOUGH HOUSE BARN
Report ref:	GS-XZV-MTN-J94-37E
Grid ref:	390818.28, 416924.02
Production date:	25 June 2026

Map name:	National Grid
Map date:	1963-1964
Scale:	1:2,500
Printed at:	1:2,500



Date: 1963	Date: 1963
Date: 1964	

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Site details:

CLOUGH HOUSE BARN,
CLOUGH HOUSE LANE,
WARDLE, ROCHDALE, OL12
9PL

Client ref:

CLOUGH HOUSE BARN

Report ref:

GS-XZV-MTN-J94-37E

Grid ref:

390818.28, 416924.02

Production date:

25 June 2026

Map name:

National Grid

Map date:

1963-1964

Scale:

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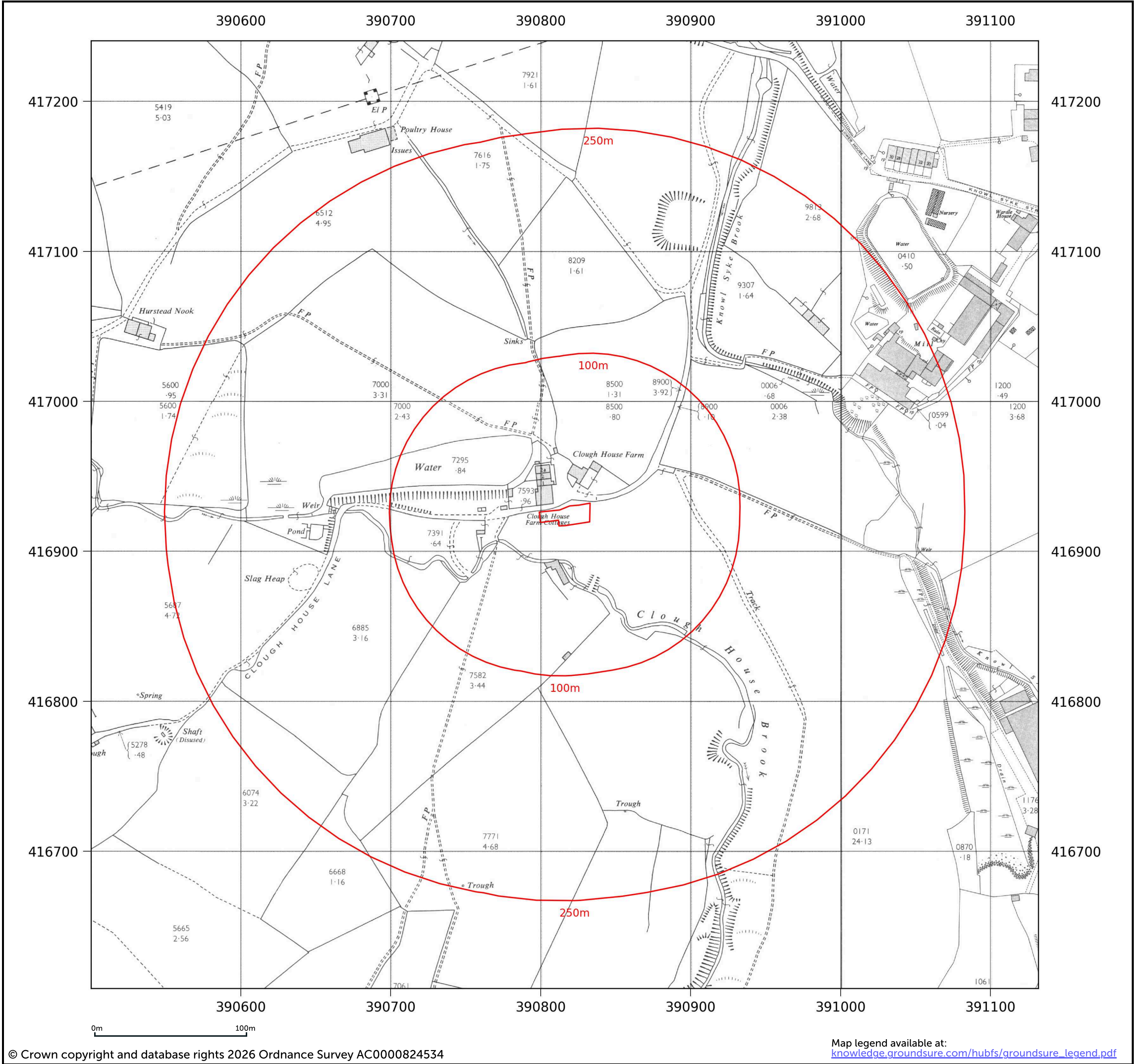
Printed at:

1:2,500

Date: 1963
Surveyed: 1961
Revised: 1961
Edition: 1963
Copyright: 1963
Levelled: 1956

Date: 1964
Surveyed: 1962
Revised: 1962
Edition: 1964
Copyright: 1964
Levelled: 1956

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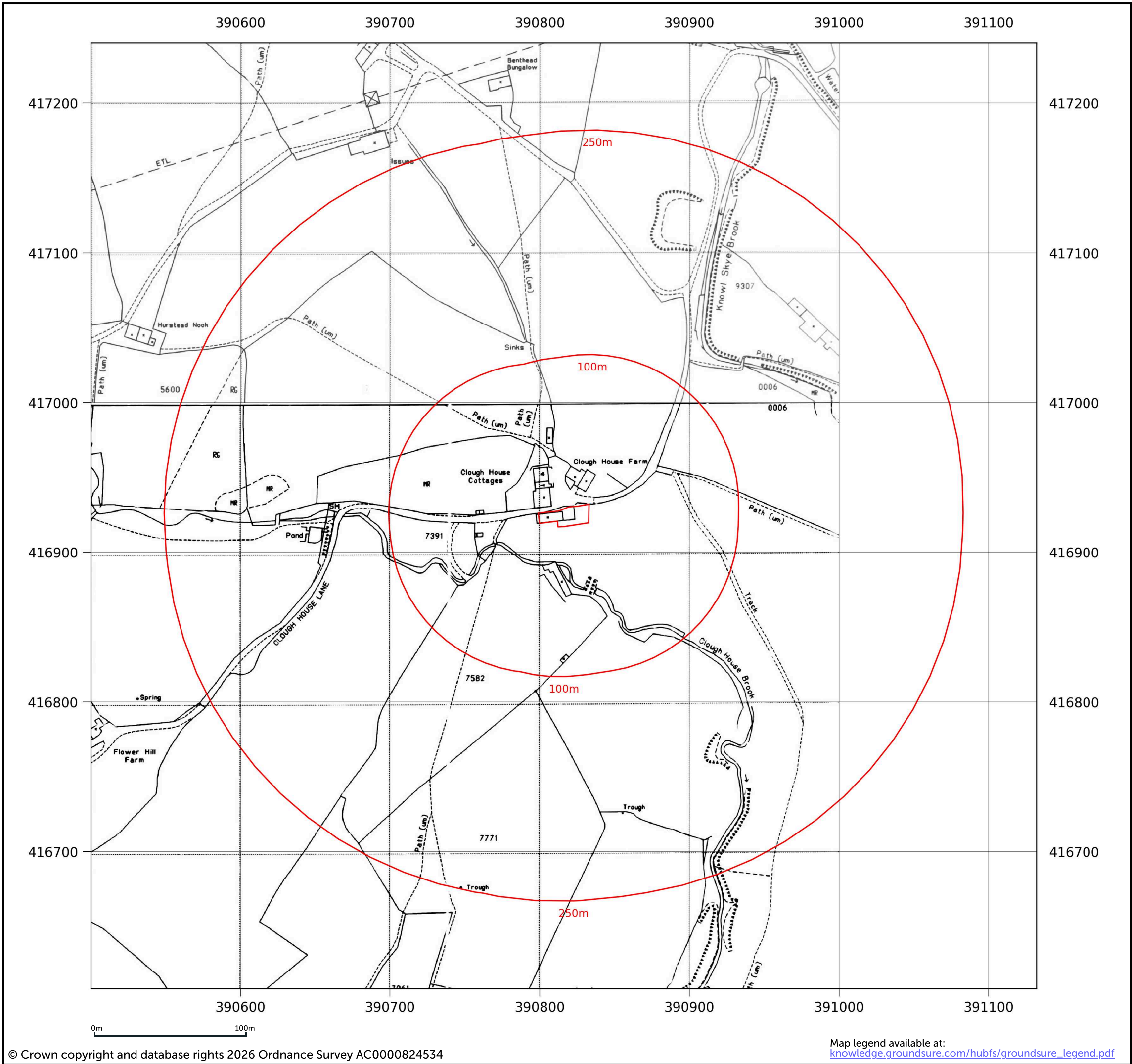
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Client ref:	CLOUGH HOUSE BARN
Report ref:	GS-XZV-MTN-J94-37E
Grid ref:	390818.28, 416924.02
Production date:	25 June 2026

Map name:	National Grid
Map date:	1992
Scale:	1:2,500
Printed at:	1:2,500



Date: 1992
Date: 1992 Surveyed: 1992 Copyright: 1992

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Site details:

CLOUGH HOUSE BARN,
CLOUGH HOUSE LANE,
WARDLE, ROCHDALE, OL12
9PL

Client ref:

CLOUGH HOUSE BARN

Report ref:

GS-XZV-MTN-J94-37E

Grid ref:

390818.28, 416924.02

Production date:

25 June 2026

Map name:

National Grid

Map date:

1992

Scale:

1:2,500

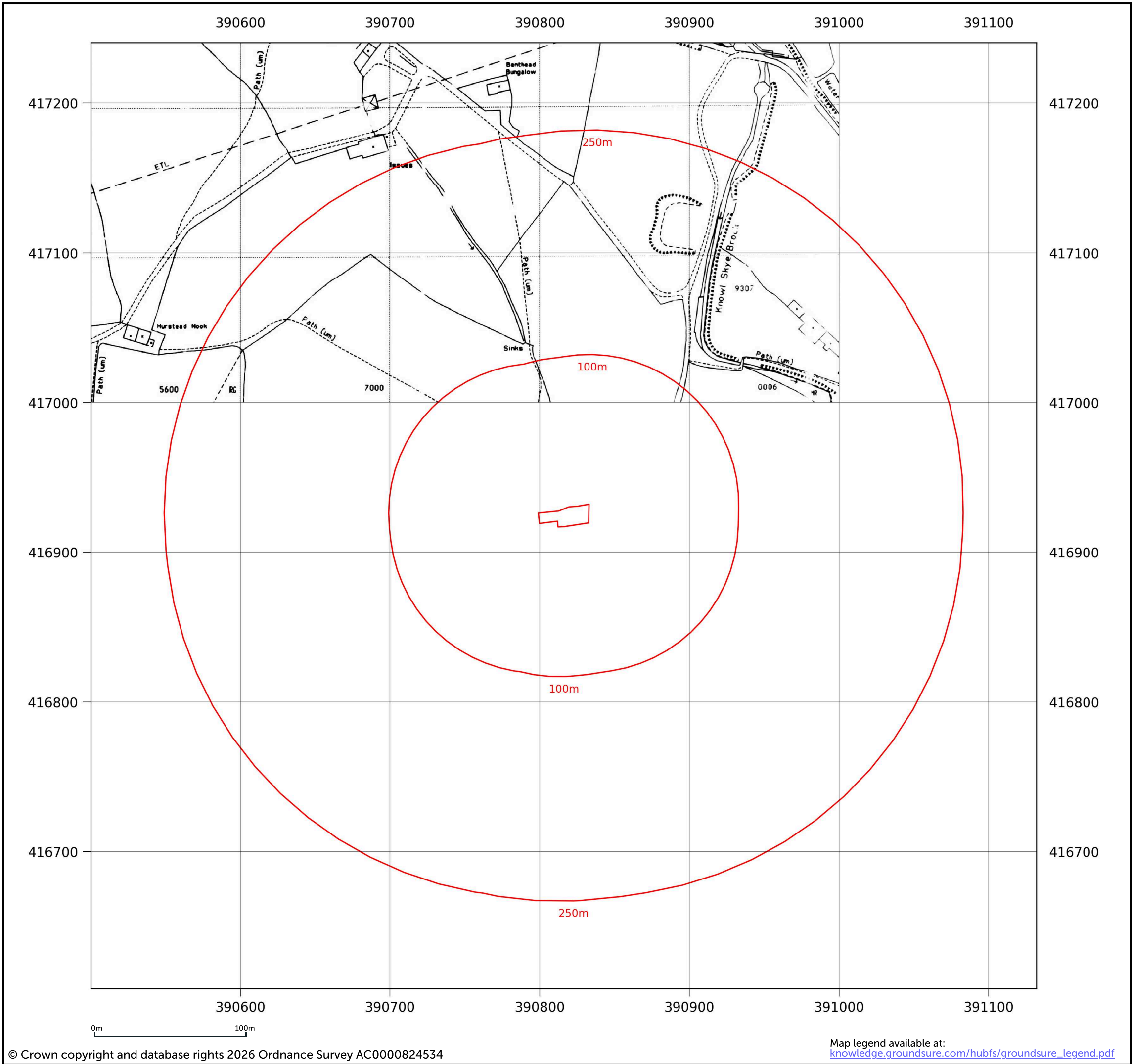
Printed at:

1:2,500

Date: 1992
Surveyed: 1992
Copyright: 1992



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Site details:	CLOUGH HOUSE BARN, CLOUGH HOUSE LANE, WARDLE, ROCHDALE, OL12 9PL
Client ref:	CLOUGH HOUSE BARN
Report ref:	GS-XZV-MTN-J94-37E
Grid ref:	390818.28, 416924.02
Production date:	25 June 2026

Map name:	LandLine
Map date:	2003
Scale:	1:1,250
Printed at:	1:1,250



Date: 2003

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info@groundsure.com
 01273 257 755



Map legend available at:
knowledge.groundsure.com/hubfs/groundsure_legend.pdf

CLOUGH HOUSE BARN, CLOUGH HOUSE LANE, WARDLE, ROCHDALE, OL12 9PL

Order Details

Date: 25/06/2026
Your ref: CLOUGH HOUSE BARN
Our Ref: GS-U27-7VG-BBM-IHP

Site Details

Location: 390818 416924
Area: 0.04 ha
Authority: [Rochdale Metropolitan Borough Council](#)
↗

Site plan



Quick Links

Summary of findings [p. 2 >](#)
OS MasterMap site plan [p.14 >](#)
Aerial image [p. 9 >](#)

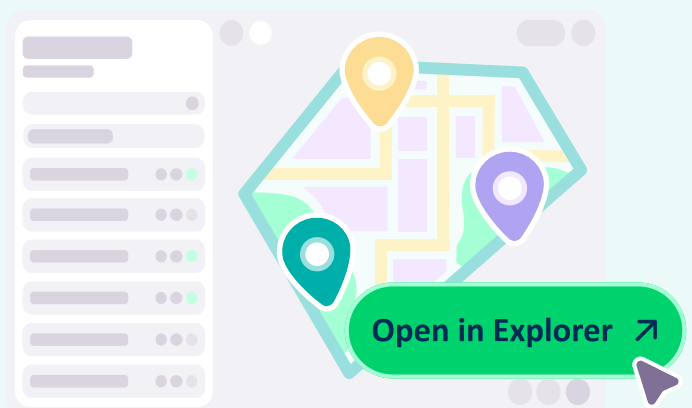
[Insight User Guide](#) ↗

Open this site in Explorer!

Access the data now in our interactive workspace.

- Map and interpret 130+ datasets across 170 years
- Generate insights and visuals quickly
- Revisit and collaborate with your team

Access to Groundsure Explorer requires an Insights account.
12 months access begins at purchase.



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 >	1	2	31	77	-
20 >	1.2 >	Historical tanks >	0	0	5	10	-
20 >	1.3 >	Historical energy features >	0	0	0	9	-
21	1.4	Historical petrol stations	0	0	0	0	-
21	1.5	Historical garages	0	0	0	0	-
22	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
23 >	2.1 >	Historical industrial land uses >	1	2	41	99	-
29 >	2.2 >	Historical tanks >	0	0	10	14	-
30 >	2.3 >	Historical energy features >	0	0	0	14	-
31	2.4	Historical petrol stations	0	0	0	0	-
31	2.5	Historical garages	0	0	0	0	-
Page	Section	Waste and landfill >	On site	0-50m	50-250m	250-500m	500-2000m
32	3.1	Active or recent landfill	0	0	0	0	-
32	3.2	Historical landfill (BGS records)	0	0	0	0	-
33 >	3.3 >	Historical landfill (LA/mapping records) >	0	0	0	2	-
33	3.4	Historical landfill (EA/NRW records)	0	0	0	0	-
33	3.5	Historical waste sites	0	0	0	0	-
33	3.6	Licensed waste sites	0	0	0	0	-
34 >	3.7 >	Waste exemptions >	0	0	4	9	-
Page	Section	Current industrial land use >	On site	0-50m	50-250m	250-500m	500-2000m
36	4.1	Recent industrial land uses	0	0	0	-	-
36	4.2	National Geographic Database (NGD) - Current or recent tanks	0	0	0	-	-
37	4.3	Current or recent petrol stations	0	0	0	0	-
37	4.4	Electricity cables	0	0	0	0	-
37	4.5	Gas pipelines	0	0	0	0	-



37	4.6	Sites determined as Contaminated Land	0	0	0	0	-
37	4.7	Control of Major Accident Hazards (COMAH)	0	0	0	0	-
38	4.8	Regulated explosive sites	0	0	0	0	-
38	4.9	Hazardous substance storage/usage	0	0	0	0	-
38	4.10	Historical licensed industrial activities (IPC)	0	0	0	0	-
38	4.11	Licensed industrial activities (Part A(1))	0	0	0	0	-
38	4.12	Licensed pollutant release (Part A(2)/B)	0	0	0	0	-
39	4.13	Radioactive Substance Authorisations	0	0	0	0	-
39 >	4.14 >	<u>Licensed Discharges to controlled waters</u> >	0	0	0	9	-
40	4.15	Pollutant release to surface waters (Red List)	0	0	0	0	-
41	4.16	Pollutant release to public sewer	0	0	0	0	-
41	4.17	List 1 Dangerous Substances	0	0	0	0	-
41	4.18	List 2 Dangerous Substances	0	0	0	0	-
41 >	4.19 >	<u>Pollution Incidents (EA/NRW)</u> >	0	0	2	1	-
42	4.20	Pollution inventory substances	0	0	0	0	-
42	4.21	Pollution inventory waste transfers	0	0	0	0	-
42	4.22	Pollution inventory radioactive waste	0	0	0	0	-
Page	Section	<u>Hydrogeology</u> >	On site	0-50m	50-250m	250-500m	500-2000m
43 >	5.1 >	<u>Superficial aquifer</u> >	Identified (within 500m)				
45 >	5.2 >	<u>Bedrock aquifer</u> >	Identified (within 500m)				
46 >	5.3 >	<u>Groundwater vulnerability</u> >	Identified (within 50m)				
47	5.4	Groundwater vulnerability- soluble rock risk	None (within 0m)				
47	5.5	Groundwater vulnerability- local information	None (within 0m)				
48 >	5.6 >	<u>Groundwater abstractions</u> >	0	0	0	2	8
51 >	5.7 >	<u>Surface water abstractions</u> >	0	0	0	1	13
55 >	5.8 >	<u>Potable abstractions</u> >	0	0	0	0	19
60	5.9	Source Protection Zones	0	0	0	0	-
60	5.10	Source Protection Zones (confined aquifer)	0	0	0	0	-
Page	Section	<u>Hydrology</u> >	On site	0-50m	50-250m	250-500m	500-2000m

61 >	6.1 >	Water Network (OS NGD) >	0	3	8	-	-
62 >	6.2 >	Surface water features >	0	2	7	-	-
63 >	6.3 >	WFD Surface water body catchments >	1	-	-	-	-
63 >	6.4 >	WFD Surface water bodies >	0	0	0	-	-
64 >	6.5 >	WFD Groundwater bodies >	1	-	-	-	-
Page	Section	River and coastal flooding	On site	0-50m	50-250m	250-500m	500-2000m
65	7.1	Risk of flooding from rivers and the sea	None (within 50m)				
65	7.2	Historical Flood Events	0	0	0	-	-
65	7.3	Flood Defences	0	0	0	-	-
66	7.4	Areas Benefiting from Flood Defences	0	0	0	-	-
66	7.5	Flood Storage Areas	0	0	0	-	-
67	7.6	Flood Zone 2	None (within 50m)				
67	7.7	Flood Zone 3	None (within 50m)				
Page	Section	Surface water flooding >					
68 >	8.1 >	Surface water flooding >	1 in 30 year, 0.3m - 1.0m (within 50m)				
Page	Section	Groundwater flooding >					
70 >	9.1 >	Groundwater flooding >	Low (within 50m)				
Page	Section	Environmental designations >	On site	0-50m	50-250m	250-500m	500-2000m
71	10.1	Sites of Special Scientific Interest (SSSI)	0	0	0	0	0
72	10.2	Conserved wetland sites (Ramsar sites)	0	0	0	0	0
72	10.3	Special Areas of Conservation (SAC)	0	0	0	0	0
72	10.4	Special Protection Areas (SPA)	0	0	0	0	0
72	10.5	National Nature Reserves (NNR)	0	0	0	0	0
73	10.6	Local Nature Reserves (LNR)	0	0	0	0	0
73 >	10.7 >	Designated Ancient Woodland >	0	0	0	0	8
73	10.8	Biosphere Reserves	0	0	0	0	0
74	10.9	Forest Parks	0	0	0	0	0
74	10.10	Marine Conservation Zones	0	0	0	0	0
74 >	10.11 >	Green Belt >	1	0	0	0	1



74	10.12	Proposed Ramsar sites	0	0	0	0	0
75	10.13	Possible Special Areas of Conservation (pSAC)	0	0	0	0	0
75	10.14	Potential Special Protection Areas (pSPA)	0	0	0	0	0
75	10.15	Nitrate Sensitive Areas	0	0	0	0	0
75	10.16	Nitrate Vulnerable Zones	0	0	0	0	0
76 >	10.17 >	SSSI Impact Risk Zones >	1	-	-	-	-
77	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
78	11.1	World Heritage Sites	0	0	0	-	-
79	11.2	Area of Outstanding Natural Beauty	0	0	0	-	-
79	11.3	National Parks	0	0	0	-	-
79 >	11.4 >	Listed Buildings >	0	1	0	-	-
80 >	11.5 >	Conservation Areas >	0	0	1	-	-
80	11.6	Scheduled Ancient Monuments	0	0	0	-	-
80	11.7	Registered Parks and Gardens	0	0	0	-	-
Page	Section	Agricultural designations >	On site	0-50m	50-250m	250-500m	500-2000m
81 >	12.1 >	Agricultural Land Classification >	Grade 4 (within 250m)				
82	12.2	Open Access Land	0	0	0	-	-
82	12.3	Tree Felling Licences	0	0	0	-	-
82	12.4	Environmental Stewardship Schemes	0	0	0	-	-
82 >	12.5 >	Countryside Stewardship Schemes >	0	1	1	-	-
Page	Section	Habitat designations >	On site	0-50m	50-250m	250-500m	500-2000m
83	13.1	Priority Habitat Inventory	0	0	0	-	-
83 >	13.2 >	Habitat Networks >	0	1	1	-	-
84	13.3	Open Mosaic Habitat	0	0	0	-	-
84	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
85 >	14.1 >	10k Availability >	Identified (within 500m)				
86 >	14.2 >	Artificial and made ground (10k) >	0	1	2	17	-

88 >	14.3 >	Superficial geology (10k) >	1	0	0	4	-
89	14.4	Landslip (10k)	0	0	0	0	-
90 >	14.5 >	Bedrock geology (10k) >	1	3	4	9	-
91 >	14.6 >	Bedrock faults and other linear features (10k) >	0	3	7	11	-
Page	Section	Geology 1:50,000 scale >	On site	0-50m	50-250m	250-500m	500-2000m
93 >	15.1 >	50k Availability >	Identified (within 500m)				
94	15.2	Artificial and made ground (50k)	0	0	0	0	-
94	15.3	Artificial ground permeability (50k)	0	0	-	-	-
95 >	15.4 >	Superficial geology (50k) >	1	0	0	4	-
96 >	15.5 >	Superficial permeability (50k) >	Identified (within 50m)				
96	15.6	Landslip (50k)	0	0	0	0	-
96	15.7	Landslip permeability (50k)	None (within 50m)				
97 >	15.8 >	Bedrock geology (50k) >	1	1	3	8	-
98 >	15.9 >	Bedrock permeability (50k) >	Identified (within 50m)				
98 >	15.10 >	Bedrock faults and other linear features (50k) >	0	2	7	8	-
Page	Section	Boreholes	On site	0-50m	50-250m	250-500m	500-2000m
100	16.1	BGS Boreholes	0	0	0	-	-
Page	Section	Natural ground subsidence >					
101 >	17.1 >	Shrink swell clays >	Very low (within 50m)				
102 >	17.2 >	Running sands >	Very low (within 50m)				
103 >	17.3 >	Compressible deposits >	Negligible (within 50m)				
104 >	17.4 >	Collapsible deposits >	Very low (within 50m)				
105 >	17.5 >	Landslides >	Low (within 50m)				
107 >	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
109	18.1	BritPits	0	0	0	0	-
110 >	18.2 >	Surface ground workings >	0	8	25	-	-
111 >	18.3 >	Underground workings >	0	0	3	23	44
114	18.4	Underground mining extents	0	0	0	0	-



114	18.5	Historical Mineral Planning Areas	0	0	0	0	-
114	18.6	Non-coal mining	0	0	0	0	0
115	18.7	JPB mining areas	None (within 0m)				
115	18.8	The Coal Authority non-coal mining	0	0	0	0	-
115	18.9	Researched mining	0	0	0	0	-
115	18.10	Mining record office plans	0	0	0	0	-
116	18.11	BGS mine plans	0	0	0	0	-
116 >	18.12 >	Coal mining >	Identified (within 0m)				
116	18.13	Brine areas	None (within 0m)				
116	18.14	Gypsum areas	None (within 0m)				
116	18.15	Tin mining	None (within 0m)				
117	18.16	Clay mining	None (within 0m)				
Page	Section	Ground cavities and sinkholes	On site	0-50m	50-250m	250-500m	500-2000m
118	19.1	Natural cavities	0	0	0	0	-
118	19.2	Mining cavities	0	0	0	0	0
118	19.3	Reported recent incidents	0	0	0	0	-
118	19.4	Historical incidents	0	0	0	0	-
Page	Section	Radon >					
120 >	20.1 >	Radon >	Less than 1% (within 0m)				
Page	Section	Soil chemistry >	On site	0-50m	50-250m	250-500m	500-2000m
122 >	21.1 >	BGS Estimated Background Soil Chemistry >	1	1	-	-	-
122	21.2	BGS Estimated Urban Soil Chemistry	0	0	-	-	-
122	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
123	22.1	Underground railways (London)	0	0	0	-	-
123	22.2	Underground railways (Non-London)	0	0	0	-	-
124	22.3	Railway tunnels	0	0	0	-	-
124 >	22.4 >	Historical railway and tunnel features >	0	0	5	-	-
124	22.5	Royal Mail tunnels	0	0	0	-	-

125	22.6	Historical railways	0	0	0	-	-
125	22.7	Railways	0	0	0	-	-
125	22.8	Crossrail 2	0	0	0	0	-
125	22.9	HS2	0	0	0	0	-

Recent aerial photograph



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Capture Date: 27/05/2023

Site Area: 0.04ha



Recent site history - 2019 aerial photograph



Capture Date: 23/05/2019

Site Area: 0.04ha



Recent site history - 2012 aerial photograph



Capture Date: 26/03/2012

Site Area: 0.04ha



Recent site history - 2000 aerial photograph



Capture Date: 19/06/2000

Site Area: 0.04ha



Recent site history - 1999 aerial photograph

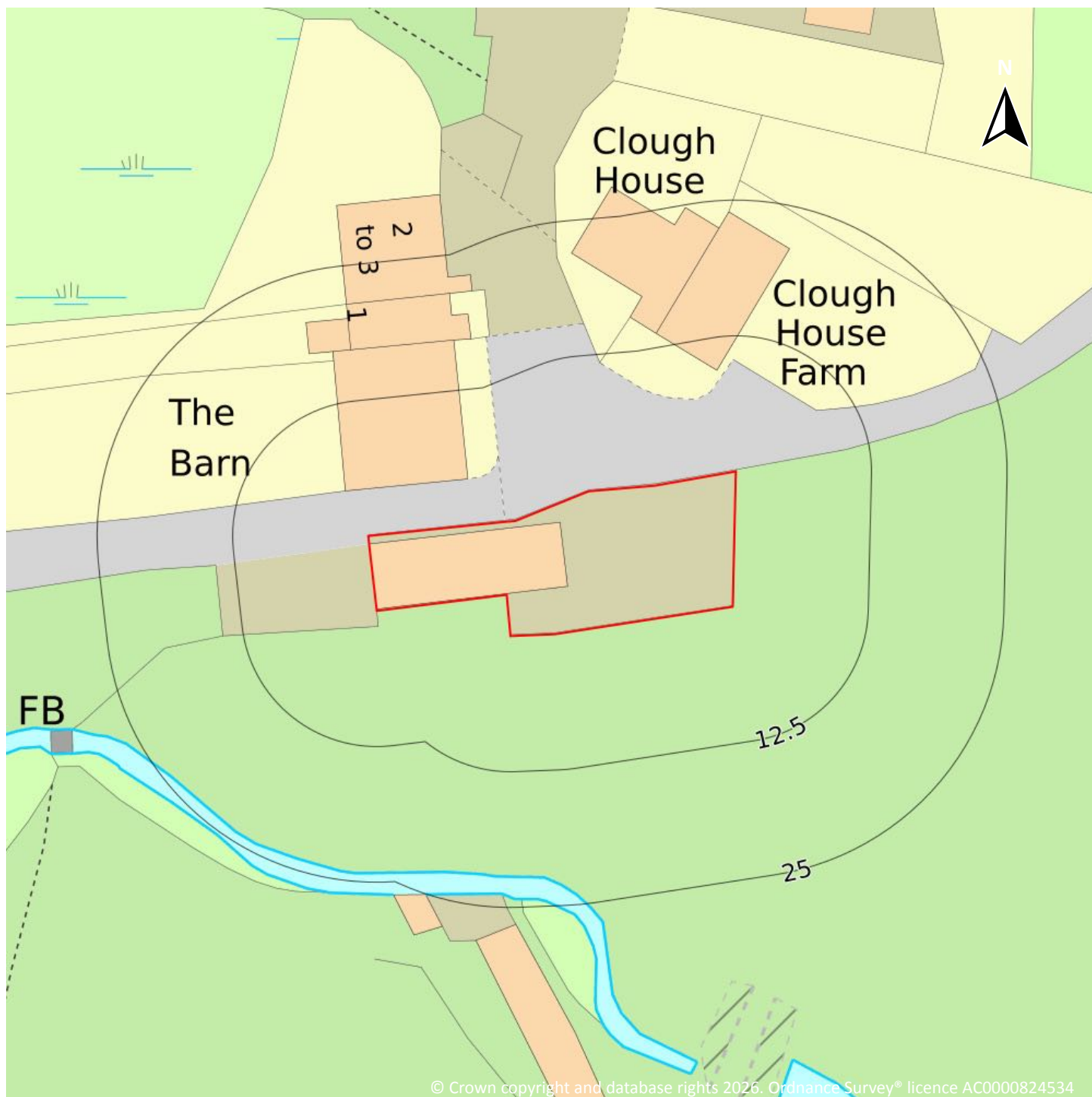


Capture Date: 10/09/1999

Site Area: 0.04ha



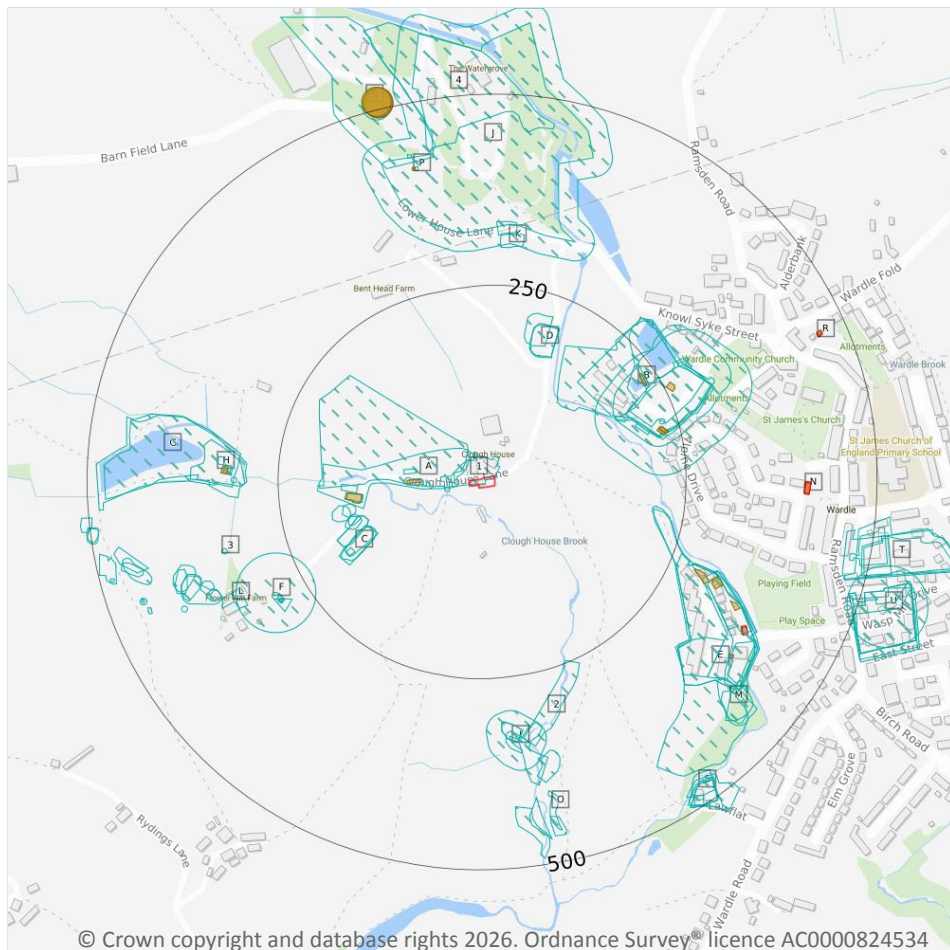
OS MasterMap site plan



Site Area: 0.04ha



1 Past land use



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

1.1 Historical industrial land uses

Records within 500m

111

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	Woollen Mill	1851	657552



ID	Location	Land use	Dates present	Group ID
A	13m NW	Unspecified Disused Mill	1908	658186
A	16m NW	Unspecified Mill	1890	673491
A	60m W	Unspecified Tank	1928 - 1938	743221
A	70m W	Unspecified Tank	1949	698047
B	126m NE	Unspecified Mills	1928	724079
C	135m SW	Railway Sidings	1928	749396
C	136m SW	Refuse Heap	1928	656540
C	139m SW	Unspecified Level	1938 - 1949	714553
C	140m W	Railway Sidings	1949	720389
C	140m W	Unspecified Tanks	1938	728696
C	141m W	Unspecified Tanks	1908 - 1928	725543
C	146m W	Unspecified Tanks	1949	666757
B	147m NE	Unspecified Mills	1938	771790
C	148m W	Refuse Heap	1928	763829
C	149m W	Refuse Heap	1938	723365
C	152m W	Refuse Heap	1949	736649
C	160m W	Refuse Heap	1968 - 1976	768920
B	163m NE	Nut Food Mill	1908	687580
D	165m N	Unspecified Pit	1928	718300
D	167m N	Unspecified Pit	1938	757175
C	173m SW	Unspecified Level	1928	721023
B	174m NE	Unspecified Mill	1890	774342
B	175m NE	Unspecified Mills	1949	747071
D	178m N	Unspecified Pit	1949 - 1989	781259
B	189m NE	Woollen Mill	1851	657553
B	194m NE	Unspecified Mill	1968 - 1989	767232
E	209m E	Unspecified Mills	1890	670034
E	210m E	Unspecified Mill	1928	803038



ID	Location	Land use	Dates present	Group ID
B	227m E	Gasometer	1851	659048
B	229m NE	Unspecified Tank	1928	716403
B	230m NE	Unspecified Tank	1938 - 1949	735674
F	237m SW	Unspecified Old Shaft	1949	802386
2	247m S	Railway Sidings	1928 - 1938	793152
E	260m SE	Finishing Mill	1908	655251
F	276m SW	Refuse Heap	1928	656541
E	279m E	Unspecified Mill	1938	764633
F	286m SW	Unspecified Old Shaft	1938	730184
F	287m SW	Old Coal Shaft	1908	658002
F	287m SW	Unspecified Old Shaft	1928	791959
F	288m SW	Unspecified Disused Shaft	1968 - 1976	792964
G	291m W	Unspecified Mill	1890	673490
H	293m W	Worsted Mill	1851	684728
I	294m S	Unspecified Old Level	1938	746445
J	296m N	Unspecified Works	1968	801800
E	297m SE	Unspecified Works	1968 - 1976	735748
K	300m N	Cuttings	1928 - 1938	714190
G	301m W	Unspecified Disused Mill	1908	658185
H	304m W	Gasometer	1851	659047
E	307m SE	Unspecified Mill	1949	794308
I	308m S	Unspecified Old Level	1949	754092
I	308m S	Unspecified Disused Level	1968 - 1989	792838
H	310m W	Unspecified Tank	1938	745889
H	312m W	Unspecified Tank	1908 - 1928	787149
I	314m S	Refuse Heap	1908	656344
K	315m N	Cuttings	1949	727388
E	317m SE	Refuse Heap	1976	656559



ID	Location	Land use	Dates present	Group ID
H	321m W	Unspecified Tank	1949	698046
I	321m S	Unspecified Old Level	1928	743291
J	321m N	Unspecified Works	1976 - 1989	799590
L	327m SW	Flower Mill	1851	680095
3	329m W	Coal Pit	1851	679620
I	354m S	Cuttings	1928	653150
L	355m SW	Refuse Heaps	1928	653991
L	356m SW	Refuse Heap	1938	790711
L	359m W	Refuse Heap	1949 - 1976	774069
L	372m W	Refuse Heap	1938	752582
L	376m W	Refuse Heap	1949	726674
E	377m SE	Woollen Mill	1851	657554
M	387m SE	Refuse Heap	1938 - 1949	714033
L	388m W	Refuse Heap	1968 - 1976	717982
M	402m SE	Refuse Heap	1928	751012
L	402m SW	Coal Pit	1851	679621
O	405m S	Unspecified Ground Workings	1949	661399
P	411m N	Unspecified Tank	1928	698044
M	412m SE	Unspecified Heap	1968	688686
O	412m S	Unspecified Pit	1976 - 1989	769339
O	420m S	Refuse Heap	1908	656343
Q	422m N	Water Works	1938	742536
P	429m N	Unspecified Tank	1949	698045
4	433m N	Water Works	1949	777080
L	433m W	Refuse Heap	1928 - 1938	780537
L	434m W	Refuse Heap	1949	754542
O	439m S	Refuse Heap	1908	656342
L	441m W	Refuse Heap	1968 - 1976	764199



ID	Location	Land use	Dates present	Group ID
L	446m W	Unspecified Old Shaft	1928 - 1938	764762
L	448m W	Unspecified Disused Shaft	1968 - 1989	708263
L	451m W	Unspecified Old Shaft	1949	671495
S	461m SE	Unspecified Disused Mill	1949	788628
T	465m E	Unspecified Mill	1938	721496
S	467m SE	Unspecified Mill	1890	673445
S	471m SE	Woollen Mill	1851	657541
S	472m SE	Unspecified Disused Mill	1938	781963
T	473m E	Unspecified Mill	1890	724223
T	473m E	Unspecified Mill	1949	751290
S	474m SE	Unspecified Disused Mill	1928	737734
L	474m W	Unspecified Level	1938 - 1949	746716
L	481m W	Unspecified Level	1928	783563
S	483m SE	Unspecified Disused Mill	1908	771697
U	484m E	Unspecified Tank	1928	752957
U	485m E	Unspecified Mill	1968	673493
U	485m E	Unspecified Commercial/Industrial	1976 - 1989	766066
Q	487m N	Unspecified Tank	1968 - 1989	767223
T	487m E	Unspecified Mills	1908	670033
L	489m W	Unspecified Old Level	1928	784895
L	489m W	Unspecified Old Level	1938	728555
T	490m E	Unspecified Mill	1928	711867
U	491m E	Unspecified Commercial/Industrial	1938	714038
U	494m E	Unspecified Commercial/Industrial	1949	790842
L	496m W	Unspecified Old Level	1949	775367
U	497m E	Unspecified Commercial/Industrial	1890	730266

This data is sourced from Ordnance Survey® / Groundsure.



1.2 Historical tanks

Records within 500m

15

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
A	63m W	Unspecified Tank	1910 - 1930	102737
C	142m W	Tanks	1890 - 1930	98805
B	220m E	Filter Tanks	1930	83356
B	225m E	Tanks	1890	81336
B	228m NE	Unspecified Tank	1910 - 1937	92982
B	253m NE	Tanks	1988	81335
E	283m SE	Tanks	1930 - 1937	103677
E	309m SE	Tanks	1910	81865
H	316m W	Unspecified Tank	1910 - 1937	93127
E	343m SE	Unspecified Tank	1910	87692
P	413m N	Unspecified Tank	1930 - 1937	95829
Q	489m N	Unspecified Tank	-	80730
Q	489m N	Unspecified Tank	1992	104791
Q	490m N	Unspecified Tank	1963	94886
Q	491m N	Unspecified Tank	1988	103426

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
E	371m SE	Electricity Substation	1989	62299
E	373m SE	Electricity Substation	1996	55996
E	378m SE	Electricity Substation	1974	47224
N	405m E	Electricity Substation	1985 - 1989	53932
N	405m E	Electricity Substation	1974	63958
N	405m E	Electricity Substation	1996	51630
N	406m E	Electricity Substation	1968	52932
R	460m NE	Electricity Substation	1993	54501
R	461m NE	Electricity Substation	1975	57687

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

0

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

This data is sourced from Ordnance Survey® / Groundsure.



1.6 Historical military land

Records within 500m

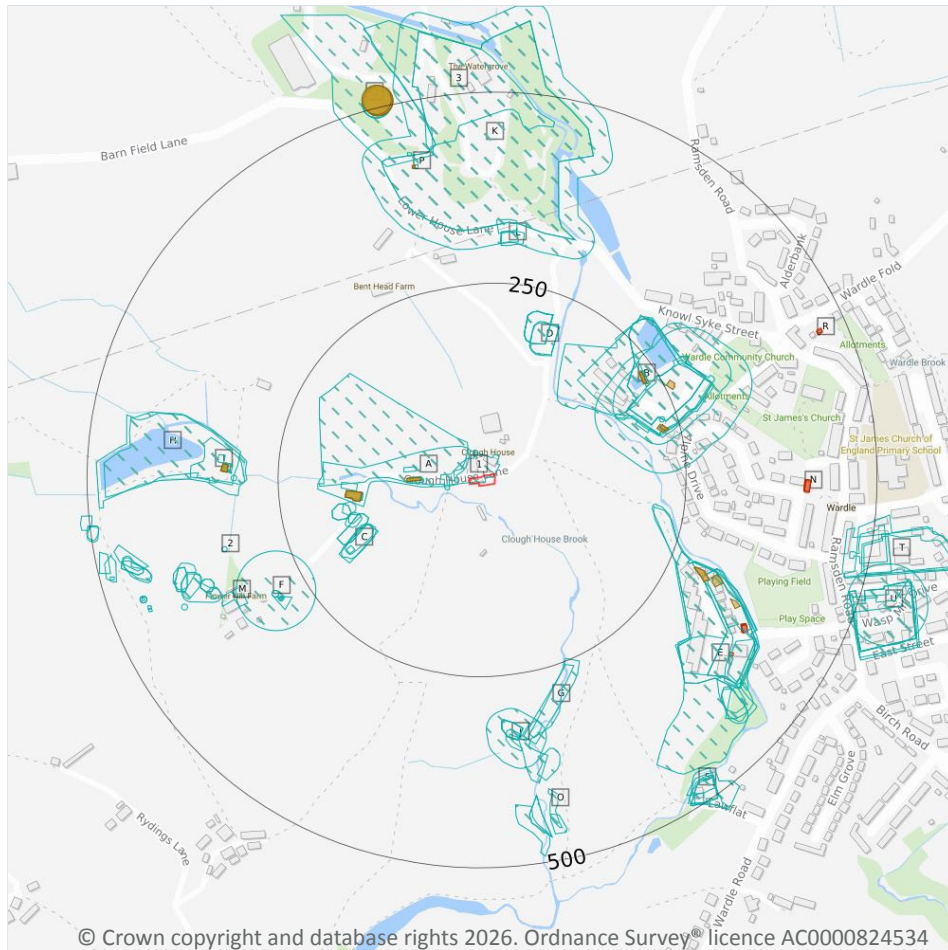
0

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

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



2 Past land use - un-grouped



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

2.1 Historical industrial land uses

Records within 500m

143

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 23](#) >

ID	Location	Land Use	Date	Group ID
1	On site	Woollen Mill	1851	657552
A	13m NW	Unspecified Disused Mill	1908	658186
A	16m NW	Unspecified Mill	1890	673491



ID	Location	Land Use	Date	Group ID
A	60m W	Unspecified Tank	1928	743221
A	61m W	Unspecified Tank	1938	743221
A	70m W	Unspecified Tank	1949	698047
B	126m NE	Unspecified Mills	1928	724079
C	135m SW	Railway Sidings	1928	749396
C	136m SW	Refuse Heap	1928	656540
C	139m SW	Unspecified Level	1938	714553
C	140m W	Railway Sidings	1949	720389
C	140m W	Unspecified Level	1949	714553
C	140m W	Unspecified Tanks	1938	728696
C	141m W	Unspecified Tanks	1928	725543
C	141m W	Unspecified Tanks	1908	725543
C	146m W	Unspecified Tanks	1949	666757
B	147m NE	Unspecified Mills	1938	771790
C	148m W	Refuse Heap	1928	763829
C	149m W	Refuse Heap	1938	723365
C	152m W	Refuse Heap	1949	736649
C	160m W	Refuse Heap	1976	768920
C	160m W	Refuse Heap	1968	768920
B	163m NE	Nut Food Mill	1908	687580
D	165m N	Unspecified Pit	1928	718300
D	167m N	Unspecified Pit	1938	757175
C	173m SW	Unspecified Level	1928	721023
B	174m NE	Unspecified Mill	1890	774342
B	175m NE	Unspecified Mills	1949	747071
D	178m N	Unspecified Pit	1989	781259
D	178m N	Unspecified Pit	1976	781259
D	178m N	Unspecified Pit	1949	781259

ID	Location	Land Use	Date	Group ID
D	178m N	Unspecified Pit	1968	781259
B	189m NE	Woollen Mill	1851	657553
B	194m NE	Unspecified Mill	1989	767232
B	194m NE	Unspecified Mill	1976	767232
B	194m NE	Unspecified Mill	1968	767232
E	209m E	Unspecified Mills	1890	670034
E	210m E	Unspecified Mill	1928	803038
B	227m E	Gasometer	1851	659048
B	229m NE	Unspecified Tank	1928	716403
B	230m NE	Unspecified Tank	1938	735674
B	232m NE	Unspecified Tank	1949	735674
F	237m SW	Unspecified Old Shaft	1949	802386
G	247m S	Railway Sidings	1928	793152
G	254m S	Railway Sidings	1938	793152
E	260m SE	Finishing Mill	1908	655251
F	276m SW	Refuse Heap	1928	656541
E	279m E	Unspecified Mill	1938	764633
F	286m SW	Unspecified Old Shaft	1938	730184
F	287m SW	Old Coal Shaft	1908	658002
F	287m SW	Unspecified Old Shaft	1928	791959
F	288m SW	Unspecified Disused Shaft	1976	792964
F	288m SW	Unspecified Disused Shaft	1968	792964
H	291m W	Unspecified Mill	1890	673490
I	293m W	Worsted Mill	1851	684728
J	294m S	Unspecified Old Level	1938	746445
K	296m N	Unspecified Works	1968	801800
E	297m SE	Unspecified Works	1976	735748
E	297m SE	Unspecified Works	1968	735748



ID	Location	Land Use	Date	Group ID
L	300m N	Cuttings	1928	714190
H	301m W	Unspecified Disused Mill	1908	658185
L	302m N	Cuttings	1938	714190
I	304m W	Gasometer	1851	659047
E	307m SE	Unspecified Mill	1949	794308
J	308m S	Unspecified Disused Level	1989	792838
J	308m S	Unspecified Disused Level	1976	792838
J	308m S	Unspecified Old Level	1949	754092
J	308m S	Unspecified Disused Level	1968	792838
I	310m W	Unspecified Tank	1938	745889
I	312m W	Unspecified Tank	1928	787149
I	312m W	Unspecified Tank	1908	787149
J	314m S	Refuse Heap	1908	656344
L	315m N	Cuttings	1949	727388
E	317m SE	Refuse Heap	1976	656559
I	321m W	Unspecified Tank	1949	698046
J	321m S	Unspecified Old Level	1928	743291
K	321m N	Unspecified Works	1989	799590
K	321m N	Unspecified Works	1976	799590
M	327m SW	Flower Mill	1851	680095
2	329m W	Coal Pit	1851	679620
J	354m S	Cuttings	1928	653150
M	355m SW	Refuse Heaps	1928	653991
M	356m SW	Refuse Heap	1938	790711
M	359m W	Refuse Heap	1976	774069
M	359m W	Refuse Heap	1949	774069
M	359m W	Refuse Heap	1968	774069
M	372m W	Refuse Heap	1938	752582

ID	Location	Land Use	Date	Group ID
M	376m W	Refuse Heap	1949	726674
E	377m SE	Woollen Mill	1851	657554
E	387m SE	Refuse Heap	1949	714033
M	388m W	Refuse Heap	1976	717982
M	388m W	Refuse Heap	1968	717982
E	401m SE	Refuse Heap	1938	714033
E	402m SE	Refuse Heap	1928	751012
M	402m SW	Coal Pit	1851	679621
O	405m S	Unspecified Ground Workings	1949	661399
P	411m N	Unspecified Tank	1928	698044
E	412m SE	Unspecified Heap	1968	688686
O	412m S	Unspecified Pit	1989	769339
O	412m S	Unspecified Pit	1976	769339
O	420m S	Refuse Heap	1908	656343
Q	422m N	Water Works	1938	742536
P	429m N	Unspecified Tank	1949	698045
3	433m N	Water Works	1949	777080
M	433m W	Refuse Heap	1928	780537
M	433m W	Refuse Heap	1938	780537
M	434m W	Refuse Heap	1949	754542
O	439m S	Refuse Heap	1908	656342
M	441m W	Refuse Heap	1976	764199
M	441m W	Refuse Heap	1968	764199
M	446m W	Unspecified Old Shaft	1938	764762
M	447m W	Unspecified Old Shaft	1928	764762
M	448m W	Unspecified Disused Shaft	1989	708263
M	448m W	Unspecified Disused Shaft	1976	708263
M	448m W	Unspecified Disused Shaft	1968	708263



ID	Location	Land Use	Date	Group ID
M	451m W	Unspecified Old Shaft	1949	671495
S	461m SE	Unspecified Disused Mill	1949	788628
T	465m E	Unspecified Mill	1938	721496
S	467m SE	Unspecified Mill	1890	673445
S	471m SE	Woollen Mill	1851	657541
S	472m SE	Unspecified Disused Mill	1938	781963
T	473m E	Unspecified Mill	1890	724223
T	473m E	Unspecified Mill	1949	751290
S	474m SE	Unspecified Disused Mill	1928	737734
M	474m W	Unspecified Level	1938	746716
M	481m W	Unspecified Level	1928	783563
M	483m W	Unspecified Level	1949	746716
S	483m SE	Unspecified Disused Mill	1908	771697
U	484m E	Unspecified Tank	1928	752957
U	485m E	Unspecified Commercial/Industrial	1989	766066
U	485m E	Unspecified Commercial/Industrial	1976	766066
U	485m E	Unspecified Mill	1968	673493
Q	487m N	Unspecified Tank	1989	767223
Q	487m N	Unspecified Tank	1976	767223
Q	487m N	Unspecified Tank	1968	767223
T	487m E	Unspecified Mills	1908	670033
M	489m W	Unspecified Old Level	1928	784895
M	489m W	Unspecified Old Level	1938	728555
T	490m E	Unspecified Mill	1928	711867
U	491m E	Unspecified Commercial/Industrial	1938	714038
U	494m E	Unspecified Commercial/Industrial	1949	790842
M	496m W	Unspecified Old Level	1949	775367
U	497m E	Unspecified Commercial/Industrial	1890	730266

This data is sourced from Ordnance Survey® / Groundsure.



2.2 Historical tanks

Records within 500m

24

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 23](#) >

ID	Location	Land Use	Date	Group ID
A	63m W	Unspecified Tank	1910	102737
A	63m W	Unspecified Tank	1930	102737
C	142m W	Tanks	1890	98805
C	142m W	Tanks	1910	98805
C	142m W	Tanks	1930	98805
B	220m E	Filter Tanks	1930	83356
B	225m E	Tanks	1890	81336
B	228m NE	Unspecified Tank	1930	92982
B	228m NE	Unspecified Tank	1910	92982
B	228m NE	Unspecified Tank	1937	92982
B	253m NE	Tanks	1988	81335
E	283m SE	Tanks	1930	103677
E	283m SE	Tanks	1937	103677
E	309m SE	Tanks	1910	81865
I	316m W	Unspecified Tank	1910	93127
I	316m W	Unspecified Tank	1930	93127
I	316m W	Unspecified Tank	1937	93127
E	343m SE	Unspecified Tank	1910	87692
P	413m N	Unspecified Tank	1930	95829
P	413m N	Unspecified Tank	1937	95829
Q	489m N	Unspecified Tank	-	80730
Q	489m N	Unspecified Tank	1992	104791
Q	490m N	Unspecified Tank	1963	94886



ID	Location	Land Use	Date	Group ID
Q	491m N	Unspecified Tank	1988	103426

This data is sourced from Ordnance Survey® / Groundsure.

2.3 Historical energy features

Records within 500m	14
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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 23 >](#)

ID	Location	Land Use	Date	Group ID
E	371m SE	Electricity Substation	1989	62299
E	371m SE	Electricity Substation	1989	62299
E	372m SE	Electricity Substation	1989	62299
E	373m SE	Electricity Substation	1996	55996
E	378m SE	Electricity Substation	1974	47224
N	405m E	Electricity Substation	1985	53932
N	405m E	Electricity Substation	1989	53932
N	405m E	Electricity Substation	1989	53932
N	405m E	Electricity Substation	1989	53932
N	405m E	Electricity Substation	1974	63958
N	405m E	Electricity Substation	1996	51630
N	406m E	Electricity Substation	1968	52932
R	460m NE	Electricity Substation	1993	54501
R	461m NE	Electricity Substation	1975	57687

This data is sourced from Ordnance Survey® / Groundsure.



2.4 Historical petrol stations

Records within 500m

0

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

This data is sourced from Ordnance Survey® / Groundsure.

2.5 Historical garages

Records within 500m

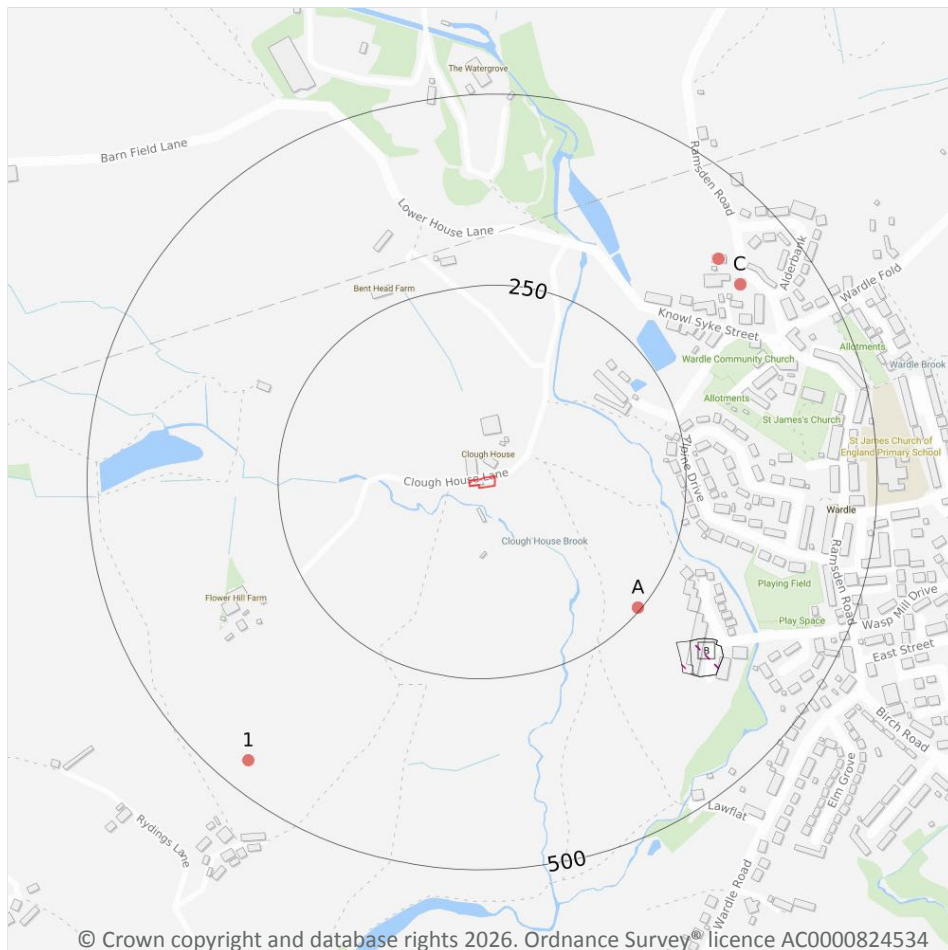
0

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

This data is sourced from Ordnance Survey® / Groundsure.



3 Waste and landfill



- Site Outline
- Search buffers in metres (m)
- Historical landfill (LA/OS)
- Waste exemptions

3.1 Active or recent landfill

Records within 500m

0

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

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

3.2 Historical landfill (BGS records)

Records within 500m

0

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

This data is sourced from the British Geological Survey.



3.3 Historical landfill (LA/mapping records)

Records within 500m**2**

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

Features are displayed on the Waste and landfill map on [page 32 >](#)

ID	Location	Site address	Source	Data type
B	314m SE	Refuse Tip	1973 mapping	Polygon
B	326m SE	Refuse Tip	1968 mapping	Polygon

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**0**

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

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

3.6 Licensed waste sites

Records within 500m**0**

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

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



3.7 Waste exemptions

Records within 500m

13

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

Features are displayed on the Waste and landfill map on [page 32 >](#)

ID	Location	Site	Reference	Category	Sub-Category	Description
A	246m SE	-	WEX400096	Storing waste exemption	On a farm	Storage of sludge
A	246m SE	-	WEX439678	Storing waste exemption	On a farm	Storage of sludge
A	246m SE	-	WEX323895	Storing waste exemption	On a farm	Storage of sludge
A	246m SE	-	WEX359668	Storing waste exemption	On a farm	Storage of sludge
C	407m NE	Wardle Farm, Ramsden Road, Wardle, Rochdale, OL12 9nj	WEX011555	Disposing of waste exemption	On a farm	Burning waste in the open
C	407m NE	Wardle Farm, Ramsden Road, Wardle, Rochdale, OL12 9nj	WEX169981	Disposing of waste exemption	On a farm	Burning waste in the open
C	407m NE	Wardle Farm, Ramsden Road, Wardle, Rochdale, OL12 9nj	WEX169981	Using waste exemption	On a farm	Use of waste in construction
C	407m NE	Wardle Farm, Ramsden Road, Wardle, Rochdale, OL12 9nj	WEX011555	Using waste exemption	On a farm	Use of waste in construction
C	407m NE	Wardle Farm, Ramsden Road, Wardle, Rochdale, OL12 9nj	WEX303601	Using waste exemption	On a farm	Use of waste in construction
C	407m NE	Wardle Farm, Ramsden Road, Wardle, Rochdale, OL12 9nj	WEX303601	Disposing of waste exemption	On a farm	Burning waste in the open
C	407m NE	Wardle Farm, Ramsden Road, Wardle, Rochdale, OL12 9nj	WEX432850	Disposing of waste exemption	On a farm	Burning waste in the open
C	407m NE	Wardle Farm, Ramsden Road, Wardle, Rochdale, OL12 9nj	WEX432850	Using waste exemption	On a farm	Use of waste in construction



ID	Location	Site	Reference	Category	Sub-Category	Description
1	462m SW	-	WEX116990	Storing waste exemption	On a farm	Storage of sludge

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



4 Current industrial land use



- Site Outline
- Search buffers in metres (m)
- Licensed Discharges to controlled waters
- Pollution Incidents (EA/NRW)

4.1 Recent industrial land uses

Records within 250m

0

Current potentially contaminative industrial sites.

This data is sourced from Ordnance Survey®.

4.2 National Geographic Database (NGD) - Current or recent tanks

Records within 250m

0

Current or recent tanks identified from the Ordnance Survey® NGD.

This data is sourced from Ordnance Survey®.



4.3 Current or recent petrol stations

Records within 500m**0**

Open, closed, under development and obsolete petrol stations.

This data is sourced from Experian.

4.4 Electricity cables

Records within 500m**0**

High voltage underground electricity transmission cables.

This data is sourced from National Grid.

4.5 Gas pipelines

Records within 500m**0**

High pressure underground gas transmission pipelines.

This data is sourced from National Grid.

4.6 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.

4.7 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.

4.8 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.

4.9 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.

4.10 Historical licensed industrial activities (IPC)

Records within 500m

0

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

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

4.11 Licensed industrial activities (Part A(1))

Records within 500m

0

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

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

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

Records within 500m

0

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.

This data is sourced from Local Authority records.

4.13 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.

4.14 Licensed Discharges to controlled waters

Records within 500m

9

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	256m N	BENT HEAD FARM, LOWER HOUSE LANE, WARDLE, ROCHDALE, GREATER MANCHESTER	Effluent Type: SEWAGE DISCHARGES - FINAL/TREATED EFFLUENT - NOT WATER COMPANY Permit Number: 016991108 Permit Version: 1 Receiving Water: KNOWL SYKE BROOK	Status: PRE NRA LEGISLATION WHERE ISSUE DATE 01-SEP-89 (HISTORIC ONLY) Issue date: - Effective Date: 29/12/1986 Revocation Date: -
B	311m NE	28 & 30 KNOWLE SYKE ST, WARDLE, ROCHDALE, LANCASHIRE, OL12 9PG	Effluent Type: SEWAGE DISCHARGES - FINAL/TREATED EFFLUENT - NOT WATER COMPANY Permit Number: 0165/107 Permit Version: 1 Receiving Water: TRIB OF KNOWL SYKE BROOK	Status: PRE NRA LEGISLATION WHERE ISSUE DATE 01-SEP-89 (HISTORIC ONLY) Issue date: 21/10/1965 Effective Date: 21/10/1965 Revocation Date: -
B	313m NE	28 KNOWL SYKE STREET, WARDLE, ROCHDALE, LANCASHIRE, OL12 9PG	Effluent Type: SEWAGE DISCHARGES - FINAL/TREATED EFFLUENT - NOT WATER COMPANY Permit Number: 0165/106 Permit Version: 1 Receiving Water: TRIB OF KNOWL SYKE BROOK	Status: PRE NRA LEGISLATION WHERE ISSUE DATE 01-SEP-89 (HISTORIC ONLY) Issue date: 21/10/1965 Effective Date: 21/10/1965 Revocation Date: -
B	317m NE	24 KNOWLE SYKE STREET, WARDLE, ROCHDALE, LANCASHIRE, OL12 9PG	Effluent Type: SEWAGE DISCHARGES - FINAL/TREATED EFFLUENT - NOT WATER COMPANY Permit Number: 0166/407 Permit Version: 1 Receiving Water: KNOWL SYKE BROOK	Status: PRE NRA LEGISLATION WHERE ISSUE DATE 01-SEP-89 (HISTORIC ONLY) Issue date: 04/11/1966 Effective Date: 04/11/1966 Revocation Date: -



ID	Location	Address	Details	
B	319m NE	18-26 KNOWLE SYKE STREET, WARDLE, ROCHDALE, LANCASHIRE	Effluent Type: SEWAGE DISCHARGES - FINAL/TREATED EFFLUENT - NOT WATER COMPANY Permit Number: 0166/411 Permit Version: 1 Receiving Water: KNOWLE SYKE BROOK	Status: PRE NRA LEGISLATION WHERE ISSUE DATE 01-SEP-89 (HISTORIC ONLY) Issue date: 04/11/1966 Effective Date: 04/11/1966 Revocation Date: -
B	319m NE	18, 20, 22, 24 & 26 KNOWL SYKE S, WARDLE, ROCHDALE, LANCASHIRE, OL12 9PG	Effluent Type: SEWAGE DISCHARGES - FINAL/TREATED EFFLUENT - NOT WATER COMPANY Permit Number: 0166/408 Permit Version: 1 Receiving Water: KNOWL SYKE BROOK	Status: PRE NRA LEGISLATION WHERE ISSUE DATE 01-SEP-89 (HISTORIC ONLY) Issue date: 04/11/1966 Effective Date: 04/11/1966 Revocation Date: -
B	319m NE	18, 20, 22, 24 & 26 KNOWL SYKE S, WARDLE, ROCHDALE, LANCASHIRE, OL12 9PG	Effluent Type: SEWAGE DISCHARGES - FINAL/TREATED EFFLUENT - NOT WATER COMPANY Permit Number: 0166/408 Permit Version: 1 Receiving Water: KNOWL SYKE BROOK	Status: PRE NRA LEGISLATION WHERE ISSUE DATE 01-SEP-89 (HISTORIC ONLY) Issue date: 04/11/1966 Effective Date: 04/11/1966 Revocation Date: -
B	323m NE	20 KNOWL SYKE STREET, WARDLE, ROCHDALE, LANCASHIRE, OL12 9PG	Effluent Type: SEWAGE DISCHARGES - FINAL/TREATED EFFLUENT - NOT WATER COMPANY Permit Number: 0166/409 Permit Version: 1 Receiving Water: KNOWLE SYKE BROOK	Status: PRE NRA LEGISLATION WHERE ISSUE DATE 01-SEP-89 (HISTORIC ONLY) Issue date: 04/11/1966 Effective Date: 04/11/1966 Revocation Date: -
C	378m SE	CLOUGH ST PS, WARDLE, ROCHDALE, GREATER MANCHESTER	Effluent Type: SEWAGE DISCHARGES - PUMPING STATION - WATER COMPANY Permit Number: 016982940 Permit Version: 1 Receiving Water: BUCKLEY (SYKE) BROOK	Status: POST NRA LEGISLATION WHERE ISSUE DATE > 31-AUG-89 (HISTORIC ONLY) Issue date: - Effective Date: 17/11/1995 Revocation Date: -

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

4.15 Pollutant release to surface waters (Red List)

Records within 500m

0

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

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



4.16 Pollutant release to public sewer

Records within 500m

0

Discharges of Special Category Effluents to the public sewer.

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

4.17 List 1 Dangerous Substances

Records within 500m

0

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

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

4.18 List 2 Dangerous Substances

Records within 500m

0

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

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

4.19 Pollution Incidents (EA/NRW)

Records within 500m

3

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	
A	249m E	Incident Date: 08/08/2001 Incident Identification: 22691 Pollutant: General Biodegradable Materials and Wastes Pollutant Description: Blood and Offal	Water Impact: Category 3 (Minor) Land Impact: Category 4 (No Impact) Air Impact: Category 4 (No Impact)
A	249m E	Incident Date: 08/08/2001 Incident Identification: 22691 Pollutant: General Biodegradable Materials and Wastes Pollutant Description: Blood and Offal	Water Impact: Category 3 (Minor) Land Impact: Category 4 (No Impact) Air Impact: Category 4 (No Impact)

ID	Location	Details	
C	391m SE	Incident Date: 25/03/2003 Incident Identification: 145758 Pollutant: Sewage Materials Pollutant Description: Other Sewage Material	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.

4.20 Pollution inventory substances

Records within 500m	0
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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.

4.21 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.

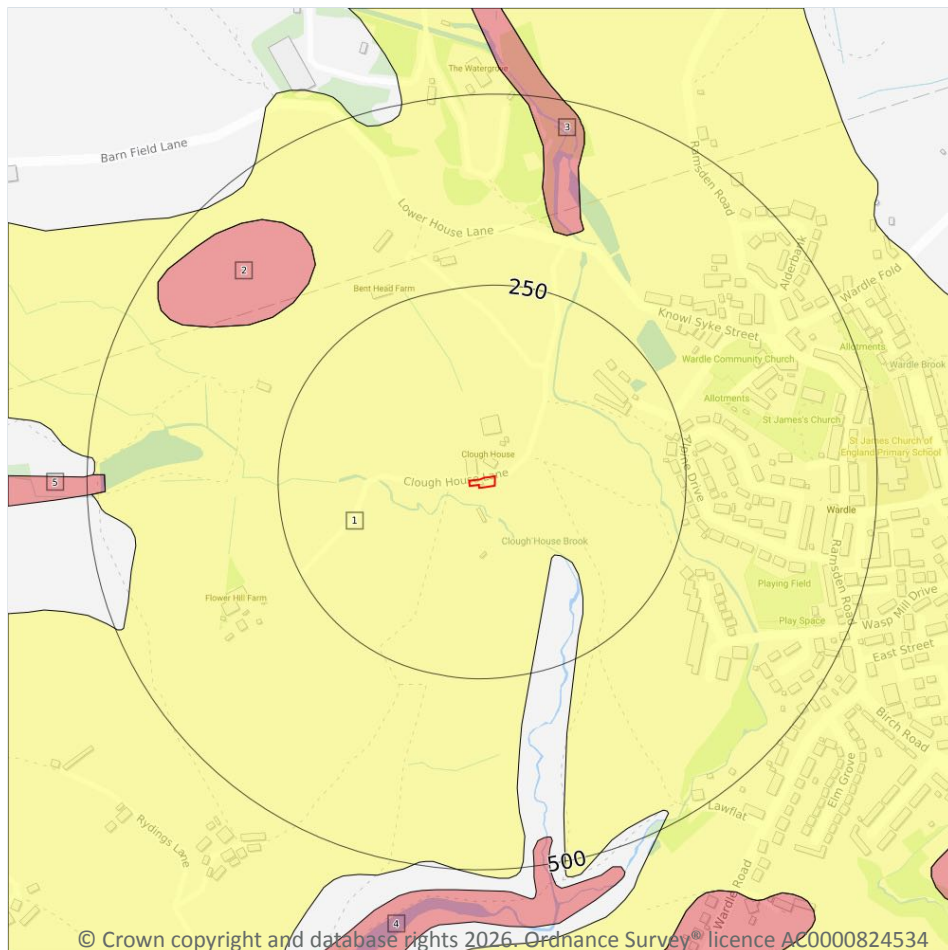
4.22 Pollution inventory radioactive waste

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

5

Aquifer status of groundwater held within superficial geology.

Features are displayed on the Hydrogeology map on [page 43 >](#)

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	327m 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

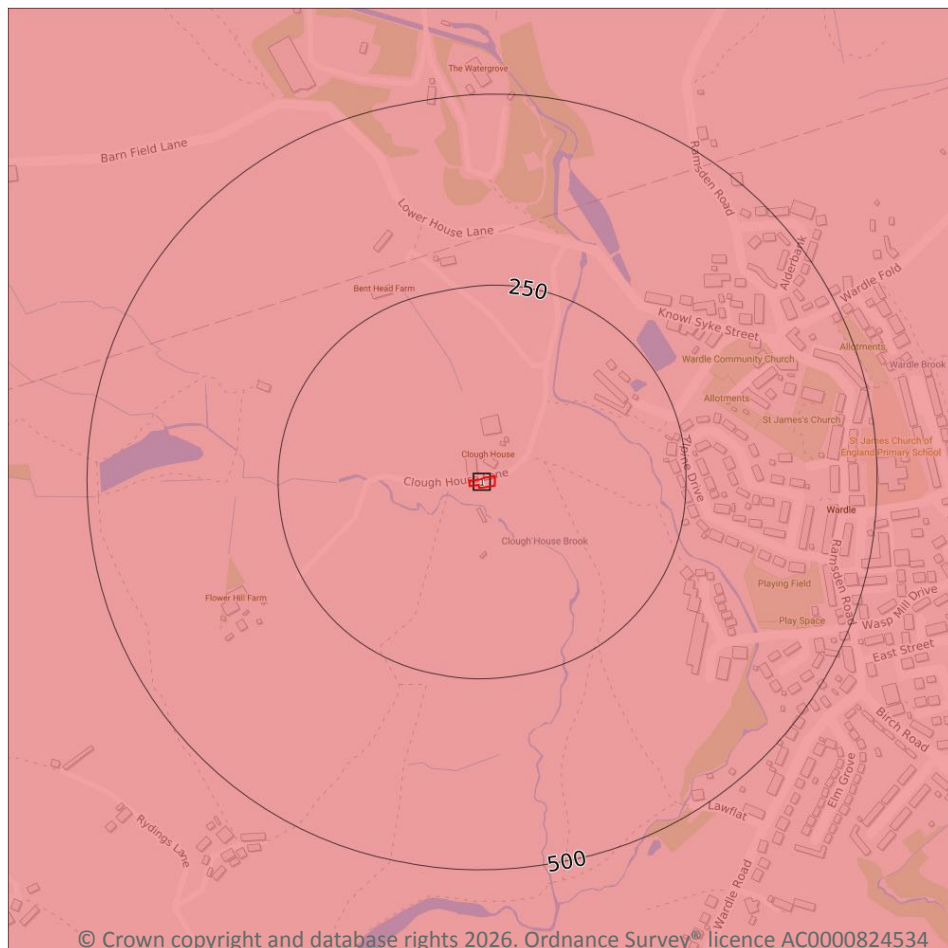


ID	Location	Designation	Description
3	329m N	Secondary A	Permeable layers capable of supporting water supplies at a local rather than strategic scale, and in some cases forming an important source of base flow to rivers. These are generally aquifers formerly classified as minor aquifers
4	465m S	Secondary 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
5	476m W	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.

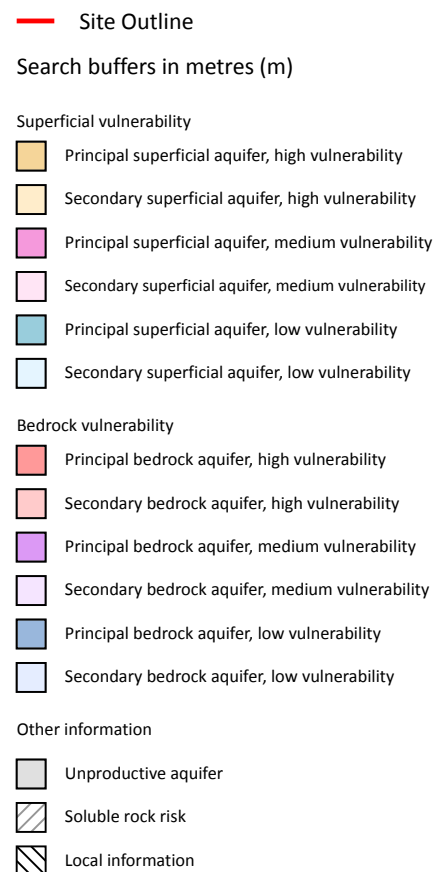
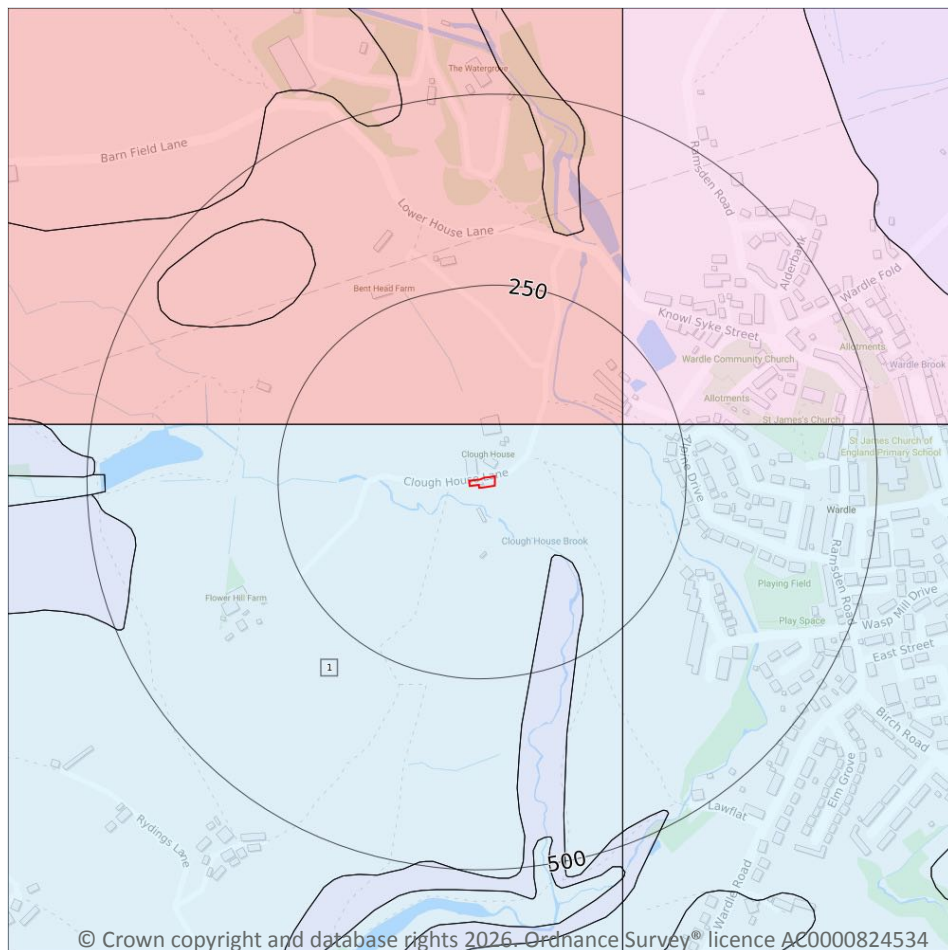
Features are displayed on the Bedrock aquifer map on [page 45 >](#)

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 46](#) >

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: >550mm/year	Vulnerability: Low Aquifer type: Secondary Thickness: 3-10m Patchiness value: <90% Recharge potential: Low	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
------------------------	----------

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.

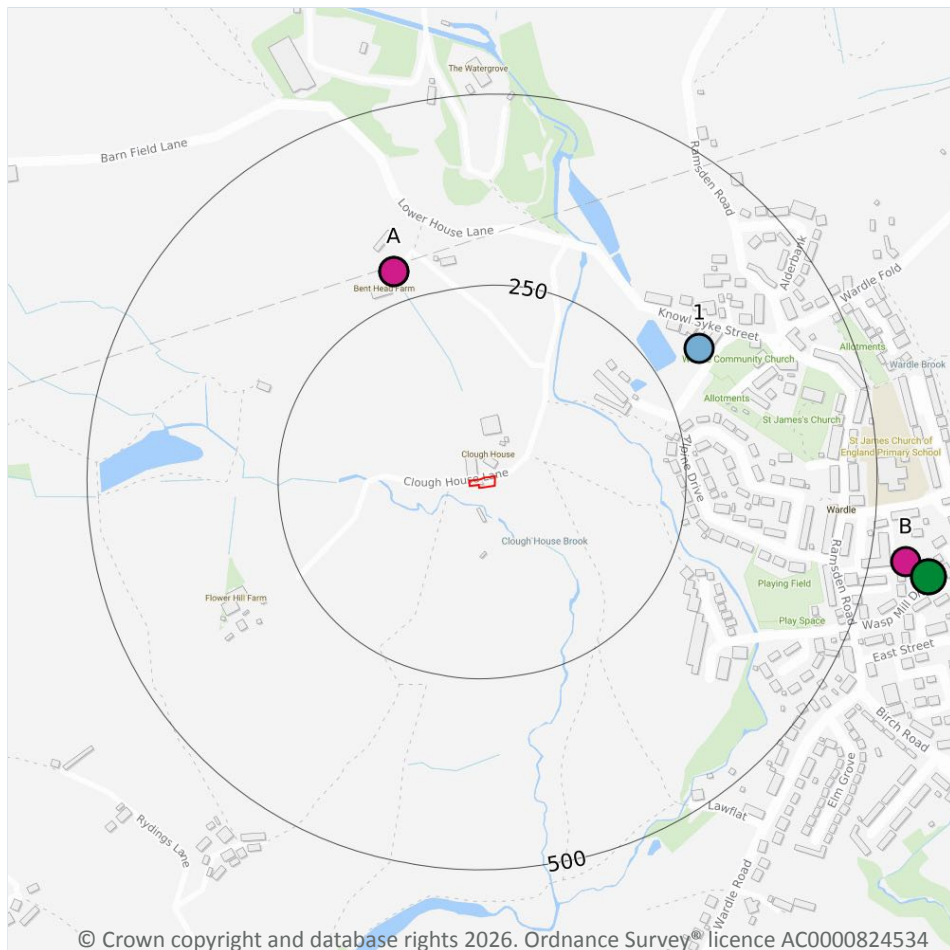
5.5 Groundwater vulnerability- local information

Records on site	0
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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

10

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 48 >](#)

ID	Location	Details	
A	291m N	Status: Historical Licence No: 2569002132 Details: General use relating to Secondary Category (Medium Loss) Direct Source: Ground Water - North West Region Point: "SPRINGS (2) AT BENT HEAD FARM, WARDLE" Data Type: Point Name: MITCHELL Easting: 390700 Northing: 417200	Annual Volume (m ³): - Max Daily Volume (m ³): - Original Application No: - Original Start Date: 09/02/1966 Expiry Date: - Issue No: 100 Version Start Date: 09/02/1966 Version End Date: -
A	291m N	Status: Historical Licence No: 2569002132 Details: General use relating to Secondary Category (Medium Loss) Direct Source: Ground Water - North West Region Point: SPRINGS (2) AT BENT HEAD FARM, WARDLE Data Type: Point Name: MITCHELL Easting: 390700 Northing: 417200	Annual Volume (m ³): - Max Daily Volume (m ³): - Original Application No: - Original Start Date: 09/02/1966 Expiry Date: - Issue No: 100 Version Start Date: 09/02/1966 Version End Date: -
B	547m E	Status: Active Licence No: 2569002146 Details: Water Bottling Direct Source: Ground Water - North West Region Point: BOREHOLE AT PREMISES AT WARDLE, ROCHDALE Data Type: Point Name: WARDLE SPRING WATER CO LTD Easting: 391370 Northing: 416820	Annual Volume (m ³): 25457.6 Max Daily Volume (m ³): 75.72 Original Application No: 827 Original Start Date: 04/02/1966 Expiry Date: - Issue No: 102 Version Start Date: 01/04/2008 Version End Date: -
B	580m E	Status: Historical Licence No: 2569002146 Details: Water Bottling Direct Source: Ground Water - North West Region Point: "BOREHOLE AT PREMISES, WARDLE, ROCHDALE" Data Type: Point Name: COOK STREET PALLETS LTD Easting: 391400 Northing: 416800	Annual Volume (m ³): - Max Daily Volume (m ³): - Original Application No: - Original Start Date: 04/02/1966 Expiry Date: - Issue No: 100 Version Start Date: 19/10/1990 Version End Date: -



ID	Location	Details	
B	580m E	Status: Historical Licence No: 2569002146 Details: Water Bottling Direct Source: Ground Water - North West Region Point: BOREHOLE AT PREMISES, WARDLE, ROCHDALE Data Type: Point Name: COOK STREET PALLETS LTD Easting: 391400 Northing: 416800	Annual Volume (m ³): - Max Daily Volume (m ³): - Original Application No: - Original Start Date: 04/02/1966 Expiry Date: - Issue No: 100 Version Start Date: 19/10/1990 Version End Date: -
-	1201m W	Status: Historical Licence No: 2569002155 Details: General use relating to Secondary Category (Medium Loss) Direct Source: Ground Water - North West Region Point: "WELL AT MOORSIDE FARM, WARDLE, ROCHDALE, LANCASHIRE" Data Type: Point Name: ROWLEY Easting: 389600 Northing: 417000	Annual Volume (m ³): - Max Daily Volume (m ³): - Original Application No: - Original Start Date: 20/01/1966 Expiry Date: - Issue No: 100 Version Start Date: 20/01/1966 Version End Date: -
-	1201m W	Status: Historical Licence No: 2569002155 Details: General use relating to Secondary Category (Medium Loss) Direct Source: Ground Water - North West Region Point: WELL AT MOORSIDE FARM, WARDLE, ROCHDALE, LANCASHIRE Data Type: Point Name: ROWLEY Easting: 389600 Northing: 417000	Annual Volume (m ³): - Max Daily Volume (m ³): - Original Application No: - Original Start Date: 20/01/1966 Expiry Date: - Issue No: 100 Version Start Date: 20/01/1966 Version End Date: -
-	1582m NE	Status: Historical Licence No: 2569002151 Details: "Drinking, Cooking, Sanitary, Washing, (Small Garden) - Household" Direct Source: Ground Water - North West Region Point: "SPRING AT WITLOW STYLE, LITTLEBOROUGH" Data Type: Point Name: QUARTGAIN LTD. Easting: 391900 Northing: 418100	Annual Volume (m ³): - Max Daily Volume (m ³): - Original Application No: - Original Start Date: 03/03/1966 Expiry Date: - Issue No: 101 Version Start Date: 29/03/2001 Version End Date: -

ID	Location	Details	
-	1582m NE	Status: Historical Licence No: 2569002151 Details: Drinking, Cooking, Sanitary, Washing, (Small Garden) - Household Direct Source: Ground Water - North West Region Point: SPRING AT WITLOW STYLE, LITTLEBOROUGH Data Type: Point Name: QUARTGAIN LTD. Easting: 391900 Northing: 418100	Annual Volume (m ³): - Max Daily Volume (m ³): - Original Application No: - Original Start Date: 03/03/1966 Expiry Date: - Issue No: 101 Version Start Date: 29/03/2001 Version End Date: -
-	1582m NE	Status: Historical Licence No: 2569002151 Details: Drinking, Cooking, Sanitary, Washing, (Small Garden) - Household Direct Source: Ground Water - North West Region Point: SPRING AT WITLOW STYLE LITTLEBOROUGH Data Type: Point Name: QUARTGAIN LTD Easting: 391900 Northing: 418100	Annual Volume (m ³): 6592 Max Daily Volume (m ³): 23 Original Application No: - Original Start Date: 03/03/1966 Expiry Date: - Issue No: 101 Version Start Date: 29/03/2001 Version End Date: -

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

5.7 Surface water abstractions

Records within 2000m

14

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 48 >](#)

ID	Location	Details	
1	315m NE	Status: Historical Licence No: 2569002114 Details: Process water Direct Source: Surface, Non-Tidal - North West Region Point: RESERVOIR ON TRIB OF R ROCH AT WARDLE, NEAR ROCHDALE Data Type: Point Name: STRONG INTERNATIONAL LTD Easting: 391100 Northing: 417100	Annual Volume (m ³): - Max Daily Volume (m ³): - Original Application No: - Original Start Date: 27/01/1966 Expiry Date: - Issue No: 101 Version Start Date: 15/11/1996 Version End Date: -



ID	Location	Details	
-	680m N	Status: Active Licence No: 2569002193 Details: Potable Water Supply - Direct Direct Source: Surface, Non-Tidal - North West Region Point: WATERGROVE, BROWN HOUSE WHAM, HAMER PASTURE AND BUCKLEY WOOD Data Type: Point Name: United Utilities Water Ltd Easting: 390700 Northing: 417600	Annual Volume (m ³): 5909800 Max Daily Volume (m ³): 5909800 Original Application No: 1592 Original Start Date: 22/03/1966 Expiry Date: - Issue No: 100 Version Start Date: 22/03/1966 Version End Date: -
-	680m N	Status: Historical Licence No: 2569002193 Details: Potable Water Supply - Direct Direct Source: "Surface, Non-Tidal - North West Region" Point: "WATERGROVE, BROWN HOUSE WHAM, HAMER PASTURE AND BUCKLEY WOOD" Data Type: Point Name: UNITED UTILITIES WATER PLC Easting: 390700 Northing: 417600	Annual Volume (m ³): - Max Daily Volume (m ³): - Original Application No: - Original Start Date: 22/03/1966 Expiry Date: - Issue No: 100 Version Start Date: 22/03/1966 Version End Date: -
-	904m NW	Status: Historical Licence No: 2569002259 Details: "Drinking, Cooking, Sanitary, Washing, (Small Garden) - Household" Direct Source: "Surface, Non-Tidal - North West Region" Point: "SPRING FED TANK ON ADJACENT LAND KNOWN AS STID FOLD FARM," Data Type: Point Name: DAVID CHRISTOPHER HARRY & JANET ROSE HARRY Easting: 390100 Northing: 417500	Annual Volume (m ³): - Max Daily Volume (m ³): - Original Application No: - Original Start Date: 03/11/1994 Expiry Date: - Issue No: 101 Version Start Date: 01/07/1999 Version End Date: -
-	904m NW	Status: Historical Licence No: 2569002259 Details: Drinking, Cooking, Sanitary, Washing, (Small Garden) - Household Direct Source: Surface, Non-Tidal - North West Region Point: SPRING FED TANK ON ADJACENT LAND KNOWN AS STID FOLD FARM Data Type: Point Name: DAVID CHRISTOPHER HARRY & JANET ROSE HARRY Easting: 390100 Northing: 417500	Annual Volume (m ³): - Max Daily Volume (m ³): - Original Application No: - Original Start Date: 03/11/1994 Expiry Date: - Issue No: 101 Version Start Date: 01/07/1999 Version End Date: -



ID	Location	Details	
-	1350m SW	Status: Active Licence No: 2569002193 Details: Potable Water Supply - Direct Direct Source: Surface, Non-Tidal - North West Region Point: WATERGROVE, BROWN HOUSE WHAM, HAMER PASTURE AND BUCKLEY Data Type: Point Name: United Utilities Water Ltd Easting: 389600 Northing: 416300	Annual Volume (m ³): 5909800 Max Daily Volume (m ³): 5909800 Original Application No: 1592 Original Start Date: 22/03/1966 Expiry Date: - Issue No: 100 Version Start Date: 22/03/1966 Version End Date: -
-	1350m SW	Status: Historical Licence No: 2569002193 Details: Potable Water Supply - Direct Direct Source: Surface, Non-Tidal - North West Region Point: WATERGROVE, BROWN HOUSE WHAM, HAMER PASTURE AND BUCKLEY107 Data Type: Point Name: NORTH WEST WATER LTD Easting: 389600 Northing: 416300	Annual Volume (m ³): - Max Daily Volume (m ³): - Original Application No: - Original Start Date: 22/03/1966 Expiry Date: - Issue No: 100 Version Start Date: 22/03/1966 Version End Date: -
-	1350m SW	Status: Historical Licence No: 2569002193 Details: Potable Water Supply - Direct Direct Source: "Surface, Non-Tidal - North West Region" Point: "WATERGROVE, BROWN HOUSE WHAM, HAMER PASTURE AND BUCKLEY\$107" Data Type: Point Name: UNITED UTILITIES WATER PLC Easting: 389600 Northing: 416300	Annual Volume (m ³): - Max Daily Volume (m ³): - Original Application No: - Original Start Date: 22/03/1966 Expiry Date: - Issue No: 100 Version Start Date: 22/03/1966 Version End Date: -
-	1350m SW	Status: Historical Licence No: 2569002193 Details: Potable Water Supply - Direct Direct Source: Surface, Non-Tidal - North West Region Point: WATERGROVE, BROWN HOUSE WHAM, HAMER PASTURE AND BUCKLEY\$107 Data Type: Point Name: UNITED UTILITIES WATER PLC Easting: 389600 Northing: 416300	Annual Volume (m ³): - Max Daily Volume (m ³): - Original Application No: - Original Start Date: 22/03/1966 Expiry Date: - Issue No: 100 Version Start Date: 22/03/1966 Version End Date: -

ID	Location	Details	
-	1399m SW	Status: Active Licence No: 2569002193 Details: Potable Water Supply - Direct Direct Source: Surface, Non-Tidal - North West Region Point: WATERGROVE, BROWN HOUSE WHAM, HAMER PASTURE AND BUCKLEY Data Type: Point Name: United Utilities Water Ltd Easting: 389600 Northing: 416200	Annual Volume (m ³): 5909800 Max Daily Volume (m ³): 5909800 Original Application No: 1592 Original Start Date: 22/03/1966 Expiry Date: - Issue No: 100 Version Start Date: 22/03/1966 Version End Date: -
-	1399m SW	Status: Historical Licence No: 2569002193 Details: Potable Water Supply - Direct Direct Source: "Surface, Non-Tidal - North West Region" Point: "WATERGROVE, BROWN HOUSE WHAM, HAMER PASTURE AND BUCKLEY*30" Data Type: Point Name: UNITED UTILITIES WATER PLC Easting: 389600 Northing: 416200	Annual Volume (m ³): - Max Daily Volume (m ³): - Original Application No: - Original Start Date: 22/03/1966 Expiry Date: - Issue No: 100 Version Start Date: 22/03/1966 Version End Date: -
-	1399m SW	Status: Historical Licence No: 2569002193 Details: Potable Water Supply - Direct Direct Source: Surface, Non-Tidal - North West Region Point: WATERGROVE, BROWN HOUSE WHAM, HAMER PASTURE AND BUCKLEY*30 Data Type: Point Name: UNITED UTILITIES WATER PLC Easting: 389600 Northing: 416200	Annual Volume (m ³): - Max Daily Volume (m ³): - Original Application No: - Original Start Date: 22/03/1966 Expiry Date: - Issue No: 100 Version Start Date: 22/03/1966 Version End Date: -
-	1633m S	Status: Active Licence No: 2569002193 Details: Potable Water Supply - Direct Direct Source: Surface, Non-Tidal - North West Region Point: WATERGROVE, BROWN HOUSE WHAM, HAMER PASTURE AND BUCKLEY[12] Data Type: Point Name: United Utilities Water Ltd Easting: 390200 Northing: 415400	Annual Volume (m ³): 5909800 Max Daily Volume (m ³): 5909800 Original Application No: 1592 Original Start Date: 22/03/1966 Expiry Date: - Issue No: 100 Version Start Date: 22/03/1966 Version End Date: -



ID	Location	Details	
-	1633m S	Status: Historical Licence No: 2569002193 Details: Potable Water Supply - Direct Direct Source: "Surface, Non-Tidal - North West Region" Point: "WATERGROVE, BROWN HOUSE WHAM, HAMER PASTURE AND BUCKLEY[12]" Data Type: Point Name: UNITED UTILITIES WATER PLC Easting: 390200 Northing: 415400	Annual Volume (m ³): - Max Daily Volume (m ³): - Original Application No: - Original Start Date: 22/03/1966 Expiry Date: - Issue No: 100 Version Start Date: 22/03/1966 Version End Date: -

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

5.8 Potable abstractions

Records within 2000m

19

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

Features are displayed on the Abstractions and Source Protection Zones map on [page 48 >](#)

ID	Location	Details	
B	547m E	Status: Active Licence No: 2569002146 Details: Water Bottling Direct Source: Ground Water - North West Region Point: BOREHOLE AT PREMISES AT WARDLE, ROCHDALE Data Type: Point Name: WARDLE SPRING WATER CO LTD Easting: 391370 Northing: 416820	Annual Volume (m ³): 25457.6 Max Daily Volume (m ³): 75.72 Original Application No: 827 Original Start Date: 04/02/1966 Expiry Date: - Issue No: 102 Version Start Date: 01/04/2008 Version End Date: -
B	580m E	Status: Historical Licence No: 2569002146 Details: Water Bottling Direct Source: Ground Water - North West Region Point: "BOREHOLE AT PREMISES, WARDLE, ROCHDALE" Data Type: Point Name: COOK STREET PALLETS LTD Easting: 391400 Northing: 416800	Annual Volume (m ³): - Max Daily Volume (m ³): - Original Application No: - Original Start Date: 04/02/1966 Expiry Date: - Issue No: 100 Version Start Date: 19/10/1990 Version End Date: -



ID	Location	Details	
B	580m E	Status: Historical Licence No: 2569002146 Details: Water Bottling Direct Source: Ground Water - North West Region Point: BOREHOLE AT PREMISES, WARDLE, ROCHDALE Data Type: Point Name: COOK STREET PALLETS LTD Easting: 391400 Northing: 416800	Annual Volume (m ³): - Max Daily Volume (m ³): - Original Application No: - Original Start Date: 04/02/1966 Expiry Date: - Issue No: 100 Version Start Date: 19/10/1990 Version End Date: -
-	680m N	Status: Active Licence No: 2569002193 Details: Potable Water Supply - Direct Direct Source: Surface, Non-Tidal - North West Region Point: WATERGROVE, BROWN HOUSE WHAM, HAMER PASTURE AND BUCKLEY WOOD Data Type: Point Name: United Utilities Water Ltd Easting: 390700 Northing: 417600	Annual Volume (m ³): 5909800 Max Daily Volume (m ³): 5909800 Original Application No: 1592 Original Start Date: 22/03/1966 Expiry Date: - Issue No: 100 Version Start Date: 22/03/1966 Version End Date: -
-	680m N	Status: Historical Licence No: 2569002193 Details: Potable Water Supply - Direct Direct Source: "Surface, Non-Tidal - North West Region" Point: "WATERGROVE, BROWN HOUSE WHAM, HAMER PASTURE AND BUCKLEY WOOD" Data Type: Point Name: UNITED UTILITIES WATER PLC Easting: 390700 Northing: 417600	Annual Volume (m ³): - Max Daily Volume (m ³): - Original Application No: - Original Start Date: 22/03/1966 Expiry Date: - Issue No: 100 Version Start Date: 22/03/1966 Version End Date: -
-	904m NW	Status: Historical Licence No: 2569002259 Details: "Drinking, Cooking, Sanitary, Washing, (Small Garden) - Household" Direct Source: "Surface, Non-Tidal - North West Region" Point: "SPRING FED TANK ON ADJACENT LAND KNOWN AS STID FOLD FARM," Data Type: Point Name: DAVID CHRISTOPHER HARRY & JANET ROSE HARRY Easting: 390100 Northing: 417500	Annual Volume (m ³): - Max Daily Volume (m ³): - Original Application No: - Original Start Date: 03/11/1994 Expiry Date: - Issue No: 101 Version Start Date: 01/07/1999 Version End Date: -



ID	Location	Details	
-	904m NW	Status: Historical Licence No: 2569002259 Details: Drinking, Cooking, Sanitary, Washing, (Small Garden) - Household Direct Source: Surface, Non-Tidal - North West Region Point: SPRING FED TANK ON ADJACENT LAND KNOWN AS STID FOLD FARM Data Type: Point Name: DAVID CHRISTOPHER HARRY & JANET ROSE HARRY Easting: 390100 Northing: 417500	Annual Volume (m ³): - Max Daily Volume (m ³): - Original Application No: - Original Start Date: 03/11/1994 Expiry Date: - Issue No: 101 Version Start Date: 01/07/1999 Version End Date: -
-	1350m SW	Status: Active Licence No: 2569002193 Details: Potable Water Supply - Direct Direct Source: Surface, Non-Tidal - North West Region Point: WATERGROVE, BROWN HOUSE WHAM, HAMER PASTURE AND BUCKLEY Data Type: Point Name: United Utilities Water Ltd Easting: 389600 Northing: 416300	Annual Volume (m ³): 5909800 Max Daily Volume (m ³): 5909800 Original Application No: 1592 Original Start Date: 22/03/1966 Expiry Date: - Issue No: 100 Version Start Date: 22/03/1966 Version End Date: -
-	1350m SW	Status: Historical Licence No: 2569002193 Details: Potable Water Supply - Direct Direct Source: Surface, Non-Tidal - North West Region Point: WATERGROVE, BROWN HOUSE WHAM, HAMER PASTURE AND BUCKLEY107 Data Type: Point Name: NORTH WEST WATER LTD Easting: 389600 Northing: 416300	Annual Volume (m ³): - Max Daily Volume (m ³): - Original Application No: - Original Start Date: 22/03/1966 Expiry Date: - Issue No: 100 Version Start Date: 22/03/1966 Version End Date: -
-	1350m SW	Status: Historical Licence No: 2569002193 Details: Potable Water Supply - Direct Direct Source: "Surface, Non-Tidal - North West Region" Point: "WATERGROVE, BROWN HOUSE WHAM, HAMER PASTURE AND BUCKLEY\$107" Data Type: Point Name: UNITED UTILITIES WATER PLC Easting: 389600 Northing: 416300	Annual Volume (m ³): - Max Daily Volume (m ³): - Original Application No: - Original Start Date: 22/03/1966 Expiry Date: - Issue No: 100 Version Start Date: 22/03/1966 Version End Date: -

ID	Location	Details	
-	1350m SW	Status: Historical Licence No: 2569002193 Details: Potable Water Supply - Direct Direct Source: Surface, Non-Tidal - North West Region Point: WATERGROVE, BROWN HOUSE WHAM, HAMER PASTURE AND BUCKLEY\$107 Data Type: Point Name: UNITED UTILITIES WATER PLC Easting: 389600 Northing: 416300	Annual Volume (m ³): - Max Daily Volume (m ³): - Original Application No: - Original Start Date: 22/03/1966 Expiry Date: - Issue No: 100 Version Start Date: 22/03/1966 Version End Date: -
-	1399m SW	Status: Active Licence No: 2569002193 Details: Potable Water Supply - Direct Direct Source: Surface, Non-Tidal - North West Region Point: WATERGROVE, BROWN HOUSE WHAM, HAMER PASTURE AND BUCKLEY Data Type: Point Name: United Utilities Water Ltd Easting: 389600 Northing: 416200	Annual Volume (m ³): 5909800 Max Daily Volume (m ³): 5909800 Original Application No: 1592 Original Start Date: 22/03/1966 Expiry Date: - Issue No: 100 Version Start Date: 22/03/1966 Version End Date: -
-	1399m SW	Status: Historical Licence No: 2569002193 Details: Potable Water Supply - Direct Direct Source: "Surface, Non-Tidal - North West Region" Point: "WATERGROVE, BROWN HOUSE WHAM, HAMER PASTURE AND BUCKLEY*30" Data Type: Point Name: UNITED UTILITIES WATER PLC Easting: 389600 Northing: 416200	Annual Volume (m ³): - Max Daily Volume (m ³): - Original Application No: - Original Start Date: 22/03/1966 Expiry Date: - Issue No: 100 Version Start Date: 22/03/1966 Version End Date: -
-	1399m SW	Status: Historical Licence No: 2569002193 Details: Potable Water Supply - Direct Direct Source: Surface, Non-Tidal - North West Region Point: WATERGROVE, BROWN HOUSE WHAM, HAMER PASTURE AND BUCKLEY*30 Data Type: Point Name: UNITED UTILITIES WATER PLC Easting: 389600 Northing: 416200	Annual Volume (m ³): - Max Daily Volume (m ³): - Original Application No: - Original Start Date: 22/03/1966 Expiry Date: - Issue No: 100 Version Start Date: 22/03/1966 Version End Date: -

ID	Location	Details	
-	1582m NE	Status: Historical Licence No: 2569002151 Details: "Drinking, Cooking, Sanitary, Washing, (Small Garden) - Household" Direct Source: Ground Water - North West Region Point: "SPRING AT WITLOW STYLE, LITTLEBOROUGH" Data Type: Point Name: QUARTGAIN LTD. Easting: 391900 Northing: 418100	Annual Volume (m ³): - Max Daily Volume (m ³): - Original Application No: - Original Start Date: 03/03/1966 Expiry Date: - Issue No: 101 Version Start Date: 29/03/2001 Version End Date: -
-	1582m NE	Status: Historical Licence No: 2569002151 Details: Drinking, Cooking, Sanitary, Washing, (Small Garden) - Household Direct Source: Ground Water - North West Region Point: SPRING AT WITLOW STYLE, LITTLEBOROUGH Data Type: Point Name: QUARTGAIN LTD. Easting: 391900 Northing: 418100	Annual Volume (m ³): - Max Daily Volume (m ³): - Original Application No: - Original Start Date: 03/03/1966 Expiry Date: - Issue No: 101 Version Start Date: 29/03/2001 Version End Date: -
-	1582m NE	Status: Historical Licence No: 2569002151 Details: Drinking, Cooking, Sanitary, Washing, (Small Garden) - Household Direct Source: Ground Water - North West Region Point: SPRING AT WITLOW STYLE LITTLEBOROUGH Data Type: Point Name: QUARTGAIN LTD Easting: 391900 Northing: 418100	Annual Volume (m ³): 6592 Max Daily Volume (m ³): 23 Original Application No: - Original Start Date: 03/03/1966 Expiry Date: - Issue No: 101 Version Start Date: 29/03/2001 Version End Date: -
-	1633m S	Status: Active Licence No: 2569002193 Details: Potable Water Supply - Direct Direct Source: Surface, Non-Tidal - North West Region Point: WATERGROVE, BROWN HOUSE WHAM, HAMER PASTURE AND BUCKLEY[12] Data Type: Point Name: United Utilities Water Ltd Easting: 390200 Northing: 415400	Annual Volume (m ³): 5909800 Max Daily Volume (m ³): 5909800 Original Application No: 1592 Original Start Date: 22/03/1966 Expiry Date: - Issue No: 100 Version Start Date: 22/03/1966 Version End Date: -

ID	Location	Details	
-	1633m S	Status: Historical Licence No: 2569002193 Details: Potable Water Supply - Direct Direct Source: "Surface, Non-Tidal - North West Region" Point: "WATERGROVE, BROWN HOUSE WHAM, HAMER PASTURE AND BUCKLEY[12]" Data Type: Point Name: UNITED UTILITIES WATER PLC Easting: 390200 Northing: 415400	Annual Volume (m ³): - Max Daily Volume (m ³): - Original Application No: - Original Start Date: 22/03/1966 Expiry Date: - Issue No: 100 Version Start Date: 22/03/1966 Version End Date: -

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

5.9 Source Protection Zones

Records within 500m	0
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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.

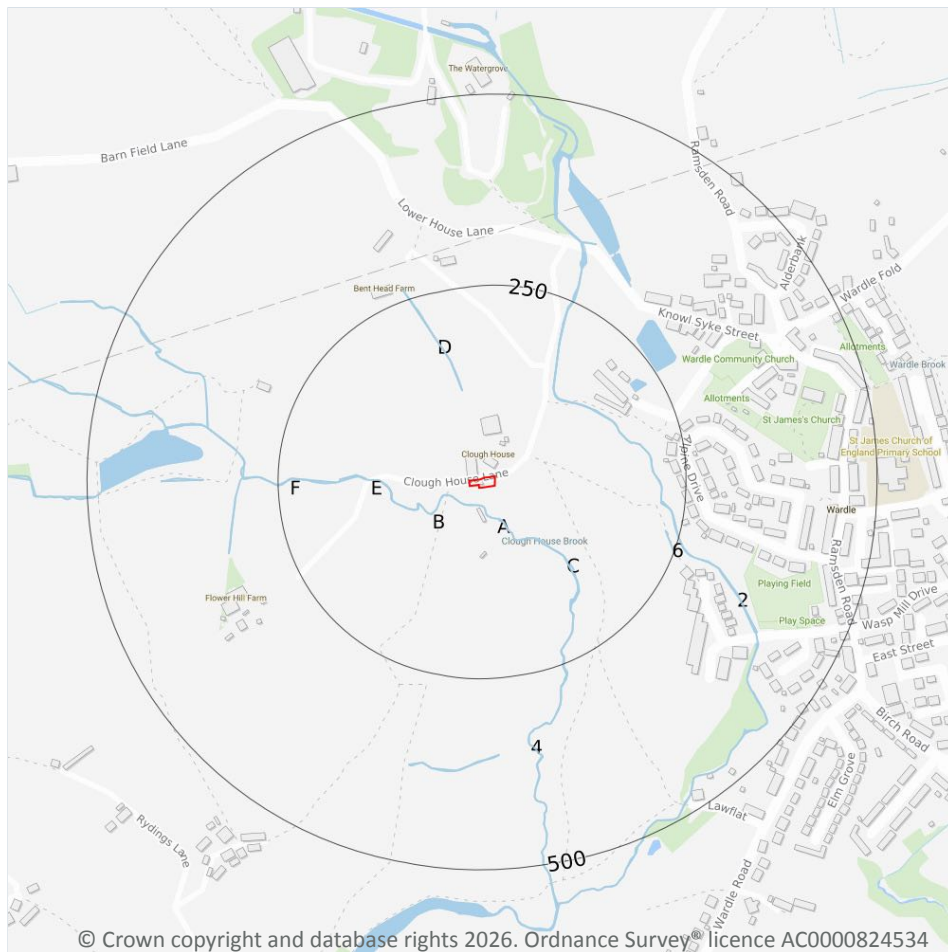
5.10 Source Protection Zones (confined aquifer)

Records within 500m	0
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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 NGD)
- 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 NGD)

Records within 250m

11

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 61](#) >

ID	Location	Type of water feature	Ground level	Permanence	Name
B	23m S	Inland river not influenced by normal tidal action.	On ground surface	Watercourse contains water year round (in normal circumstances)	Clough House Brook



ID	Location	Type of water feature	Ground level	Permanence	Name
A	41m S	Inland river not influenced by normal tidal action.	Underground	Watercourse contains water year round (in normal circumstances)	Clough House Brook
A	44m S	Inland river not influenced by normal tidal action.	On ground surface	Watercourse contains water year round (in normal circumstances)	Clough House Brook
C	99m SE	Inland river not influenced by normal tidal action.	On ground surface	Watercourse contains water year round (in normal circumstances)	Clough House Brook
D	117m N	Inland river not influenced by normal tidal action.	On ground surface	Watercourse contains water year round (in normal circumstances)	-
E	129m W	Inland river not influenced by normal tidal action.	Underground	Watercourse contains water year round (in normal circumstances)	Clough House Brook
2	131m NE	Inland river not influenced by normal tidal action.	On ground surface	Watercourse contains water year round (in normal circumstances)	Knowl Syke Brook
E	134m W	Inland river not influenced by normal tidal action.	On ground surface	Watercourse contains water year round (in normal circumstances)	Clough House Brook
4	163m SE	Inland river not influenced by normal tidal action.	On ground surface	Watercourse contains water year round (in normal circumstances)	Clough House Brook
F	173m W	Inland river not influenced by normal tidal action.	On ground surface	Watercourse contains water year round (in normal circumstances)	Clough House Brook
6	231m E	Drain. A manmade watercourse for the removal of excess water from an area.	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

9

Covering rivers, streams and lakes (some overlap with OS NGD 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 61](#) >



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 61](#) >

ID	Location	Type	Water body catchment	Water body ID	Operational catchment	Management catchment
A	On site	River	Roch (Source to Spodden)	GB112069064720	Roch Irk Medlock	Irwell

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. Click on the water body ID in the table to visit the EA Catchment Explorer to find out more about each water body listed.

Features are displayed on the Hydrology map on [page 61](#) >

ID	Location	Type	Name	Water body ID	Overall rating	Chemical rating	Ecological rating	Year
-	559m S	River	Roch (Source to Spodden)	GB112069064720 ↗	No longer applicable	Does not require assessment		2022

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. Click on the water body ID in the table to visit the EA Catchment Explorer to find out more about each groundwater body listed.

Features are displayed on the Hydrology map on [page 61](#) >

ID	Location	Name	Water body ID	Overall rating	Chemical rating	Quantitative	Year
A	On site	Northern Manchester Carboniferous Aquifers	GB41202G101800 ↗	Poor	Poor	Good	2019

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

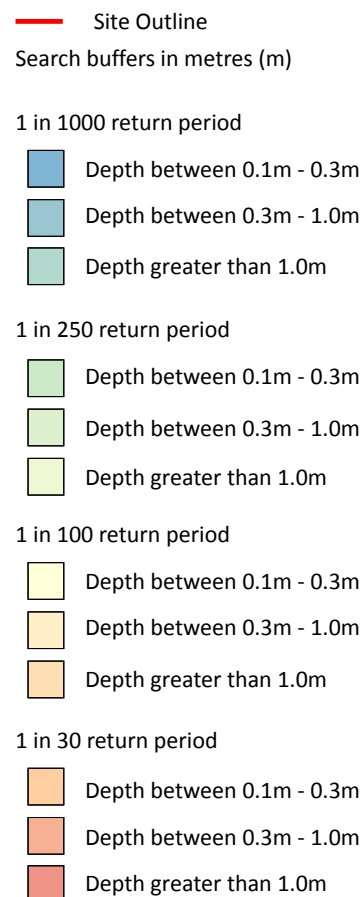
0

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, 0.3m - 1.0m

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 68](#) >

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.

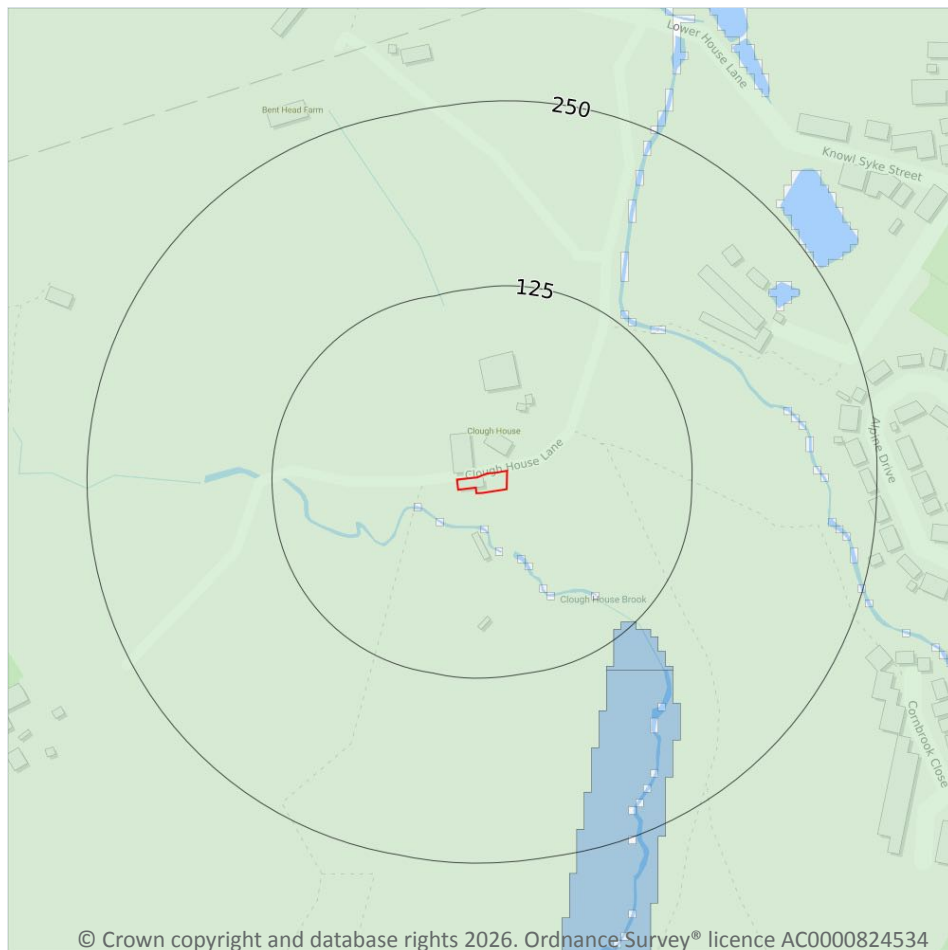
The table below shows the maximum flood depths for a range of return periods for the site.

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



— Site Outline
Search buffers in metres (m)

- High
- Moderate - High
- Moderate
- Low
- Negligible

9.1 Groundwater flooding

Highest risk on site

Low

Highest risk within 50m

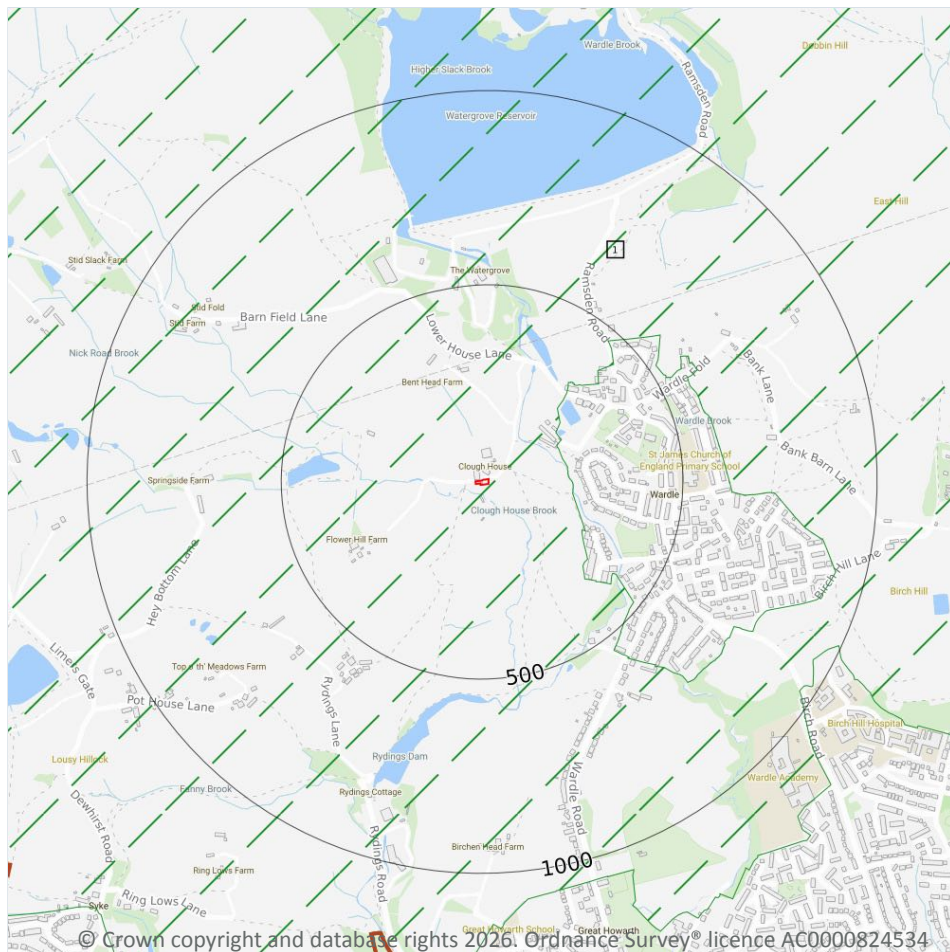
Low

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

Features are displayed on the Groundwater flooding map on [page 70 >](#)

This data is sourced from Ambiantal Risk Analytics.

10 Environmental designations



- Site Outline
- Search buffers in metres (m)
- Designated Ancient Woodland
- Green Belt

10.1 Sites of Special Scientific Interest (SSSI)

Records within 2000m

0

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.

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

0

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

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

10.7 Designated Ancient Woodland

Records within 2000m

8

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 71 >](#)

ID	Location	Name	Woodland Type
A	1182m S	Buckley Wood	Ancient Replanted Woodland
A	1182m S	Buckley Wood	Ancient Replanted Woodland
-	1274m E	Unknown	Ancient & Semi-Natural Woodland
-	1284m E	Unknown	Ancient & Semi-Natural Woodland
-	1302m S	Buckley Wood	Ancient & Semi-Natural Woodland
-	1302m S	Buckley Wood	Ancient & Semi-Natural Woodland
-	1423m NE	Unknown	Ancient & Semi-Natural Woodland
6	1548m SW	Hey Wood	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

2

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

Features are displayed on the Environmental designations map on [page 71 >](#)

ID	Location	Name	Local Authority name
1	On site	Merseyside and Greater Manchester Green Belt	Rochdale
-	1319m W	Merseyside and Greater Manchester Green Belt	Rossendale

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

10.12 Proposed Ramsar sites

Records within 2000m

0

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

This data is sourced from Natural England.

10.13 Possible Special Areas of Conservation (pSAC)

Records within 2000m**0**

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

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

10.14 Potential Special Protection Areas (pSPA)

Records within 2000m**0**

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

This data is sourced from Natural England.

10.15 Nitrate Sensitive Areas

Records within 2000m**0**

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

This data is sourced from Natural England.

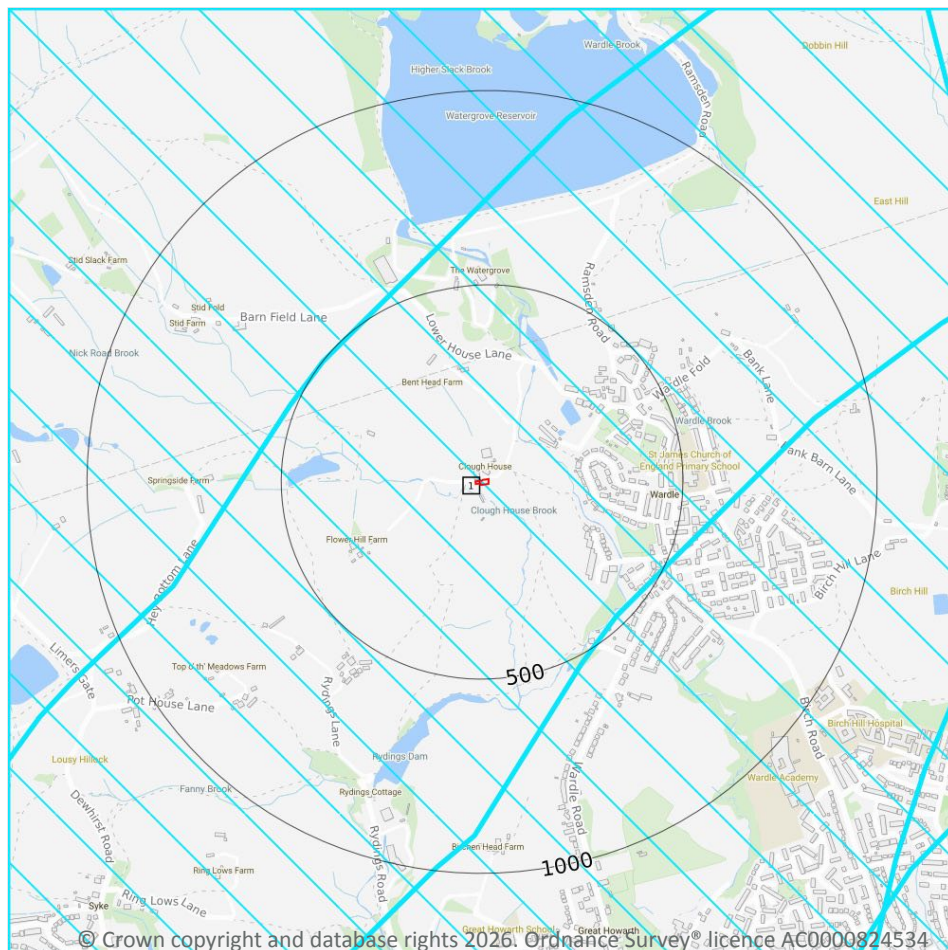
10.16 Nitrate Vulnerable Zones

Records within 2000m**0**

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

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

SSSI Impact Zones and Units



- 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 76 >](#)

ID	Location	Type of developments requiring consultation
1	On site	https://irz.geodata.org.uk/IRZ/step2.html?irzcode=0301000430000&notes=&location=388682,414269%20(IRZ%20polygon%20centre)

This data is sourced from Natural England.



10.18 SSSI Units

Records within 2000m

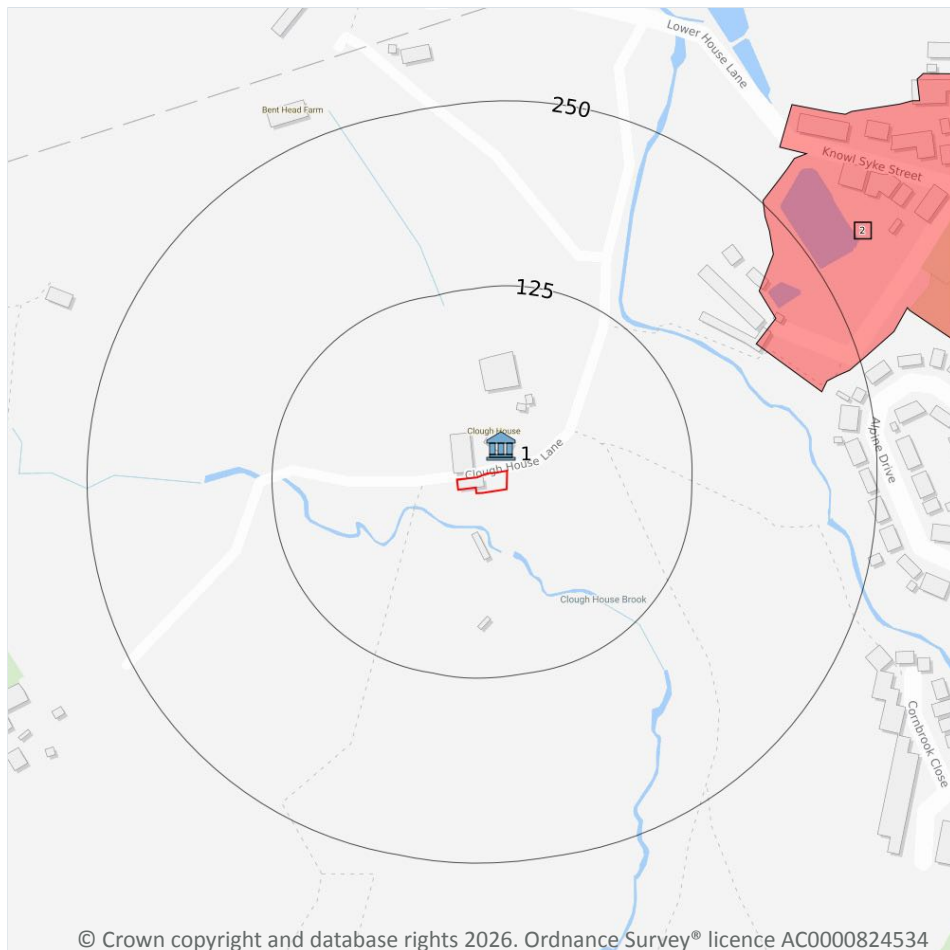
0

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



- Site Outline
- Search buffers in metres (m)
- Listed buildings
- Conservation areas
- Conservation areas - no data
- National Parks
- Areas of Outstanding Natural Beauty
- Registered parks and gardens
- Scheduled Monuments
- World Heritage Sites

11.1 World Heritage Sites

Records within 250m

0

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

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

11.2 Area of Outstanding Natural Beauty

Records within 250m

0

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

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

11.3 National Parks

Records within 250m

0

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

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

11.4 Listed Buildings

Records within 250m

1

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.

Features are displayed on the Visual and cultural designations map on [page 78 >](#)

ID	Location	Name	Grade	Reference Number	Listed date
1	17m N	Clough House	II	1203438	12/02/1985

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



11.5 Conservation Areas

Records within 250m

1

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.

Features are displayed on the Visual and cultural designations map on [page 78](#) >

ID	Location	Name	District	Date of designation
2	189m NE	Wardle	Rochdale	01/12/1974

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

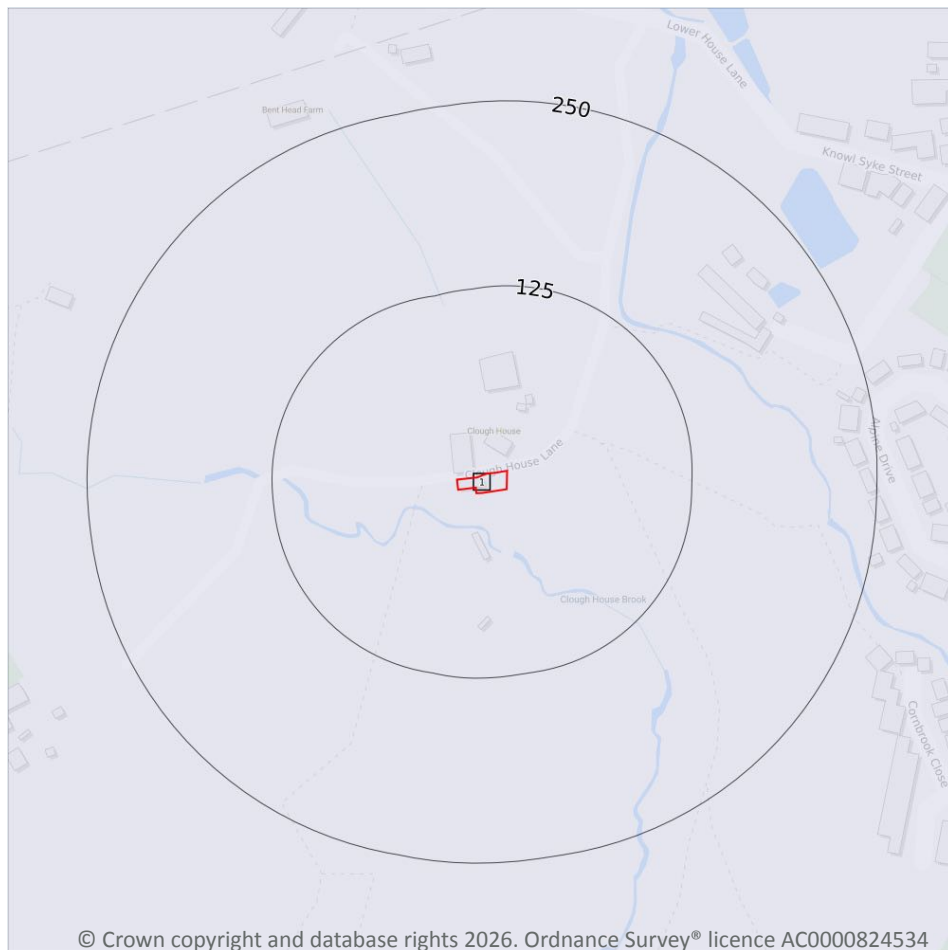
0

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 3 - good to moderate quality
- Grade 3a - good quality
- Grade 3b - moderate quality
- Grade 4 - poor quality
- Grade 5 - very poor quality
- Non-agricultural land
- Urban land
- Exclusion land
- Tree felling licences
- Open Access land

12.1 Agricultural Land Classification

Records within 250m

1

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 81](#) >

ID	Location	Classification	Description
1	On site	Grade 4	Poor quality agricultural land. Land with severe limitations which significantly restrict the range of crops and/or level of yields. It is mainly suited to grass with occasional arable crops (e.g. cereals and forage crops) the yields of which are variable. In moist climates, yields of grass may be moderate to high but there may be difficulties in utilisation. The grade also includes very droughty arable land.

This data is sourced from Natural England.

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

2

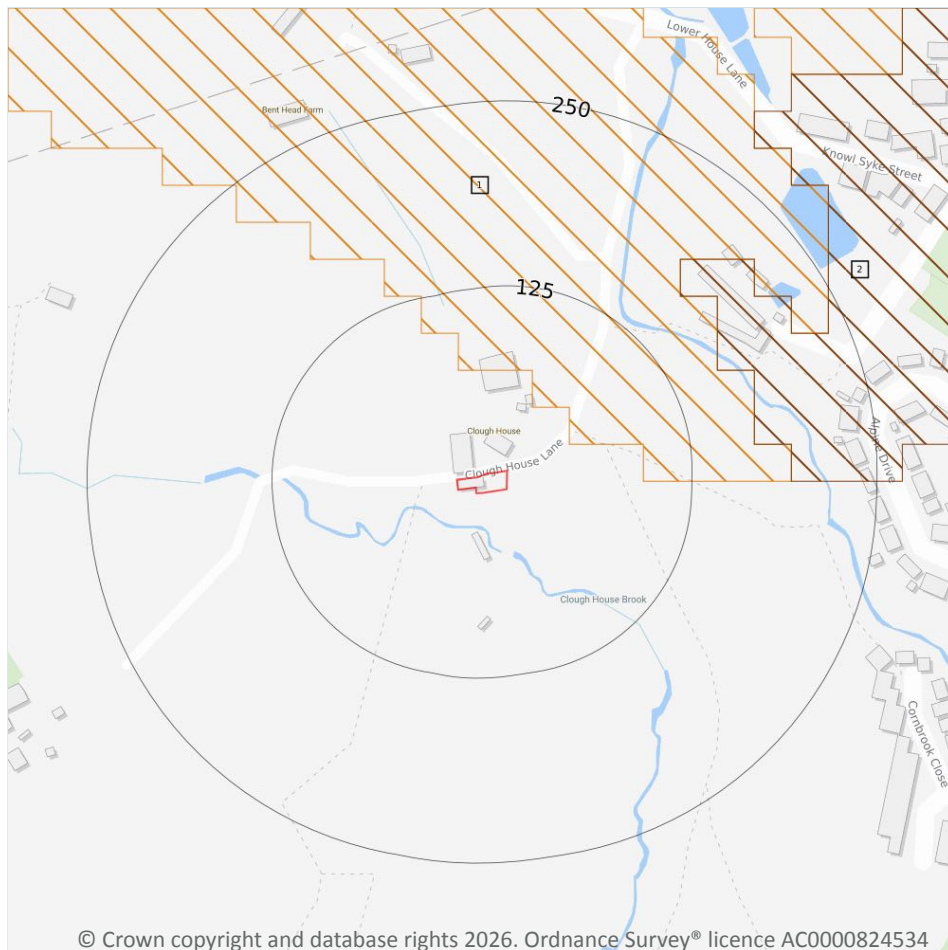
Countryside Stewardship covers a range of schemes that provide financial incentives to farmers, foresters and land managers to look after and improve the environment. Main objectives are to improve the farmed environment for wildlife and to reduce diffuse water pollution.

Location	Reference	Scheme	Start Date	End Date
25m SW	61361	Countryside Stewardship (Middle Tier)	01/01/2022	31/12/2026
63m S	61361	Countryside Stewardship (Middle Tier)	01/01/2022	31/12/2026

This data is sourced from Natural England.



13 Habitat designations



- Site Outline
- Search buffers in metres (m)
- Priority Habitat Inventory
- Open Mosaic Habitat
- Limestone Pavement Orders
- Habitat Networks
- Primary Habitat
- Restorable Habitat
- Associated Habitats
- Habitat Restoration-Creation
- Network Enhancement Zone 1
- Network Enhancement Zone 2

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

2

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.

Features are displayed on the Habitat designations map on [page 83 >](#)



ID	Location	Type	Habitat
1	46m NE	Network Enhancement Zone 1	Not specified
2	157m NE	Network Enhancement Zone 2	Not specified

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.

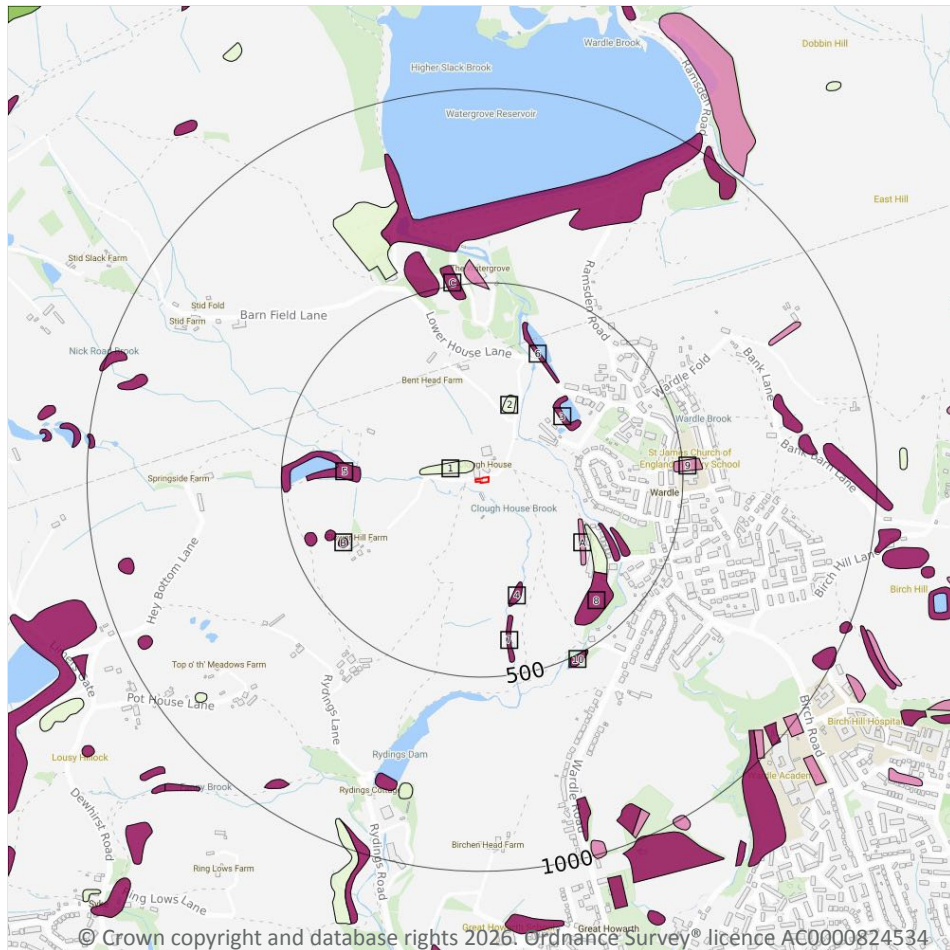
Features are displayed on the Geology 1:10,000 scale - Availability map on [page 85](#) >

ID	Location	Artificial	Superficial	Bedrock	Mass movement	Sheet No.
1	On site	Full	Full	Full	Full	SD91NW

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

20

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 86](#) >

ID	Location	LEX Code	Description	Rock description
1	24m N	WMGR-ARTDP	Infilled Ground	Artificial deposit
2	172m N	WMGR-ARTDP	Infilled Ground	Artificial deposit
3	237m NE	MGR-ARTDP	Made Ground (Undivided)	Artificial deposit
A	250m SE	WGR-VOID	Worked Ground (Undivided)	Void

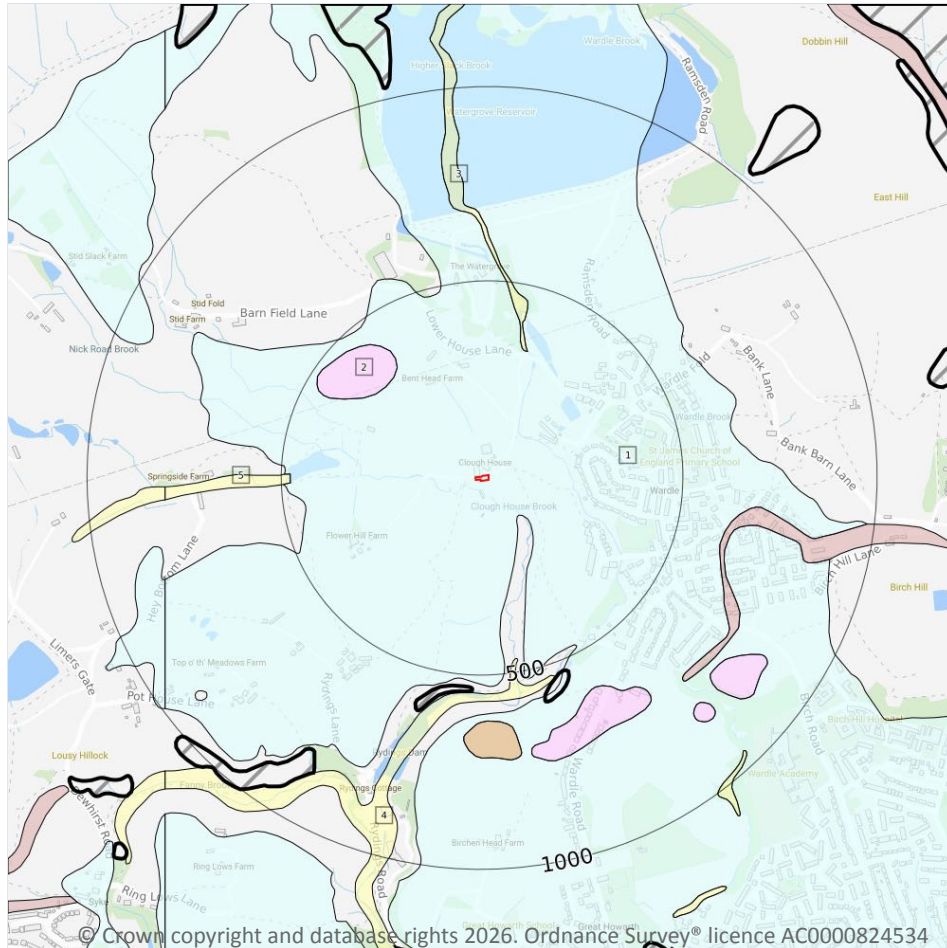


ID	Location	LEX Code	Description	Rock description
4	270m S	MGR-ARTDP	Made Ground (Undivided)	Artificial deposit
A	272m SE	WMGR-ARTDP	Infilled Ground	Artificial deposit
5	296m W	MGR-ARTDP	Made Ground (Undivided)	Artificial deposit
6	299m NE	MGR-ARTDP	Made Ground (Undivided)	Artificial deposit
A	303m E	MGR-ARTDP	Made Ground (Undivided)	Artificial deposit
A	335m E	MGR-ARTDP	Made Ground (Undivided)	Artificial deposit
7	348m S	MGR-ARTDP	Made Ground (Undivided)	Artificial deposit
8	357m SE	MGR-ARTDP	Made Ground (Undivided)	Artificial deposit
B	363m SW	MGR-ARTDP	Made Ground (Undivided)	Artificial deposit
B	384m W	MGR-ARTDP	Made Ground (Undivided)	Artificial deposit
B	434m W	MGR-ARTDP	Made Ground (Undivided)	Artificial deposit
C	462m N	MGR-ARTDP	Made Ground (Undivided)	Artificial deposit
9	477m E	WGR-VOID	Worked Ground (Undivided)	Void
C	483m N	WGR-VOID	Worked Ground (Undivided)	Void
C	486m N	MGR-ARTDP	Made Ground (Undivided)	Artificial deposit
10	499m SE	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

5

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 88](#) >

ID	Location	LEX Code	Description	Rock description
1	On site	TILLD-DMTN	Till, Devensian-Diamicton	Diamicton
2	328m NW	GFDUD-XSV	Glaciofluvial Deposits, Devensian-Sand And Gravel	Sand and gravel
3	333m N	ALV-XCZSV	Alluvium-Clay, Silt, Sand And Gravel	Clay, silt, sand and gravel



ID	Location	LEX Code	Description	Rock description
4	465m S	ALV-XCZSV	Alluvium-Clay, Silt, Sand And Gravel	Clay, silt, sand and gravel
5	477m W	ALV-XCZSV	Alluvium-Clay, Silt, Sand And Gravel	Clay, silt, sand and gravel

This data is sourced from the British Geological Survey.

14.4 Landslip (10k)

Records within 500m

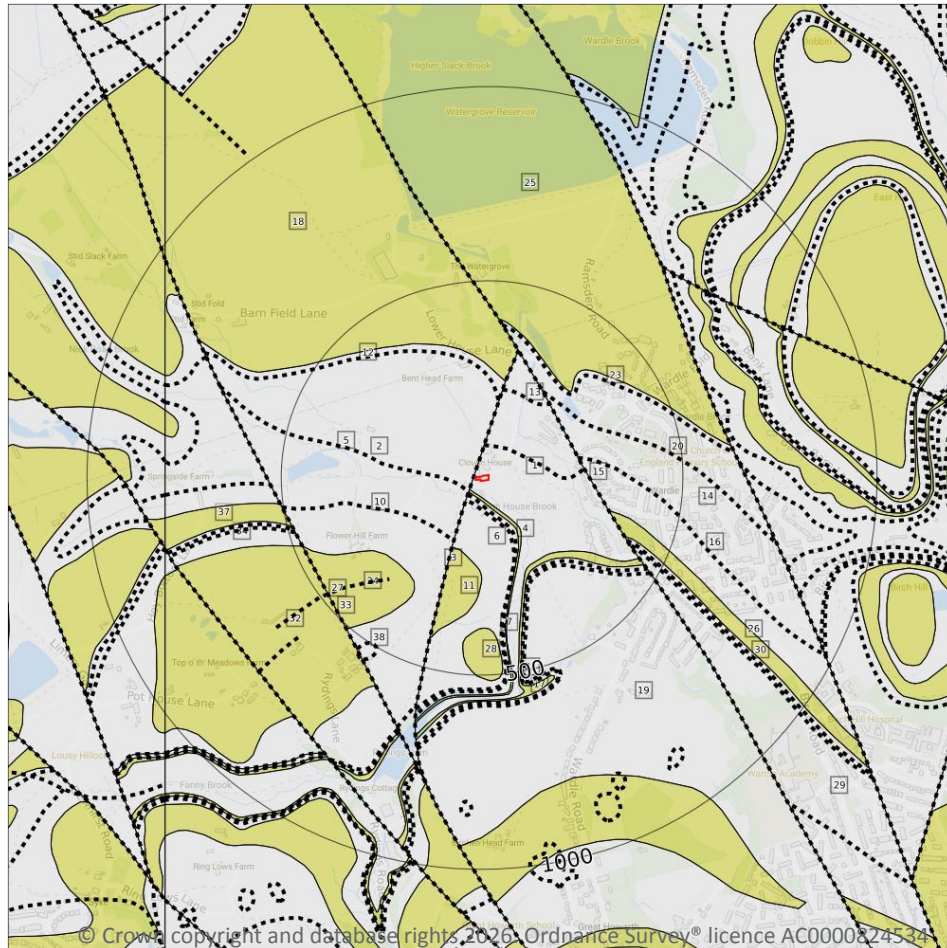
0

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

17

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 90](#) >

ID	Location	LEX Code	Description	Rock age
1	On site	PLCM-MDSS	Pennine Lower Coal Measures Formation-Mudstone, Siltstone And Sandstone	Westphalian
2	5m W	PLCM-MDSS	Pennine Lower Coal Measures Formation-Mudstone, Siltstone And Sandstone	Westphalian
4	29m SW	GAS-SDST	Great Arc Sandstone-Sandstone	Westphalian



ID	Location	LEX Code	Description	Rock age
6	36m SW	PLCM-MDSS	Pennine Lower Coal Measures Formation-Mudstone, Siltstone And Sandstone	Westphalian
11	183m S	HER-SDST	Helpet Edge Rock-Sandstone	Westphalian
14	225m NE	PLCM-MDSS	Pennine Lower Coal Measures Formation-Mudstone, Siltstone And Sandstone	Westphalian
17	243m SE	GAS-SDST	Great Arc Sandstone-Sandstone	Westphalian
18	245m N	WH-SDST	Woodhead Hill Rock-Sandstone	Westphalian
19	255m SE	PLCM-MDSS	Pennine Lower Coal Measures Formation-Mudstone, Siltstone And Sandstone	Westphalian
24	293m SW	GAS-SDST	Great Arc Sandstone-Sandstone	Westphalian
25	298m NE	WH-SDST	Woodhead Hill Rock-Sandstone	Westphalian
26	320m E	GAS-SDST	Great Arc Sandstone-Sandstone	Westphalian
28	379m S	HER-SDST	Helpet Edge Rock-Sandstone	Westphalian
29	380m SE	PLCM-MDSS	Pennine Lower Coal Measures Formation-Mudstone, Siltstone And Sandstone	Westphalian
32	474m SW	HER-SDST	Helpet Edge Rock-Sandstone	Westphalian
34	478m W	PLCM-MDSS	Pennine Lower Coal Measures Formation-Mudstone, Siltstone And Sandstone	Westphalian
37	488m W	GAS-SDST	Great Arc Sandstone-Sandstone	Westphalian

This data is sourced from the British Geological Survey.

14.6 Bedrock faults and other linear features (10k)

Records within 500m

21

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 90](#) >

ID	Location	Category	Description
3	5m W	FAULT	Fault, inferred, displacement unknown
5	35m SW	ROCK	Coal seam, inferred
7	42m SW	ROCK	Coal seam, inferred



ID	Location	Category	Description
8	58m SW	FOSSIL_HORIZON	Marine band
9	75m N	ROCK	Coal seam, inferred
10	161m SW	ROCK	Coal seam, inferred
12	192m N	ROCK	Coal seam, inferred
13	220m NE	ROCK	Coal seam, inferred
15	225m NE	FAULT	Fault, inferred, displacement unknown
16	235m E	ROCK	Coal seam, inferred
20	256m NE	ROCK	Coal seam, inferred
21	262m SE	ROCK	Coal seam, inferred
22	272m SE	FOSSIL_HORIZON	Marine band
23	291m NE	ROCK	Coal seam, inferred
27	339m SW	LANDFORM	Linear feature crestline
30	389m SE	ROCK	Coal seam, inferred
31	399m SE	FOSSIL_HORIZON	Marine band
33	474m SW	FAULT	Fault, inferred, displacement unknown
35	484m W	FOSSIL_HORIZON	Marine band
36	486m W	ROCK	Coal seam, inferred
38	498m SW	LANDFORM	Kettle hole

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.

Features are displayed on the Geology 1:50,000 scale - Availability map on [page 93](#) >

ID	Location	Artificial	Superficial	Bedrock	Mass movement	Sheet No.
1	On site	No coverage	Full	Full	Full	EW076_rochdale_v4

This data is sourced from the British Geological Survey.



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

15.2 Artificial and made ground (50k)

Records within 500m

0

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

This data is sourced from the British Geological Survey.

15.3 Artificial ground permeability (50k)

Records within 50m

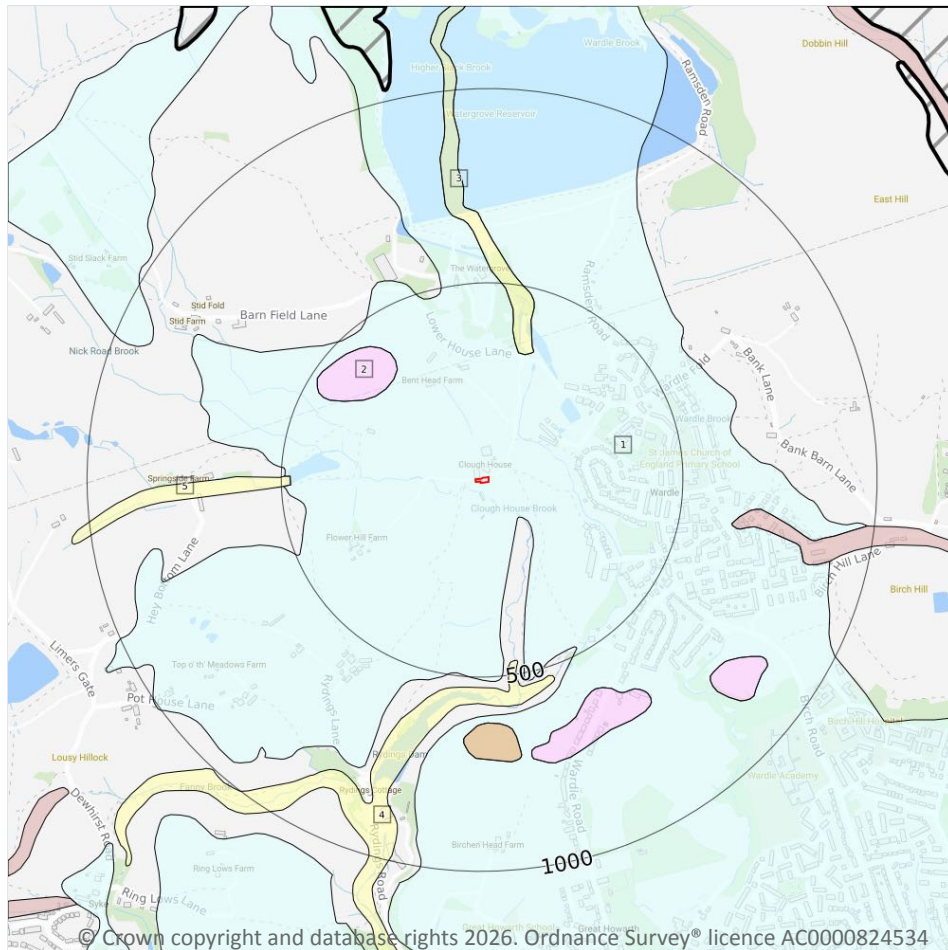
0

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

This data is sourced from the British Geological Survey.



Geology 1:50,000 scale - Superficial



Site Outline

Search buffers in metres (m)

Landslip (50k)

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

15.4 Superficial geology (50k)

Records within 500m

5

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 95 >](#)

ID	Location	LEX Code	Description	Rock description
1	On site	TILLD-DMTN	Till, Devensian	Diamicton
2	327m NW	GFDUD-XSV	Glaciofluvial deposits, Devensian	Sand and gravel
3	329m N	ALV-XCZSV	Alluvium	Clay, silt, sand and gravel



ID	Location	LEX Code	Description	Rock description
4	465m S	ALV-XCZSV	Alluvium	Clay, silt, sand and gravel
5	476m W	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

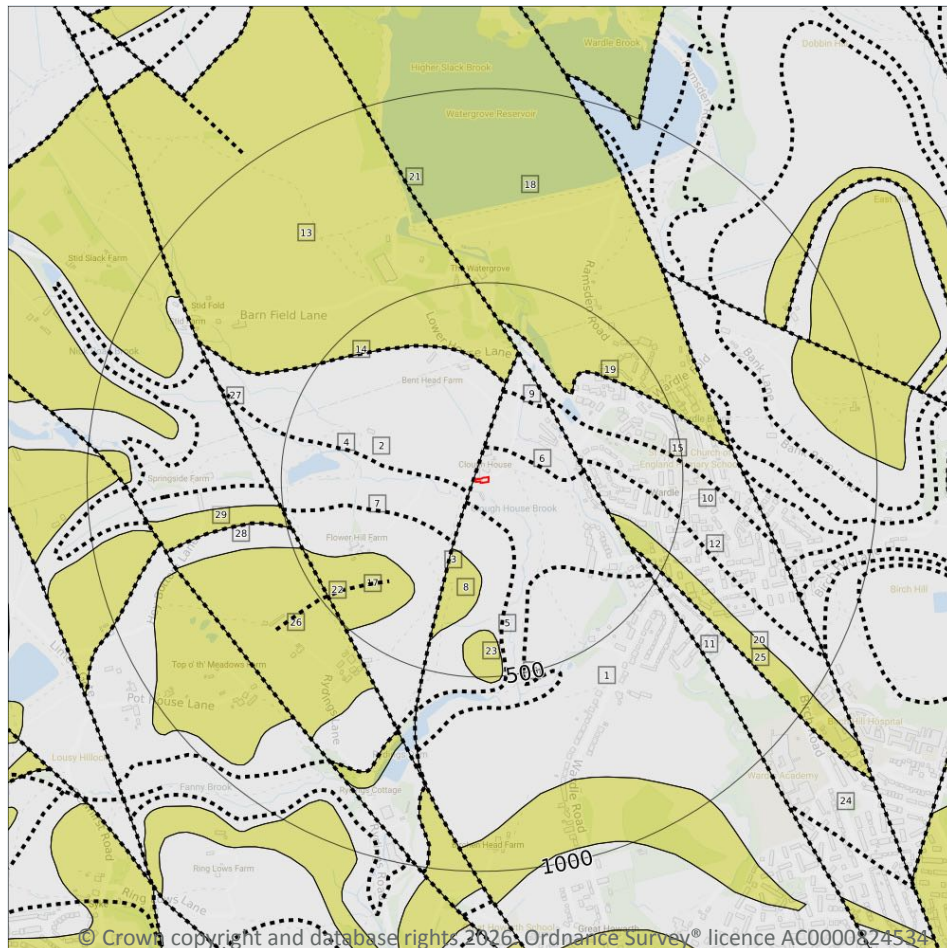
0

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

13

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 97](#) >

ID	Location	LEX Code	Description	Rock age
1	On site	PLCM-MDSS	Pennine Lower Coal Measures Formation-Mudstone, siltstone and sandstone	Westphalian
2	5m W	PLCM-MDSS	Pennine Lower Coal Measures Formation-Mudstone, siltstone and sandstone	Westphalian
8	183m S	HER-SDST	Helpet Edge Rock-Sandstone	Westphalian



ID	Location	LEX Code	Description	Rock age
10	225m NE	PLCM-MDSS	Pennine Lower Coal Measures Formation-Mudstone, siltstone and sandstone	Westphalian
13	245m N	WH-SDST	Woodhead Hill Rock-Sandstone	Westphalian
17	293m SW	GAS-SDST	Great Arc Sandstone-Sandstone	Westphalian
18	298m NE	WH-SDST	Woodhead Hill Rock-Sandstone	Westphalian
20	319m E	GAS-SDST	Great Arc Sandstone-Sandstone	Westphalian
23	379m S	HER-SDST	Helpet Edge Rock-Sandstone	Westphalian
24	399m SE	PLCM-MDSS	Pennine Lower Coal Measures Formation-Mudstone, siltstone and sandstone	Westphalian
26	474m SW	HER-SDST	Helpet Edge Rock-Sandstone	Westphalian
28	478m W	PLCM-MDSS	Pennine Lower Coal Measures Formation-Mudstone, siltstone and sandstone	Westphalian
29	488m W	GAS-SDST	Great Arc Sandstone-Sandstone	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

17

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 97 >](#)



ID	Location	Category	Description
3	5m W	FAULT	Fault, inferred, crossmark on downthrow side, throw in metres
4	35m SW	ROCK	Coal seam, inferred
5	58m SW	FOSSIL_HORIZON	Marine band
6	75m N	ROCK	Coal seam, inferred
7	161m SW	ROCK	Coal seam, inferred
9	220m NE	ROCK	Coal seam, inferred
11	225m NE	FAULT	Fault, inferred, crossmark on downthrow side, throw in metres
12	234m E	ROCK	Coal seam, inferred
14	245m N	ROCK	Coal seam, inferred
15	256m NE	ROCK	Coal seam, inferred
16	272m SE	FOSSIL_HORIZON	Marine band
19	298m NE	ROCK	Coal seam, inferred
21	330m N	FAULT	Fault, inferred, crossmark on downthrow side, throw in metres
22	339m SW	LANDFORM	Linear feature crestline
25	399m SE	FOSSIL_HORIZON	Marine band
27	474m SW	FAULT	Fault, inferred, crossmark on downthrow side, throw in metres
30	488m W	FOSSIL_HORIZON	Marine band

This data is sourced from the British Geological Survey.



16 Boreholes

16.1 BGS Boreholes

Records within 250m

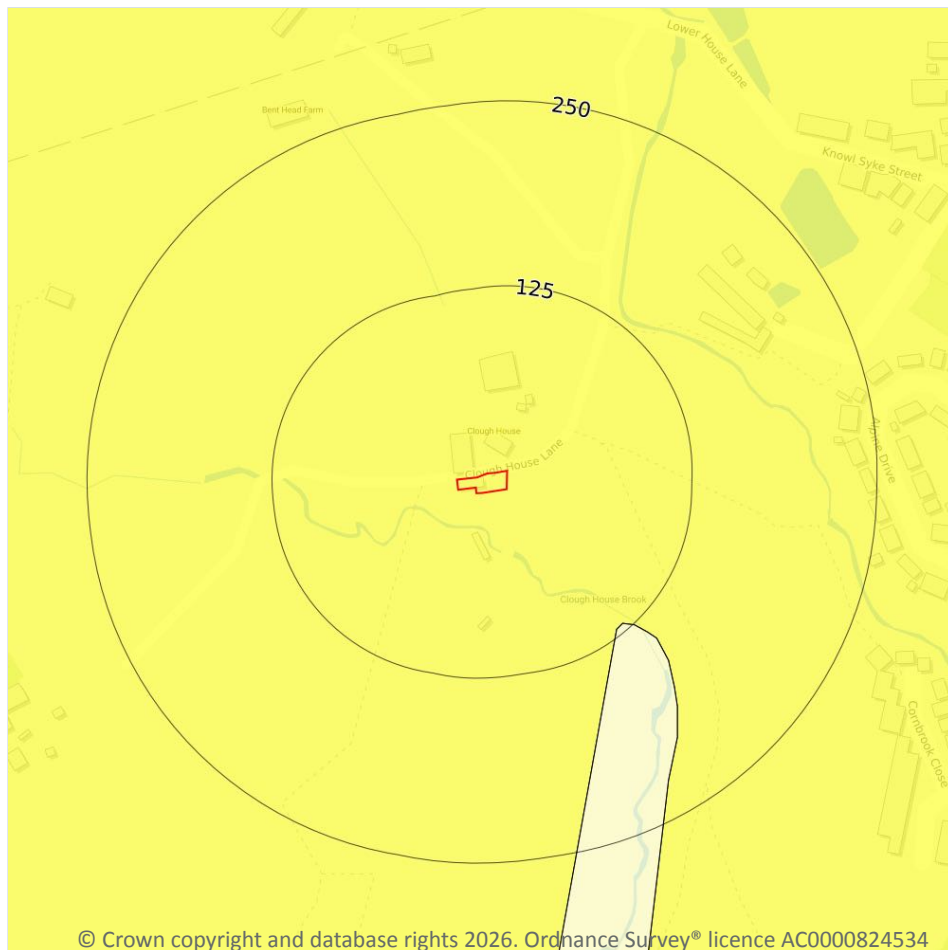
0

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

This data is sourced from the British Geological Survey.



17 Natural ground subsidence - Shrink swell clays



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

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).

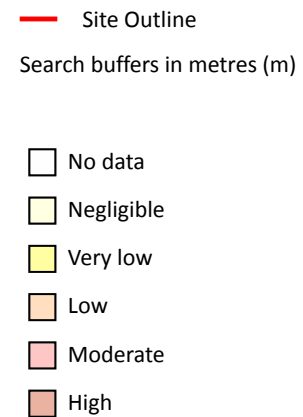
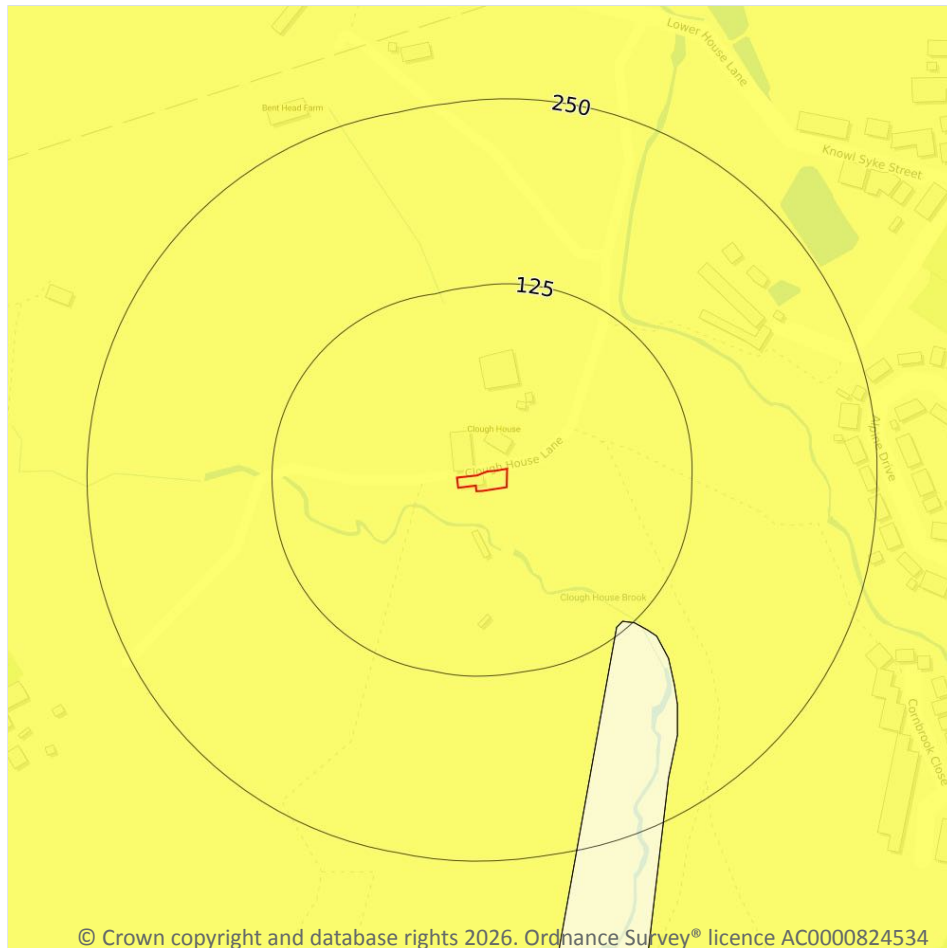
Features are displayed on the Natural ground subsidence - Shrink swell clays map on [page 101](#) >

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



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.

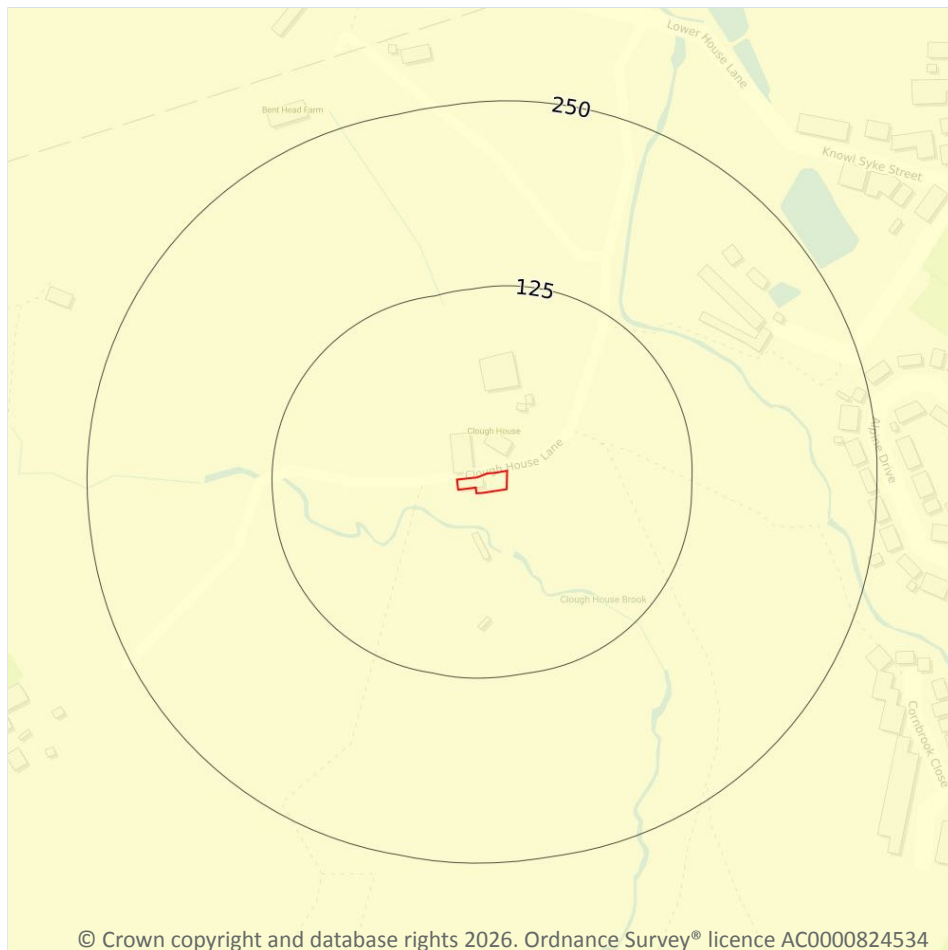
Features are displayed on the Natural ground subsidence - Running sands map on [page 102 >](#)

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

1

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

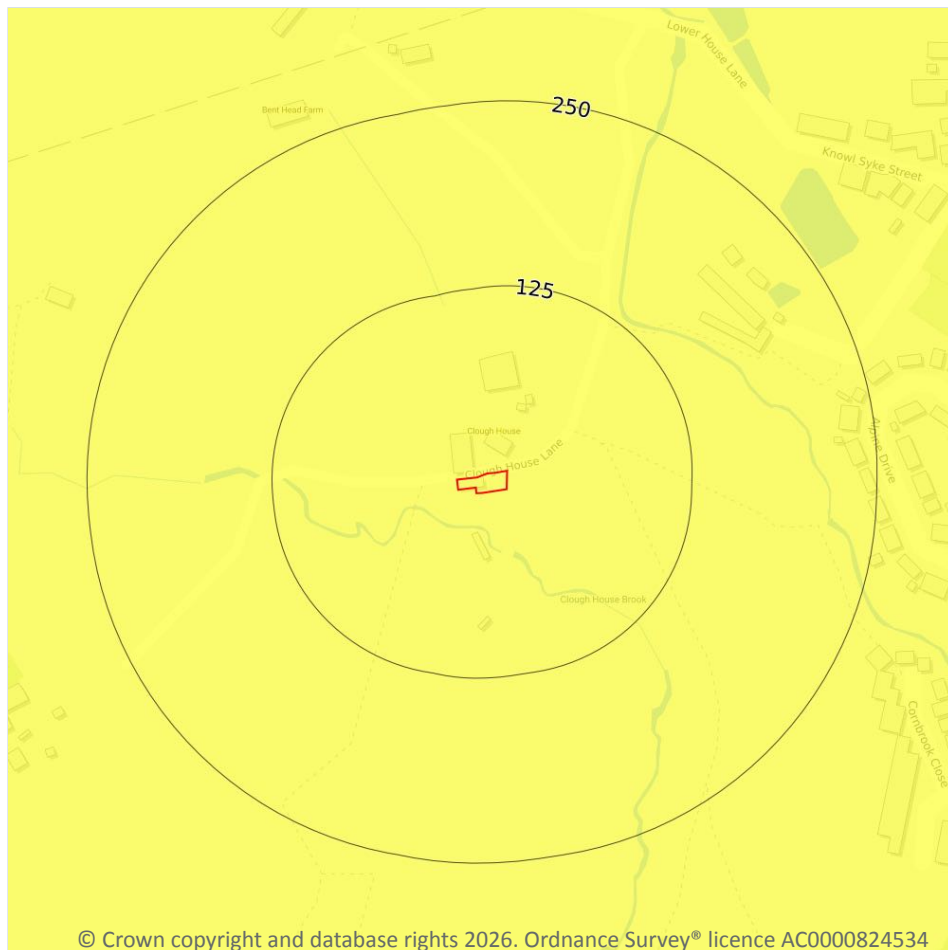
Features are displayed on the Natural ground subsidence - Compressible deposits map on [page 103](#) >

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

This data is sourced from the British Geological Survey.



Natural ground subsidence - Collapsible deposits



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

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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.

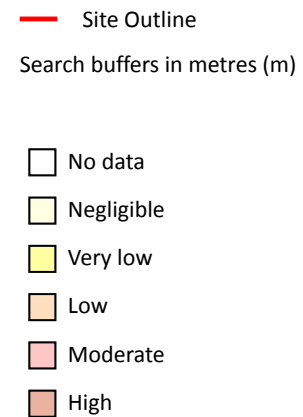
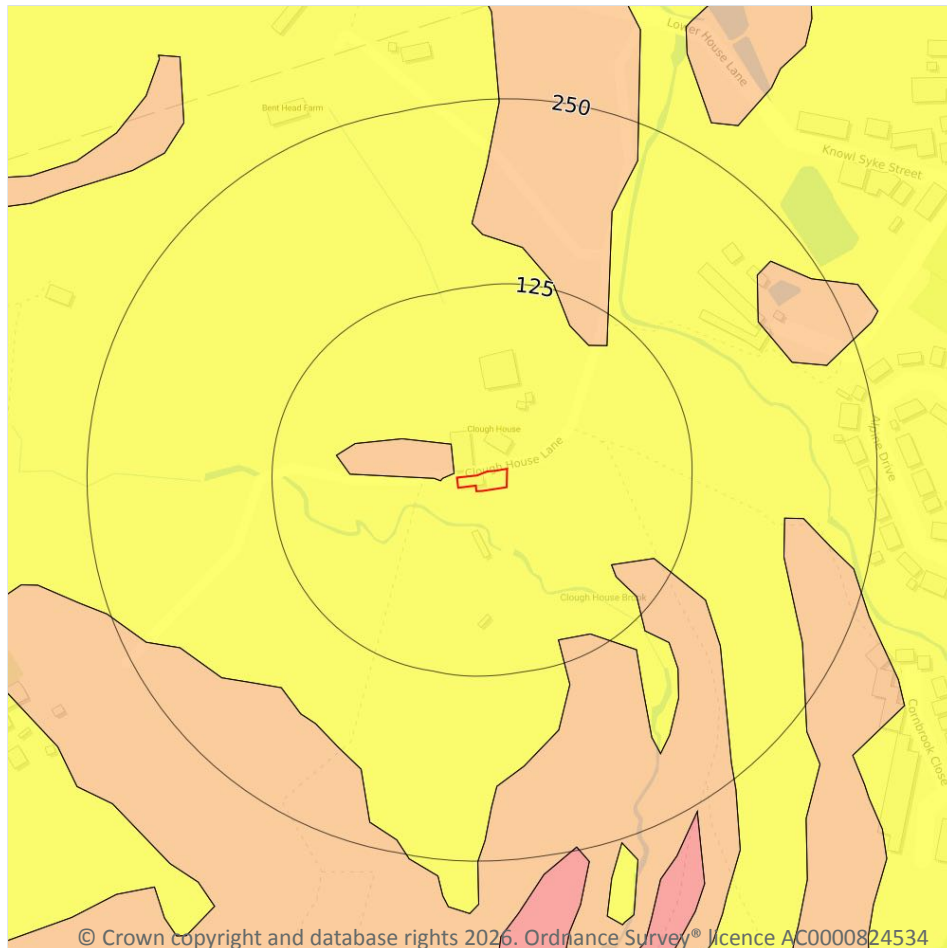
Features are displayed on the Natural ground subsidence - Collapsible deposits map on [page 104 >](#)

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



17.5 Landslides

Records within 50m

2

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

Features are displayed on the Natural ground subsidence - Landslides map on [page 105 >](#)

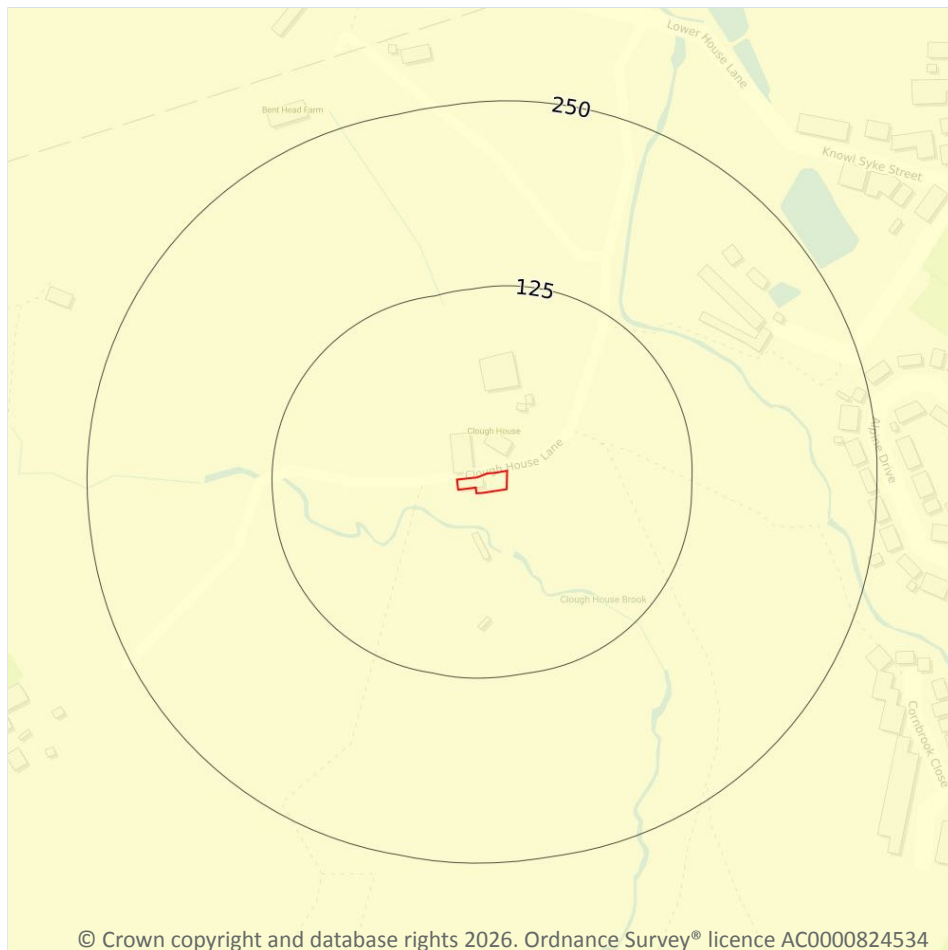
Location	Hazard rating	Details
On site	Very low	Slope instability problems are not likely to occur but consideration to potential problems of adjacent areas impacting on the site should always be considered.

Location	Hazard rating	Details
3m NW	Low	Slope instability problems may be present or anticipated. Site investigation should consider specifically the slope stability of the site.

This data is sourced from the British Geological Survey.



Natural ground subsidence - Ground dissolution of soluble rocks



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

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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 107](#) >

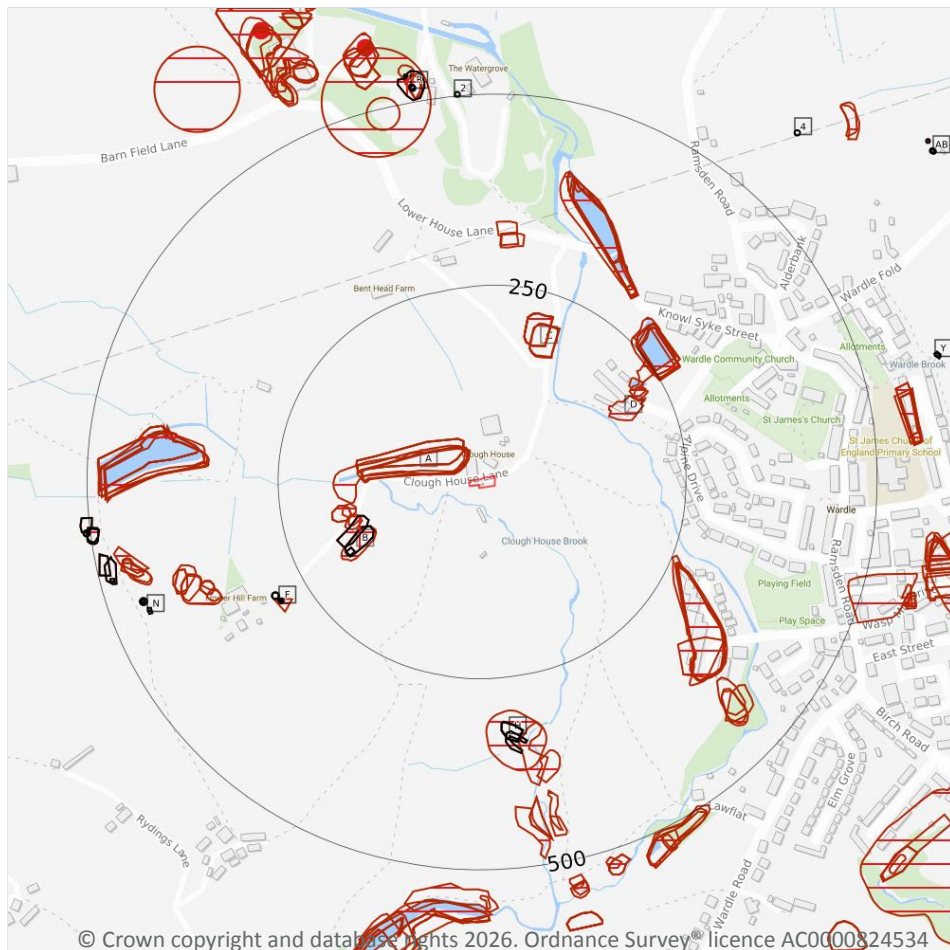
Location	Hazard rating	Details
On site	Negligible	Soluble rocks are either not thought to be present within the ground, or not prone to dissolution. Dissolution features are unlikely to be present.



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

0

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

This data is sourced from the British Geological Survey.

18.2 Surface ground workings

Records within 250m

33

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 109](#) >

ID	Location	Land Use	Year of mapping	Mapping scale
A	18m NW	Reservoir	1938	1:10560
A	19m NW	Reservoir	1928	1:10560
A	19m NW	Reservoir	1908	1:10560
A	22m NW	Ponds	1851	1:10560
A	22m NW	Reservoir	1890	1:10560
A	32m NW	Pond	1976	1:10000
A	32m NW	Reservoir	1949	1:10560
A	32m NW	Pond	1968	1:10560
B	136m SW	Refuse Heap	1928	1:10560
B	139m SW	Unspecified Level	1938	1:10560
B	140m W	Unspecified Level	1949	1:10560
B	148m W	Refuse Heap	1928	1:10560
B	149m W	Refuse Heap	1938	1:10560
B	152m W	Refuse Heap	1949	1:10560
B	160m W	Refuse Heap	1976	1:10000
B	160m W	Refuse Heap	1968	1:10560
C	165m N	Unspecified Pit	1928	1:10560
C	167m N	Unspecified Pit	1938	1:10560
D	169m NE	Reservoir	1928	1:10560
B	173m SW	Unspecified Level	1928	1:10560
C	178m N	Unspecified Pit	1989	1:10000
C	178m N	Unspecified Pit	1976	1:10000
C	178m N	Unspecified Pit	1949	1:10560



ID	Location	Land Use	Year of mapping	Mapping scale
C	178m N	Unspecified Pit	1968	1:10560
D	208m NE	Ponds	1890	1:10560
D	210m NE	Reservoir	1938	1:10560
D	212m NE	Reservoir	1949	1:10560
D	245m NE	Pond	1851	1:10560
D	248m NE	Reservoir	1989	1:10000
D	248m NE	Reservoir	1976	1:10000
D	248m NE	Pond	1968	1:10560
D	249m NE	Reservoir	1928	1:10560
D	249m NE	Reservoir	1908	1:10560

This data is sourced from Ordnance Survey®/Groundsure.

18.3 Underground workings

Records within 1000m

70

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 109](#) >

ID	Location	Land Use	Year of mapping	Mapping scale
B	139m SW	Unspecified Level	1938	1:10560
B	140m W	Unspecified Level	1949	1:10560
B	173m SW	Unspecified Level	1928	1:10560
F	286m SW	Unspecified Old Shaft	1938	1:10560
F	287m SW	Old Coal Shaft	1908	1:10560
F	287m SW	Unspecified Old Shaft	1928	1:10560
F	288m SW	Unspecified Disused Shaft	1976	1:10000
F	288m SW	Unspecified Disused Shaft	1968	1:10560
H	308m S	Unspecified Disused Level	1989	1:10000
H	308m S	Unspecified Disused Level	1976	1:10000



ID	Location	Land Use	Year of mapping	Mapping scale
H	308m S	Unspecified Old Level	1949	1:10560
H	308m S	Unspecified Disused Level	1968	1:10560
H	321m S	Unspecified Old Level	1928	1:10560
N	446m W	Unspecified Old Shaft	1938	1:10560
N	447m W	Unspecified Old Shaft	1928	1:10560
N	448m W	Unspecified Disused Shaft	1989	1:10000
N	448m W	Unspecified Disused Shaft	1976	1:10000
N	448m W	Unspecified Disused Shaft	1968	1:10560
N	451m W	Unspecified Old Shaft	1949	1:10560
N	474m W	Unspecified Level	1938	1:10560
N	481m W	Unspecified Level	1928	1:10560
N	483m W	Unspecified Level	1949	1:10560
N	489m W	Unspecified Old Level	1928	1:10560
N	489m W	Unspecified Old Level	1938	1:10560
N	496m W	Unspecified Old Level	1949	1:10560
2	499m N	Air Shaft	1908	1:10560
N	501m W	Unspecified Disused Shaft	1976	1:10000
N	501m W	Unspecified Disused Shaft	1968	1:10560
R	503m N	Colliery	1908	1:10560
R	515m N	Unspecified Old Shaft	1928	1:10560
R	516m N	Unspecified Old Shaft	1938	1:10560
R	533m N	Unspecified Old Shaft	1949	1:10560
4	595m NE	Unspecified Old Shaft	1890	1:10560
Y	597m E	Old Air Shaft	1938	1:10560
Y	597m E	Old Air Shaft	1928	1:10560
AB	710m NE	Old Coal Shaft	1908	1:10560
AB	710m NE	Unspecified Old Shaft	1928	1:10560
AB	711m NE	Unspecified Old Shaft	1938	1:10560



ID	Location	Land Use	Year of mapping	Mapping scale
AB	714m NE	Unspecified Old Shaft	1949	1:10560
-	815m W	Unspecified Old Level	1928	1:10560
-	817m W	Unspecified Old Level	1938	1:10560
-	826m NE	Unspecified Old Levels	1931	1:10560
-	828m SW	Unspecified Old Shaft	1949	1:10560
-	832m SW	Unspecified Old Shaft	1928	1:10560
-	833m SW	Unspecified Old Shaft	1938	1:10560
-	834m SW	Unspecified Disused Shaft	1976	1:10000
-	834m SW	Unspecified Disused Shaft	1968	1:10560
-	837m SW	Old Coal Shaft	1908	1:10560
-	839m SW	Unspecified Old Shaft	1890	1:10560
-	845m NE	Unspecified Old Levels	1949	1:10560
-	849m W	Unspecified Disused Shaft	1967	1:10560
-	849m W	Unspecified Disused Shaft	1979	1:10000
-	864m NE	Unspecified Level	1931	1:10560
-	900m NE	Unspecified Old Levels	1931	1:10560
-	904m S	Unspecified Old Level	1949	1:10560
-	909m S	Unspecified Old Level	1928	1:10560
-	909m S	Unspecified Old Level	1938	1:10560
-	917m W	Old Coal Shaft	1908	1:10560
-	917m W	Unspecified Old Shaft	1928	1:10560
-	924m W	Unspecified Old Shaft	1890	1:10560
-	926m W	Unspecified Disused Shaft	1967	1:10560
-	926m W	Unspecified Disused Shaft	1979	1:10000
-	976m E	Unspecified Old Shaft	1890	1:10560
-	978m E	Old Coal Shaft	1908	1:10560
-	998m NE	Old Coal Shaft	1908	1:10560
-	998m NE	Unspecified Old Shaft	1928	1:10560



ID	Location	Land Use	Year of mapping	Mapping scale
-	1000m NE	Unspecified Disused Shaft	1989	1:10000
-	1000m NE	Unspecified Disused Shaft	1976	1:10000
-	1000m NE	Unspecified Disused Shaft	1968	1:10560
-	1000m NE	Unspecified Old Shaft	1938	1:10560

This 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	0
-----------------------------	----------

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).

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.

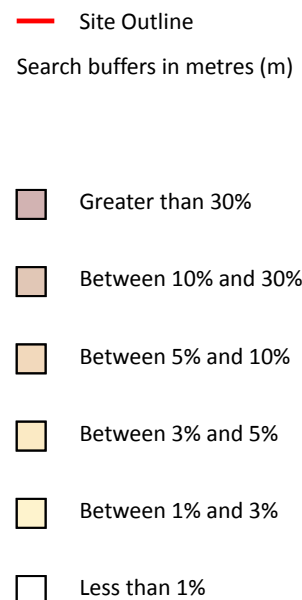
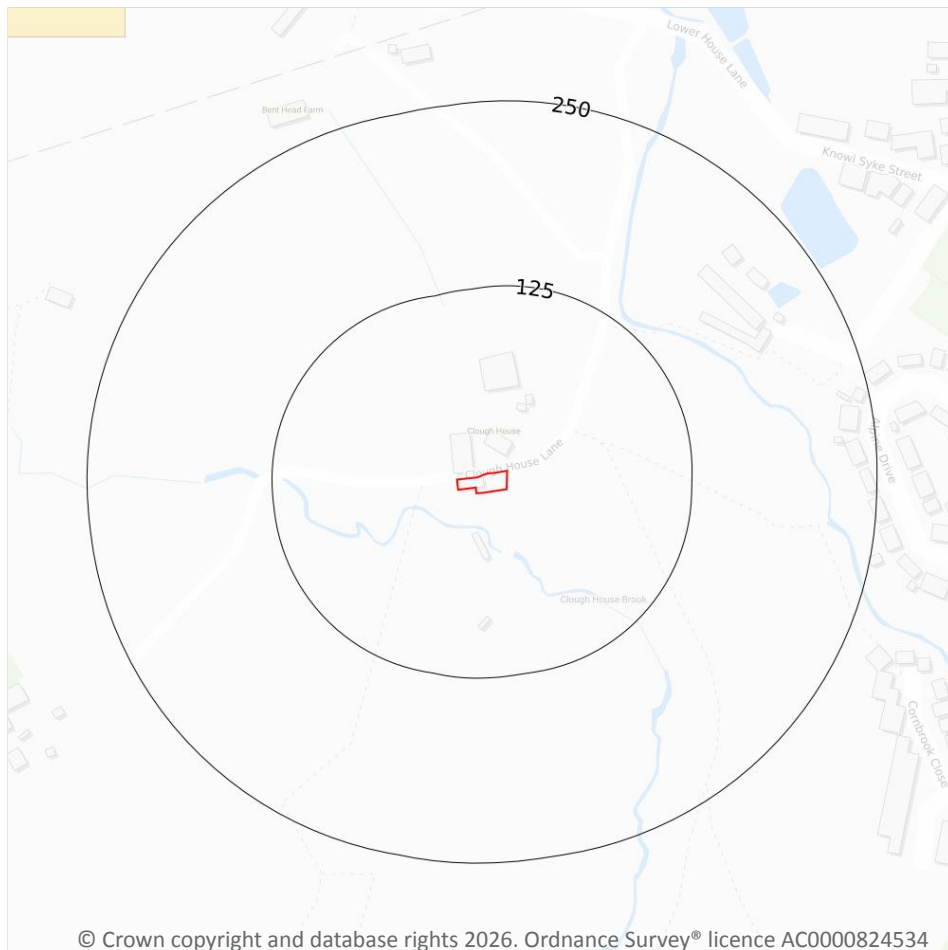
Not all 'holes' noted on Ordnance Survey® mapping will necessarily be present within this dataset.



This data is sourced from Groundsure.



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 120](#) >

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

2

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 mg/kg	60 mg/kg	1.8 - 2.2 mg/kg	60 - 90 mg/kg	30 - 45 mg/kg
16m SW	15 - 25 mg/kg	No data	100 mg/kg	60 mg/kg	1.8 - 2.2 mg/kg	60 - 90 mg/kg	30 - 45 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

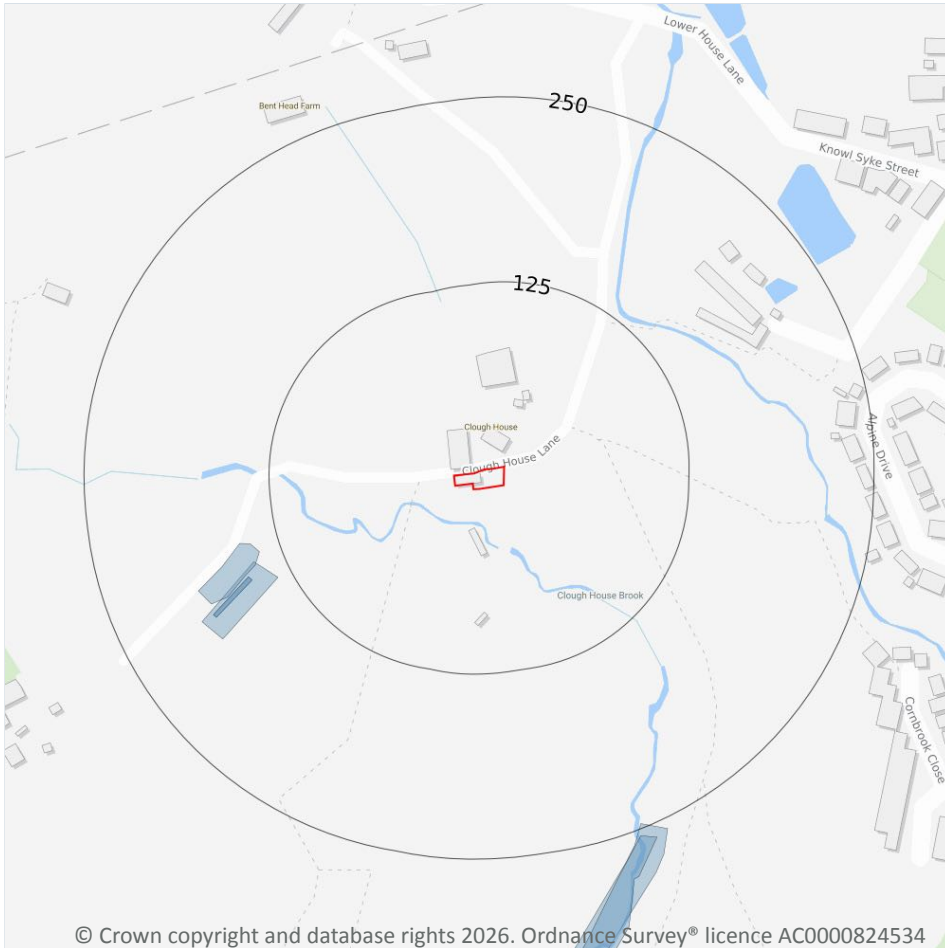
0

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)
- 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

5

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 123 >](#)

Location	Land Use	Year of mapping	Mapping scale
135m SW	Railway Sidings	1928	10560
140m W	Railway Sidings	1949	10560
151m SW	Railway Sidings	1930	2500
151m SW	Railway Sidings	1937	2500
247m S	Railway Sidings	1928	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**0**

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

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 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.

22.9 HS2

Records within 500m**0**

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

This data is sourced from HS2 Ltd.

Data providers

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

Terms and conditions

Groundsure's Terms and Conditions can be accessed at this link: www.groundsure.com/terms-conditions-april-2026/ ↗.





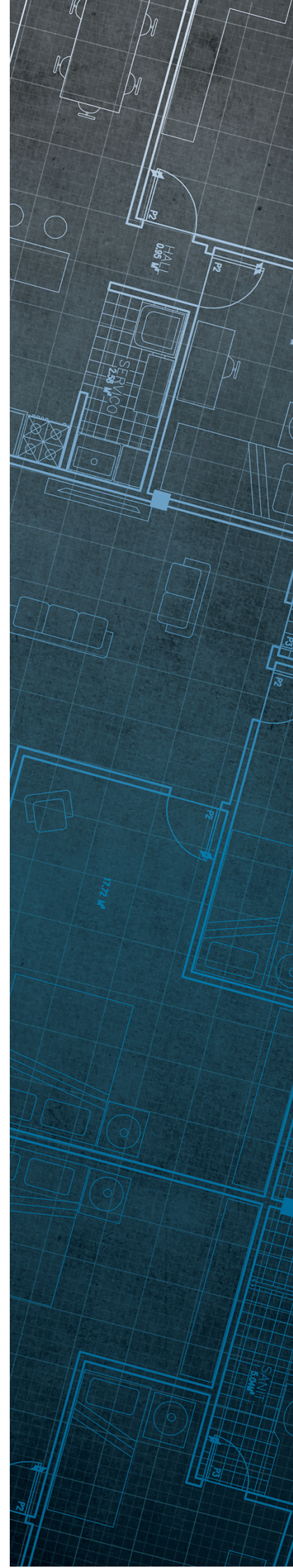
The Coal
Authority

Consultants Coal Mining Report

Clough House Barn, Clough House
Lane, Wardle, Rochdale, OL12 9pl
Greater Manchester

Date of enquiry:	29 June 2026
Date enquiry received:	29 June 2026
Issue date:	29 June 2026

Our reference:	51003579446001
Your reference:	GS-6WD-WYO-AWY-BLF



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

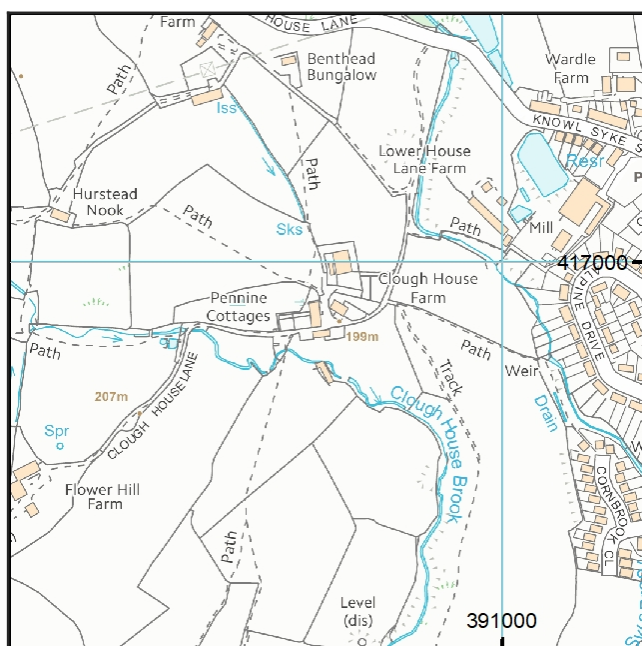
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Approximate position of property



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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	LOWER MOUNTAIN	Coal	3X9N	897	North-East	5.7	South-West	70	1914

Probable unrecorded shallow workings

None.

Spine roadways at shallow depth

No spine roadway recorded at shallow depth.

Mine entries

None recorded within 100 metres of the enquiry boundary.

Abandoned mine plan catalogue numbers

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

16820	10572	
-------	-------	--

For assistance in identifying the specific abandoned mine plans relevant to your requirements, **please contact us at InformationManagers@MiningRemediation.gov.uk**.

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 email us at reports@miningremediation.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 **email us at reports@miningremediation.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.

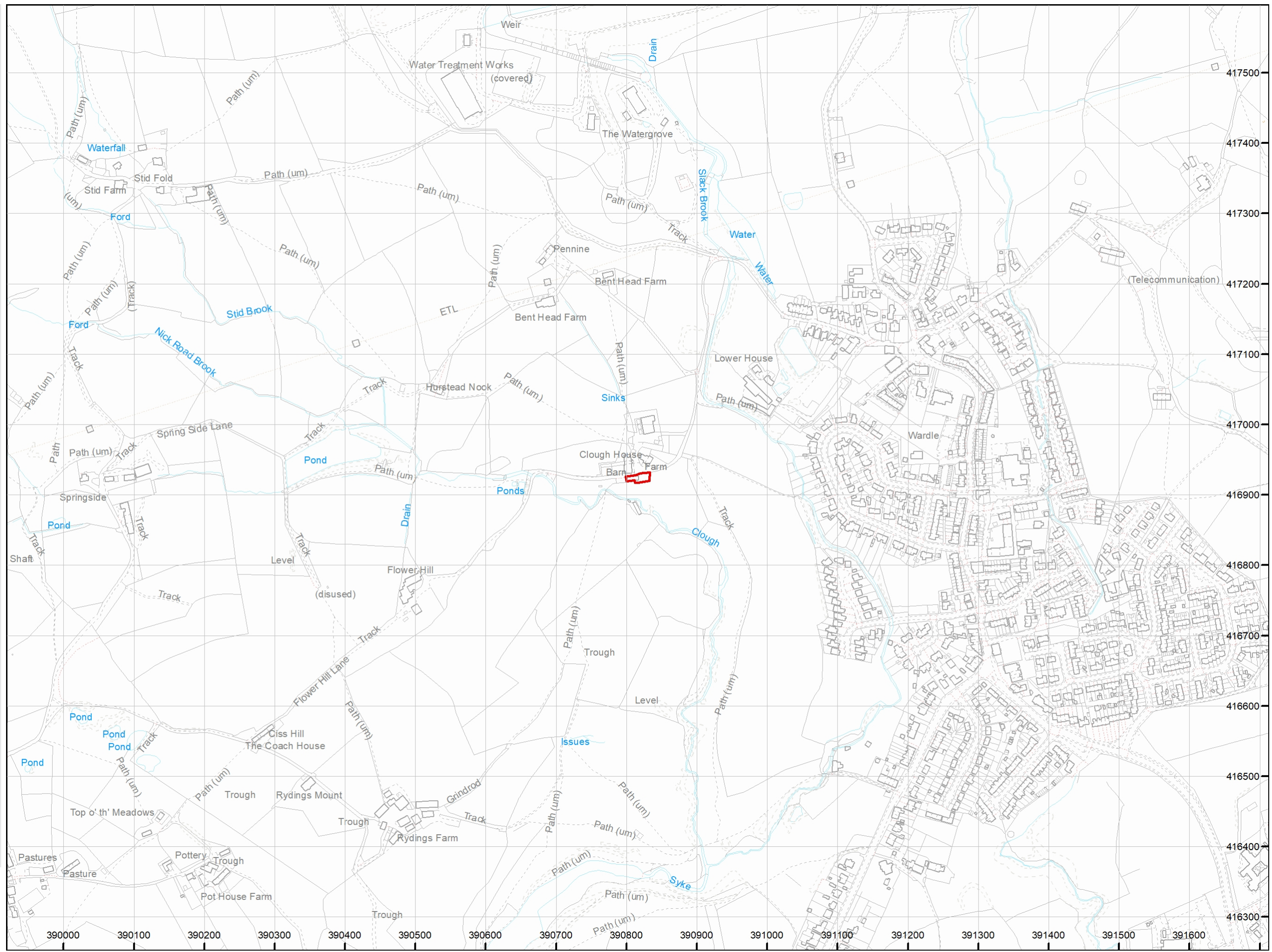
The map highlights any specific surface or subsurface features within or near to the boundary of the site.

Key

Approximate position of the enquiry boundary shown 

How to contact us

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reports@miningremediation.gov.uk



APPENDIX C – Preliminary Conceptual Model

Potential receptor	Comments	Include in PCM
Property		
On site		
Crops	None intended on site	
Domestic produce	May be grown in residential gardens	X
Livestock	None anticipated on site	
Domestic animals	May be owned by residents	X
Game	None on site	
Off site		
Crops	No adjacent farmland	
Domestic produce	Possibly in houses adjacent to the site	X
Livestock	None	
Domestic animals	May belong to adjacent residents	X
Game	None	
Property: Buildings		
On site		
	Residential properties, services, flora, fauna	X
Off site		
	Residential properties, services, flora, fauna	X
Humans		
On site		
Residents	Future residents	X
Construction workers	During ground investigations	X
Employees	Landscape gardeners	X
Surface water users	No current surface water abstractions located on site	
Off Site		
Residents	Residents adjacent to site	X
Recreational users	Recreational walkers	X
Groundwater users	No groundwater extraction sites	
Controlled waters		
On site		
Surface waters	No surface water features on site	
Groundwater	The underlying superficial geology and bedrock Aquifer are classified as a Secondary A Aquifer. These both represent significant potential receptor.	X
Off site		
Controlled waters	There are 19 surface water features recorded within 250m of the site. The most significant ones are River Roch which forms the site boundary and the Rochdale Canal within 50m of the site. These are both potential receptors.	X
Ecological systems		
On/off site		
SSI, nature reserves, SACs etc	None within 250m of the site	

Table A: Potential Receptors to be Considered in the Preliminary Conceptual Model

Link	Source	Hazard	Transport Mechanism	Pathway	Medium of exposure	Receptor	Risk Summary
1	Contaminated soils	Direct contact /ingestion of soil or dust	Direct contact with contaminated soils	Dermal contact/ingestion of soil at surface	Soil	Human (on site/ off site) domestic pets	Medium – potential in garden areas
2	Contaminated soils	Particulate inhalation	Wind blown particulates	Inhalation of particulates	Air	Human (on site/ off site) domestic pets	Low
3	Contaminated soils	Impaired produce growth	Uptake of contaminants by homegrown produce resulting in loss	Uptake during growth	Vegetable produce	Property (domestic produce)	Medium – potential homegrown vegetables
4	Contaminated soils	Ingestion of contaminants	Uptake of contaminants by homegrown produce	Consumption of home grown produce	Vegetable produce	Humans	Medium – potential homegrown vegetables
5	Contaminated soils / coal measures	Inhalation of ground gas	Degradation of contaminants generating ground gas through unsaturated zone to soil leading to inhalation	Inhalation of gases	Air	Humans (on site/off site, domestic pets)	Medium – potential shallow workings
6	Contaminated soils	Vapour inhalation	Volatilisation of organic compounds	Inhalation of vapours	Air	Human (on site/ off site) domestic pets	Low – no significant sources identified

			through unsaturated zone of soil leading to inhalation				
7	Contaminated soils	Damage of structures / services	Direct contact of contaminants with building structures/services	Direct contact	Soil/Water	Flora, services, concrete	Low – no significant sources identified
8	Contaminated soils	Degradation of perched water quality	Dissolution or suspension of contaminants into perched waters and migration to on-site and off-site receptors	Dissolution or suspension	Water	Perched waters, surface water	Low – no significant sources identified
9	Contaminated soils	Pollution of underlying groundwater	Dissolution or suspension of contaminants into groundwaters	Dissolution or suspension	Water	Groundwater	Medium – potential to Wrigley Brook

Table B: Preliminary Conceptual Model

**Relative screening and prioritisation for further investigation or assessment*

High	Higher probability of occurrence and identification of primary sources of contamination with respect to most sensitive receptors.
Medium	Pollutant linkage generally dependent on the presence of other primary pollutant linkages and/or where pollutant linkage generally associated with less sensitive receptors.
Low	Lower probability of occurrence such as based on requirement for significant migration pathway or where pollutant linkage requires the presence of source contaminants at concentration likely to be much higher than other identified pollutant linkages.