

LAND AT FOXHILL FARM - HALEWOOD

Phase 1 - Preliminary Risk Assessment



Prepared for:

SABFORD LIMITED

Report Ref: BEK-23134-1 Rev-A

October 2023

Project Quality Assurance Information Sheet

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LAND AT FOXHILL FARM - HALEWOOD

Phase 1 - Preliminary Risk Assessment

PROJECT NO: 23134

REPORT REF: BEK-23134-1 Rev-A

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REVISION STATUS / HISTORY

Rev	Date	Issue / Comment	Prepared	Checked
A	12/10/2023	Minor Amendments	MLM	MB

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GEO-ENVIRONMENTAL CONSULTING

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1. INTRODUCTION

1.1 Appointment

1.1.1 BEK Enviro (BEK) has been commissioned by Sabford Ltd to prepare a Preliminary Risk Assessment for an area of land located at Foxhill Farm, Halewood (hereafter referred to as 'the site'). The PRA will assess the potential risks associated with contamination and ground gas with respect to the re-development of the site as residential.

1.1.2 The site location and site layout are presented on BEK Drawing No 23134-1 and BEK Drawing No 23134-2, respectively. Copies of these drawings are presented in Appendix E.

1.2 Proposed Development

1.2.1 This report has been prepared to support a planning application for the demolition of the bungalow and part demolition of the existing farmhouse on site and the construction of a five residential dwellings, see Figure 1 below:

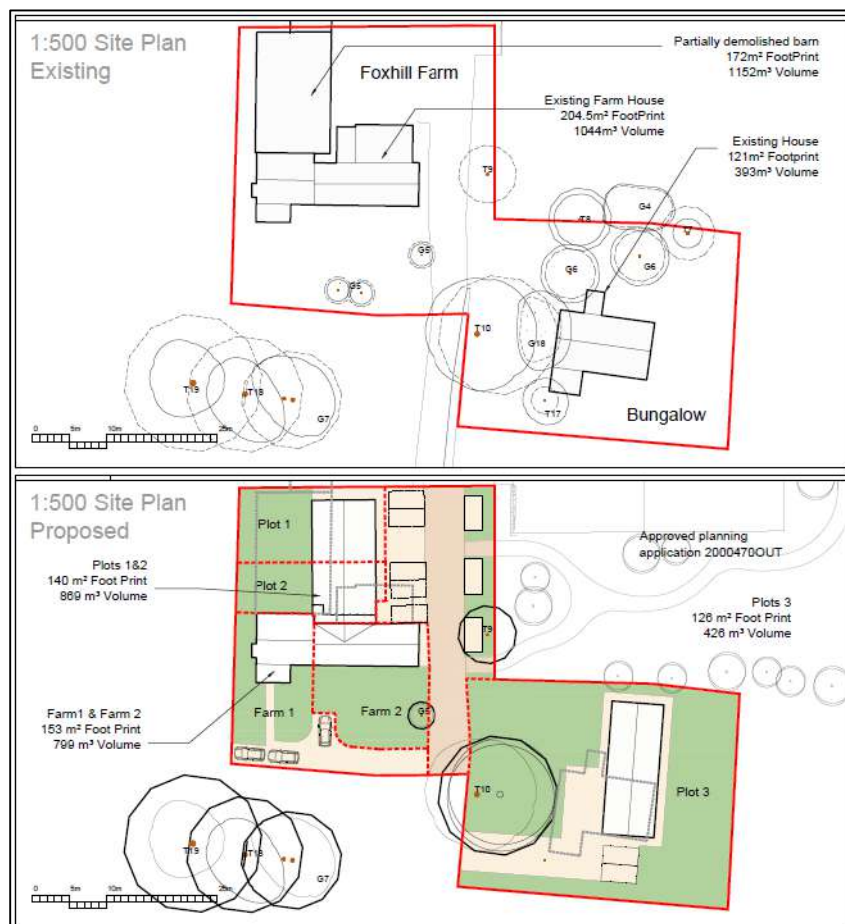


Figure 1: Existing and Proposed Site Plan

- 1.2.2 The above figure is an extract from Graham Lea Architecture Drawing No GL423J/00, dated February 2022, a copy of which is presented in Appendix E.

1.3 Objective & Scope of Work

- 1.3.1 This report provides the details of the works undertaken by BEK to assess the potential risks from contamination considering the residential end use (with homegrown produce).

- 1.3.2 To achieve the objective BEK will undertake the following:

- Carry out a site inspection and collect photographs
- Review the available relevant background information for the site, including:
 - Recent Ordnance Survey Maps
 - Site Specific GroundSure Reports
 - Site Specific Historical Maps
 - Drawings Provided by Graham Lea Architecture
 - Coal Authority Interactive Website
 - Zetica UXO Information
- 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
- Identify any actions required to assess or reduce the risks identified

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. BEK 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 BEK 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 Issues associated with invasive plant species are outside the remit of this assessment.

2. SITE DESCRIPTION

2.1 Site Location

- 2.1.1 The site is located at the end of Foxhill Lane, approximately 500 m south-east of Gerrards Lane, Halewood, Knowsley. The site is approximately 11.5 km south-east of Liverpool centre.
- 2.1.2 The National Grid Reference for the centre of the site is 345073, 386845. The site location is presented on BEK Drawing No 23134-1, a copy of which is presented in Appendix E.

2.2 Site Layout & Description

- 2.2.1 An engineer from BEK visited the site In September 2023 to carry out a site walkover/inspection. A selection of photographs illustrating the existing site layout is presented in Appendix D. The site layout is presented in BEK Drawing No 23134-2, a copy of which is presented in Appendix E.
- 2.2.2 The site comprises an irregularly shaped plot of land of approximately 2,400 m² encompassing three existing properties, the farmhouse, the cottage (attached to the farmhouse) and the bungalow. The bungalow and farmhouse are in poor state of repair, while the cottage is being habited.
- 2.2.3 The northern section of the site is occupied by a 'farmhouse and a cottage' with garden areas and mature trees to the south. There was no access into the farmhouse at the time of the walkover. The cottage in the north-west had a small well-kept garden to the south. The area to the south of the south-east of the farmhouse was overgrown with dense vegetation, as well as various fly-tipped material. To the north of the cottage are the stone walls of a former barn, inside of which are various waste materials, and an old fuel tank with an attached hose and nozzle, possibly indicating it was used for red diesel. Hardstanding was present to the north of the farm house and comprised broken concrete and gravels.
- 2.2.4 The southern section of the site occupied the 'bungalow' in the centre, also surrounded by overgrown vegetation and mature trees. There was no access into the bungalow at the time of the walkover and the dense overgrown vegetation meant that a large part of this area of the site was inaccessible.
- 2.2.5 A number of external chimneys were noted around the farmhouse building.

2.3 Surrounding Land Use

- 2.3.1 The site is located on the west of a farm complex, with a number of derelict farm buildings located to the north and east of the site. The site walkover identified circular structures in the location of the 'tanks' noted on the historical maps (see Figure 2). The rest of the surrounding area comprises agricultural fields.

3. SITE HISTORY

- 3.1 The history of the site has been established using historical OS maps supplied by Groundsure. A selection of the maps reviewed is presented in Appendix A.

1849

- 3.2 The earliest available maps show a complex of buildings located in the northern part of the site marked as 'Nun's House'. The south of the site appears vacant. A road leads away from the centre of the site to the south-west. There are ponds located approximately 5 m south-west, 50 m west, 90 m north-west, 100 m north-east, 110 m south-east, 110 m east, 150 m south, 150 m north-east, 180 m north, 180 m west and 200 m north-west of the site. A small unspecified building is located approximately 95 m south-west of the site. A number of buildings marked as 'Irelands House' are located approximately 130 m south-east of the site and two buildings marked as 'Tow House' are located approximately 180 m west of the site. The rest of the surrounding area appears vacant.

1893

- 3.3 The site remains the same, however the buildings are now marked as 'Foxhill Farm' and a Pump is marked in the centre of the north of the site. A new small building is located immediately north-east of the site. The ponds approximately 100 m north-east, 110 m east, 150 m south, 180 m north and 180 m west of the site are all now absent. The buildings marked as Irelands house are now marked as 'Bridgefield' and the Tow House is now marked as 'Foxhill Cottage'.

1907

- 3.4 There are new small buildings present in the east, north-west and north-east of the site. A new long building is located east of the site. Foxhill Cottage is absent.

1927-1938

- 3.5 The building in the east of the site is absent on the 1938 map. The long building to the east of the site has halved in size. There are a number of new buildings located to the east of the site. The pond approximately 5 m south-west of the site has reduced in size and is now situated approximately 30 m south-west of the site. A small building is located approximately 40 m west of the site on the 1927 map. The small unspecified building approximately 95 m south-west of the site is absent.

1958

- 3.6 A new building is present in the centre of the southern part of the site. The majority of the buildings to the east of the site are absent. A drain is marked along the south-eastern site boundary, leading south-east away from the site.

1989-2003

- 3.7 The site remains the same. The long building to the east of the site is absent and a number of new large buildings are present in this location, as well as tanks located approximately 20 m north and 30 m east of the site. The drain located along the eastern site boundary appears absent. The ponds located approximately 30 m south-west and 110 m south-east of the site are absent. All buildings previously marked as 'Bridgefield' are absent. A new drain is located approximately 90 m east of the site on the 2003 map.

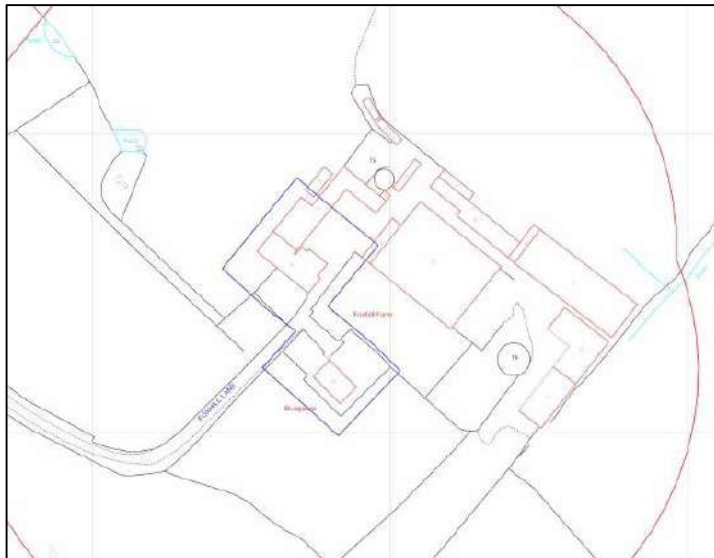


Figure 2: Extract from the 2003 map of the site.

2010-2023

- 3.8 More recent small scale maps show small changes to the configuration of the farm buildings. The 2023 map shows a new field drain located approximately 20 m west of the site.

4. ENVIRONMENTAL SETTING

- 4.0.1 An Enviro+GeoInsight Report has been obtained from Groundsure and information provided in these reports has been used within this section. A copy of the report is presented in Appendix B.

4.1 Geology

- 4.1.1 The site geology is illustrated in the Enviro+GeoInsight Report which has sourced data from several sources including British Geological Society (BGS), BRITPITS database and the Coal Authority.

- 4.1.2 BEK has sought site investigation information from the BGS website. There were no exploratory locations available to view within 250 m of the site.

Made Ground

- 4.1.3 According to the Enviro+GeoInsight Report there is no recorded made ground (artificial deposits) located on or within 250 m of the site.

Superficial Geology

- 4.1.4 The Enviro+GeoInsight Report states that the superficial deposits underlying the site comprise Devensian Till (Boulder Clay) which typically consists of 'sandy, silty, stony clay with non-persistent sand beds'. This strata generally has a low permeability.

Bedrock

- 4.1.5 The solid geology underlying the site comprises the 'Wilmslow Sandstone Formation' which typically comprises sandstone with sporadic siltstone. This strata generally has a high permeability.

Linear Features

- 4.1.6 There are two bedrock inferred faults located 46 m south-west and 53 m west of the site.

4.2 Mining & Ground Stability

- 4.2.1 Information from the Coal Authority indicates that the site is located within a coal mining area, however the site does not fall within a 'Development High Risk Area'.

- 4.2.2 The Enviro+GeoInsight Report states that there are 12 records of surface ground workings within 250 m of site, all of which refer to ponds and the closest of which is located 14 m south-west of the site (see Section 3).

- 4.2.3 In addition to the above, the Enviro+GeoInsight Report provides hazard ratings associated with ground subsidence at the site from sources other than mining, as summarised below:

Shrink-Swell Clay:	Very Low
Landslides:	Very Low
Ground Dissolution of Soluble Rocks:	Negligible
Compressible Deposits:	Negligible
Collapsible Deposits:	Very Low
Running Sands:	Very Low

- 4.2.4 It can be seen from the above that the site is unlikely to be affected by ground instability.

4.3 Hydrogeology

- 4.3.1 The underlying superficial strata is classified as 'Secondary Undifferentiated' aquifer which is 'assigned where it is not possible to attribute either category A or B to a rock type.' These aquifers were formerly referred to as 'unproductive'.
- 4.3.2 The bedrock is classified as 'Principal' aquifer which is described as 'geology of high intergranular and/or fracture permeability, usually providing a high level of water storage and may support water supply/river base flow on a strategic scale. Generally principal aquifers were previously 'major' aquifers.
- 4.3.3 The Enviro+GeoInsight Report indicates the site is located within a Zone 3 groundwater source protection zone.
- 4.3.4 There are no surface or groundwater abstractions located within 250 m of the site.
- 4.3.5 The Enviro+GeoInsight Report indicates the site is at Moderate to High risk of groundwater flooding based on Digital Terrain Modelling (DTM).

4.4 Hydrology

- 4.4.1 There are no surface water features located on site. The Enviro+GeoInsight Report shows there are surface water features located 13 m west, 72 m east, and 96 m north-west of the site. These features appear to be field drains.
- 4.4.2 There are no registered licensed discharge consents located within 250 m of the site.
- 4.4.3 The site is not considered to be at risk from surface water flooding.

4.5 Contaminated Land & Landfill Activities

- 4.5.1 Information provided in the Enviro+GeoInsight Report indicates that there are no historic/current landfill or waste sites located within 250 m of the site.
- 4.5.2 There are no registered waste exemptions located within 250 m of the site.
- 4.5.3 There have been no Environment Agency recorded pollution incidents located within 250 m of the site.
- 4.5.4 The Enviro+GeoInsight Report has no recorded Part A(1), A(2) or Part B Authorised Activities within 250 m of the site.
- 4.5.5 According to the Enviro+GeoInsight Report there are no historical potentially contaminative land uses for the site.
- 4.5.6 There are no current potentially contaminative land uses located within 250 m of the site.

4.6 Sensitive Land Uses

- 4.6.1 The site is not affected by any of the ecological systems identified as a statutory receptor in the DETR Circular 01/2006.
- 4.6.2 The site is located within the Merseyside and Greater Manchester Greenbelt.

4.7 Radon

- 4.7.1 Groundsure reports that 'less than 1% of homes are above the action trigger level' and that 'no radon protective measures are necessary' in the construction of new residential properties.

4.8 Unexploded Ordnance

- 4.8.1 The regional unexploded bomb risk map from Zetica (2014) indicates that the site is in an area of Merseyside at LOW risk from possible Unexploded Ordnance (UXO) resulting from the Second World War.
- 4.8.2 BEK do not consider any further assessment to be required with respect to UXO.

5. POTENTIAL POLLUTANT LINKAGES

5.1 General

5.1.1 This section identifies the potential sources of contamination along with specific contaminants of concern, pathways and receptors that may be associated with the site based on its known history and the current condition and with respect to the re-development of the site for residential use (with homegrown produce).

5.1.2 This information is used to develop a preliminary conceptual model which is a qualitative description of potential sources of environmental pollutants, the pathways by which they are transported and the receptors:

- i) Potential sources of contamination: these include any actual or potentially contaminating materials and activities, located either on or in the vicinity of the site
- ii) Potential pathways for contamination migration: these comprise the routes or mechanisms by which contaminants may migrate from the source to the receptor including environmental migration pathways and human health exposure pathways
- iii) Potential receptors of contamination: these include future land users, ecological systems, water resources and property

5.1.3 If no potential sources of contamination are identified as part of the assessment, then there are no risks associated with contamination to potential receptors associated with the site.

5.2 Potential Contaminants of Concern

5.2.1 The farmhouse has been present in the north of the site since the earliest available OS maps. The dwelling in the south of the site has been present since circa 1958.

5.2.2 Considering the age of the existing farm buildings at the site, it is possible that oil fired boilers were used for heating/hot water and there may have been an associated kerosene oil tank. Although the presence/location of any such tank is unknown, consideration should be given the potential for localised contamination of organic contamination.

5.2.3 In addition, localised contamination from fuel oils and greases associated with the storage and repair of farm machinery/equipment may be present in areas where such features may have stood for long periods.

- 5.2.4 The site walkover identified an old fuel tank situated in the north of the site, as well as made ground in the form of broken concrete. In addition, two off site circular 'tanks' are noted to be within close proximity to the site.
- 5.2.5 The nature and extent of any made ground at the site is currently unknown and it may contain contaminants of concern.
- 5.2.6 The potential contaminants of concern associated with made ground are presented below:

Contaminants associated with Made Ground	
Arsenic	Zinc
Cadmium	Sulphate
Chromium	Cyanide
Copper	Phenols
Lead	Polycyclic Aromatic Hydrocarbons (PAHs)
Mercury	Total Petroleum Hydrocarbons (TPHCWG)
Nickel	Asbestos
Selenium	pH
Contaminants Associated with Kerosene Tanks & Fuel oil/Grease Spills	
SVOCs	Total Petroleum Hydrocarbons (TPHCWG)
VOCs	BTEX Compounds

Table 1: Potential Contaminants of Concern

- 5.2.7 It should be noted that the above list represents a broad range of potential contaminants of concern. Additional contaminants of concern may be present if ground conditions differ from those anticipated.
- 5.2.8 Off-site sources of ground gas include a number of small ponds located within 250 m of the site, some of which appear to have been historically infilled. However, given the small, localised nature of the ponds, the distance from the site, time since infilling and the presence of laterally continuous relatively impermeable Boulder Clay in the area, the risks from ground gas from off-site sources are considered to be very low.
- 5.2.9 Notwithstanding, if the site investigation/groundworks proves significant thickness of made ground (>3 m) or natural strata has a high organic content, it may be necessary to re-assess the potential risks from ground gas.

5.3 Potential Pathways

- 5.3.1 The pathways through which contaminants may reach receptors are in part dependent by the nature and behaviour of the contaminant and the intended end use of the site.

5.3.2 The following potential pathways have been identified with respect to the existing site condition, the environmental setting and part demolition of the existing farmhouse and the construction of five residential dwellings; all of which are assessed in the conceptual model:

- Ingestion of contaminated soil/home grown vegetables (landscaped areas only)
- Inhalation of contaminative dust including asbestos fibres
- Dermal contact (landscaped areas only)
- Indoor inhalation of ground gas and/or organic vapours
- Dissolution or suspension (leaching) of contaminants into pore waters affecting plant growth
- Dissolution or suspension (leaching) of contaminants from site soils leading to lateral migration within perched waters to off-site receptors. Potential significant pathways include more permeable layers within the made ground/natural strata, underground services and piles/foundations.
- Dissolution or suspension (leaching) of contaminants from site soils leading to contamination of groundwater.
- Contamination affecting the integrity of service pipelines by direct contact
- Buildings affected by direct contact with elevated concentrations of sulphate and/or extreme pH

5.4 Receptors

5.4.1 Potential site specific receptors that may be affected by contamination at the site are listed below:

Future Site Users

5.4.2 Future occupants of the site could be at risk from contamination present at the site.

5.4.3 Potential risks are associated with ingestion of soil and home grown vegetables as well as inhalation of contaminated dust and/or asbestos and dermal contact with contaminants of concern. These risks are all associated with the garden/landscaped areas of the new development.

5.4.4 There are also risks associated with indoor inhalation of organic vapours (VOCs) and/or ground gas.

Construction Workers

- 5.4.5 The primary risks to construction workers are associated with shallow excavations as asbestos could be present. Asbestos fibers (if present) can be released into the atmosphere during earthworks.
- 5.4.6 Standard personal protective equipment and site specific risk assessments and method statements should reduce risks associated with other contaminants of concern due to short exposure duration.

Off Site Receptors

- 5.4.7 Off site receptors include agricultural workers/recreational walkers, residents of the adjacent development. Human health could be at risk if asbestos fibres are released during the re-development.

Flora

- 5.4.8 Heavy metals can be phytotoxic and if present can represent a potential risk to flora in the garden areas.

Buildings & Services

- 5.4.9 The integrity of service pipes can be affected by concentrations of organic contamination.

Controlled Waters

- 5.4.10 Field drains are located 13 m west, 72 m east and 96 m north-west of the site. These represent potential receptors.
- 5.4.11 The superficial Boulder Clay deposits beneath the site are classified as Secondary Undifferentiated aquifer and any water trapped/held within the deposits is not considered to represent a sensitive receptor.
- 5.4.12 The underlying bedrock is classified as Principal aquifer and presents a potential receptor. Notwithstanding, the presence of laterally continuous impermeable superficial deposits across the site will likely inhibit vertical migration of contamination to the underlying bedrock, therefore hydraulic continuity between perched water trapped above the Boulder Clay and the deep aquifer is considered unlikely.
- 5.4.13 The site is located within a Groundwater Source Protection Zone 3.

5.5 Preliminary Conceptual Model

- 5.5.1 The identified potential sources of contaminants, pathways and receptors have been assessed to establish plausible pollutant linkages. All potentially significant pollutant linkages are detailed in Table B, in Appendix C.

5.6 Potentially Significant Pollutant Linkages

- 5.6.1 A number of possible 'significant pollutant linkages' have been identified associated with the site.
- 5.6.2 Potential risks relating to the potential harm to the health of humans and/or domestic pets both on and off site due to the potential for direct contact with contaminants in the made ground and the ingestion of contaminated soil/dust ([Link 1](#)).
- 5.6.3 There is also the possibility of windblown particulates being inhaled by people/animals both on site and off site ([Link 2](#)).
- 5.6.4 Home grown produce could be affected by ground contamination ([Link 3](#)) and human health could be at risk by the ingestion of home grown produce affected by contamination ([Link 4](#)).
- 5.6.5 Human health could be at risk by the inhalation of volatile contamination and/or ground gas migrating into properties on site ([Link 5](#)).
- 5.6.6 Property (including services, flora and fauna) could be affected by direct contact to high concentrations of contaminants ([Link 6](#)).
- 5.6.7 Dissolution or suspension (leaching) of contaminants from site soils leading to lateral migration within perched permeable layers within the made ground/natural strata, underground services and foundations to surface water receptors ([Link 7](#)).
- 5.6.8 Dissolution or suspension (leaching) of contaminants from site soils leading to impact on the underlying aquifer within the bedrock ([Link 8](#)).
- 5.6.9 Site investigation is required to identify site specific conditions and assess the risks associated with each identified plausible pollutant linkage.

6. RECOMMENDATIONS

- 6.1 Based on the findings of the Preliminary Risk Assessment herein, potential risks associated with contamination have been identified with respect to the demolition of the bungalow and part demolition of the existing farmhouse on site and the construction of a five residential dwellings.
- 6.2 Potential risks have been identified to human health, controlled waters, flora and property (including services). The risks are associated with the possible presence of potentially contaminative made ground at the site.
- 6.3 Site investigation is required post-demolition/site clearance to determine shallow ground conditions and quantify the potential risks identified.
- 6.4 BEK recommends the following works should be undertaken:
- Pre-Demolition Asbestos Survey
- 6.5 All buildings should be subject to an asbestos survey and where present, this should be removed from site by a specialist contractor and disposed of at a licensed facility.
- Post-Demolition Site Investigation
- 6.6 Prior to the commencement of any built development, the investigation should comprise the excavation of a series of trial pits and/or boreholes to confirm ground conditions across the site. The investigation will be designed to prove the nature and extent of any made ground present at the site as well as characterise the natural strata. The investigation should target areas of previous buildings and contaminative features noted in Section 5.2, as well as a general spread across the site. The investigation will also aim to inform the re-use of the existing soils within the proposed development.
- 6.7 In-situ strength tests (Shear Vanes/SPTs) will be carried out progressively at each location and ground conditions will be recorded at each exploratory location by an experienced engineer.
- 6.8 The site investigation should be supervised by an experienced engineer who will be responsible for recording ground conditions encountered.
- 6.9 The engineer will recover representative samples for chemical and geotechnical testing. All samples for chemical testing will be collected in appropriate sampling vessels, stored in a precooled cool box and dispatched to the laboratory within 24 hours.

- 6.10 If there is evidence for shallow ground with a high organic content or a significant thickness of made ground (>3 m) then it will be necessary to install gas monitoring wells to inform a ground gas risk assessment.

Laboratory Testing

- 6.11 Following a review of the ground conditions encountered, a selection of samples will be tested for the contaminants of concern listed in Table 1 of this report.
- 6.12 If visual or olfactory evidence of contamination is encountered during the site investigation then it may be necessary to undertake additional testing.
- 6.13 In addition, if soils are to be removed from site to facilitate the development works then it may be necessary to test soils for Waste Acceptance Criteria (WAC).
- 6.14 Depending on ground conditions encountered, samples may also be tested for geotechnical properties to inform foundation design.
- 6.15 All testing will be carried out by a UKAS accredited laboratory to MCERTS standard (where applicable).

Risk Assessment

- 6.16 The investigation findings will be assessed as part of a quantitative risk assessment to amend the conceptual site model and identify any potential significant pollutant linkages and provide recommendations for foundation design.

Reporting

- 6.17 The investigation findings should be assessed in accordance with current UK policy and guidance to identify any potential significant pollutant linkages and determine the requirements for mitigation and/or remediation.
- 6.18 The works undertaken will be detailed in a Site Investigation & Ground Assessment report along with full justifications for the assessment and the conclusions/recommendations.

Other Considerations

- 6.19 We recommend that consideration is given to the requirements of the water supply service provider and the completion of the UKWIR risk assessment for water pipe selection.

APPENDIX A

Historical OS Maps

Site Details:

FOXHILL FARM, FOXHILL LANE,
HALEWOOD, L26 4XG

Client Ref: 7942-23134-A
Report Ref: GS-ACH-S22-WZZ-VDI
Grid Ref: 345073, 386842

Map Name: County Series

Map date: 1849

Scale: 1:10,560

Printed at: 1:10,560



Surveyed 1846
Revised N/A
Edition 1849
Copyright N/A
Levelled N/A

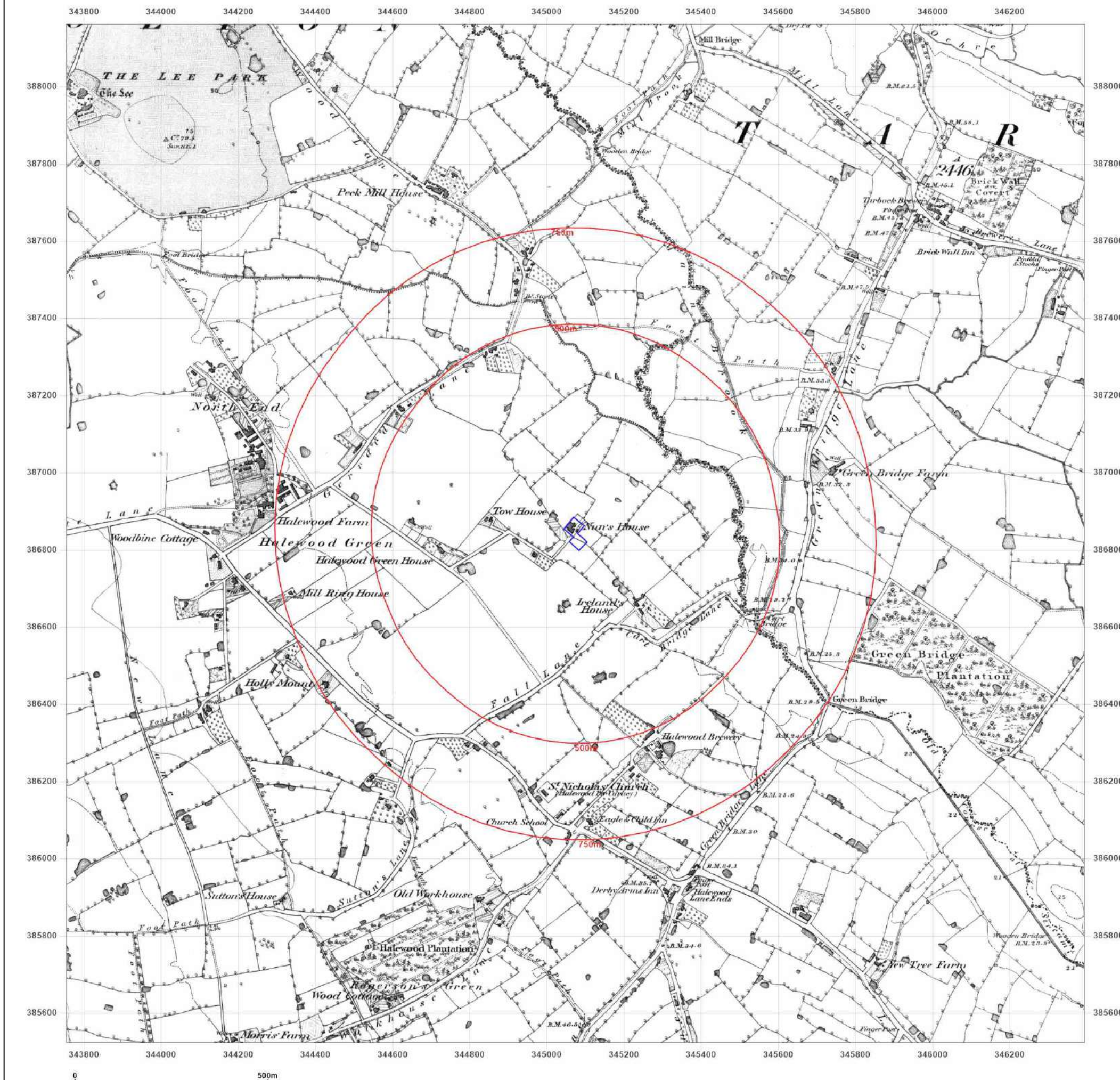


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Production date: 27 September 2023

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



Site Details:

FOXHILL FARM, FOXHILL LANE,
HALEWOOD, L26 4XG

Client Ref: 7942-23134-A
Report Ref: GS-ACH-S22-WZZ-VDI
Grid Ref: 345073, 386842

Map Name: County Series

Map date: 1891-1894

Scale: 1:10,560

Printed at: 1:10,560



Surveyed 1891
Revised 1891
Edition N/A
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Surveyed 1891
Revised 1891
Edition N/A
Copyright N/A
Levelled N/A

Surveyed 1891
Revised 1891
Edition N/A
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Revised 1894
Edition N/A
Copyright N/A
Levelled N/A

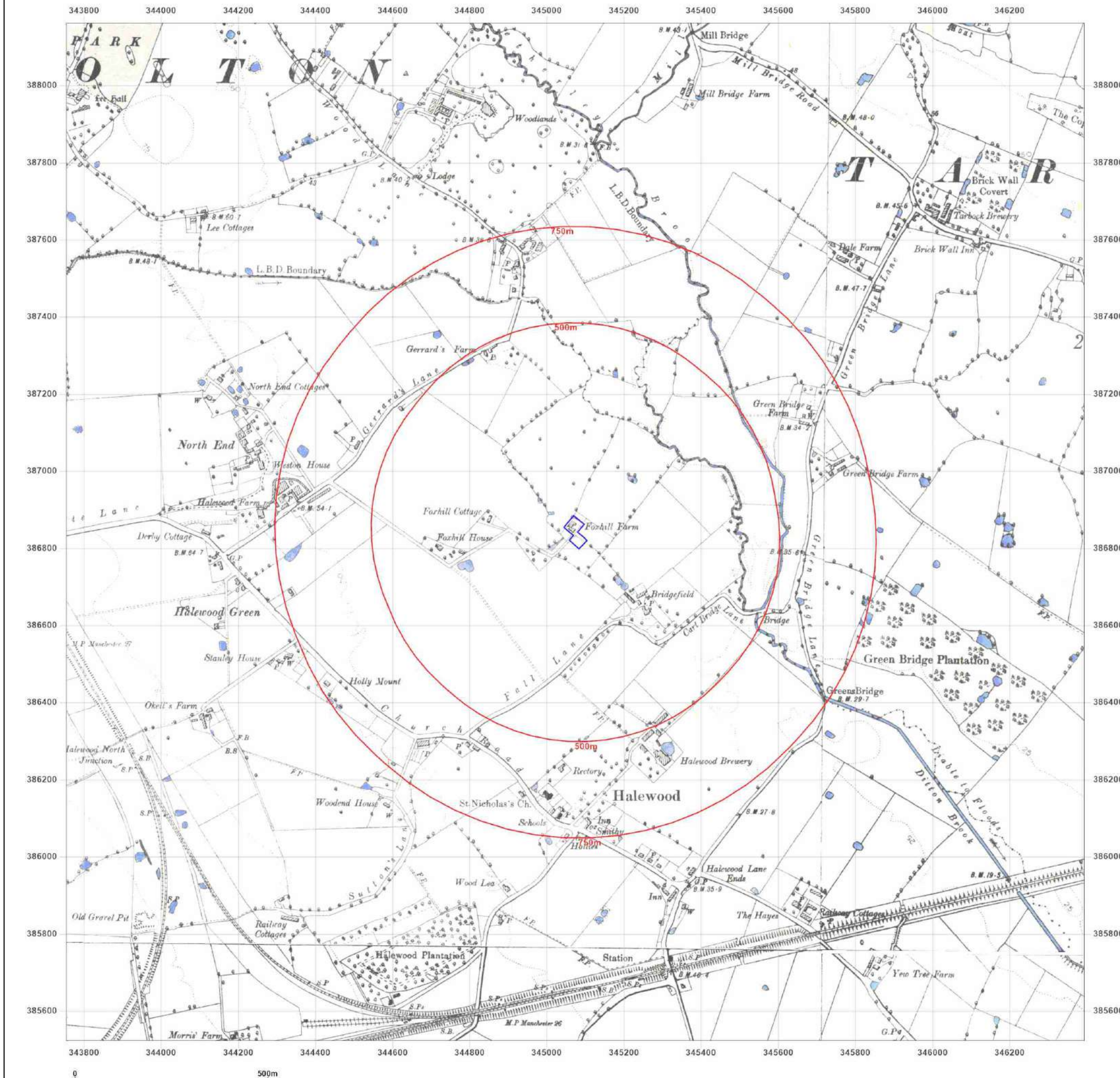


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Production date: 27 September 2023

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Site Details:

FOXHILL FARM, FOXHILL LANE,
HALEWOOD, L26 4XG

Client Ref: 7942-23134-A
Report Ref: GS-ACH-S22-WZZ-VDI
Grid Ref: 345073, 386842

Map Name: County Series

Map date: 1904-1905

Scale: 1:10,560

Printed at: 1:10,560



Surveyed 1891
Revised 1904
Edition N/A
Copyright N/A
Levelled N/A

Surveyed 1891
Revised 1905
Edition N/A
Copyright N/A
Levelled N/A

Surveyed 1891
Revised 1904
Edition N/A
Copyright N/A
Levelled N/A

Surveyed 1891
Revised 1905
Edition N/A
Copyright N/A
Levelled N/A

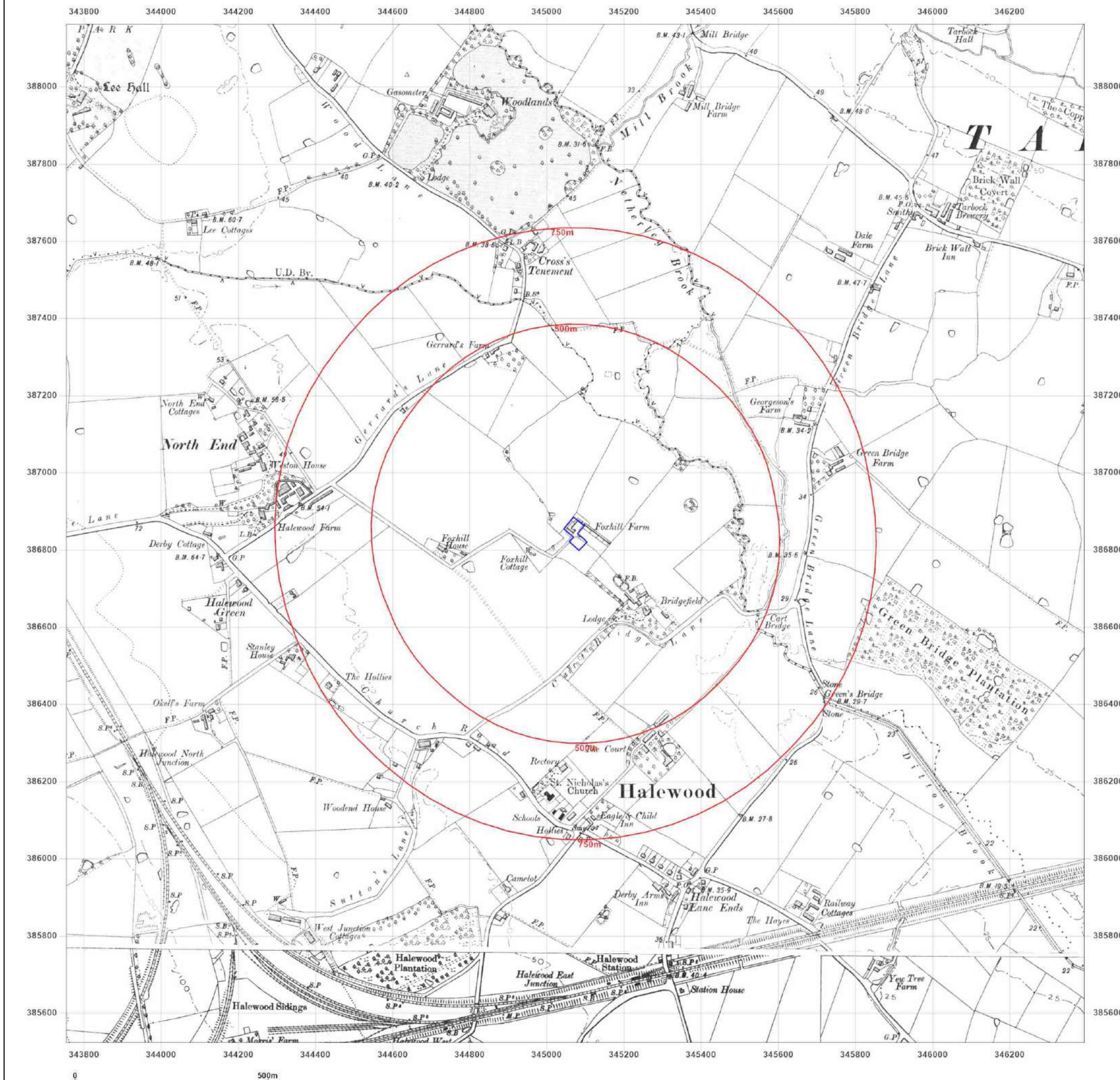


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Site Details:

FOXHILL FARM, FOXHILL LANE,
HALEWOOD, L26 4XG

Client Ref: 7942-23134-A
Report Ref: GS-ACH-S22-WZZ-VDI
Grid Ref: 345073, 386842

Map Name: County Series

Map date: 1925

Scale: 1:10,560

Printed at: 1:10,560



Surveyed 1846
Revised 1925
Edition N/A
Copyright N/A
Levelled N/A

Surveyed 1848
Revised 1925
Edition N/A
Copyright N/A
Levelled N/A

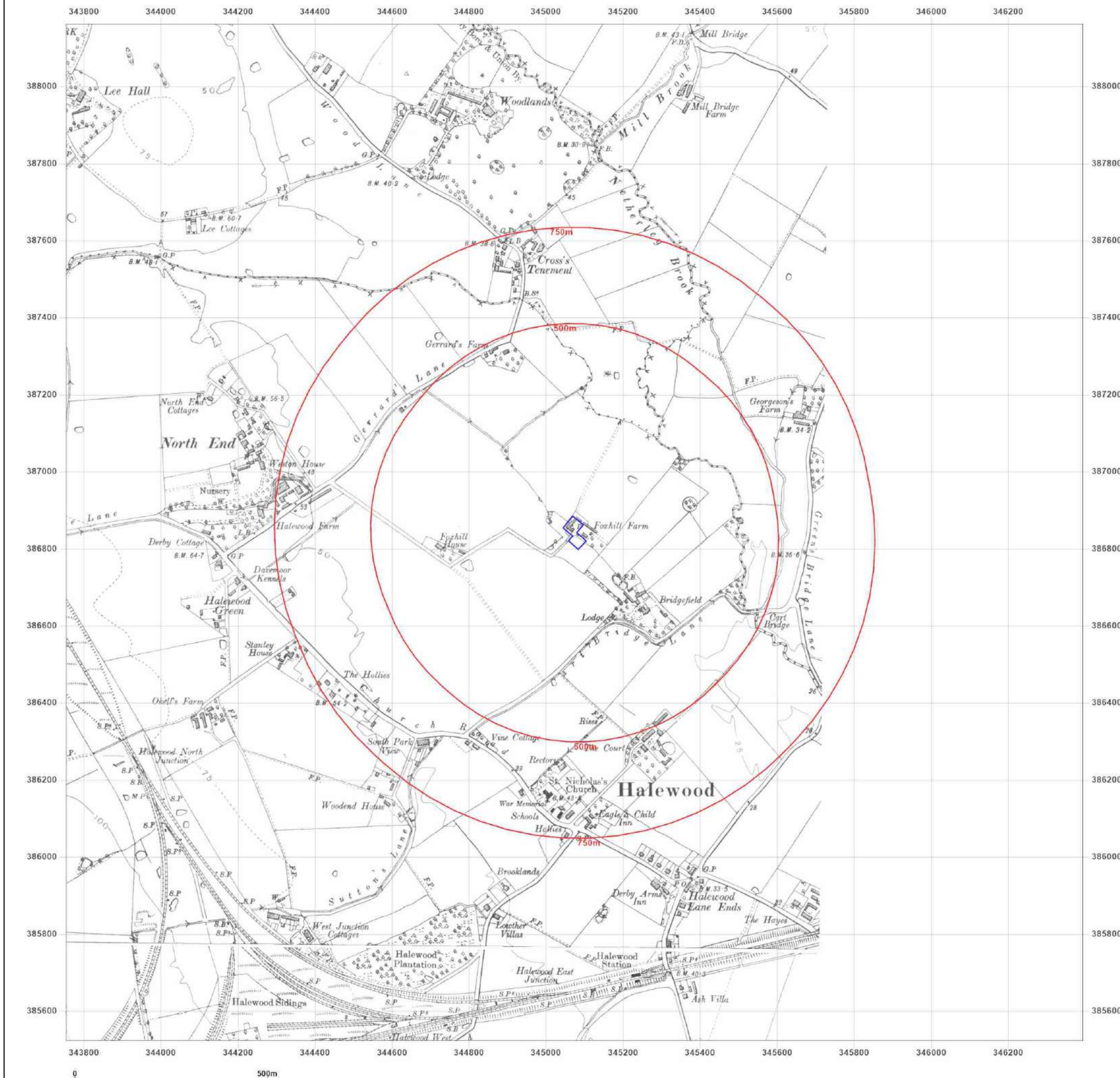


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Production date: 27 September 2023

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Site Details:

FOXHILL FARM, FOXHILL LANE,
HALEWOOD, L26 4XG

Client Ref: 7942-23134-A
Report Ref: GS-ACH-S22-WZZ-VDI
Grid Ref: 345073, 386842

Map Name: County Series

Map date: 1938

Scale: 1:10,560

Printed at: 1:10,560



Surveyed 1846
Revised 1938
Edition 1938
Copyright N/A
Levelled N/A

Surveyed 1846
Revised 1938
Edition N/A
Copyright N/A
Levelled N/A

Surveyed 1848
Revised 1938
Edition N/A
Copyright N/A
Levelled N/A

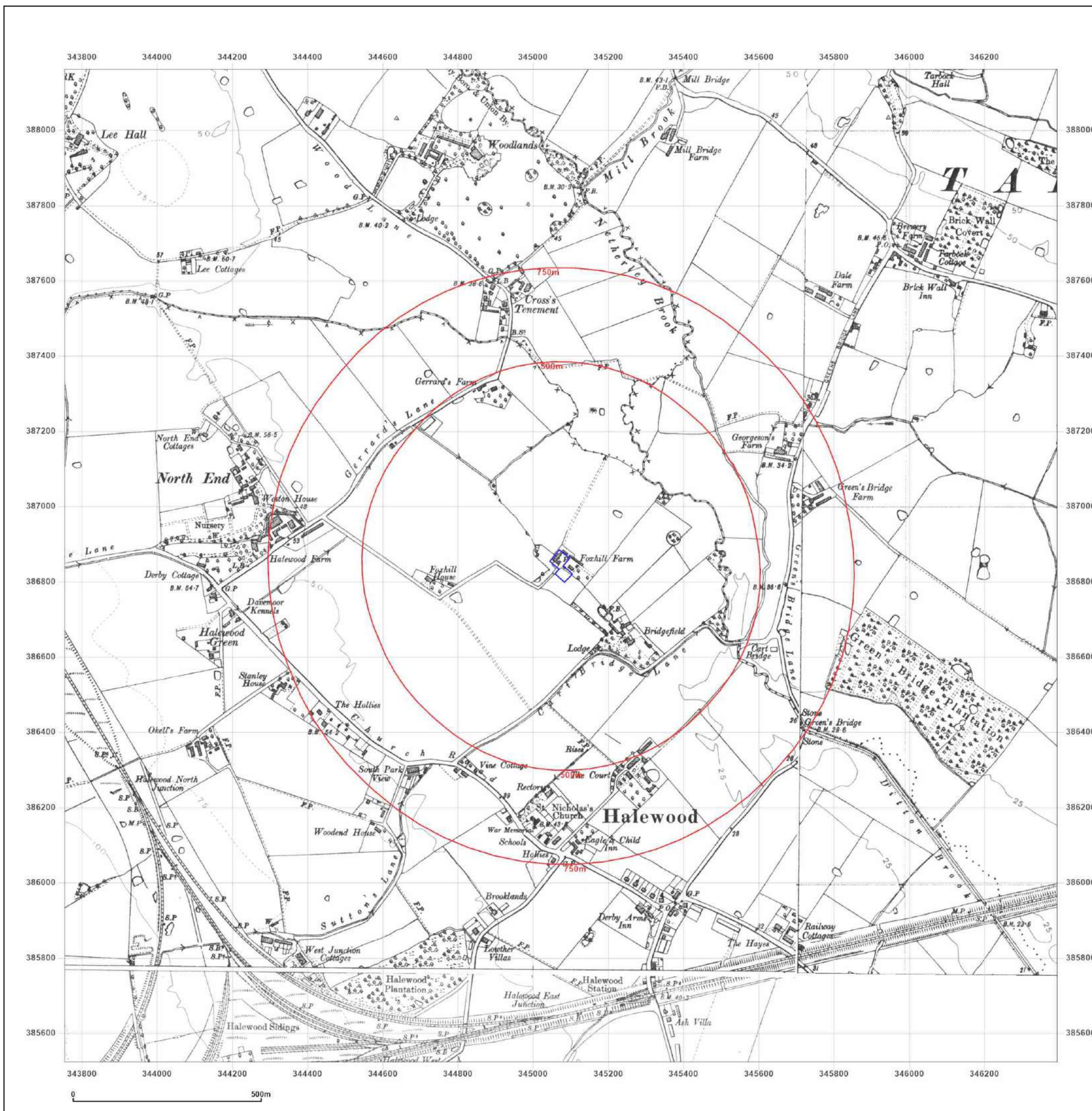


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Production date: 27 September 2023

Map legend available at:
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Site Details:

FOXHILL FARM, FOXHILL LANE,
HALEWOOD, L26 4XG

Client Ref: 7942-23134-A
Report Ref: GS-ACH-S22-WZZ-VDI
Grid Ref: 345073, 386842

Map Name: County Series

Map date: 1938

Scale: 1:10,560

Printed at: 1:10,560



Surveyed 1846
Revised 1938
Edition N/A
Copyright N/A
Levelled N/A

Surveyed 1848
Revised 1938
Edition N/A
Copyright N/A
Levelled N/A

Surveyed 1846
Revised 1938
Edition 1938
Copyright N/A
Levelled N/A

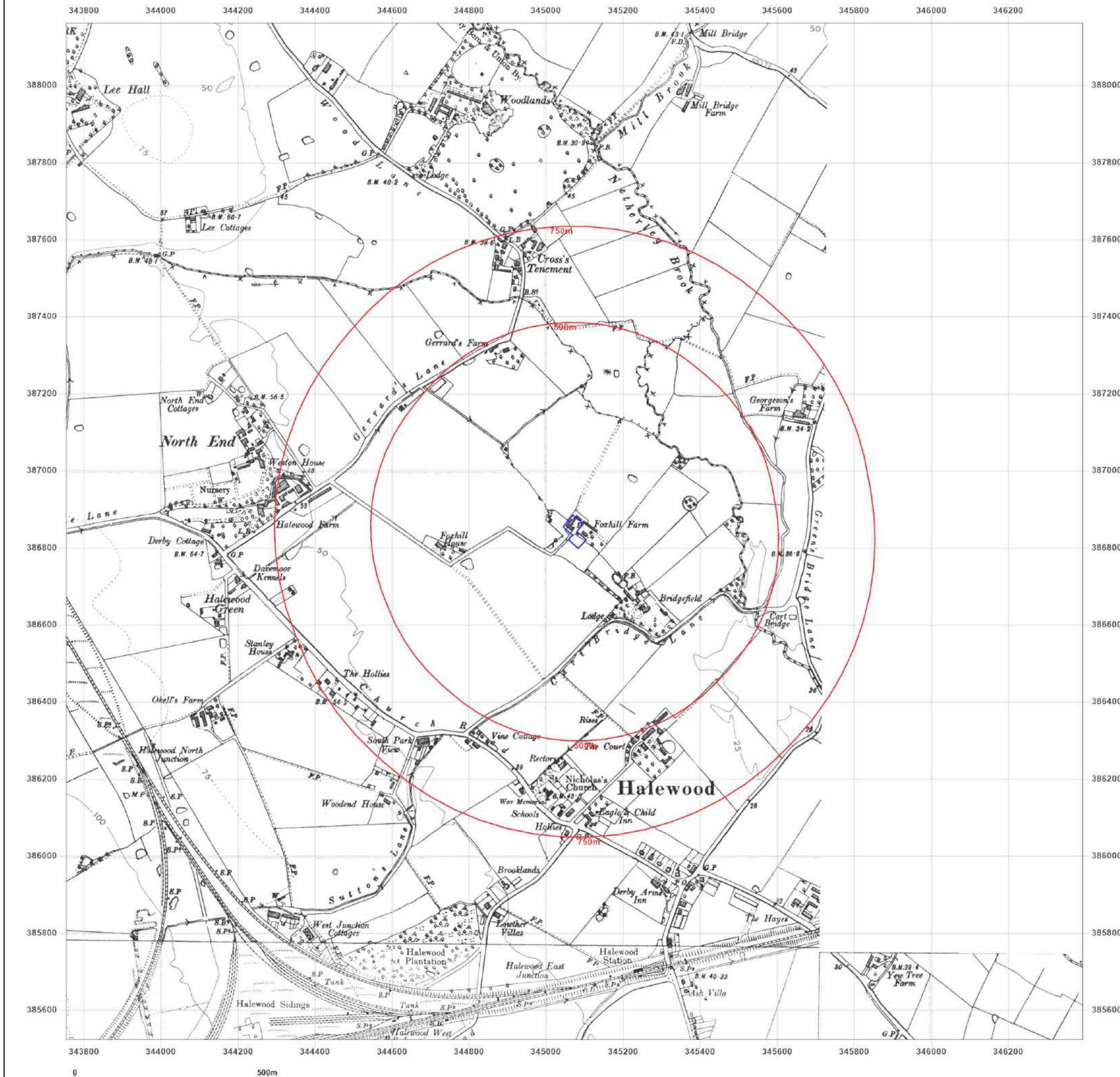


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Production date: 27 September 2023

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Site Details:

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HALEWOOD, L26 4XG

Client Ref: 7942-23134-A
Report Ref: GS-ACH-S22-WZZ-VDI
Grid Ref: 345073, 386842

Map Name: Provisional

Map date: 1955-1956

Scale: 1:10,560

Printed at: 1:10,560



Surveyed 1954
Revised 1955
Edition N/A
Copyright 1956
Levelled N/A

Surveyed N/A
Revised 1955
Edition N/A
Copyright 1955
Levelled N/A

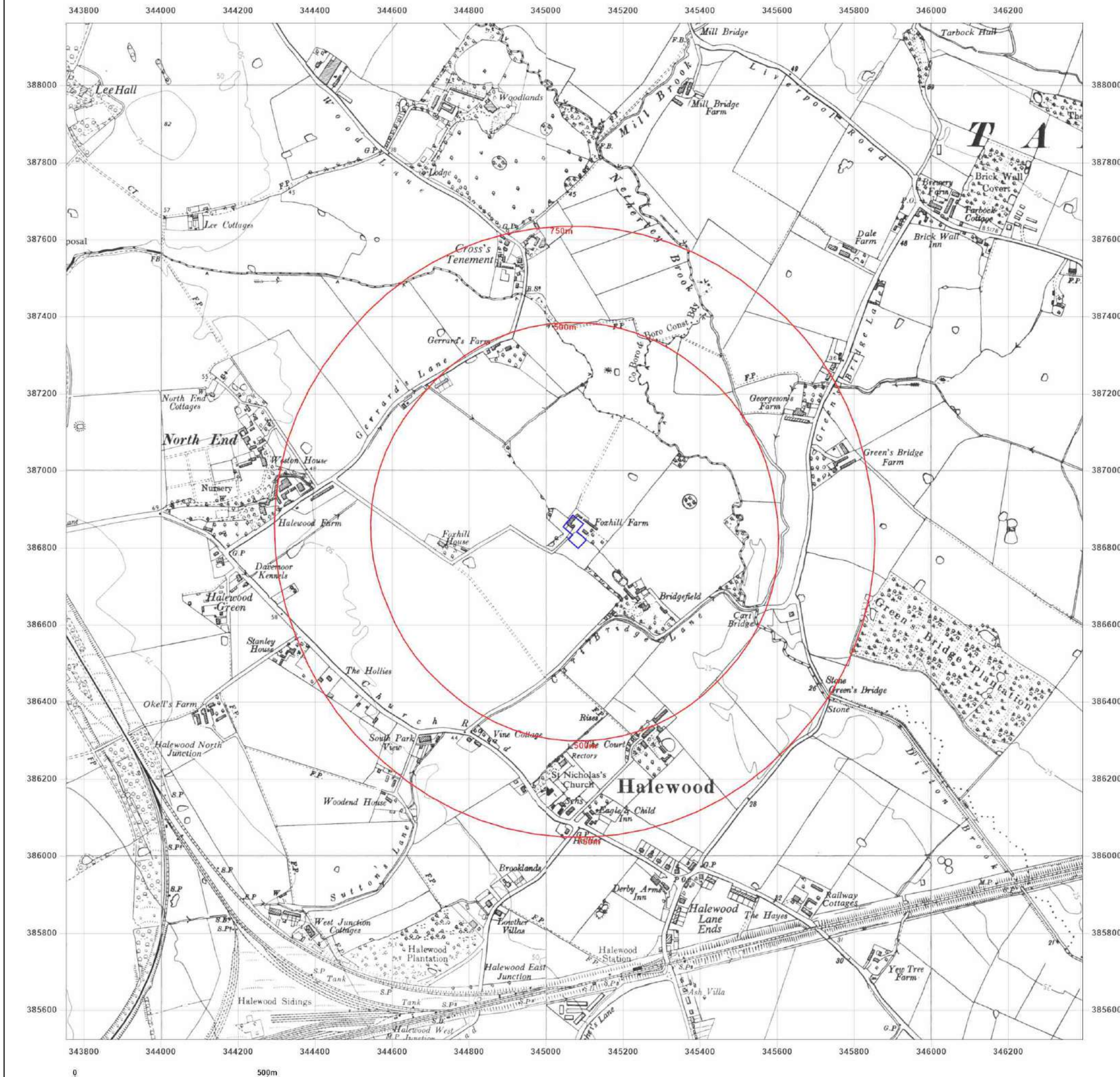


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Production date: 27 September 2023

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Site Details:

FOXHILL FARM, FOXHILL LANE,
HALEWOOD, L26 4XG

Client Ref: 7942-23134-A
Report Ref: GS-ACH-S22-WZZ-VDI
Grid Ref: 345073, 386842

Map Name: Provisional

Map date: 1967

Scale: 1:10,560

Printed at: 1:10,560



Surveyed 1967
Revised 1967
Edition N/A
Copyright N/A
Levelled N/A

Surveyed 1967
Revised 1967
Edition N/A
Copyright N/A
Levelled N/A

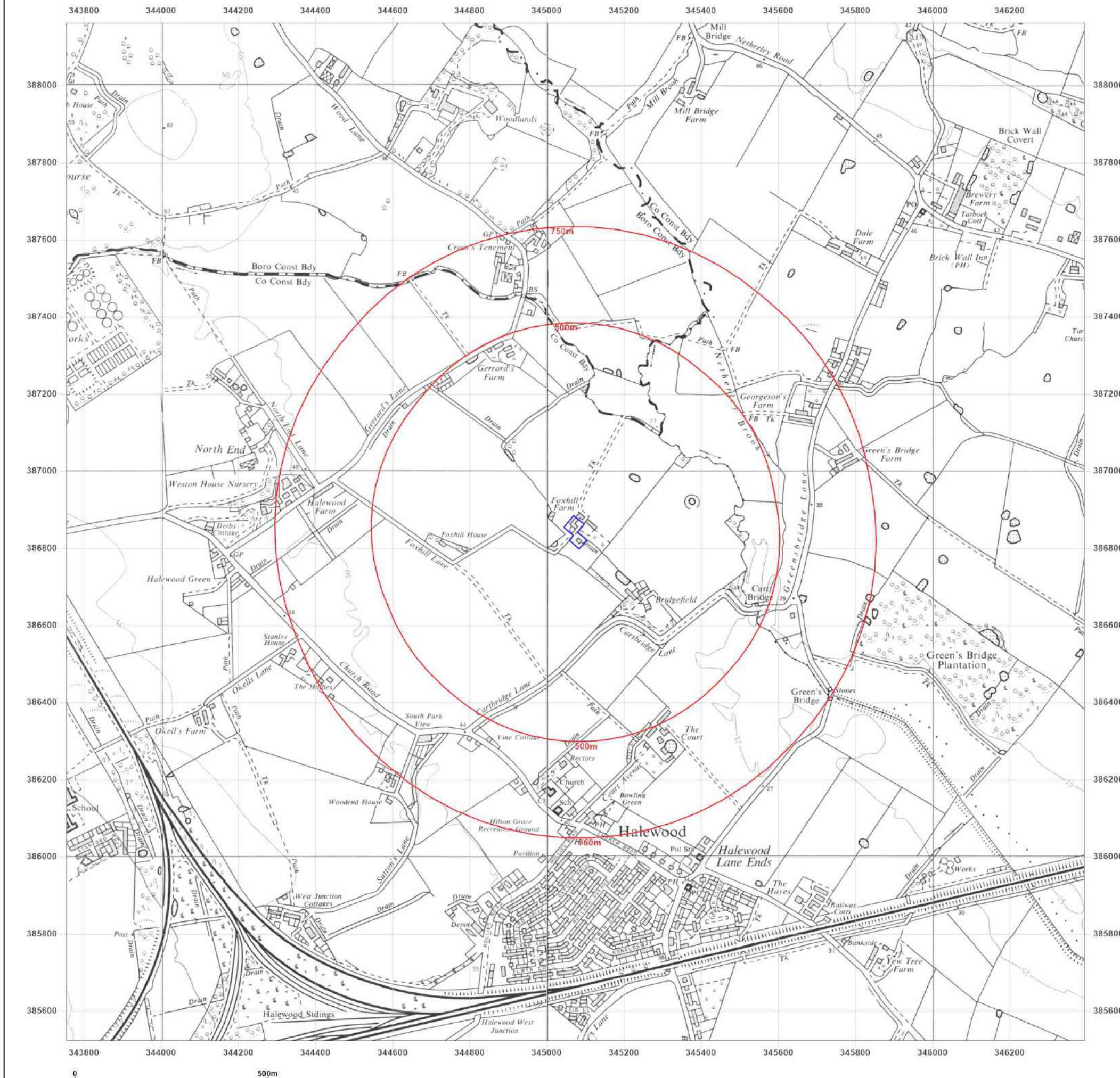


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Site Details:

FOXHILL FARM, FOXHILL LANE,
HALEWOOD, L26 4XG

Client Ref: 7942-23134-A
Report Ref: GS-ACH-S22-WZZ-VDI
Grid Ref: 345073, 386842

Map Name: National Grid

Map date: 1974-1977

Scale: 1:10,000

Printed at: 1:10,000



Surveyed 1973
Revised 1974
Edition N/A
Copyright 1974
Levelled 1955

Surveyed 1975
Revised 1977
Edition N/A
Copyright 1977
Levelled 1964

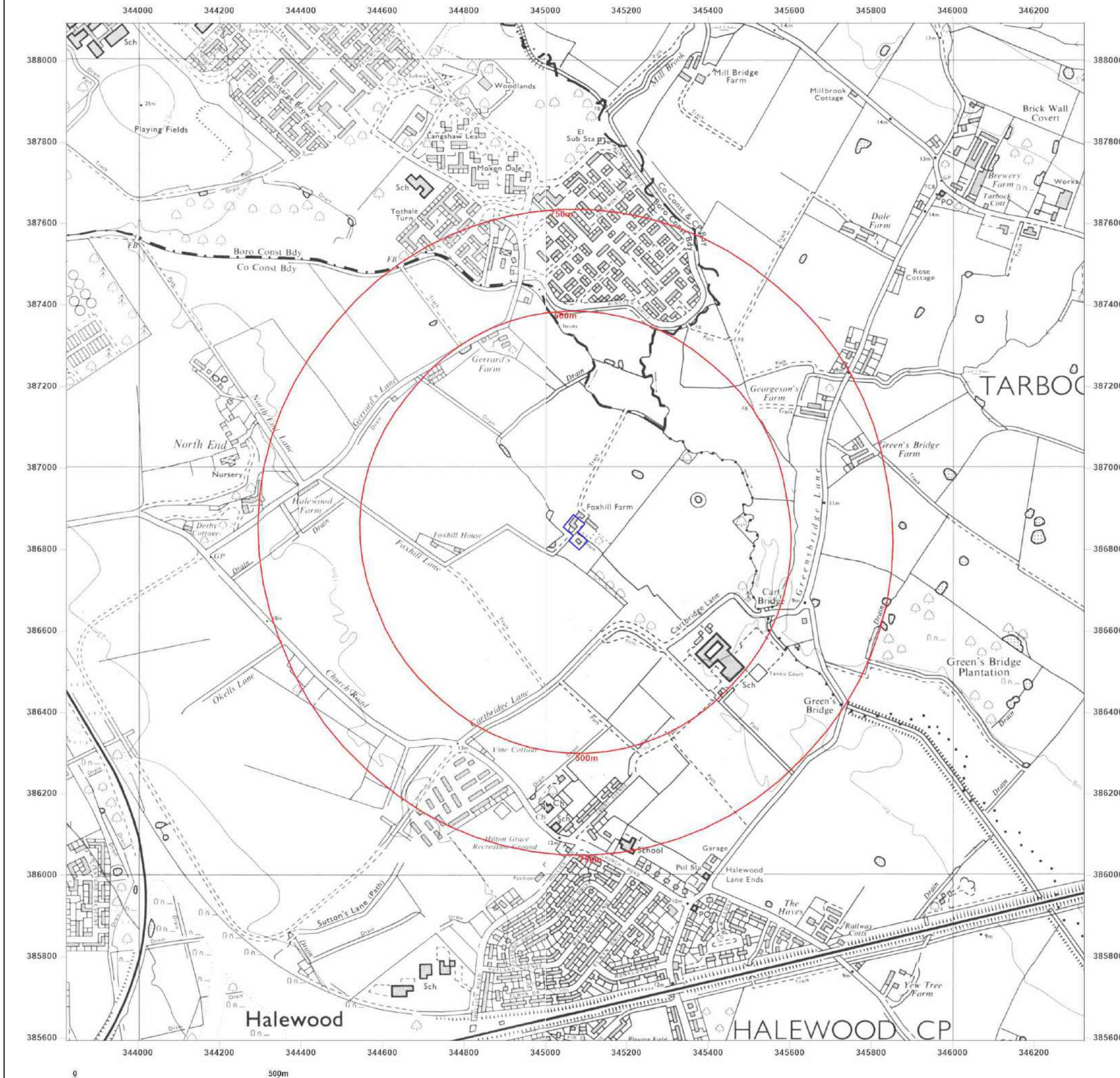


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Production date: 27 September 2023

Map legend available at:
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Site Details:

FOXHILL FARM, FOXHILL LANE,
HALEWOOD, L26 4XG

Client Ref: 7942-23134-A
Report Ref: GS-ACH-S22-WZZ-VDI
Grid Ref: 345073, 386842

Map Name: National Grid

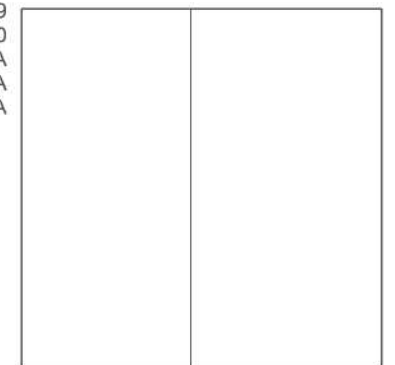
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Scale: 1:10,000

Printed at: 1:10,000



Surveyed 1979
Revised 1980
Edition N/A
Copyright N/A
Levelled N/A

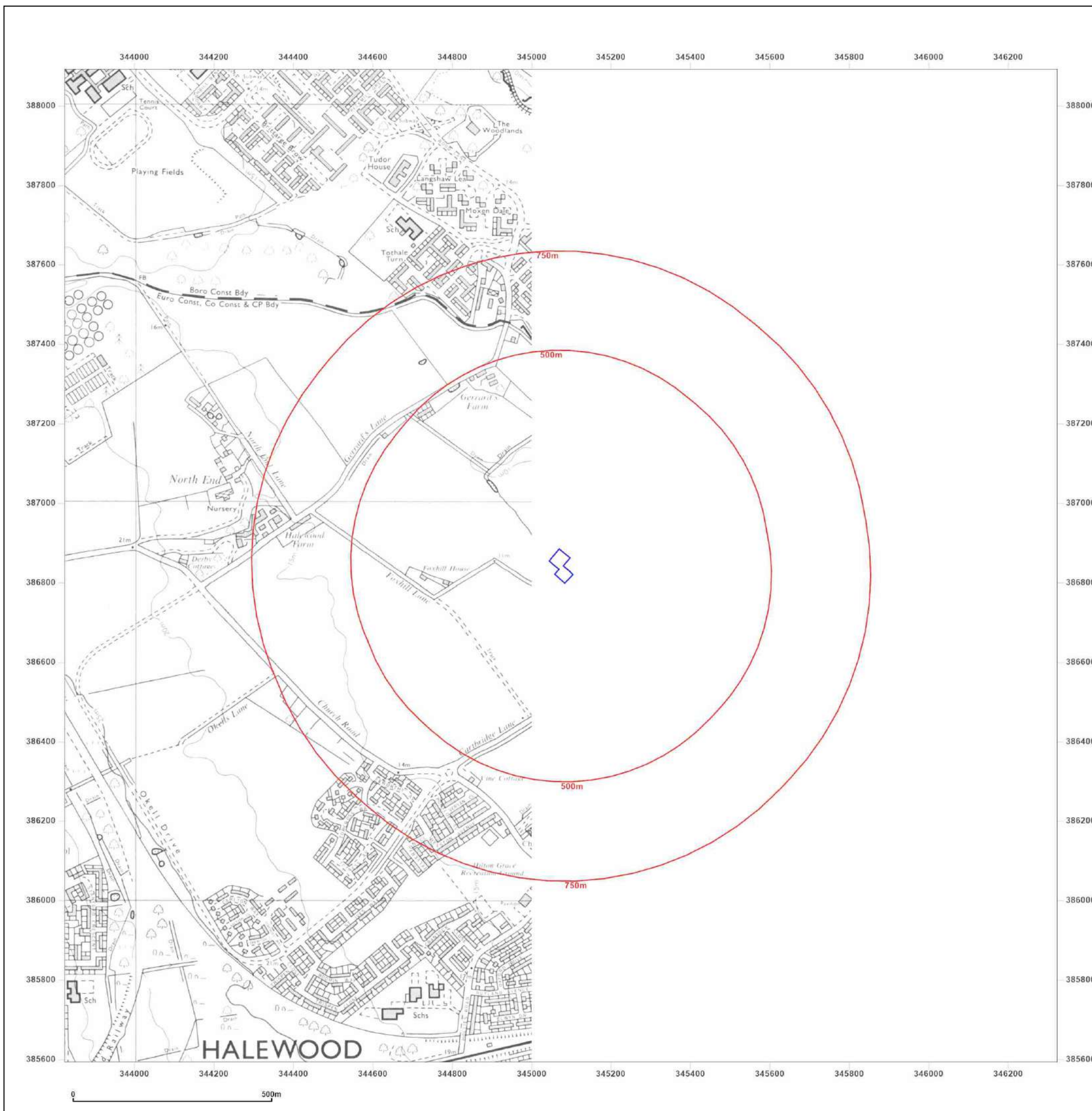


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Production date: 27 September 2023

Map legend available at:
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Site Details:

FOXHILL FARM, FOXHILL LANE,
HALEWOOD, L26 4XG

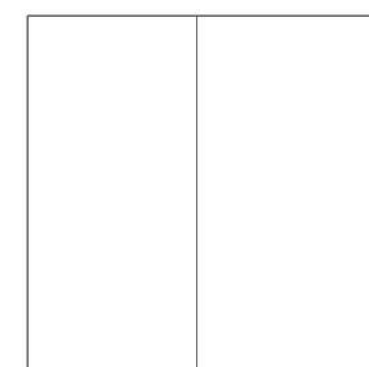
Client Ref: 7942-23134-A
Report Ref: GS-ACH-S22-WZZ-VDI
Grid Ref: 345073, 386842

Map Name: National Grid

Map date: 1989

Scale: 1:10,000

Printed at: 1:10,000



Surveyed 1986
Revised 1989
Edition N/A
Copyright N/A
Levelled N/A

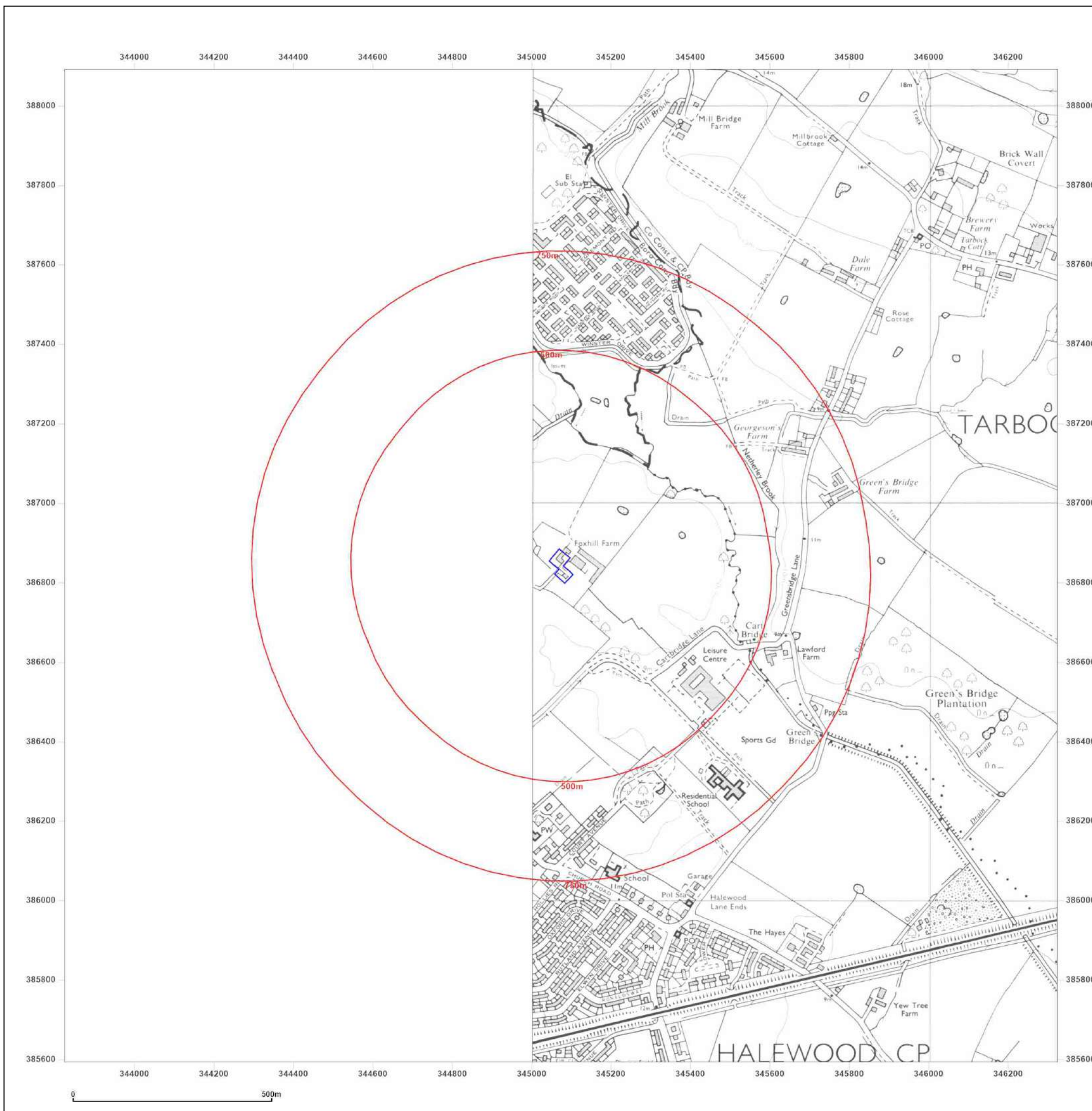


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Site Details:

FOXHILL FARM, FOXHILL LANE,
HALEWOOD, L26 4XG

Client Ref: 7942-23134-A
Report Ref: GS-ACH-S22-WZZ-VDI
Grid Ref: 345073, 386842

Map Name: National Grid

Map date: 2010

Scale: 1:10,000

Printed at: 1:10,000



2010

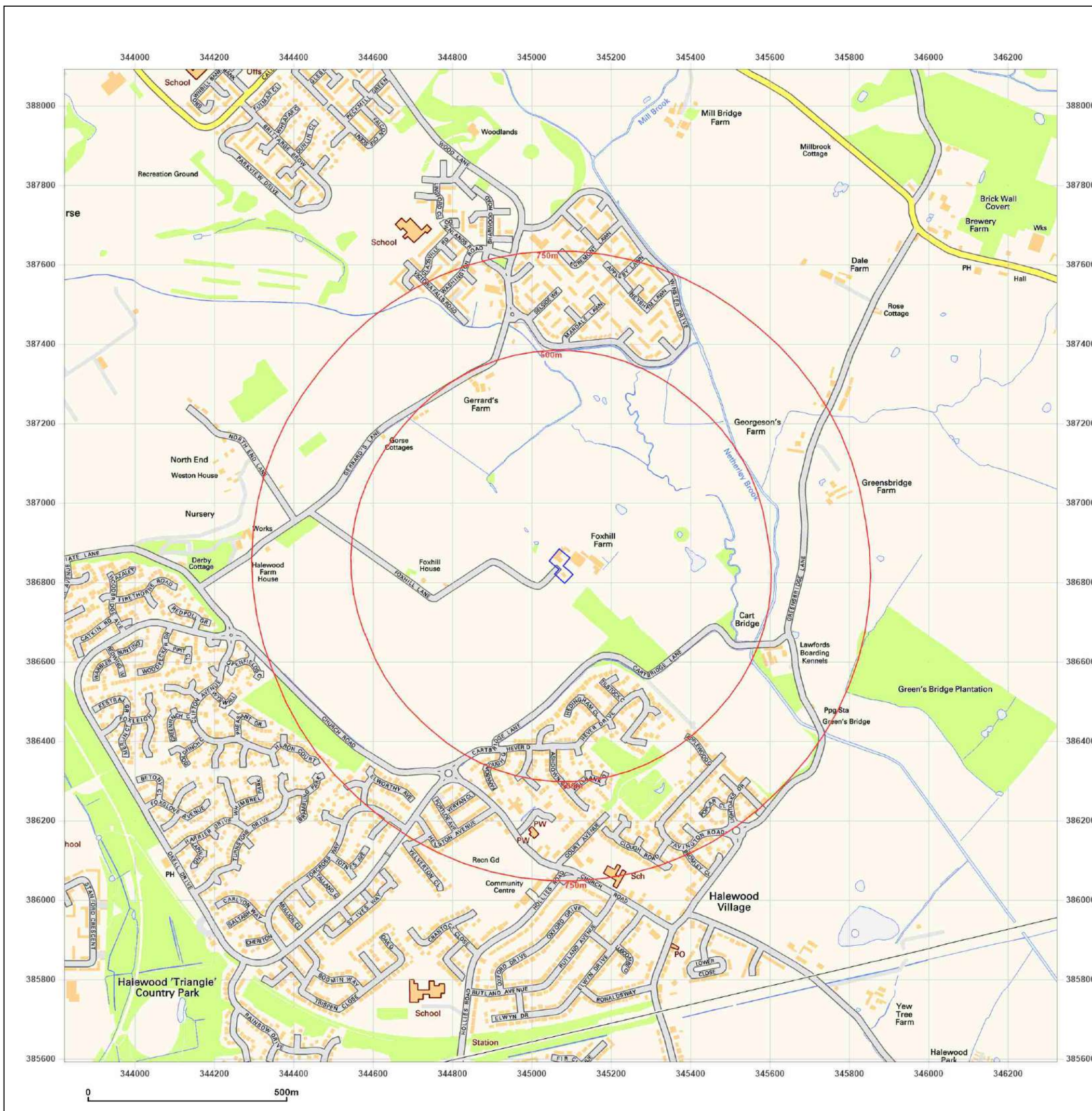


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Site Details:

FOXHILL FARM, FOXHILL LANE,
HALEWOOD, L26 4XG

Client Ref: 7942-23134-A
Report Ref: GS-ACH-S22-WZZ-VDI
Grid Ref: 345073, 386842

Map Name: National Grid

Map date: 2023

Scale: 1:10,000

Printed at: 1:10,000



2023

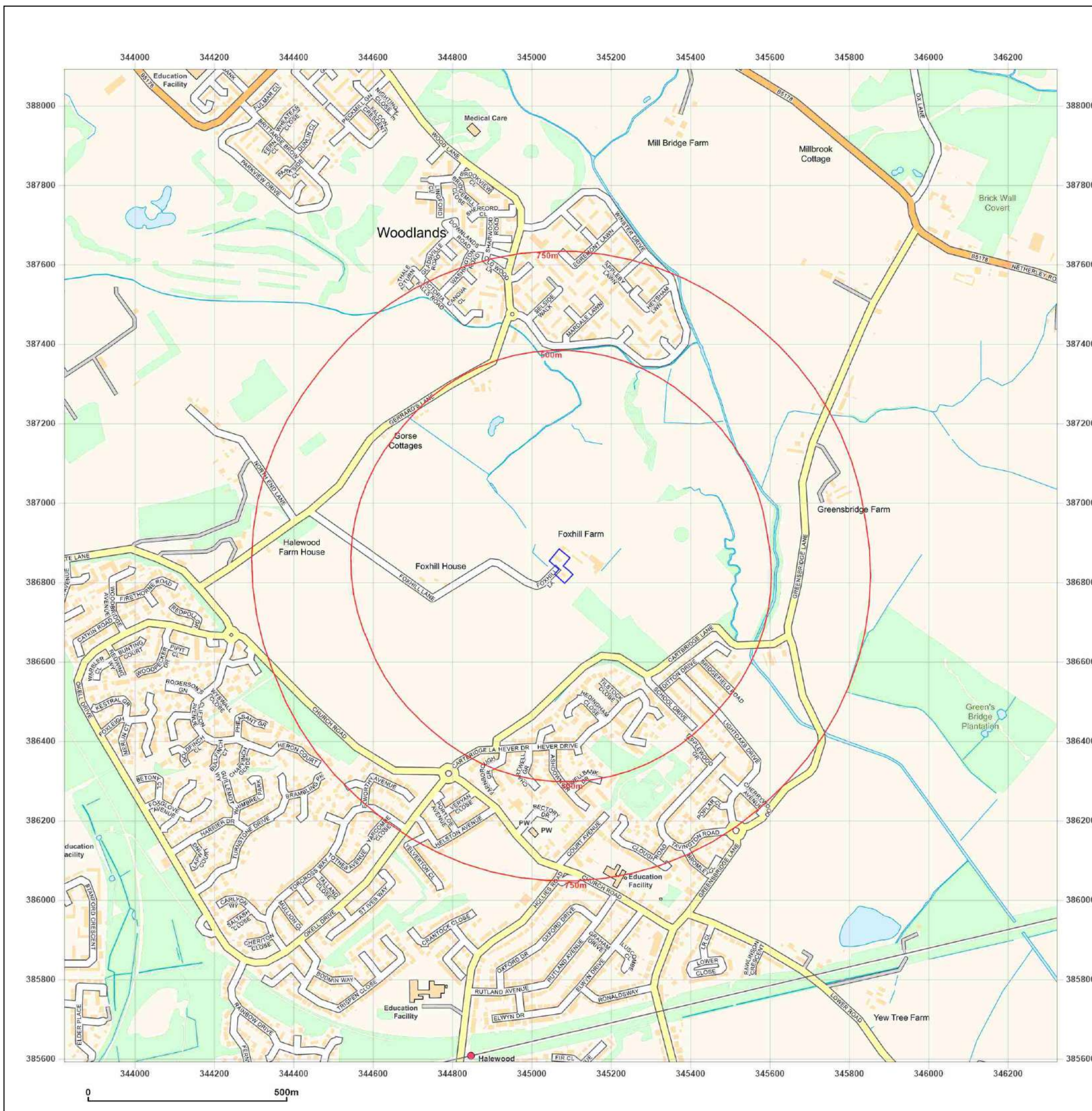


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Site Details:

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HALEWOOD, L26 4XG

Client Ref: 7942-23134-A
Report Ref: GS-ACH-S22-WZZ-VDI
Grid Ref: 345073, 386842

Map Name: County Series

Map date: 1893

Scale: 1:2,500

Printed at: 1:2,500



Surveyed 1893
Revised 1893
Edition N/A
Copyright N/A
Levelled N/A

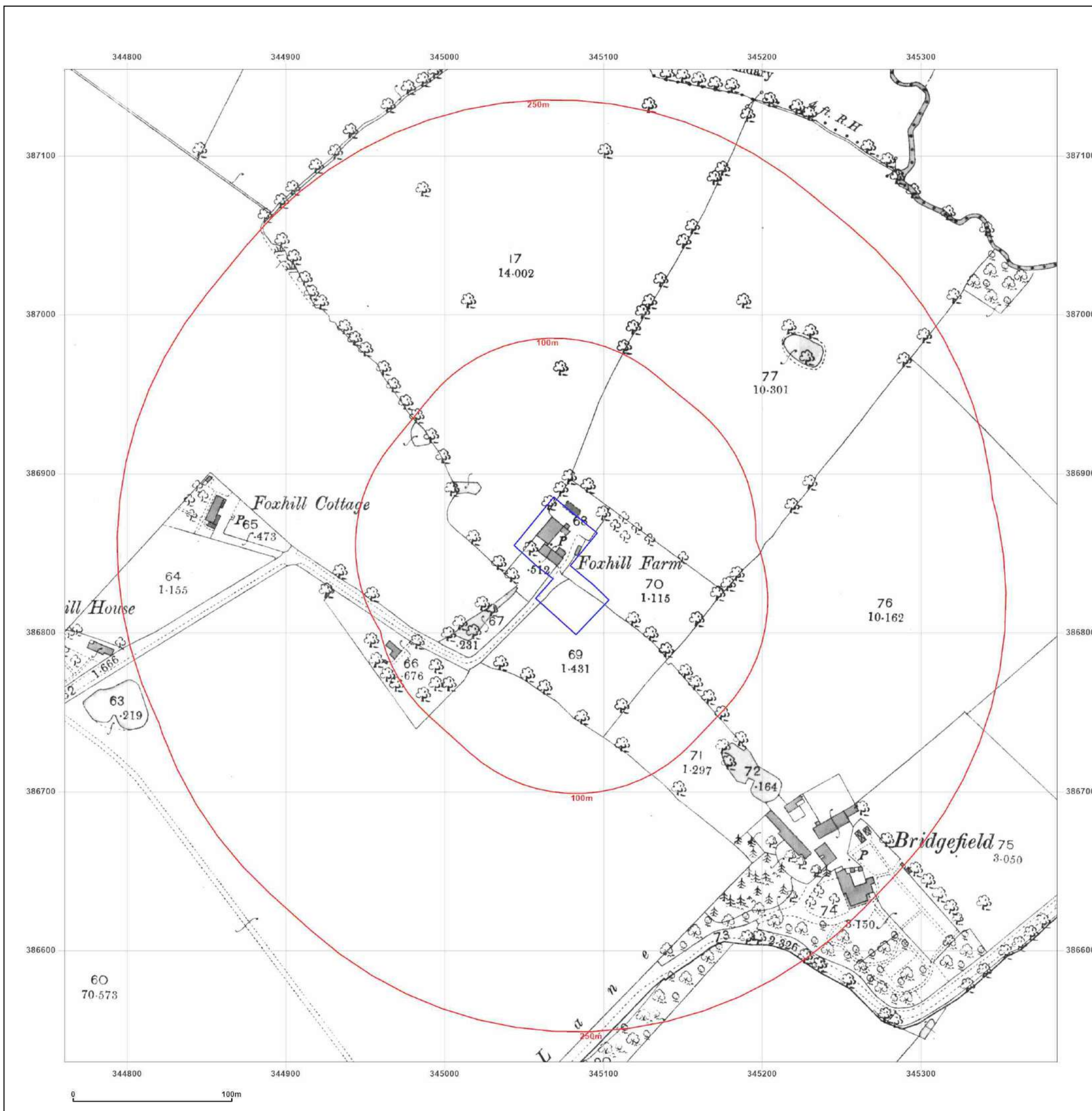


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Production date: 27 September 2023

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Site Details:

FOXHILL FARM, FOXHILL LANE,
HALEWOOD, L26 4XG

Client Ref: 7942-23134-A
Report Ref: GS-ACH-S22-WZZ-VDI
Grid Ref: 345073, 386842

Map Name: County Series

Map date: 1907

Scale: 1:2,500

Printed at: 1:2,500



Surveyed 1907
Revised 1907
Edition N/A
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Production date: 27 September 2023

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Site Details:

FOXHILL FARM, FOXHILL LANE,
HALEWOOD, L26 4XG

Client Ref: 7942-23134-A
Report Ref: GS-ACH-S22-WZZ-VDI
Grid Ref: 345073, 386842

Map Name: County Series

Map date: 1927

Scale: 1:2,500

Printed at: 1:2,500



Surveyed 1927
Revised 1927
Edition N/A
Copyright N/A
Levelled N/A

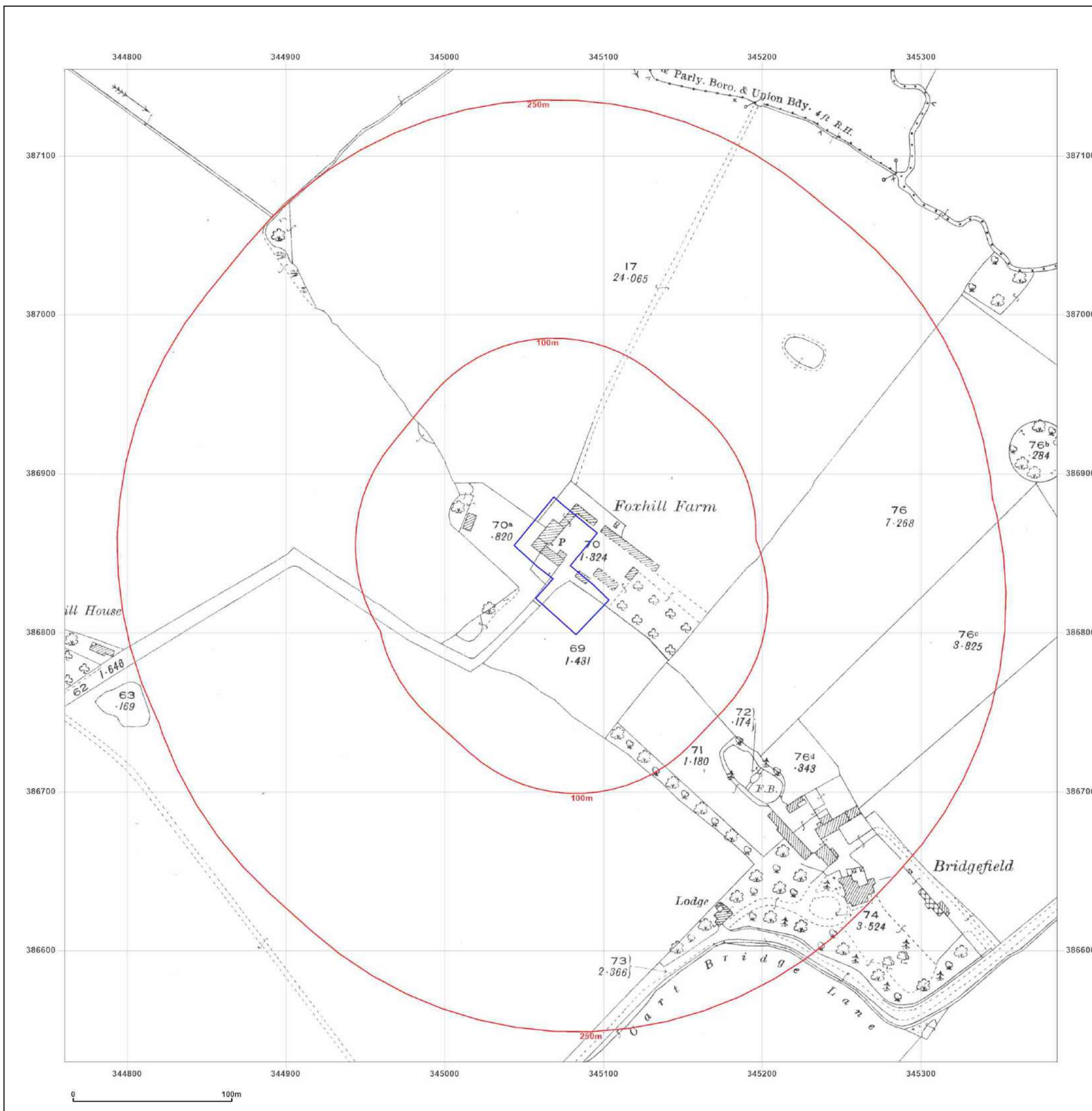


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Site Details:

FOXHILL FARM, FOXHILL LANE,
HALEWOOD, L26 4XG

Client Ref: 7942-23134-A
Report Ref: GS-ACH-S22-WZZ-VDI
Grid Ref: 345073, 386842

Map Name: County Series

Map date: 1938

Scale: 1:2,500

Printed at: 1:2,500



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

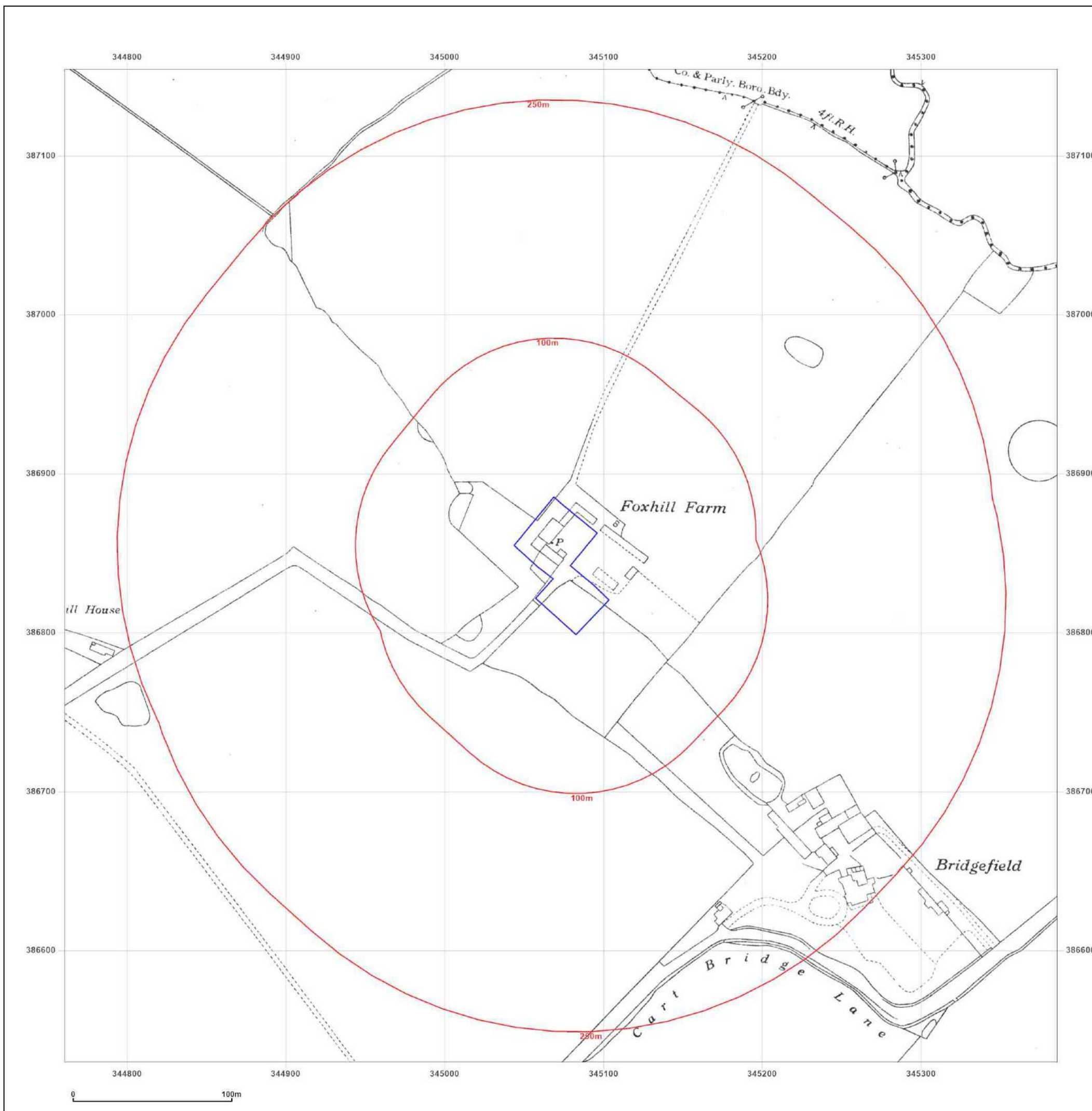


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Site Details:

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HALEWOOD, L26 4XG

Client Ref: 7942-23134-A
Report Ref: GS-ACH-S22-WZZ-VDI
Grid Ref: 345073, 386842

Map Name: National Grid

Map date: 1958

Scale: 1:2,500

Printed at: 1:2,500



Surveyed 1958
Revised 1958
Edition N/A
Copyright 1959
Levelled 1926

Surveyed 1958
Revised 1958
Edition N/A
Copyright 1959
Levelled 1956

Surveyed 1958
Revised 1958
Edition N/A
Copyright 1959
Levelled 1926

Surveyed 1958
Revised 1958
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Copyright 1959
Levelled 1956

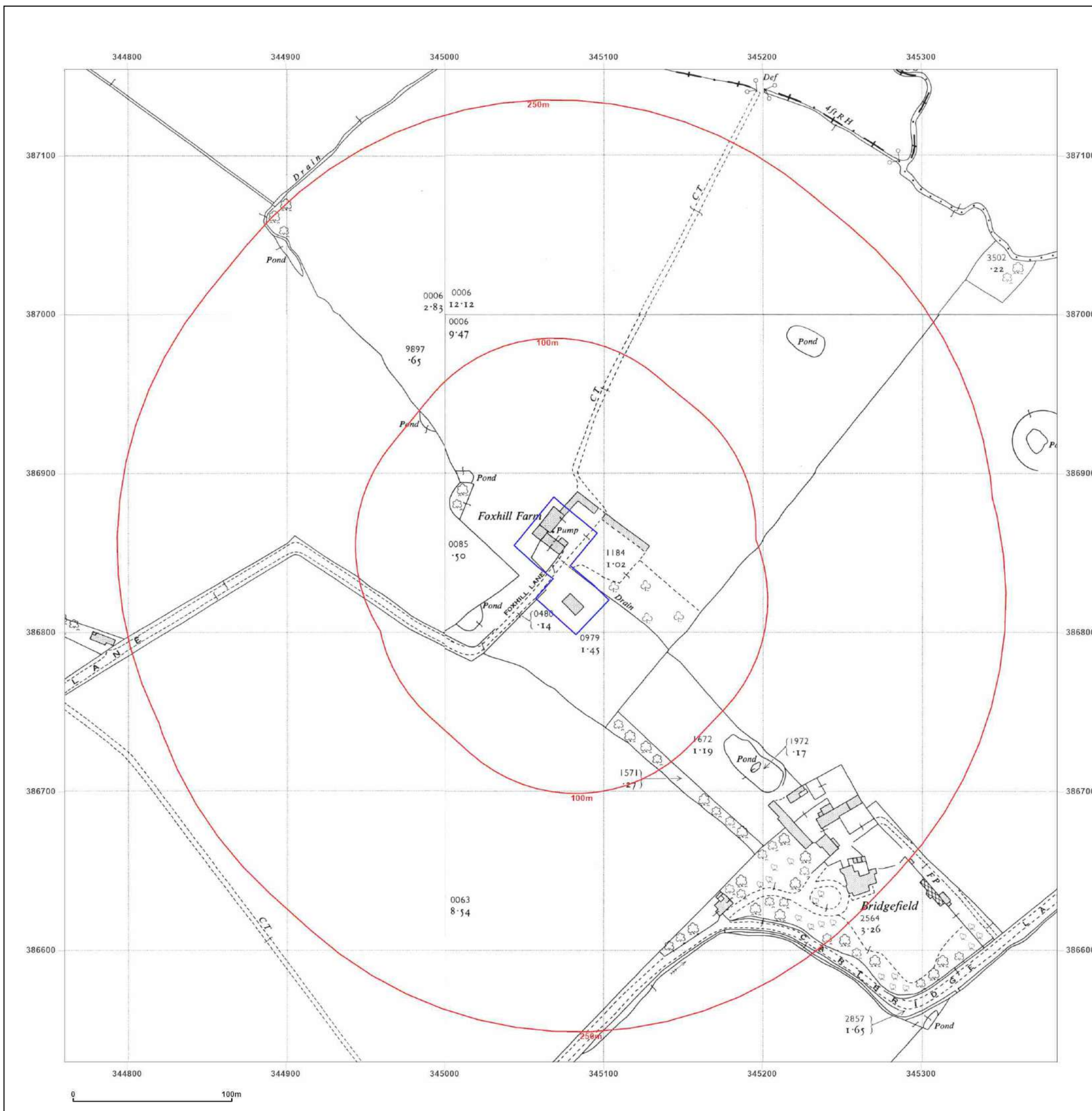


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Site Details:

FOXHILL FARM, FOXHILL LANE,
HALEWOOD, L26 4XG

Client Ref: 7942-23134-A
Report Ref: GS-ACH-S22-WZZ-VDI
Grid Ref: 345073, 386842

Map Name: National Grid

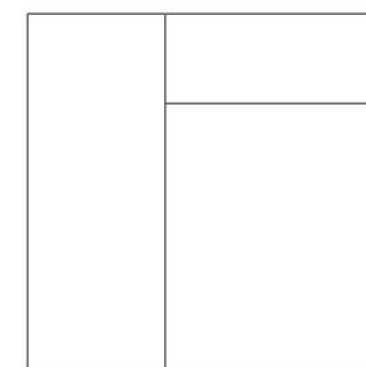
Map date: 1975

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



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

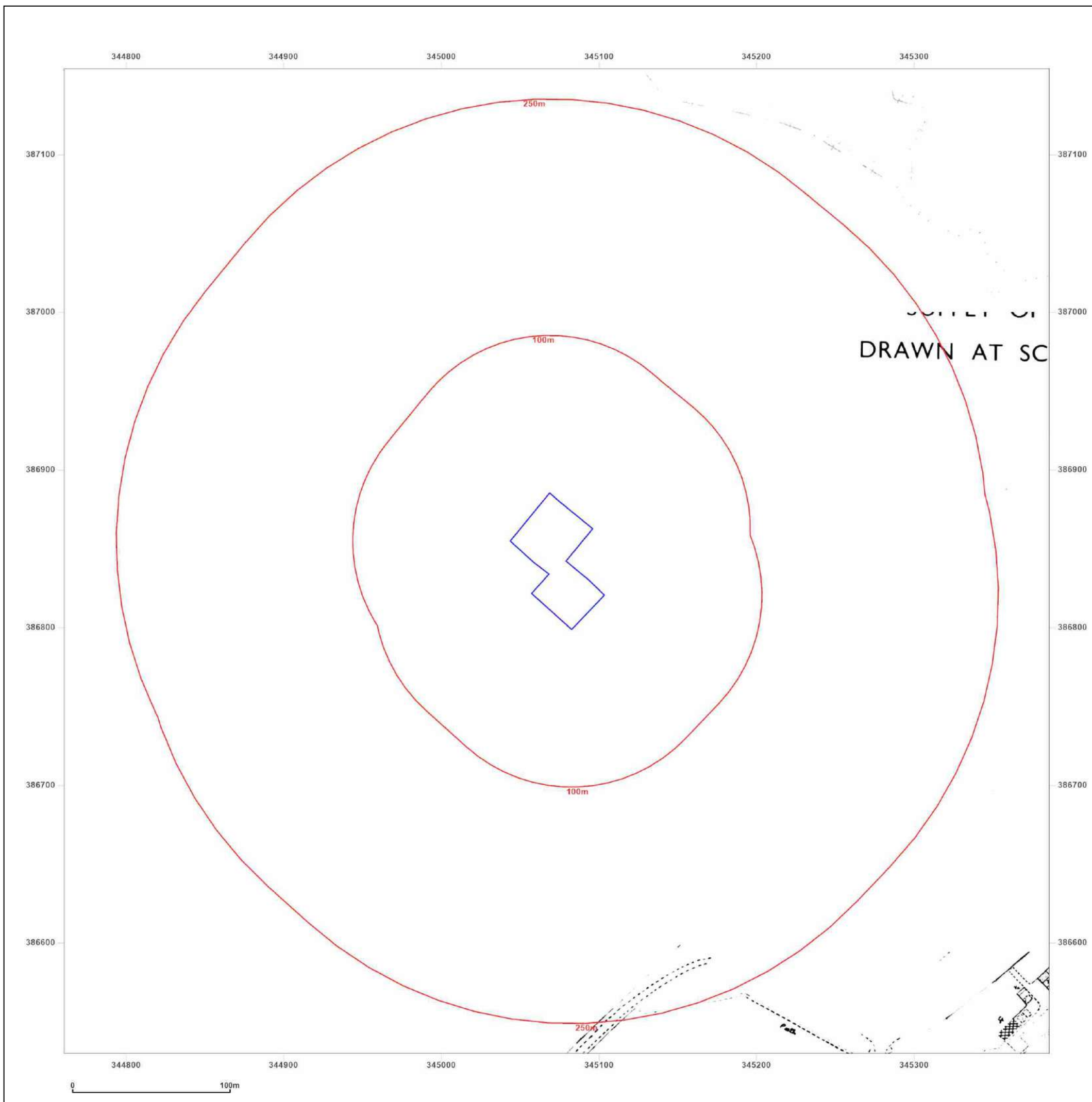


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Site Details:

FOXHILL FARM, FOXHILL LANE,
HALEWOOD, L26 4XG

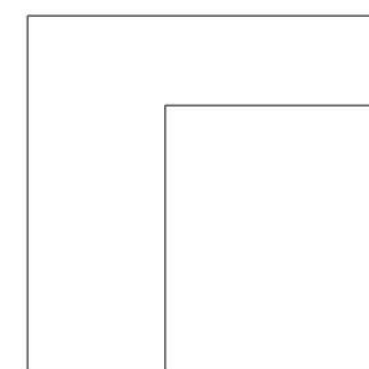
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Report Ref: GS-ACH-S22-WZZ-VDI
Grid Ref: 345073, 386842

Map Name: National Grid

Map date: 1977

Scale: 1:2,500

Printed at: 1:2,500



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

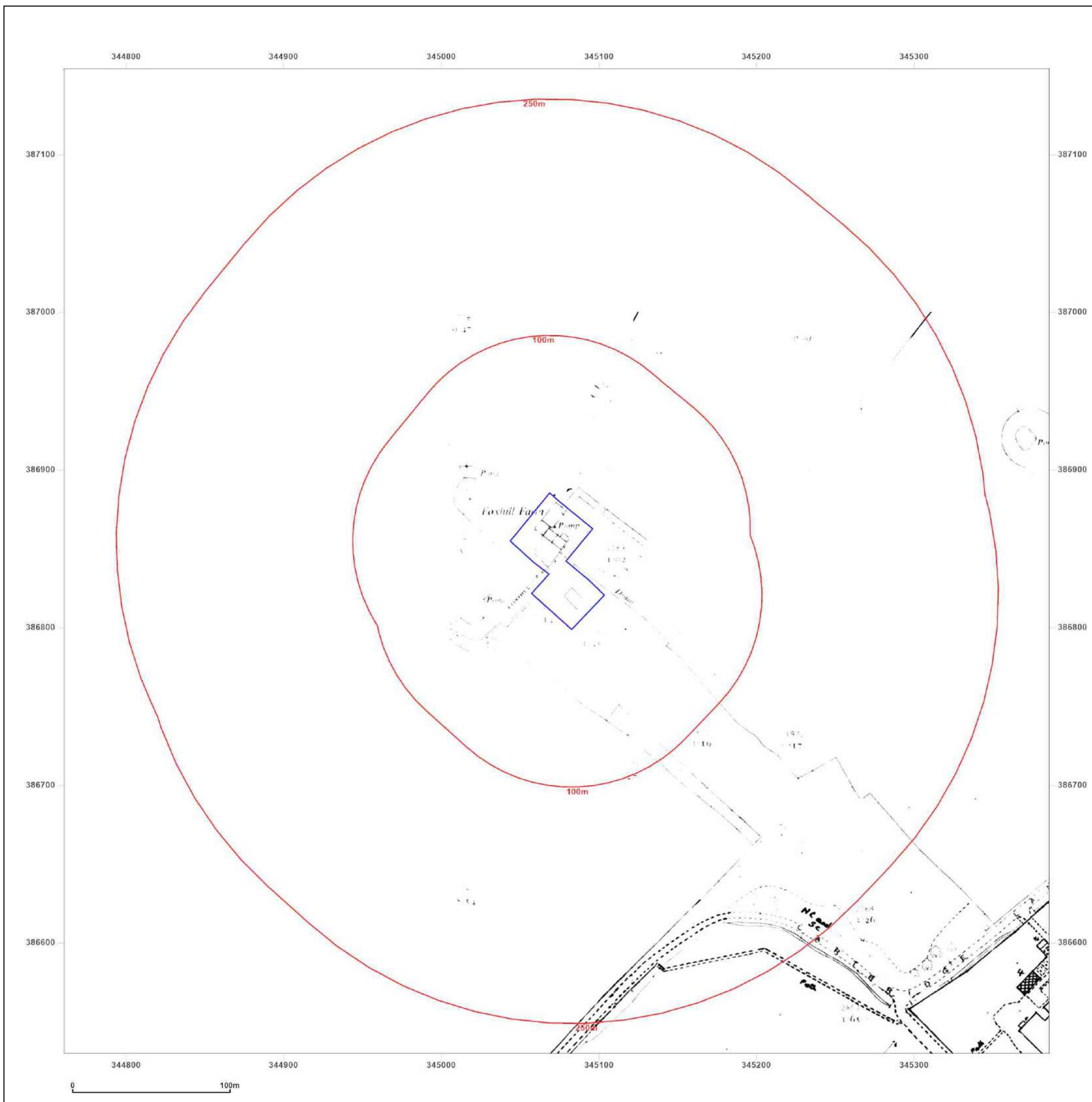


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Production date: 27 September 2023

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Site Details:

FOXHILL FARM, FOXHILL LANE,
HALEWOOD, L26 4XG

Client Ref: 7942-23134-A
Report Ref: GS-ACH-S22-WZZ-VDI
Grid Ref: 345073, 386842

Map Name: National Grid

Map date: 1989-1990

Scale: 1:2,500

Printed at: 1:2,500



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

Surveyed 1956
Revised 1989
Edition N/A
Copyright 1989
Levelled 1956

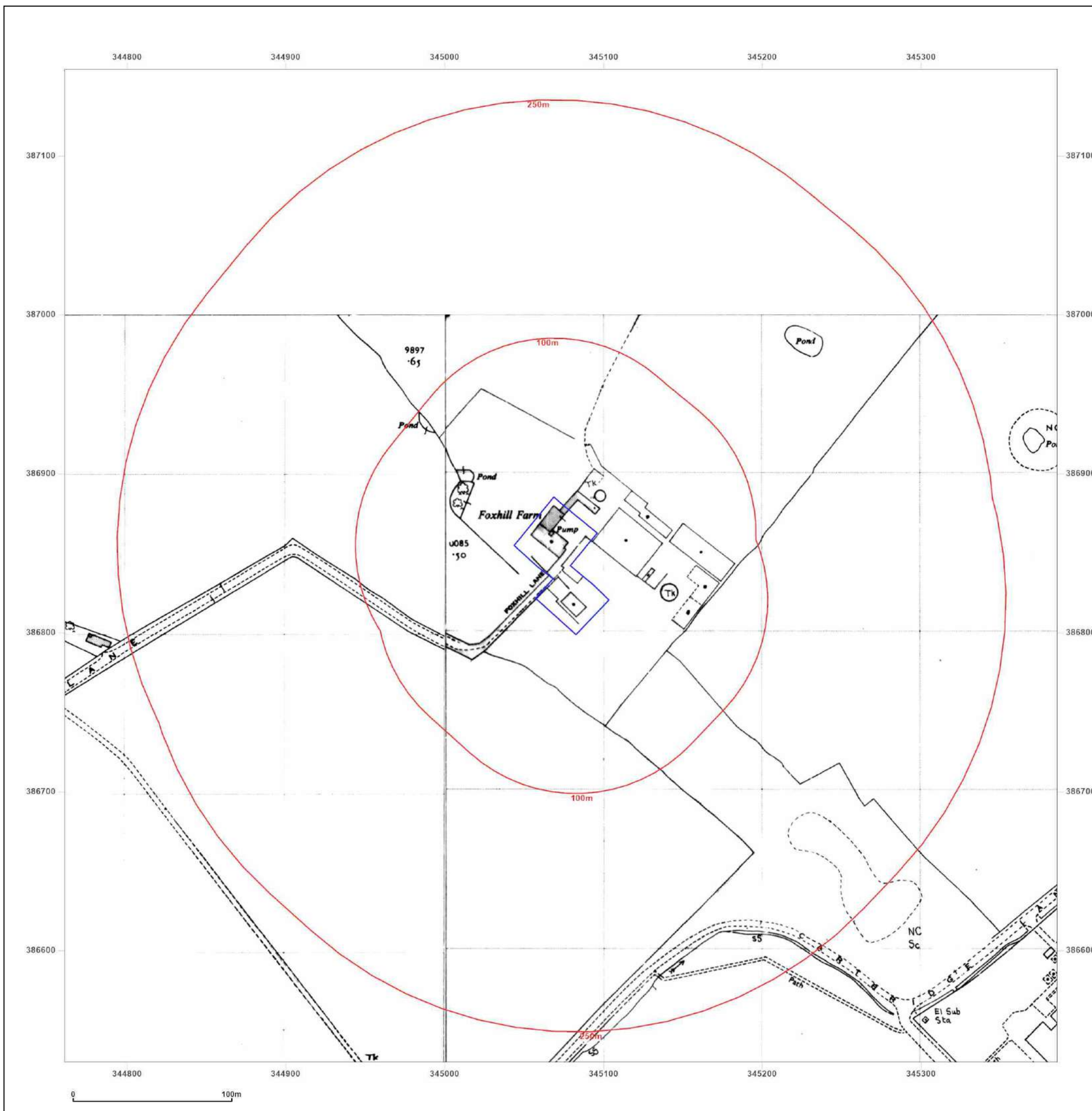


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Site Details:

FOXHILL FARM, FOXHILL LANE,
HALEWOOD, L26 4XG

Client Ref: 7942-23134-A
Report Ref: GS-ACH-S22-WZZ-VDI
Grid Ref: 345073, 386842

Map Name: National Grid

Map date: 1993

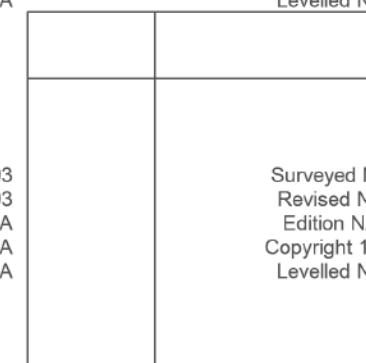
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Surveyed 1993
Revised 1993
Edition N/A
Copyright N/A
Levelled N/A

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



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

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

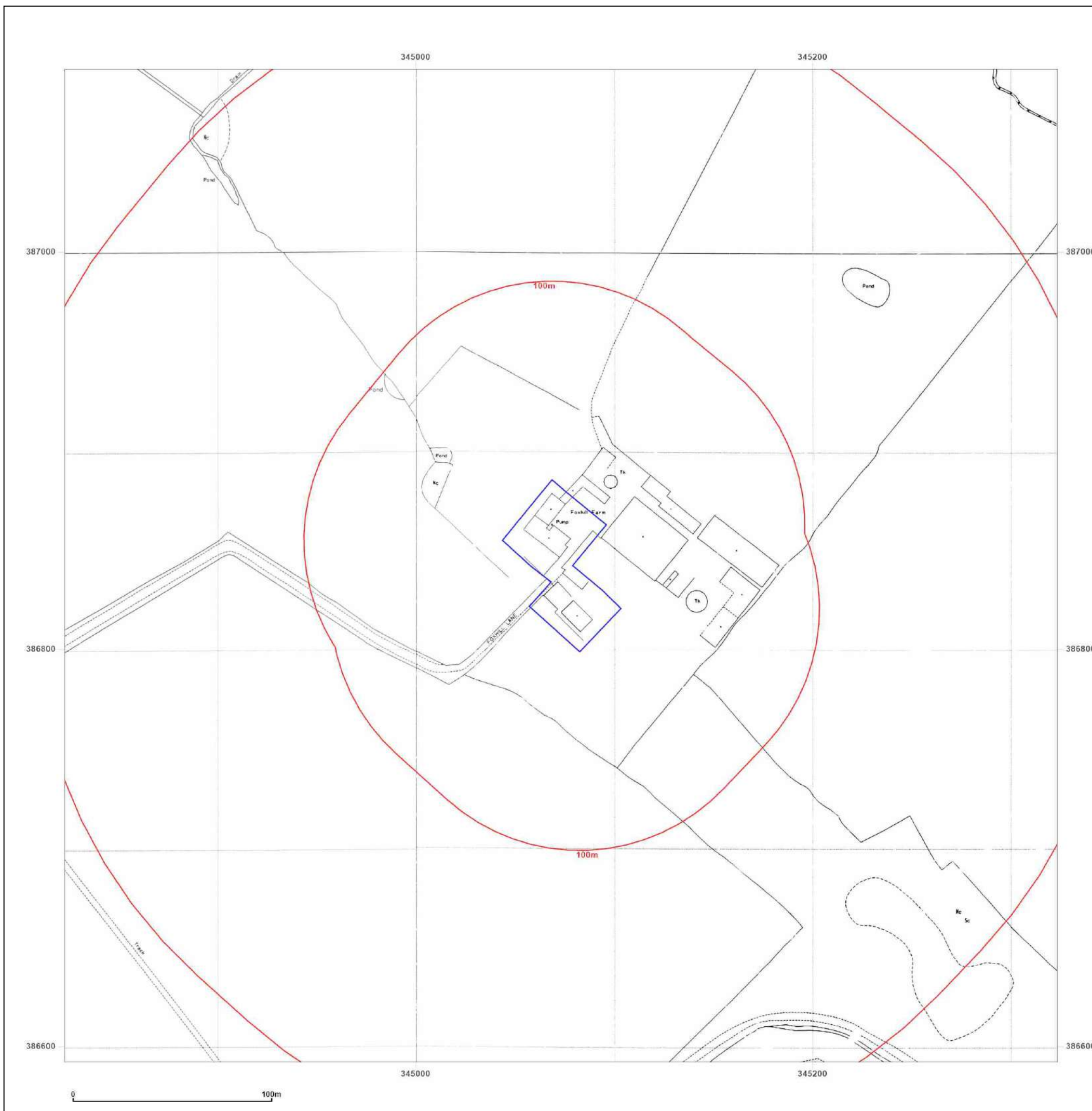


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Site Details:

FOXHILL FARM, FOXHILL LANE,
HALEWOOD, L26 4XG

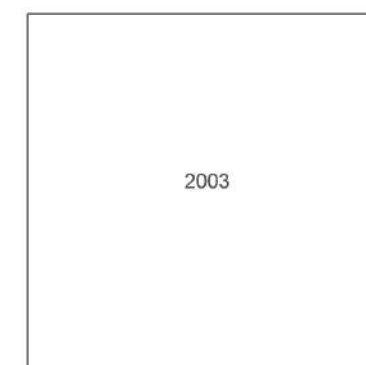
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Report Ref: GS-ACH-S22-WZZ-VDI
Grid Ref: 345073, 386842

Map Name: LandLine

Map date: 2003

Scale: 1:1,250

Printed at: 1:1,250

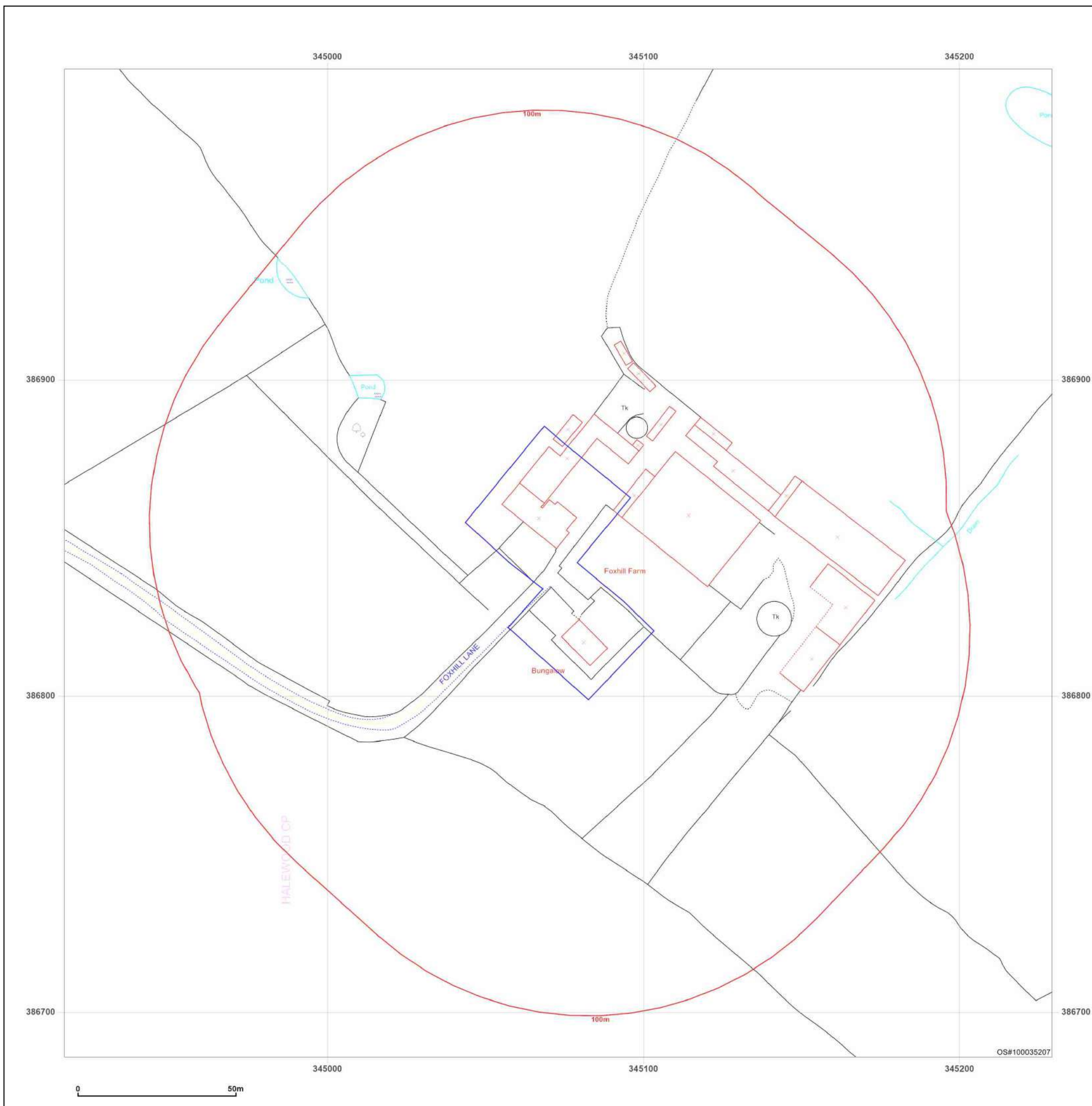


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APPENDIX B

Enviro+GeoInsight Report

FOXHILL FARM, FOXHILL LANE, HALEWOOD, L26 4XG

Order Details

Date: 27/09/2023
Your ref: 7942-23134-A
Our Ref: GS-8X5-XLS-VAX-4IW

Site Details

Location: 345073 386845
Area: 0.24 ha
Authority: [Knowsley Metropolitan Borough Council](#) ↗



Summary of findings

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

[p. 9 >](#)

OS MasterMap site plan

[p.14 >](#) groundsure.com/insightuserguide ↗

Contact us with any questions at:

info@groundsure.com ↗

01273 257 755

Summary of findings

Page	Section	Past land use >	On site	0-50m	50-250m	250-500m	500-2000m
15 >	1.1 >	Historical industrial land uses >	0	0	0	1	-
16 >	1.2 >	Historical tanks >	0	2	0	1	-
16 >	1.3 >	Historical energy features >	0	0	0	3	-
17	1.4	Historical petrol stations	0	0	0	0	-
17	1.5	Historical garages	0	0	0	0	-
17	1.6	Historical military land	0	0	0	0	-
Page	Section	Past land use - un-grouped >	On site	0-50m	50-250m	250-500m	500-2000m
18 >	2.1 >	Historical industrial land uses >	0	0	0	1	-
19 >	2.2 >	Historical tanks >	0	2	0	1	-
19 >	2.3 >	Historical energy features >	0	0	0	3	-
19	2.4	Historical petrol stations	0	0	0	0	-
20	2.5	Historical garages	0	0	0	0	-
Page	Section	Waste and landfill	On site	0-50m	50-250m	250-500m	500-2000m
21	3.1	Active or recent landfill	0	0	0	0	-
21	3.2	Historical landfill (BGS records)	0	0	0	0	-
21	3.3	Historical landfill (LA/mapping records)	0	0	0	0	-
21	3.4	Historical landfill (EA/NRW records)	0	0	0	0	-
21	3.5	Historical waste sites	0	0	0	0	-
22	3.6	Licensed waste sites	0	0	0	0	-
22	3.7	Waste exemptions	0	0	0	0	-
Page	Section	Current industrial land use >	On site	0-50m	50-250m	250-500m	500-2000m
23	4.1	Recent industrial land uses	0	0	0	-	-
23	4.2	Current or recent petrol stations	0	0	0	0	-
24	4.3	Electricity cables	0	0	0	0	-
24	4.4	Gas pipelines	0	0	0	0	-
24	4.5	Sites determined as Contaminated Land	0	0	0	0	-



24	4.6	Control of Major Accident Hazards (COMAH)	0	0	0	0	-
24	4.7	Regulated explosive sites	0	0	0	0	-
25	4.8	Hazardous substance storage/usage	0	0	0	0	-
25	4.9	Historical licensed industrial activities (IPC)	0	0	0	0	-
25	4.10	Licensed industrial activities (Part A(1))	0	0	0	0	-
25	4.11	Licensed pollutant release (Part A(2)/B)	0	0	0	0	-
25	4.12	Radioactive Substance Authorisations	0	0	0	0	-
26 >	4.13 >	<u>Licensed Discharges to controlled waters ></u>	0	0	0	18	-
29	4.14	Pollutant release to surface waters (Red List)	0	0	0	0	-
29	4.15	Pollutant release to public sewer	0	0	0	0	-
29	4.16	List 1 Dangerous Substances	0	0	0	0	-
29	4.17	List 2 Dangerous Substances	0	0	0	0	-
30	4.18	Pollution Incidents (EA/NRW)	0	0	0	0	-
30	4.19	Pollution inventory substances	0	0	0	0	-
30	4.20	Pollution inventory waste transfers	0	0	0	0	-
30	4.21	Pollution inventory radioactive waste	0	0	0	0	-
Page	Section	<u>Hydrogeology ></u>	On site	0-50m	50-250m	250-500m	500-2000m
31 >	5.1 >	<u>Superficial aquifer ></u>	Identified (within 500m)				
33 >	5.2 >	<u>Bedrock aquifer ></u>	Identified (within 500m)				
35 >	5.3 >	<u>Groundwater vulnerability ></u>	Identified (within 50m)				
36	5.4	Groundwater vulnerability- soluble rock risk	None (within 0m)				
36	5.5	Groundwater vulnerability- local information	None (within 0m)				
37 >	5.6 >	<u>Groundwater abstractions ></u>	0	0	0	0	13
41 >	5.7 >	<u>Surface water abstractions ></u>	0	0	0	0	4
42 >	5.8 >	<u>Potable abstractions ></u>	0	0	0	0	9
45 >	5.9 >	<u>Source Protection Zones ></u>	1	0	1	0	-
45	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
46 >	6.1 >	<u>Water Network (OS MasterMap) ></u>	0	1	8	-	-



47 >	6.2 >	Surface water features >	0	1	6	-	-
48 >	6.3 >	WFD Surface water body catchments >	1	-	-	-	-
48 >	6.4 >	WFD Surface water bodies >	0	0	0	-	-
48 >	6.5 >	WFD Groundwater bodies >	1	-	-	-	-
Page	Section	River and coastal flooding	On site	0-50m	50-250m	250-500m	500-2000m
50	7.1	Risk of flooding from rivers and the sea	None (within 50m)				
50	7.2	Historical Flood Events	0	0	0	-	-
50	7.3	Flood Defences	0	0	0	-	-
51	7.4	Areas Benefiting from Flood Defences	0	0	0	-	-
51	7.5	Flood Storage Areas	0	0	0	-	-
52	7.6	Flood Zone 2	None (within 50m)				
52	7.7	Flood Zone 3	None (within 50m)				
Page	Section	Surface water flooding >					
53 >	8.1 >	Surface water flooding >	1 in 30 year, 0.1m - 0.3m (within 50m)				
Page	Section	Groundwater flooding >					
55 >	9.1 >	Groundwater flooding >	Moderate-High (within 50m)				
Page	Section	Environmental designations >	On site	0-50m	50-250m	250-500m	500-2000m
56	10.1	Sites of Special Scientific Interest (SSSI)	0	0	0	0	0
57	10.2	Conserved wetland sites (Ramsar sites)	0	0	0	0	0
57	10.3	Special Areas of Conservation (SAC)	0	0	0	0	0
57	10.4	Special Protection Areas (SPA)	0	0	0	0	0
57	10.5	National Nature Reserves (NNR)	0	0	0	0	0
58	10.6	Local Nature Reserves (LNR)	0	0	0	0	0
58	10.7	Designated Ancient Woodland	0	0	0	0	0
58	10.8	Biosphere Reserves	0	0	0	0	0
58	10.9	Forest Parks	0	0	0	0	0
59	10.10	Marine Conservation Zones	0	0	0	0	0
59 >	10.11 >	Green Belt >	1	0	0	1	1
59	10.12	Proposed Ramsar sites	0	0	0	0	0



59	10.13	Possible Special Areas of Conservation (pSAC)	0	0	0	0	0
60	10.14	Potential Special Protection Areas (pSPA)	0	0	0	0	0
60	10.15	Nitrate Sensitive Areas	0	0	0	0	0
60 >	10.16 >	Nitrate Vulnerable Zones >	1	0	0	0	3
61 >	10.17 >	SSSI Impact Risk Zones >	1	-	-	-	-
62	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
63	11.1	World Heritage Sites	0	0	0	-	-
63	11.2	Area of Outstanding Natural Beauty	0	0	0	-	-
63	11.3	National Parks	0	0	0	-	-
63	11.4	Listed Buildings	0	0	0	-	-
64	11.5	Conservation Areas	0	0	0	-	-
64	11.6	Scheduled Ancient Monuments	0	0	0	-	-
64	11.7	Registered Parks and Gardens	0	0	0	-	-
Page	Section	Agricultural designations >	On site	0-50m	50-250m	250-500m	500-2000m
65 >	12.1 >	Agricultural Land Classification >	Urban (within 250m)				
66	12.2	Open Access Land	0	0	0	-	-
66	12.3	Tree Felling Licences	0	0	0	-	-
66	12.4	Environmental Stewardship Schemes	0	0	0	-	-
67	12.5	Countryside Stewardship Schemes	0	0	0	-	-
Page	Section	Habitat designations >	On site	0-50m	50-250m	250-500m	500-2000m
68 >	13.1 >	Priority Habitat Inventory >	0	1	0	-	-
69	13.2	Habitat Networks	0	0	0	-	-
69	13.3	Open Mosaic Habitat	0	0	0	-	-
69	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
70 >	14.1 >	10k Availability >	Identified (within 500m)				
71	14.2	Artificial and made ground (10k)	0	0	0	0	-
72 >	14.3 >	Superficial geology (10k) >	1	1	2	3	-

73	14.4	Landslip (10k)	0	0	0	0	-
74 >	14.5 >	Bedrock geology (10k) >	1	2	1	0	-
75 >	14.6 >	Bedrock faults and other linear features (10k) >	0	1	1	0	-
Page	Section	Geology 1:50,000 scale >	On site	0-50m	50-250m	250-500m	500-2000m
76 >	15.1 >	50k Availability >	Identified (within 500m)				
77	15.2	Artificial and made ground (50k)	0	0	0	0	-
77	15.3	Artificial ground permeability (50k)	0	0	-	-	-
78 >	15.4 >	Superficial geology (50k) >	1	0	1	0	-
79 >	15.5 >	Superficial permeability (50k) >	Identified (within 50m)				
79	15.6	Landslip (50k)	0	0	0	0	-
79	15.7	Landslip permeability (50k)	None (within 50m)				
80 >	15.8 >	Bedrock geology (50k) >	1	0	1	0	-
81 >	15.9 >	Bedrock permeability (50k) >	Identified (within 50m)				
81 >	15.10 >	Bedrock faults and other linear features (50k) >	0	0	1	0	-
Page	Section	Boreholes	On site	0-50m	50-250m	250-500m	500-2000m
82	16.1	BGS Boreholes	0	0	0	-	-
Page	Section	Natural ground subsidence >					
83 >	17.1 >	Shrink swell clays >	Very low (within 50m)				
84 >	17.2 >	Running sands >	Very low (within 50m)				
86 >	17.3 >	Compressible deposits >	Negligible (within 50m)				
87 >	17.4 >	Collapsible deposits >	Very low (within 50m)				
88 >	17.5 >	Landslides >	Very low (within 50m)				
90 >	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
92	18.1	BritPits	0	0	0	0	-
93 >	18.2 >	Surface ground workings >	0	1	11	-	-
93	18.3	Underground workings	0	0	0	0	0
94	18.4	Underground mining extents	0	0	0	0	-
94	18.5	Historical Mineral Planning Areas	0	0	0	0	-



94 >	18.6 >	Non-coal mining >	0	0	0	0	1
94	18.7	JPB mining areas	None (within 0m)				
95	18.8	The Coal Authority non-coal mining	0	0	0	0	-
95	18.9	Researched mining	0	0	0	0	-
95	18.10	Mining record office plans	0	0	0	0	-
95	18.11	BGS mine plans	0	0	0	0	-
96 >	18.12 >	Coal mining >	Identified (within 0m)				
96	18.13	Brine areas	None (within 0m)				
96	18.14	Gypsum areas	None (within 0m)				
96	18.15	Tin mining	None (within 0m)				
96	18.16	Clay mining	None (within 0m)				
Page	Section	Ground cavities and sinkholes	On site	0-50m	50-250m	250-500m	500-2000m
97	19.1	Natural cavities	0	0	0	0	-
97	19.2	Mining cavities	0	0	0	0	0
97	19.3	Reported recent incidents	0	0	0	0	-
97	19.4	Historical incidents	0	0	0	0	-
98	19.5	National karst database	0	0	0	0	-
Page	Section	Radon >					
99 >	20.1 >	Radon >	Less than 1% (within 0m)				
Page	Section	Soil chemistry >	On site	0-50m	50-250m	250-500m	500-2000m
101 >	21.1 >	BGS Estimated Background Soil Chemistry >	1	2	-	-	-
101	21.2	BGS Estimated Urban Soil Chemistry	0	0	-	-	-
101	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
102	22.1	Underground railways (London)	0	0	0	-	-
102	22.2	Underground railways (Non-London)	0	0	0	-	-
102	22.3	Railway tunnels	0	0	0	-	-
102	22.4	Historical railway and tunnel features	0	0	0	-	-
102	22.5	Royal Mail tunnels	0	0	0	-	-



103	22.6	Historical railways	0	0	0	-	-
103	22.7	Railways	0	0	0	-	-
103	22.8	Crossrail 1	0	0	0	0	-
103	22.9	Crossrail 2	0	0	0	0	-
103	22.10	HS2	0	0	0	0	-



Recent aerial photograph



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Capture Date: 28/09/2022

Site Area: 0.24ha



Recent site history - 2019 aerial photograph



Capture Date: 22/04/2019

Site Area: 0.24ha



Recent site history - 2009 aerial photograph



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

Capture Date: 24/06/2009

Site Area: 0.24ha



Recent site history - 2005 aerial photograph

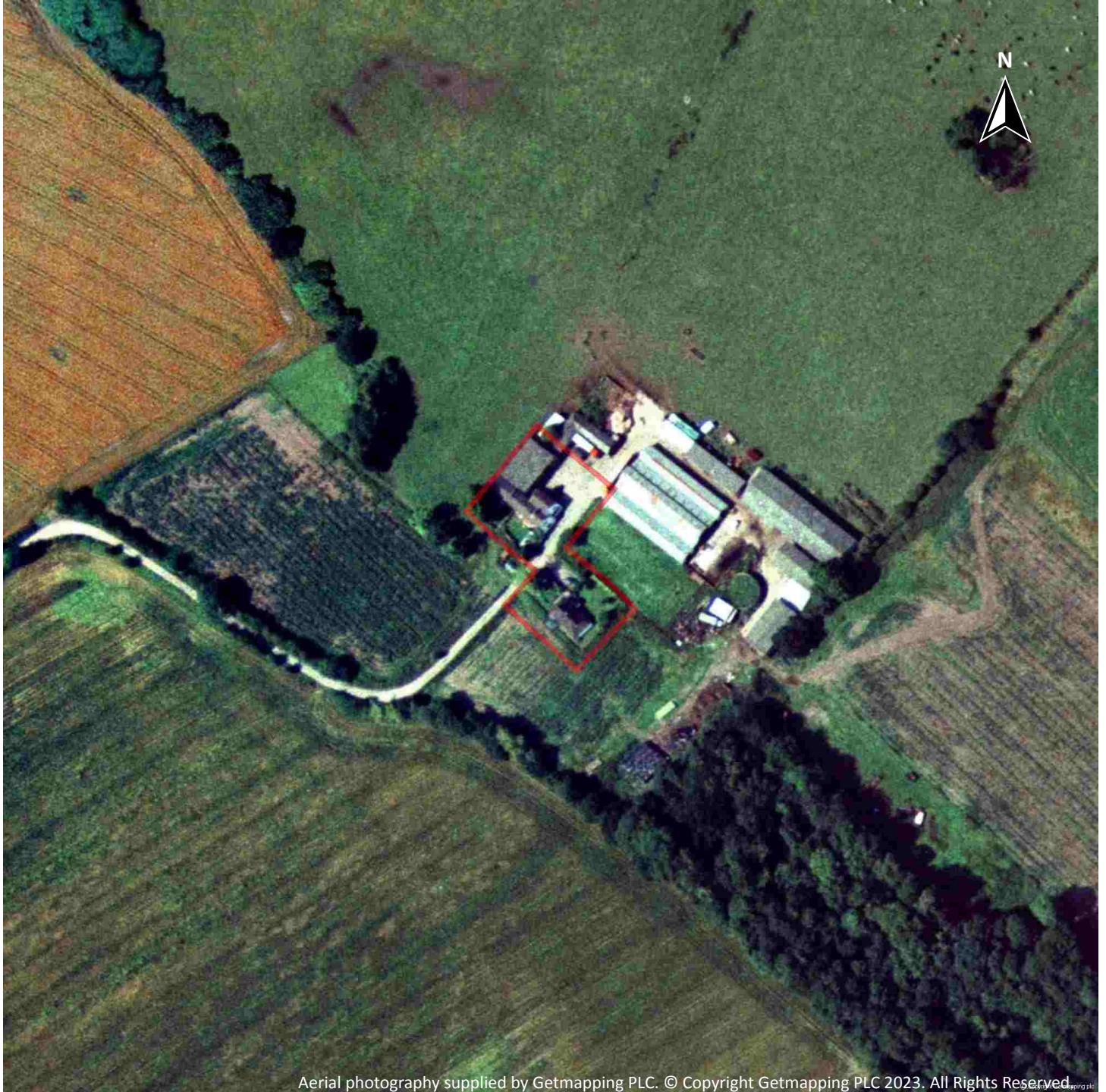


Capture Date: 15/05/2005

Site Area: 0.24ha



Recent site history - 2000 aerial photograph

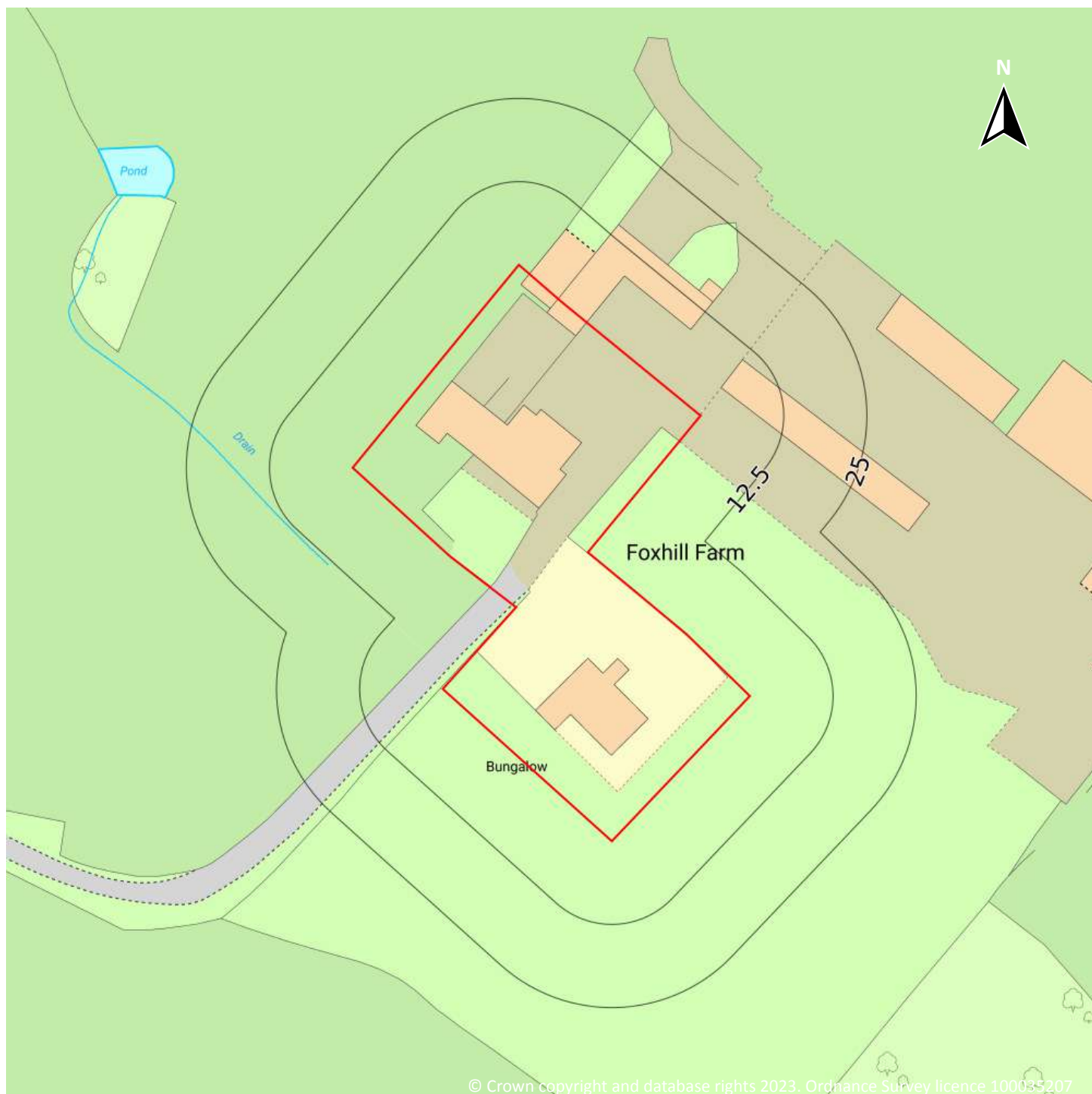


Capture Date: 21/07/2000

Site Area: 0.24ha



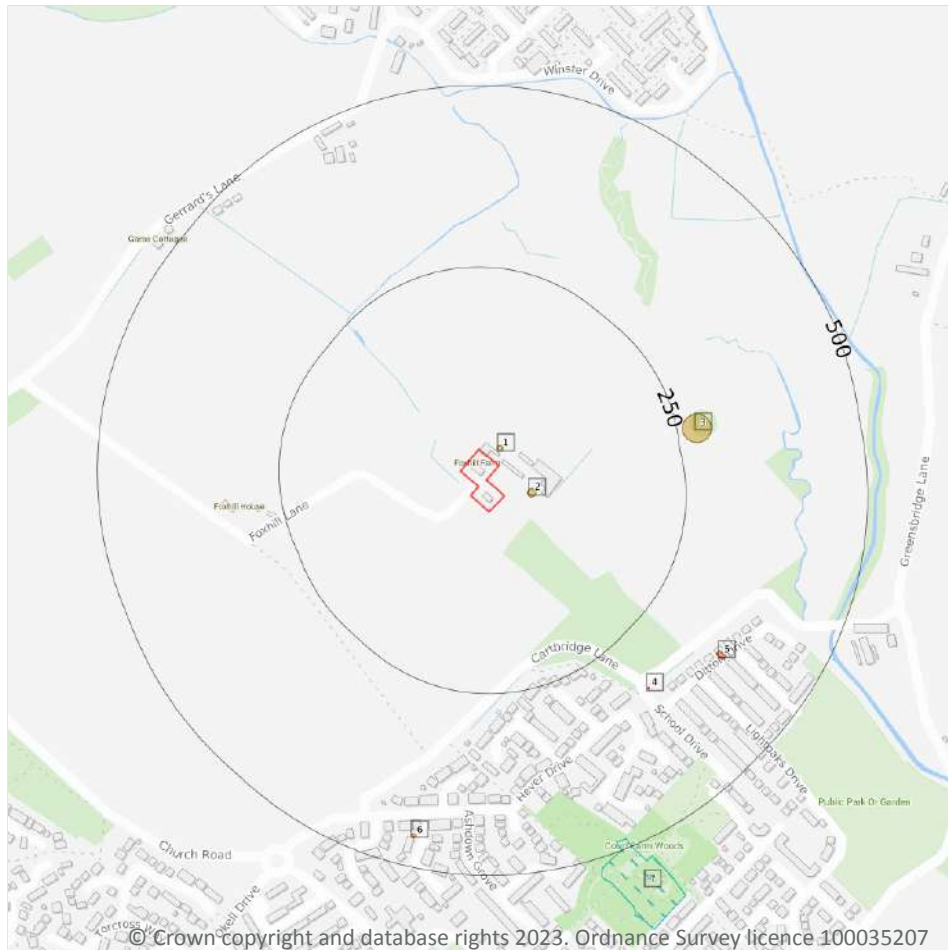
OS MasterMap site plan



Site Area: 0.24ha



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

1

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
7	487m S	Brewery	1851 - 1891	857661



This data is sourced from Ordnance Survey / Groundsure.

1.2 Historical tanks

Records within 500m

3

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
1	15m NE	Unspecified Tank	1989	112415
2	33m E	Unspecified Tank	1989	112414
3	257m E	Unspecified Tank	1938	112412

This data is sourced from Ordnance Survey / Groundsure.

1.3 Historical energy features

Records within 500m

3

Energy features digitised from historical Ordnance Survey mapping at high-detail 1:1,250 and 1:2,500 scale, 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
4	325m SE	Electricity Substation	1989	60620
5	364m SE	Electricity Substation	1989	60619
6	455m S	Electricity Substation	1998	60617

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

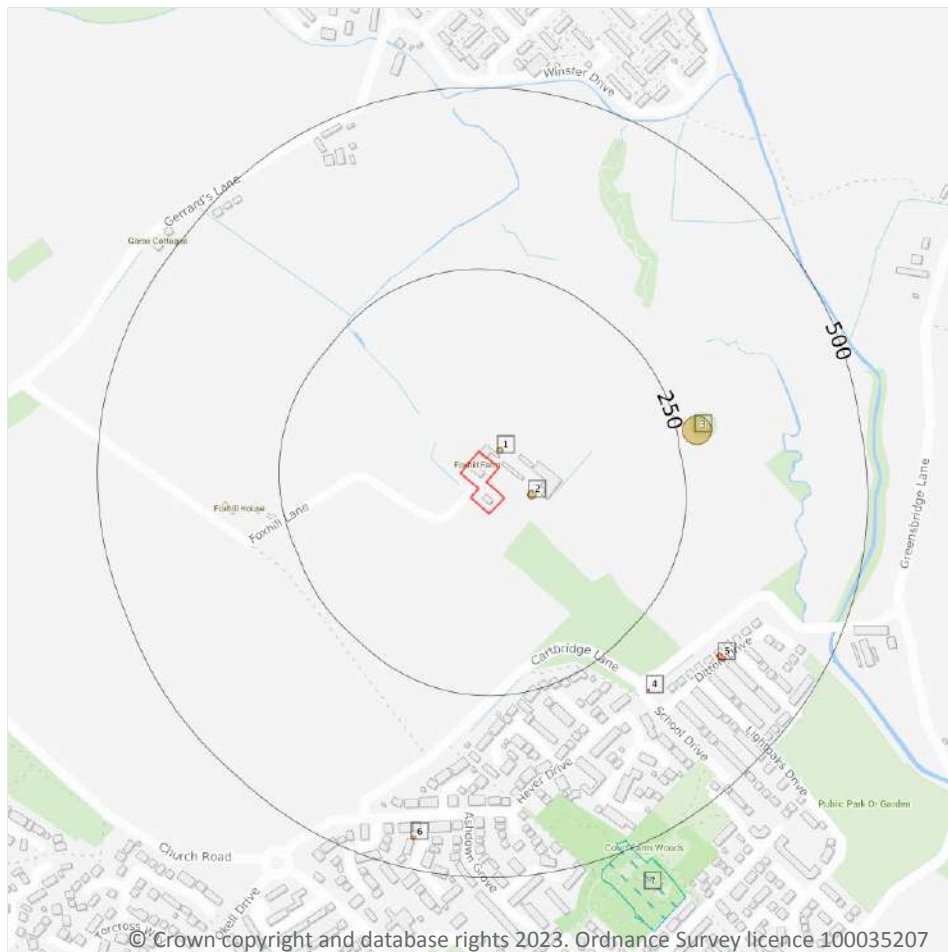
Records within 500m**0**

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

1

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

Features are displayed on the Past land use - un-grouped map on [page 18](#) >

ID	Location	Land Use	Date	Group ID
7	487m S	Brewery	1891	857661

This data is sourced from Ordnance Survey / Groundsure.



2.2 Historical tanks

Records within 500m

3

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

Features are displayed on the Past land use - un-grouped map on [page 18 >](#)

ID	Location	Land Use	Date	Group ID
1	15m NE	Unspecified Tank	1989	112415
2	33m E	Unspecified Tank	1989	112414
3	257m E	Unspecified Tank	1938	112412

This data is sourced from Ordnance Survey / Groundsure.

2.3 Historical energy features

Records within 500m

3

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

Features are displayed on the Past land use - un-grouped map on [page 18 >](#)

ID	Location	Land Use	Date	Group ID
4	325m SE	Electricity Substation	1989	60620
5	364m SE	Electricity Substation	1989	60619
6	455m S	Electricity Substation	1998	60617

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

3.1 Active or recent landfill

Records within 500m

0

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

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

3.2 Historical landfill (BGS records)

Records within 500m

0

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

This data is sourced from the British Geological Survey.

3.3 Historical landfill (LA/mapping records)

Records within 500m

0

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

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

3.4 Historical landfill (EA/NRW records)

Records within 500m

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

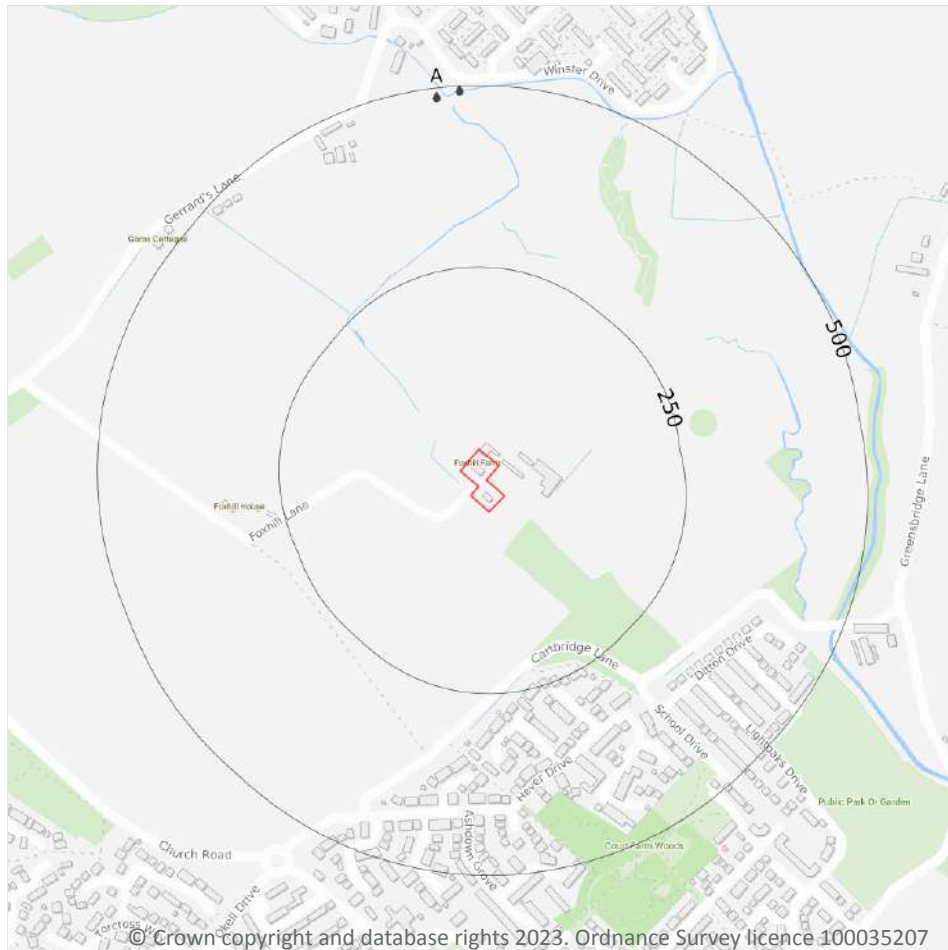
0

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.

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

4.1 Recent industrial land uses

Records within 250m

0

Current potentially contaminative industrial sites.

This data is sourced from Ordnance Survey.

4.2 Current or recent petrol stations

Records within 500m

0

Open, closed, under development and obsolete petrol stations.

This data is sourced from Experian.



4.3 Electricity cables

Records within 500m	0
---------------------	---

High voltage underground electricity transmission cables.

This data is sourced from National Grid.

4.4 Gas pipelines

Records within 500m	0
---------------------	---

High pressure underground gas transmission pipelines.

This data is sourced from National Grid.

4.5 Sites determined as Contaminated Land

Records within 500m	0
---------------------	---

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

This data is sourced from Local Authority records.

4.6 Control of Major Accident Hazards (COMAH)

Records within 500m	0
---------------------	---

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

This data is sourced from the Health and Safety Executive.

4.7 Regulated explosive sites

Records within 500m	0
---------------------	---

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

This data is sourced from the Health and Safety Executive.



4.8 Hazardous substance storage/usage

Records within 500m**0**

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

This data is sourced from Local Authority records.

4.9 Historical licensed industrial activities (IPC)

Records within 500m**0**

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

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

4.10 Licensed industrial activities (Part A(1))

Records within 500m**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.

4.11 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.

4.12 Radioactive Substance Authorisations

Records within 500m**0**

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

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



4.13 Licensed Discharges to controlled waters

Records within 500m

18

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 23](#) >

ID	Location	Address	Details	
A	488m N	WOOLTON STW, EAST OF 17 ROXBOROUGH WALK, WOOLTON, LIVERPOOL, MERSEYSIDE, L25 5HN	Effluent Type: SEWAGE DISCHARGES - STW STORM OVERFLOW/STORM TANK - WATER COMPANY Permit Number: 016930122 Permit Version: 7 Receiving Water: HALEWOOD BROOK	Status: MODIFIED - (WRA 91 SCHED 10 - AS AMENDED BY ENV ACT 1995) Issue date: 04/01/2011 Effective Date: 04/01/2011 Revocation Date: 10/05/2016
A	488m N	WOOLTON STW, EAST OF 17 ROXBOROUGH WALK, WOOLTON, LIVERPOOL, MERSEYSIDE, L25 5HN	Effluent Type: SEWAGE DISCHARGES - FINAL/TREATED EFFLUENT - WATER COMPANY Permit Number: 016930122 Permit Version: 6 Receiving Water: HALEWOOD BROOK	Status: MODIFIED - (WRA 91 SCHED 10 - AS AMENDED BY ENV ACT 1995) Issue date: 14/10/2008 Effective Date: 01/01/2010 Revocation Date: 03/01/2011
A	488m N	WOOLTON STW, EAST OF 17 ROXBOROUGH WALK, WOOLTON, LIVERPOOL, MERSEYSIDE, L25 5HN	Effluent Type: SEWAGE DISCHARGES - STW STORM OVERFLOW/STORM TANK - WATER COMPANY Permit Number: 016930122 Permit Version: 5 Receiving Water: HALEWOOD BROOK	Status: CONSENT CURRENTLY UNDER APPEAL Issue date: 28/06/2005 Effective Date: 28/06/2005 Revocation Date: 31/12/2009
A	488m N	WOOLTON STW, EAST OF 17 ROXBOROUGH WALK, WOOLTON, LIVERPOOL, MERSEYSIDE, L25 5HN	Effluent Type: SEWAGE DISCHARGES - STW STORM OVERFLOW/STORM TANK - WATER COMPANY Permit Number: 016930122 Permit Version: 6 Receiving Water: HALEWOOD BROOK	Status: MODIFIED - (WRA 91 SCHED 10 - AS AMENDED BY ENV ACT 1995) Issue date: 14/10/2008 Effective Date: 01/01/2010 Revocation Date: 03/01/2011
A	488m N	WOOLTON STW, EAST OF 17 ROXBOROUGH WALK, WOOLTON, LIVERPOOL, MERSEYSIDE, L25 5HN	Effluent Type: SEWAGE DISCHARGES - STW STORM OVERFLOW/STORM TANK - WATER COMPANY Permit Number: 016930122 Permit Version: 6 Receiving Water: HALEWOOD BROOK	Status: MODIFIED - (WRA 91 SCHED 10 - AS AMENDED BY ENV ACT 1995) Issue date: 14/10/2008 Effective Date: 01/01/2010 Revocation Date: 03/01/2011



ID	Location	Address	Details	
A	488m N	WOOLTON STW, EAST OF 17 ROXBOROUGH WALK, WOOLTON, LIVERPOOL, MERSEYSIDE, L25 5HN	Effluent Type: SEWAGE DISCHARGES - FINAL/TREATED EFFLUENT - WATER COMPANY Permit Number: 016930122 Permit Version: 8 Receiving Water: HALEWOOD BROOK	Status: VARIED UNDER EPR 2010 Issue date: 11/05/2016 Effective Date: 11/05/2016 Revocation Date: 18/08/2020
A	488m N	WOOLTON STW, EAST OF 17 ROXBOROUGH WALK, WOOLTON, LIVERPOOL, MERSEYSIDE, L25 5HN	Effluent Type: SEWAGE DISCHARGES - STW STORM OVERFLOW/STORM TANK - WATER COMPANY Permit Number: 016930122 Permit Version: 5 Receiving Water: HALEWOOD BROOK	Status: CONSENT CURRENTLY UNDER APPEAL Issue date: 28/06/2005 Effective Date: 28/06/2005 Revocation Date: 31/12/2009
A	488m N	WOOLTON STW, EAST OF 17 ROXBOROUGH WALK, WOOLTON, LIVERPOOL, MERSEYSIDE, L25 5HN	Effluent Type: SEWAGE DISCHARGES - FINAL/TREATED EFFLUENT - WATER COMPANY Permit Number: 016930122 Permit Version: 5 Receiving Water: HALEWOOD BROOK	Status: CONSENT CURRENTLY UNDER APPEAL Issue date: 28/06/2005 Effective Date: 28/06/2005 Revocation Date: 31/12/2009
A	488m N	WOOLTON STW, EAST OF 17 ROXBOROUGH WALK, WOOLTON, LIVERPOOL, MERSEYSIDE, L25 5HN	Effluent Type: SEWAGE DISCHARGES - STW STORM OVERFLOW/STORM TANK - WATER COMPANY Permit Number: 016930122 Permit Version: 8 Receiving Water: HALEWOOD BROOK	Status: VARIED UNDER EPR 2010 Issue date: 11/05/2016 Effective Date: 11/05/2016 Revocation Date: 18/08/2020
A	488m N	WOOLTON STW, EAST OF 17 ROXBOROUGH WALK, WOOLTON, LIVERPOOL, MERSEYSIDE, L25 5HN	Effluent Type: SEWAGE DISCHARGES - STW STORM OVERFLOW/STORM TANK - WATER COMPANY Permit Number: 016930122 Permit Version: 8 Receiving Water: HALEWOOD BROOK	Status: VARIED UNDER EPR 2010 Issue date: 11/05/2016 Effective Date: 11/05/2016 Revocation Date: 18/08/2020
A	488m N	WOOLTON STW, EAST OF 17 ROXBOROUGH WALK, WOOLTON, LIVERPOOL, MERSEYSIDE, L25 5HN	Effluent Type: SEWAGE DISCHARGES - STW STORM OVERFLOW/STORM TANK - WATER COMPANY Permit Number: 016930122 Permit Version: 7 Receiving Water: HALEWOOD BROOK	Status: MODIFIED - (WRA 91 SCHED 10 - AS AMENDED BY ENV ACT 1995) Issue date: 04/01/2011 Effective Date: 04/01/2011 Revocation Date: 10/05/2016



ID	Location	Address	Details	
A	488m N	WOOLTON STW, EAST OF 17 ROXBOROUGH WALK, WOOLTON, LIVERPOOL, MERSEYSIDE, L25 5HN	Effluent Type: SEWAGE DISCHARGES - FINAL/TREATED EFFLUENT - WATER COMPANY Permit Number: 016930122 Permit Version: 7 Receiving Water: HALEWOOD BROOK	Status: MODIFIED - (WRA 91 SCHED 10 - AS AMENDED BY ENV ACT 1995) Issue date: 04/01/2011 Effective Date: 04/01/2011 Revocation Date: 10/05/2016
A	494m N	WOOLTON STW, EAST OF 17 ROXBOROUGH WALK, WOOLTON, LIVERPOOL, MERSEYSIDE, L25 5HN	Effluent Type: SEWAGE DISCHARGES - FINAL/TREATED EFFLUENT - WATER COMPANY Permit Number: 016930122 Permit Version: 10 Receiving Water: HALEWOOD BROOK	Status: VARIED UNDER EPR 2010 Issue date: 29/04/2022 Effective Date: 29/04/2022 Revocation Date: -
A	494m N	WOOLTON STW, EAST OF 17 ROXBOROUGH WALK, WOOLTON, LIVERPOOL, MERSEYSIDE, L25 5HN	Effluent Type: SEWAGE DISCHARGES - SEWER STORM OVERFLOW - WATER COMPANY Permit Number: 016930122 Permit Version: 10 Receiving Water: HALEWOOD BROOK	Status: VARIED UNDER EPR 2010 Issue date: 29/04/2022 Effective Date: 29/04/2022 Revocation Date: -
A	494m N	WOOLTON STW, EAST OF 17 ROXBOROUGH WALK, WOOLTON, LIVERPOOL, MERSEYSIDE, L25 5HN	Effluent Type: SEWAGE DISCHARGES - STW STORM OVERFLOW/STORM TANK - WATER COMPANY Permit Number: 016930122 Permit Version: 10 Receiving Water: HALEWOOD BROOK	Status: VARIED UNDER EPR 2010 Issue date: 29/04/2022 Effective Date: 29/04/2022 Revocation Date: -
A	494m N	WOOLTON STW, EAST OF 17 ROXBOROUGH WALK, WOOLTON, LIVERPOOL, MERSEYSIDE, L25 5HN	Effluent Type: SEWAGE DISCHARGES - FINAL/TREATED EFFLUENT - WATER COMPANY Permit Number: 016930122 Permit Version: 9 Receiving Water: HALEWOOD BROOK	Status: VARIED UNDER EPR 2010 Issue date: 19/08/2020 Effective Date: 19/08/2020 Revocation Date: 28/04/2022
A	494m N	WOOLTON STW, EAST OF 17 ROXBOROUGH WALK, WOOLTON, LIVERPOOL, MERSEYSIDE, L25 5HN	Effluent Type: SEWAGE DISCHARGES - STW STORM OVERFLOW/STORM TANK - WATER COMPANY Permit Number: 016930122 Permit Version: 9 Receiving Water: HALEWOOD BROOK	Status: VARIED UNDER EPR 2010 Issue date: 19/08/2020 Effective Date: 19/08/2020 Revocation Date: 28/04/2022



ID	Location	Address	Details	
A	494m N	WOOLTON STW, EAST OF 17 ROXBOROUGH WALK, WOOLTON, LIVERPOOL, MERSEYSIDE, L25 5HN	Effluent Type: SEWAGE DISCHARGES - SEWER STORM OVERFLOW - WATER COMPANY Permit Number: 016930122 Permit Version: 9 Receiving Water: HALEWOOD BROOK	Status: VARIED UNDER EPR 2010 Issue date: 19/08/2020 Effective Date: 19/08/2020 Revocation Date: 28/04/2022

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

4.14 Pollutant release to surface waters (Red List)

Records within 500m	0
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Discharges of specified substances under the Environmental Protection (Prescribed Processes and Substances) Regulations 1991.

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

4.15 Pollutant release to public sewer

Records within 500m	0
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Discharges of Special Category Effluents to the public sewer.

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

4.16 List 1 Dangerous Substances

Records within 500m	0
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Discharges of substances identified on List I of European Directive E 2006/11/EC, and regulated under the Environmental Damage (Prevention and Remediation) Regulations 2015.

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

4.17 List 2 Dangerous Substances

Records within 500m	0
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Discharges of substances identified on List II of European Directive E 2006/11/EC, and regulated under the Environmental Damage (Prevention and Remediation) Regulations 2015.

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



4.18 Pollution Incidents (EA/NRW)

Records within 500m**0**

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

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

4.19 Pollution inventory substances

Records within 500m**0**

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

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

4.20 Pollution inventory waste transfers

Records within 500m**0**

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

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

4.21 Pollution inventory radioactive waste

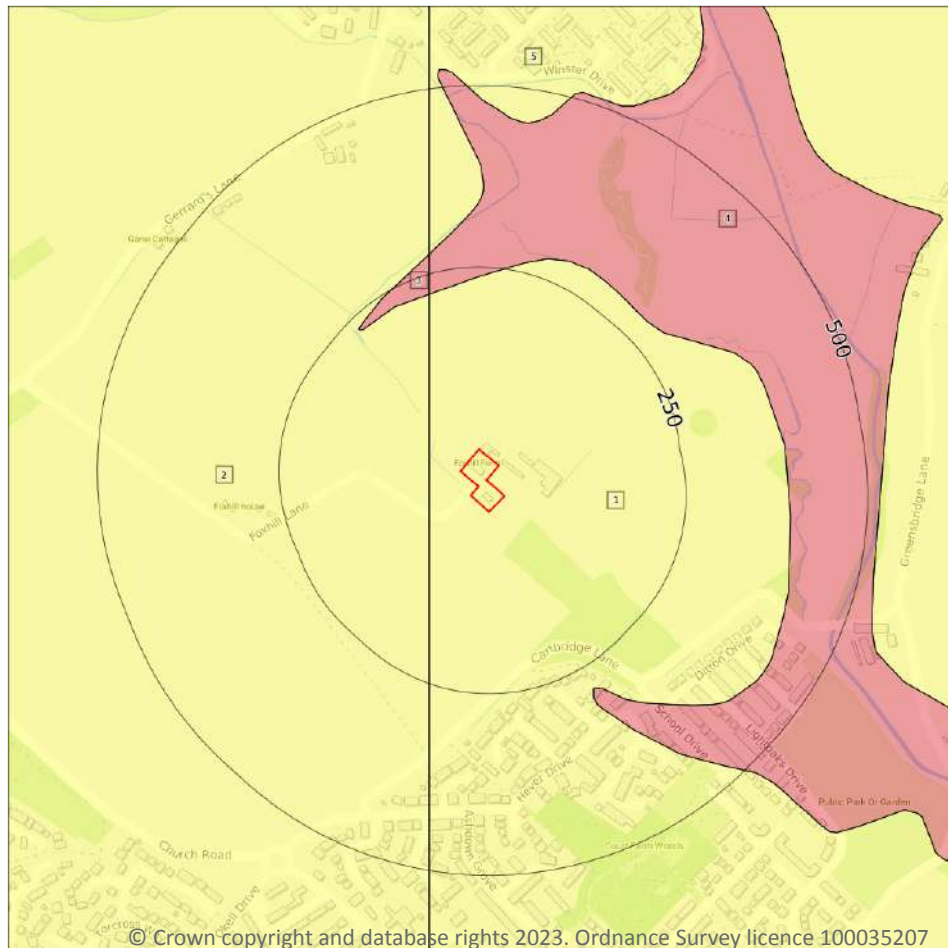
Records within 500m**0**

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

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



5 Hydrogeology - Superficial aquifer



- Site Outline
- Search buffers in metres (m)
- Principal
 - Secondary A
 - Secondary B
 - Secondary Undifferentiated
 - Unproductive
 - Unknown

5.1 Superficial aquifer

Records within 500m

5

Aquifer status of groundwater held within superficial geology.

Features are displayed on the Hydrogeology map on [page 31](#) >

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	44m W	Secondary Undifferentiated	Assigned where it is not possible to attribute either category A or B to a rock type. In general these layers have previously been designated as both minor and non-aquifer in different locations due to the variable characteristics of the rock type

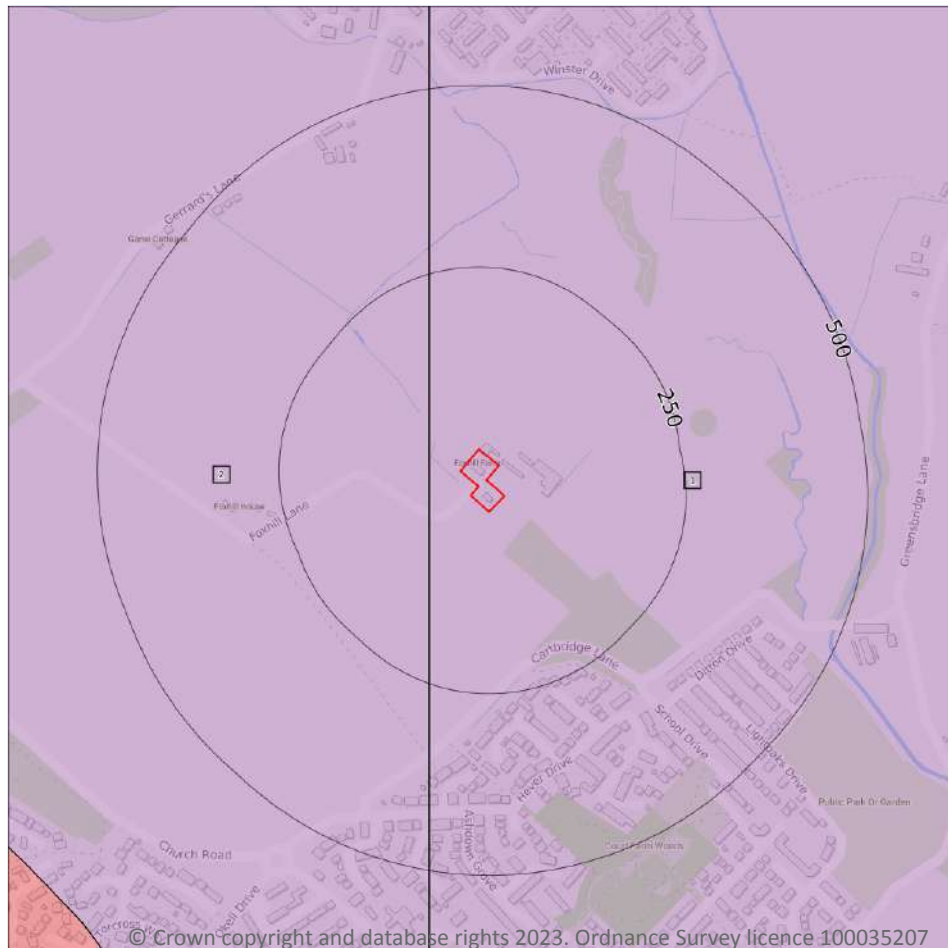


ID	Location	Designation	Description
3	223m N	Secondary A	Permeable layers capable of supporting water supplies at a local rather than strategic scale, and in some cases forming an important source of base flow to rivers. These are generally aquifers formerly classified as minor aquifers
4	223m N	Secondary 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
5	276m N	Secondary Undifferentiated	Assigned where it is not possible to attribute either category A or B to a rock type. In general these layers have previously been designated as both minor and non-aquifer in different locations due to the variable characteristics of the rock type

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



Bedrock aquifer



- Site Outline
- Search buffers in metres (m)
- Principal
 - Secondary A
 - Secondary B
 - Secondary Undifferentiated
 - Unproductive

5.2 Bedrock aquifer

Records within 500m

2

Aquifer status of groundwater held within bedrock geology.

Features are displayed on the Bedrock aquifer map on [page 33](#) >

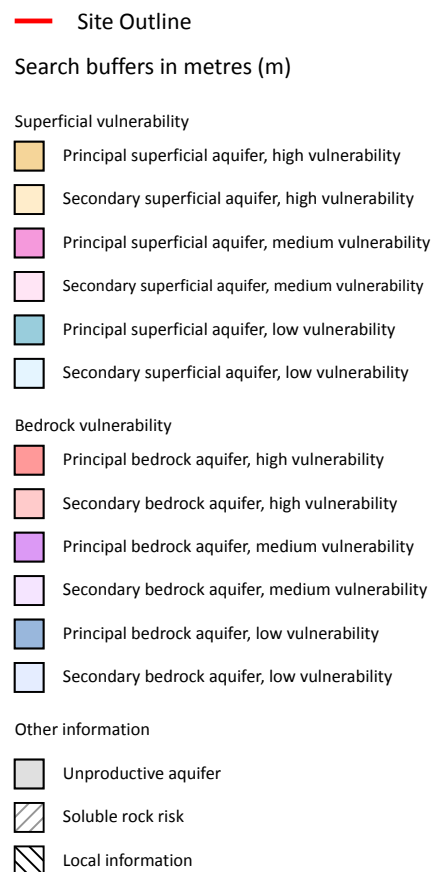
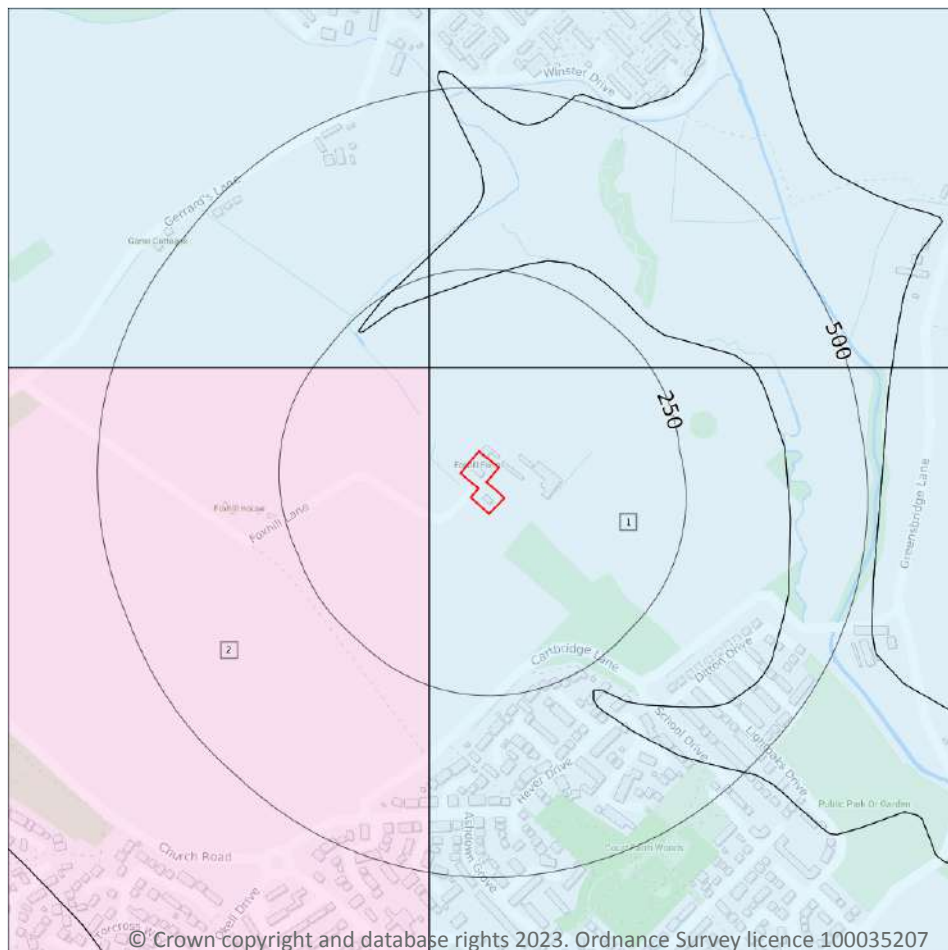
ID	Location	Designation	Description
1	On site	Principal	Geology of high intergranular and/or fracture permeability, usually providing a high level of water storage and may support water supply/river base flow on a strategic scale. Generally principal aquifers were previously major aquifers
2	44m W	Principal	Geology of high intergranular and/or fracture permeability, usually providing a high level of water storage and may support water supply/river base flow on a strategic scale. Generally principal aquifers were previously major 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

2

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

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

Features are displayed on the Groundwater vulnerability map on [page 35](#) >



ID	Location	Summary	Soil / surface	Superficial geology	Bedrock geology
1	On site	Summary Classification: Secondary superficial aquifer - Low Vulnerability Combined classification: Productive Bedrock Aquifer, Productive Superficial Aquifer	Leaching class: Low Infiltration value: <40% Dilution value: 300- 550mm/year	Vulnerability: Low Aquifer type: Secondary Thickness: >10m Patchiness value: >90% Recharge potential: Low	Vulnerability: Low Aquifer type: Principal Flow mechanism: Intergranular
2	43m W	Summary Classification: Secondary superficial aquifer - Medium Vulnerability Combined classification: Productive Bedrock Aquifer, Productive Superficial Aquifer	Leaching class: Low Infiltration value: >70% Dilution value: 300- 550mm/year	Vulnerability: Medium Aquifer type: Secondary Thickness: 3-10m Patchiness value: >90% Recharge potential: Low	Vulnerability: Low Aquifer type: Principal Flow mechanism: Well connected fractures

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

5.4 Groundwater vulnerability- soluble rock risk

Records on site

0

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

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

5.5 Groundwater vulnerability- local information

Records on site

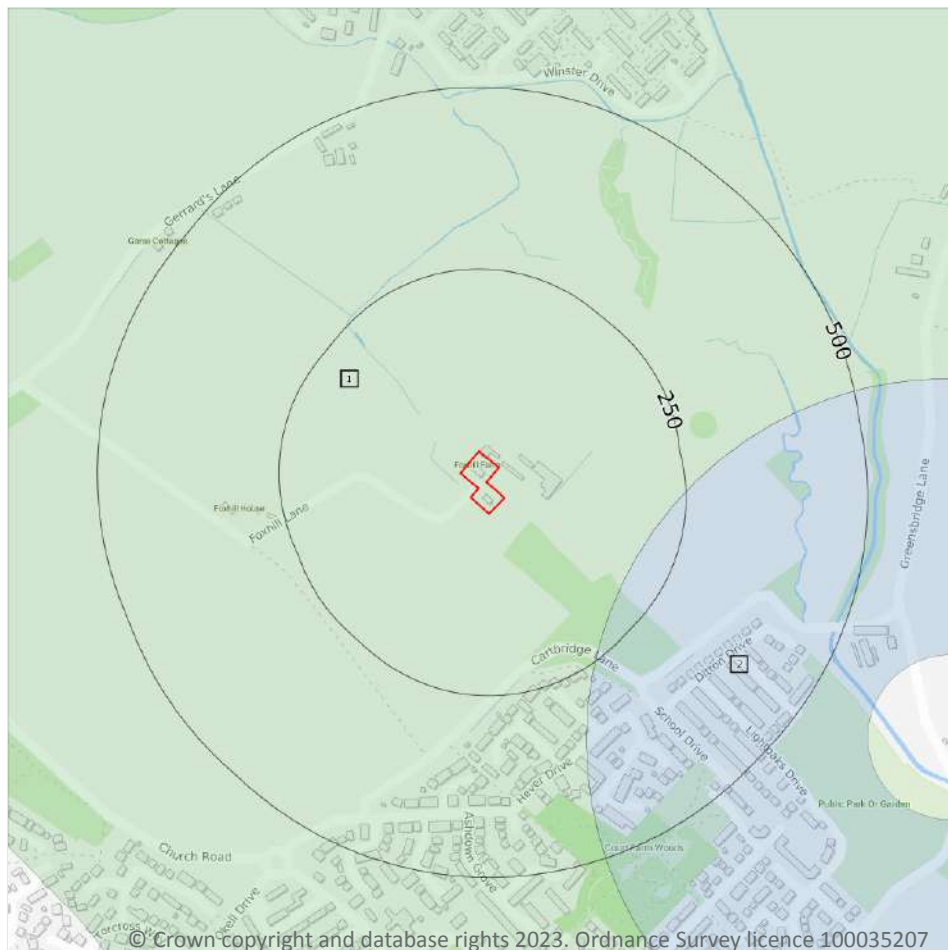
0

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

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



Abstractions and Source Protection Zones



- Site Outline
- Search buffers in metres (m)
- Source Protection Zone 1
Inner catchment
- Source Protection Zone 2
Outer catchment
- Source Protection Zone 3
Total catchment
- Source Protection Zone 4
Zone of Special Interest
- Source Protection Zone 1c
Inner catchment - confined aquifer
- Source Protection Zone 2c
Outer catchment - confined aquifer
- Source Protection Zone 3c
Total catchment - confined aquifer
- Drinking water abstraction licences
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

13

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 37 >](#)



ID	Location	Details	
-	813m SE	Status: Active Licence No: 2569028014 Details: Potable Water Supply - Direct Direct Source: Ground Water - North West Region Point: BOREHOLES (2) AT GREENSBRIDGE LANE PUMPING STATION, WHISTON Data Type: Point Name: United Utilities Water Ltd Easting: 345800 Northing: 386400	Annual Volume (m ³): 1500000 Max Daily Volume (m ³): 11400 Original Application No: 1611 Original Start Date: 23/03/1966 Expiry Date: - Issue No: 101 Version Start Date: 01/09/2001 Version End Date: -
-	813m SE	Status: Historical Licence No: 2569028014 Details: Potable Water Supply - Direct Direct Source: Ground Water - North West Region Point: "BOREHOLES (2) AT GREENSBRIDGE LANE PUMPING STATION, WHISTON" Data Type: Point Name: UNITED UTILITIES WATER PLC Easting: 345800 Northing: 386400	Annual Volume (m ³): - Max Daily Volume (m ³): - Original Application No: - Original Start Date: 23/03/1966 Expiry Date: - Issue No: 101 Version Start Date: 01/09/2001 Version End Date: -
-	1395m N	Status: Active Licence No: 2569028012 Details: Potable Water Supply - Direct Direct Source: Ground Water - North West Region Point: BOREHOLES X 3 AT NETHERLEY PUMPING STATION LIVERPOOL Data Type: Point Name: United Utilities Water Ltd Easting: 344600 Northing: 388200	Annual Volume (m ³): 4127000 Max Daily Volume (m ³): 11400 Original Application No: 1609 Original Start Date: 23/03/1966 Expiry Date: - Issue No: 101 Version Start Date: 01/09/2001 Version End Date: -
-	1395m N	Status: Historical Licence No: 2569028012 Details: Potable Water Supply - Direct Direct Source: Ground Water - North West Region Point: "BOREHOLES (3) AT NETHERLEY PUMPING STATION, LIVERPOOL" Data Type: Point Name: UNITED UTILITIES WATER PLC Easting: 344600 Northing: 388200	Annual Volume (m ³): - Max Daily Volume (m ³): - Original Application No: - Original Start Date: 23/03/1966 Expiry Date: - Issue No: 101 Version Start Date: 01/09/2001 Version End Date: -



ID	Location	Details	
-	1395m N	Status: Historical Licence No: 2569028012 Details: Potable Water Supply - Direct Direct Source: Ground Water - North West Region Point: BOREHOLES (3) AT NETHERLEY PUMPING STATION, LIVERPOOL Data Type: Point Name: UNITED UTILITIES WATER PLC Easting: 344600 Northing: 388200	Annual Volume (m ³): - Max Daily Volume (m ³): - Original Application No: - Original Start Date: 23/03/1966 Expiry Date: - Issue No: 101 Version Start Date: 01/09/2001 Version End Date: -
-	1672m NW	Status: Active Licence No: 2569028022 Details: Spray Irrigation - Direct Direct Source: Ground Water - North West Region Point: BOREHOLE AT LEE PARK GOLF CLUB, GATEACRE, LIVERPOOL Data Type: Point Name: LEE PARK GOLF CLUB LTD (THE) Easting: 343730 Northing: 387890	Annual Volume (m ³): 13829.55 Max Daily Volume (m ³): 92.27 Original Application No: 7373 Original Start Date: 21/02/1997 Expiry Date: - Issue No: 101 Version Start Date: 01/04/2008 Version End Date: -
-	1672m NW	Status: Active Licence No: 2569028022 Details: Drinking, Cooking, Sanitary, Washing, (Small Garden) - Commercial/Industrial/Public Services Direct Source: Ground Water - North West Region Point: BOREHOLE AT LEE PARK GOLF CLUB, GATEACRE, LIVERPOOL Data Type: Point Name: LEE PARK GOLF CLUB LTD (THE) Easting: 343730 Northing: 387890	Annual Volume (m ³): 13829.55 Max Daily Volume (m ³): 92.27 Original Application No: 7373 Original Start Date: 21/02/1997 Expiry Date: - Issue No: 101 Version Start Date: 01/04/2008 Version End Date: -
-	1672m NW	Status: Historical Licence No: 2569028022 Details: "Drinking, Cooking, Sanitary, Washing, (Small Garden) - Commercial/Industrial/Public Services" Direct Source: Ground Water - North West Region Point: "BOREHOLE AT LEE PARK GOLF CLUB, GATEACRE, LIVERPOOL" Data Type: Point Name: LEE PARK GOLF CLUB Easting: 343730 Northing: 387890	Annual Volume (m ³): - Max Daily Volume (m ³): - Original Application No: - Original Start Date: 21/02/1997 Expiry Date: - Issue No: 100 Version Start Date: 21/02/1997 Version End Date: -



ID	Location	Details	
-	1672m NW	Status: Historical Licence No: 2569028022 Details: Spray Irrigation - Direct Direct Source: Ground Water - North West Region Point: "BOREHOLE AT LEE PARK GOLF CLUB, GATEACRE, LIVERPOOL" Data Type: Point Name: LEE PARK GOLF CLUB Easting: 343730 Northing: 387890	Annual Volume (m ³): - Max Daily Volume (m ³): - Original Application No: - Original Start Date: 21/02/1997 Expiry Date: - Issue No: 100 Version Start Date: 21/02/1997 Version End Date: -
-	1801m SE	Status: Active Licence No: NW/069/0028/025 Details: Spray Irrigation - Direct Direct Source: Ground Water - North West Region Point: BOREHOLE AT EVERTON FOOTBALL CLUB FINCH LANE HALEWOOD Data Type: Point Name: THE EVERTON FOOTBALL CLUB COMPANY LIMITED Easting: 345886 Northing: 385187	Annual Volume (m ³): 35000 Max Daily Volume (m ³): 492 Original Application No: NPS/WR/008532 Original Start Date: 02/06/2012 Expiry Date: 31/03/2028 Issue No: 100 Version Start Date: 02/06/2012 Version End Date: -
-	1809m SE	Status: Historical Licence No: 2569028025 Details: Spray Irrigation - Direct Direct Source: Ground Water - North West Region Point: BOREHOLE AT EVERTON FOOTBALL CLUB FINCH LANE HALEWOOD Data Type: Point Name: THE EVERTON FOOTBALL CLUB COMPANY LIMITED Easting: 345890 Northing: 385180	Annual Volume (m ³): 49142 Max Daily Volume (m ³): 491.42 Original Application No: - Original Start Date: 26/05/2007 Expiry Date: 01/06/2012 Issue No: 1 Version Start Date: 26/05/2007 Version End Date: -
-	1910m NE	Status: Active Licence No: 2569028011 Details: Potable Water Supply - Direct Direct Source: Ground Water - North West Region Point: B/HOLES (2) AT WATER LA PUMPING STATION, WHISTON, MERSEYSIDE Data Type: Point Name: United Utilities Water Ltd Easting: 346700 Northing: 387900	Annual Volume (m ³): 1750000 Max Daily Volume (m ³): 11400 Original Application No: 1608 Original Start Date: 23/03/1966 Expiry Date: - Issue No: 101 Version Start Date: 01/09/2001 Version End Date: -



ID	Location	Details	
-	1910m NE	Status: Historical Licence No: 2569028011 Details: Potable Water Supply - Direct Direct Source: Ground Water - North West Region Point: "B/HOLES (2) AT WATER LA PUMPING STATION, WHISTON, MERSEYSIDE" Data Type: Point Name: UNITED UTILITIES WATER PLC Easting: 346700 Northing: 387900	Annual Volume (m ³): - Max Daily Volume (m ³): - Original Application No: - Original Start Date: 23/03/1966 Expiry Date: - Issue No: 101 Version Start Date: 01/09/2001 Version End Date: -

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

5.7 Surface water abstractions

Records within 2000m

4

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 37 >](#)

ID	Location	Details	
-	1511m N	Status: Historical Licence No: 2569028018 Details: Spray Irrigation - Direct Direct Source: "Surface, Non-Tidal - North West Region" Point: "OCHRE & DOG CLOG BRKS, TARBOCK HALL FARM, TARBOCK, PRESCOT" Data Type: Line Name: T H CRITCHLEY & SON Easting: 346600 Northing: 389100	Annual Volume (m ³): - Max Daily Volume (m ³): - Original Application No: - Original Start Date: 13/05/1976 Expiry Date: - Issue No: 100 Version Start Date: 01/04/1993 Version End Date: -
-	1511m N	Status: Historical Licence No: 2569028018 Details: Spray Irrigation - Direct Direct Source: Surface, Non-Tidal - North West Region Point: OCHRE & DOG CLOG BRKS, TARBOCK HALL FARM, TARBOCK, PRESCOT Data Type: Line Name: T H CRITCHLEY & SON Easting: 346600 Northing: 389100	Annual Volume (m ³): - Max Daily Volume (m ³): - Original Application No: - Original Start Date: 13/05/1976 Expiry Date: - Issue No: 100 Version Start Date: 01/04/1993 Version End Date: -



ID	Location	Details	
-	1511m N	Status: Historical Licence No: 2569028018 Details: Spray Irrigation - Direct Direct Source: Surface, Non-Tidal - North West Region Point: OCHRE AND DOG CLOG BROOKS TARBOCK HALL FARM PRESCOT Data Type: Line Name: T H CRITCHLEY & SON Easting: 346600 Northing: 389100	Annual Volume (m ³): 2098 Max Daily Volume (m ³): 636 Original Application No: - Original Start Date: 13/05/1976 Expiry Date: - Issue No: 100 Version Start Date: 01/04/1993 Version End Date: -
-	1511m N	Status: Historical Licence No: 2569028018 Details: Spray Irrigation - Direct Direct Source: Surface, Non-Tidal - North West Region Point: OCHRE AND DOG CLOG BROOKS TARBOCK HALL FARM PRESCOT Data Type: Line Name: BELPOOL DEVELOPMENTS LTD Easting: 346400 Northing: 388600	Annual Volume (m ³): 2098 Max Daily Volume (m ³): 636 Original Application No: NPS/WR/006330 Original Start Date: 13/05/1976 Expiry Date: - Issue No: 102 Version Start Date: 31/01/2011 Version End Date: -

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

5.8 Potable abstractions

Records within 2000m

9

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 37 >](#)

ID	Location	Details	
-	813m SE	Status: Active Licence No: 2569028014 Details: Potable Water Supply - Direct Direct Source: Ground Water - North West Region Point: BOREHOLES (2) AT GREENSBRIDGE LANE PUMPING STATION, WHISTON Data Type: Point Name: United Utilities Water Ltd Easting: 345800 Northing: 386400	Annual Volume (m ³): 1500000 Max Daily Volume (m ³): 11400 Original Application No: 1611 Original Start Date: 23/03/1966 Expiry Date: - Issue No: 101 Version Start Date: 01/09/2001 Version End Date: -



ID	Location	Details	
-	813m SE	Status: Historical Licence No: 2569028014 Details: Potable Water Supply - Direct Direct Source: Ground Water - North West Region Point: "BOREHOLES (2) AT GREENSBRIDGE LANE PUMPING STATION, WHISTON" Data Type: Point Name: UNITED UTILITIES WATER PLC Easting: 345800 Northing: 386400	Annual Volume (m ³): - Max Daily Volume (m ³): - Original Application No: - Original Start Date: 23/03/1966 Expiry Date: - Issue No: 101 Version Start Date: 01/09/2001 Version End Date: -
-	1395m N	Status: Active Licence No: 2569028012 Details: Potable Water Supply - Direct Direct Source: Ground Water - North West Region Point: BOREHOLES X 3 AT NETHERLEY PUMPING STATION LIVERPOOL Data Type: Point Name: United Utilities Water Ltd Easting: 344600 Northing: 388200	Annual Volume (m ³): 4127000 Max Daily Volume (m ³): 11400 Original Application No: 1609 Original Start Date: 23/03/1966 Expiry Date: - Issue No: 101 Version Start Date: 01/09/2001 Version End Date: -
-	1395m N	Status: Historical Licence No: 2569028012 Details: Potable Water Supply - Direct Direct Source: Ground Water - North West Region Point: "BOREHOLES (3) AT NETHERLEY PUMPING STATION, LIVERPOOL" Data Type: Point Name: UNITED UTILITIES WATER PLC Easting: 344600 Northing: 388200	Annual Volume (m ³): - Max Daily Volume (m ³): - Original Application No: - Original Start Date: 23/03/1966 Expiry Date: - Issue No: 101 Version Start Date: 01/09/2001 Version End Date: -
-	1395m N	Status: Historical Licence No: 2569028012 Details: Potable Water Supply - Direct Direct Source: Ground Water - North West Region Point: BOREHOLES (3) AT NETHERLEY PUMPING STATION, LIVERPOOL Data Type: Point Name: UNITED UTILITIES WATER PLC Easting: 344600 Northing: 388200	Annual Volume (m ³): - Max Daily Volume (m ³): - Original Application No: - Original Start Date: 23/03/1966 Expiry Date: - Issue No: 101 Version Start Date: 01/09/2001 Version End Date: -



ID	Location	Details	
-	1672m NW	Status: Active Licence No: 2569028022 Details: Drinking, Cooking, Sanitary, Washing, (Small Garden) - Commercial/Industrial/Public Services Direct Source: Ground Water - North West Region Point: BOREHOLE AT LEE PARK GOLF CLUB, GATEACRE, LIVERPOOL Data Type: Point Name: LEE PARK GOLF CLUB LTD (THE) Easting: 343730 Northing: 387890	Annual Volume (m ³): 13829.55 Max Daily Volume (m ³): 92.27 Original Application No: 7373 Original Start Date: 21/02/1997 Expiry Date: - Issue No: 101 Version Start Date: 01/04/2008 Version End Date: -
-	1672m NW	Status: Historical Licence No: 2569028022 Details: "Drinking, Cooking, Sanitary, Washing, (Small Garden) - Commercial/Industrial/Public Services" Direct Source: Ground Water - North West Region Point: "BOREHOLE AT LEE PARK GOLF CLUB, GATEACRE, LIVERPOOL" Data Type: Point Name: LEE PARK GOLF CLUB Easting: 343730 Northing: 387890	Annual Volume (m ³): - Max Daily Volume (m ³): - Original Application No: - Original Start Date: 21/02/1997 Expiry Date: - Issue No: 100 Version Start Date: 21/02/1997 Version End Date: -
-	1910m NE	Status: Active Licence No: 2569028011 Details: Potable Water Supply - Direct Direct Source: Ground Water - North West Region Point: B/HOLES (2) AT WATER LA PUMPING STATION, WHISTON, MERSEYSIDE Data Type: Point Name: United Utilities Water Ltd Easting: 346700 Northing: 387900	Annual Volume (m ³): 1750000 Max Daily Volume (m ³): 11400 Original Application No: 1608 Original Start Date: 23/03/1966 Expiry Date: - Issue No: 101 Version Start Date: 01/09/2001 Version End Date: -
-	1910m NE	Status: Historical Licence No: 2569028011 Details: Potable Water Supply - Direct Direct Source: Ground Water - North West Region Point: "B/HOLES (2) AT WATER LA PUMPING STATION, WHISTON, MERSEYSIDE" Data Type: Point Name: UNITED UTILITIES WATER PLC Easting: 346700 Northing: 387900	Annual Volume (m ³): - Max Daily Volume (m ³): - Original Application No: - Original Start Date: 23/03/1966 Expiry Date: - Issue No: 101 Version Start Date: 01/09/2001 Version End Date: -

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



5.9 Source Protection Zones

Records within 500m**2**

Source Protection Zones define the sensitivity of an area around a potable abstraction site to contamination. Features are displayed on the Abstractions and Source Protection Zones map on [page 37](#) >

ID	Location	Type	Description
1	On site	3	Total catchment
2	199m SE	2	Outer catchment

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

5.10 Source Protection Zones (confined aquifer)

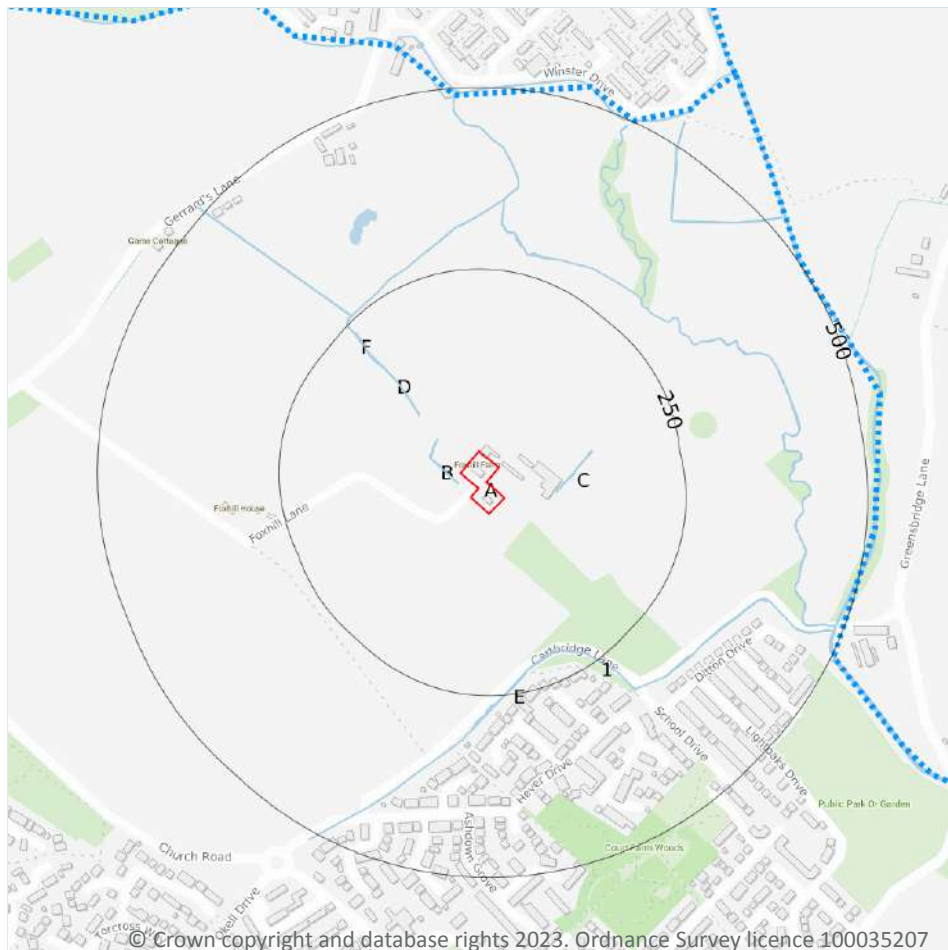
Records within 500m**0**

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

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



6 Hydrology



- Site Outline
- Search buffers in metres (m)
- Water Network (OS MasterMap)
- Surface water features (wider than 5m)
- Surface water features (narrower than 5m)
- ⋯ WFD River, canal and surface water transfer water bodies
- WFD Lake water bodies
- WFD Transitional and coastal water bodies
- WFD Surface water body catchments boundaries
- WFD Groundwater body boundaries

6.1 Water Network (OS MasterMap)

Records within 250m

9

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 46 >](#)

ID	Location	Type of water feature	Ground level	Permanence	Name
B	13m W	Inland river not influenced by normal tidal action.	On ground surface	Watercourse contains water year round (in normal circumstances)	-



ID	Location	Type of water feature	Ground level	Permanence	Name
B	52m NW	Lake, loch or reservoir.	On ground surface	Watercourse contains water year round (in normal circumstances)	-
C	72m E	Inland river not influenced by normal tidal action.	On ground surface	Watercourse contains water year round (in normal circumstances)	-
B	92m NW	Lake, loch or reservoir.	On ground surface	Watercourse contains water year round (in normal circumstances)	-
D	96m NW	Inland river not influenced by normal tidal action.	On ground surface	Watercourse contains water year round (in normal circumstances)	-
E	208m SE	Inland river not influenced by normal tidal action.	On ground surface	Watercourse contains water year round (in normal circumstances)	-
1	209m SE	Inland river not influenced by normal tidal action.	On ground surface	Watercourse contains water year round (in normal circumstances)	-
F	209m NW	Lake, loch or reservoir.	On ground surface	Watercourse contains water year round (in normal circumstances)	-
F	241m NW	Inland river not influenced by normal tidal action.	On ground surface	Watercourse contains water year round (in normal circumstances)	-

This data is sourced from the Ordnance Survey.

6.2 Surface water features

Records within 250m

7

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

Features are displayed on the Hydrology map on [page 46 >](#)

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 46 >](#)

ID	Location	Type	Water body catchment	Water body ID	Operational catchment	Management catchment
A	On site	River	Ditton Brook (Halewood to Mersey Estuary)	GB112069061390	Ditton	Mersey Lower

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 46 >](#)

ID	Location	Type	Name	Water body ID	Overall rating	Chemical rating	Ecological rating	Year
17	490m N	River	Ditton Brook (Halewood to Mersey Estuary)	GB112069061390 ↗	Moderate	Fail	Moderate	2019

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 46](#) >

ID	Location	Name	Water body ID	Overall rating	Chemical rating	Quantitative	Year
A	On site	Lower Mersey Basin and North Merseyside Permo-Triassic Sandstone Aquifers	GB41201G101700 ↗	Poor	Poor	Poor	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

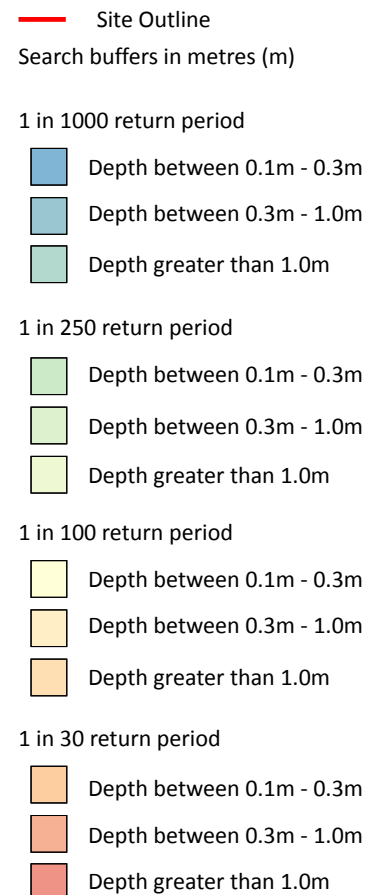
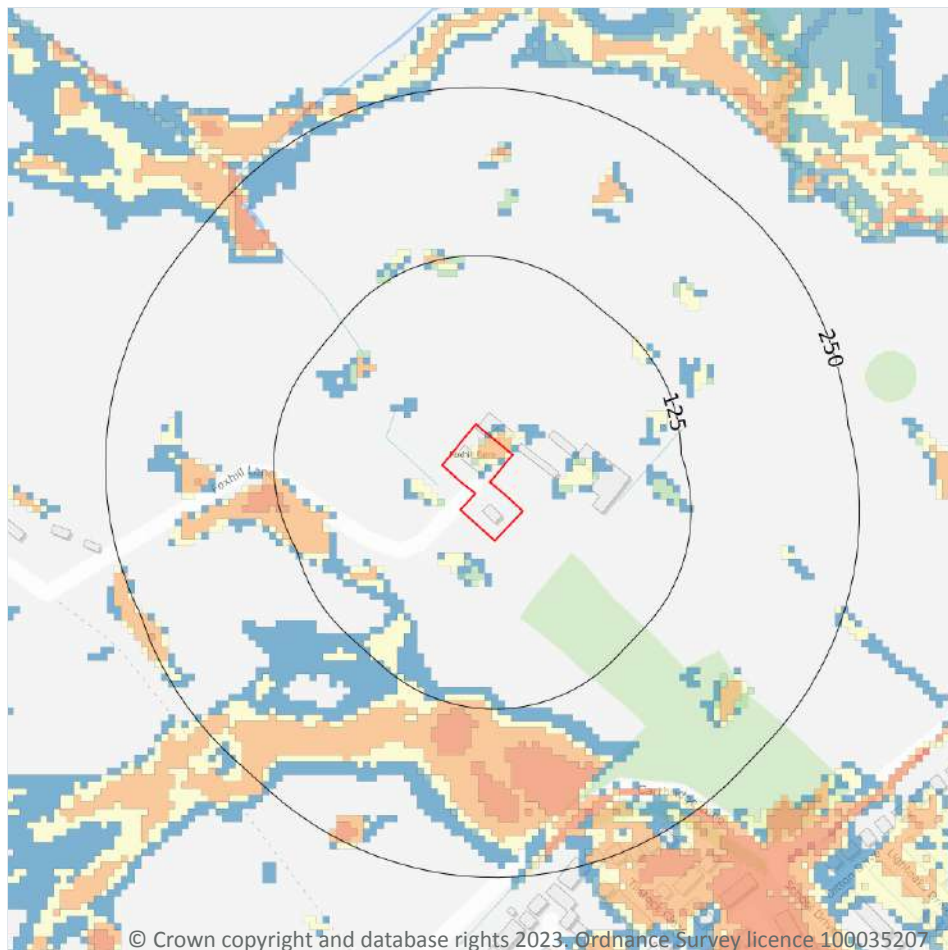
0

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

1 in 30 year, 0.1m - 0.3m

Highest risk within 50m

1 in 30 year, 0.1m - 0.3m

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

Features are displayed on the Surface water flooding map on [page 53 >](#)

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.

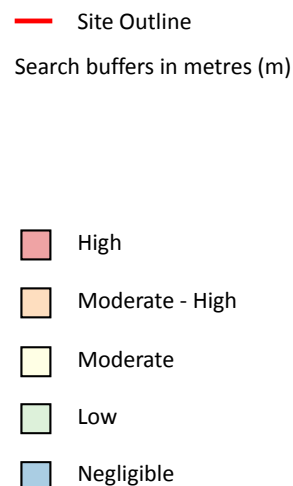
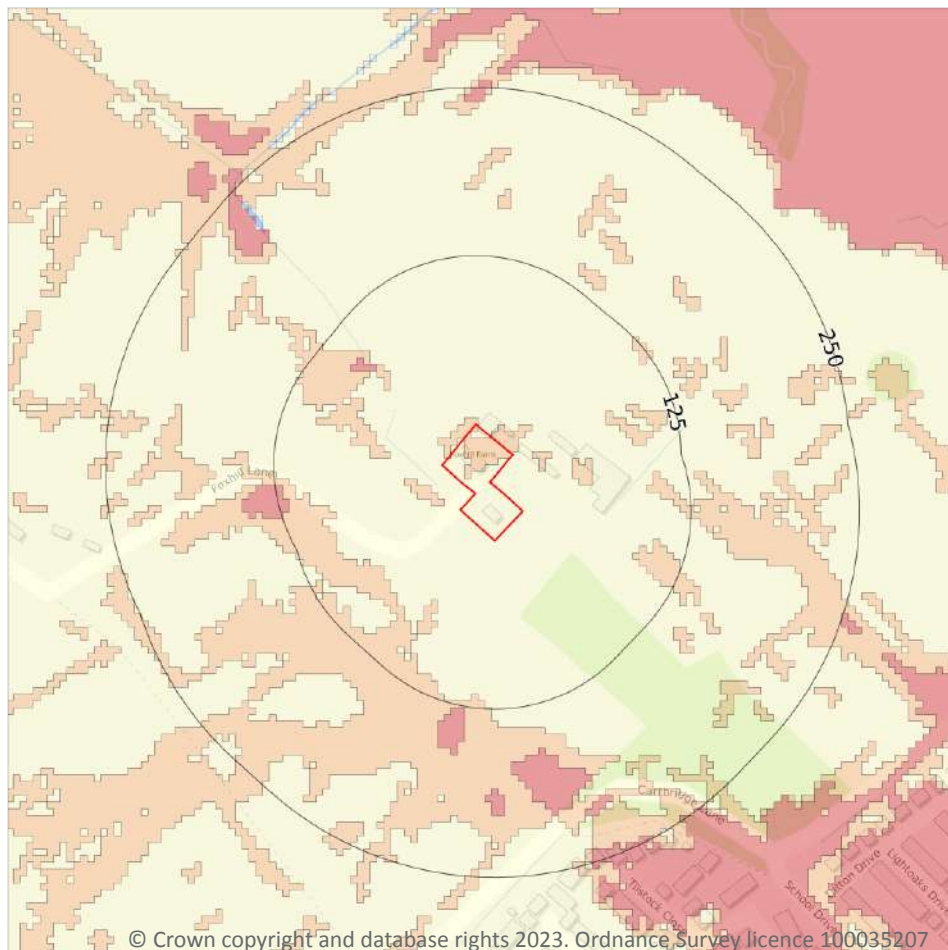
The table below shows the maximum flood depths for a range of return periods for the site.

Return period	Maximum modelled depth
1 in 1000 year	Between 0.3m and 1.0m
1 in 250 year	Between 0.3m and 1.0m
1 in 100 year	Between 0.3m and 1.0m
1 in 30 year	Between 0.1m and 0.3m

This data is sourced from Ambiental Risk Analytics.



9 Groundwater flooding



9.1 Groundwater flooding

Highest risk on site

Moderate-High

Highest risk within 50m

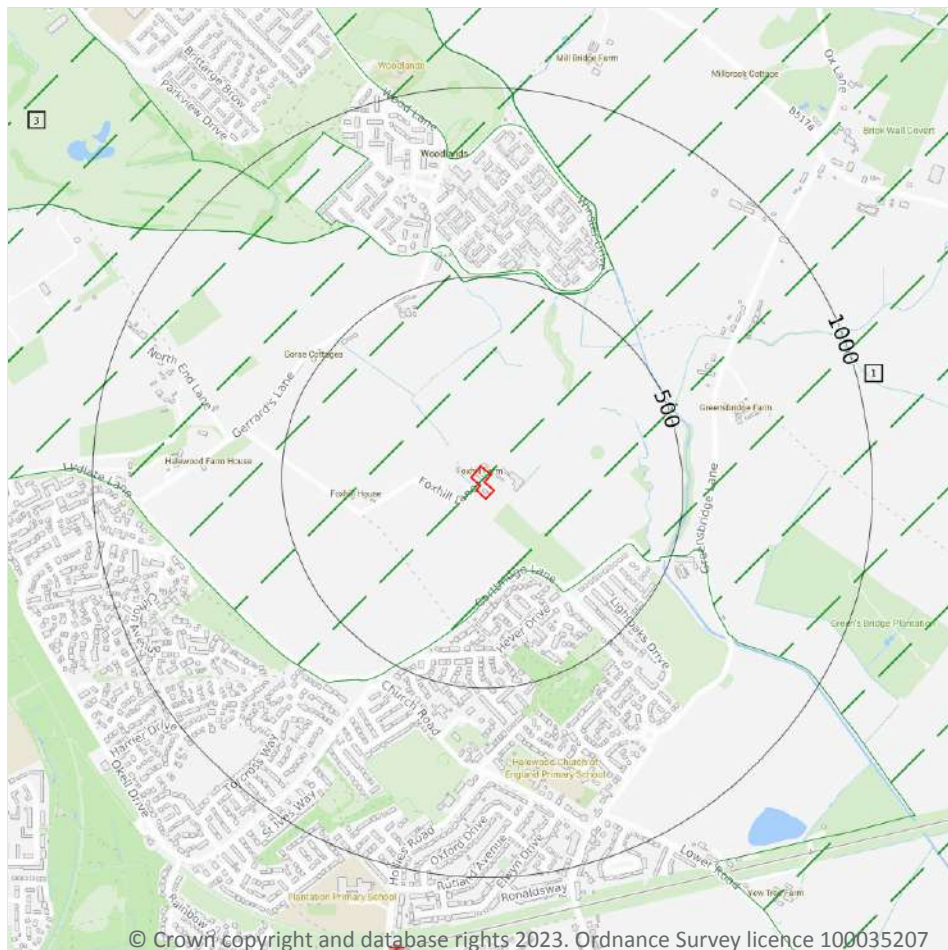
Moderate-High

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 55 >](#)

This data is sourced from Ambiantal Risk Analytics.

10 Environmental designations



- Site Outline
- Search buffers in metres (m)
- 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**0**

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.

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

3

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

Features are displayed on the Environmental designations map on [page 56 >](#)

ID	Location	Name	Local Authority name
1	On site	Merseyside and Greater Manchester	Knowsley
2	487m N	Merseyside and Greater Manchester	Liverpool
3	718m NW	Merseyside and Greater Manchester	Liverpool

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

10.12 Proposed Ramsar sites

Records within 2000m

0

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

This data is sourced from Natural England.

10.13 Possible Special Areas of Conservation (pSAC)

Records within 2000m

0

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

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



10.14 Potential Special Protection Areas (pSPA)

Records within 2000m

0

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

This data is sourced from Natural England.

10.15 Nitrate Sensitive Areas

Records within 2000m

0

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

This data is sourced from Natural England.

10.16 Nitrate Vulnerable Zones

Records within 2000m

4

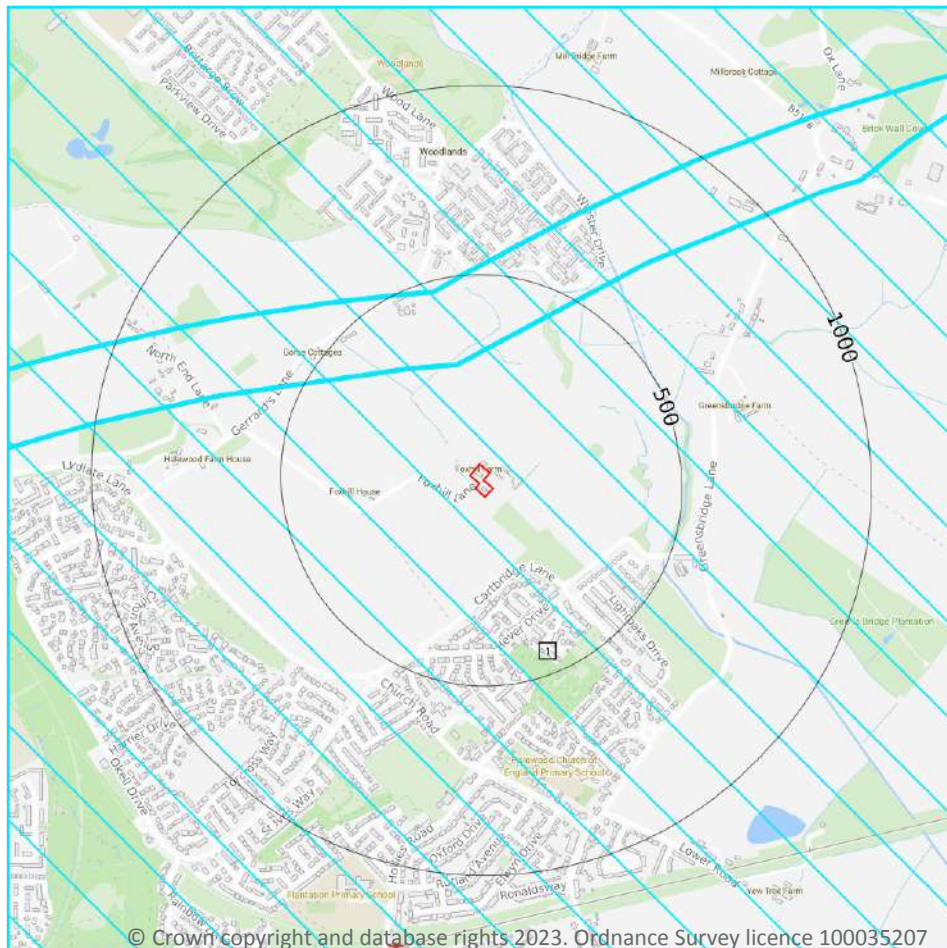
Areas at risk from agricultural nitrate pollution designated under the EC Nitrate Directive (91/676/EEC). These are areas of land that drain into waters polluted by nitrates. Farmers operating within these areas have to follow mandatory rules to tackle nitrate loss from agriculture.

Location	Name	Type	NVZ ID	Status
On site	Dittton Brook (Halewood to Mersey Estuary) NVZ	Surface Water	640	Existing
817m S	Dittton Brook (Halewood to Mersey Estuary) NVZ	Surface Water	640	Existing
952m W	Dittton Brook (Halewood to Mersey Estuary) NVZ	Surface Water	640	Existing
1279m SW	Dittton Brook (Halewood to Mersey Estuary) NVZ	Surface Water	640	Existing

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 61](#) >

ID	Location	Type of developments requiring consultation
1	On site	Infrastructure - Pipelines and underground cables, pylons and overhead cables. Any transport proposal including road, rail and by water (excluding routine maintenance). Airports, helipads and other aviation proposals. Wind and Solar - Solar schemes with footprint > 0.5ha, all wind turbines Minerals, Oil and Gas - Planning applications for quarries: new proposals or extensions, outside or extending outside existing settlements/urban areas affecting greenspace, farmland or semi natural habitats. Oil & gas exploration/extraction Rural non-residential - Large non residential developments outside existing settlements/urban areas where footprint exceeds 1ha. Rural residential - Any residential development of 50 or more houses outside existing settlements/urban areas. Air pollution - Any industrial/agricultural development that could cause AIR POLLUTION (incl: industrial processes, livestock & poultry units with floorspace > 500m², slurry lagoons & digestate stores > 750m², manure stores > 3500t) Combustion - General combustion processes >50MW energy input. Incl: energy from waste incineration, other incineration, landfill gas generation plant, pyrolysis/gasification, anaerobic digestion, sewage treatment works, other incineration/ combustion Waste - Landfill. Incl: inert landfill, non-hazardous landfill, hazardous landfill. Discharges - Any discharge of water or liquid waste of more than 20m³/day to ground (ie to seep away) or to surface water, such as a beck or stream Notes: New residential developments in this area should consider recreational disturbance impacts on the coastal designated sites. Please consider this issue in the HRA screening.

This data is sourced from Natural England.

10.18 SSSI Units

Records within 2000m	0
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Divisions of SSSIs used to record management and condition details. Units are the smallest areas for which Natural England gives a condition assessment, however, the size of units varies greatly depending on the types of management and the conservation interest.

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



11 Visual and cultural designations

11.1 World Heritage Sites

Records within 250m

0

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

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

11.2 Area of Outstanding Natural Beauty

Records within 250m

0

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

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

11.3 National Parks

Records within 250m

0

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

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

11.4 Listed Buildings

Records within 250m

0

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



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

11.5 Conservation Areas

Records within 250m

0

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

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

11.6 Scheduled Ancient Monuments

Records within 250m

0

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

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

11.7 Registered Parks and Gardens

Records within 250m

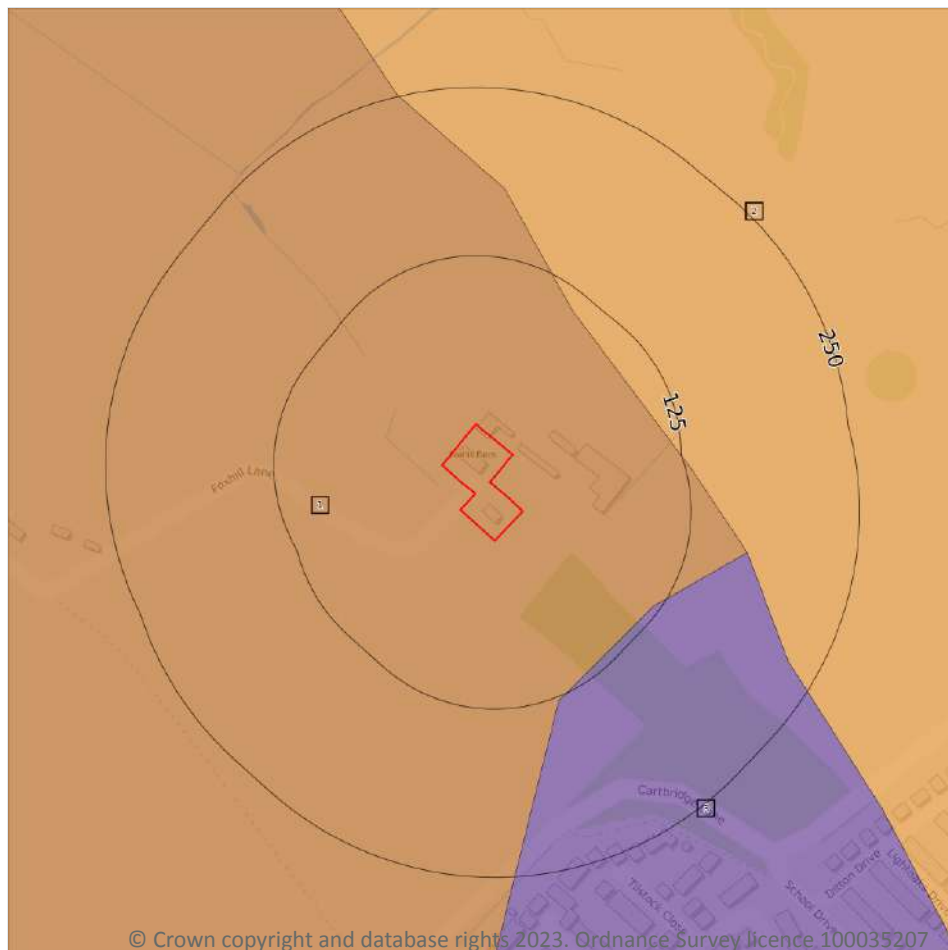
0

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

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



12 Agricultural designations



- Site Outline
- Search buffers in metres (m)
- Grade 1 - excellent quality
- Grade 2 - very good quality
- Grade 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

3

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 65](#) >

ID	Location	Classification	Description
1	On site	Grade 2	Very good quality agricultural land. Land with minor limitations which affect crop yield, cultivations or harvesting. A wide range of agricultural and horticultural crops can usually be grown but on some land in the grade there may be reduced flexibility due to difficulties with the production of the more demanding crops such as winter harvested vegetables and arable root crops. The level of yield is generally high but may be lower or more variable than Grade 1.
2	100m NE	Grade 3	Good to moderate quality agricultural land. Land with moderate limitations which affect the choice of crops, timing and type of cultivation, harvesting or the level of yield. Where more demanding crops are grown yields are generally lower or more variable than on land in Grades 1 and 2.
3	118m SE	Urban	-

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

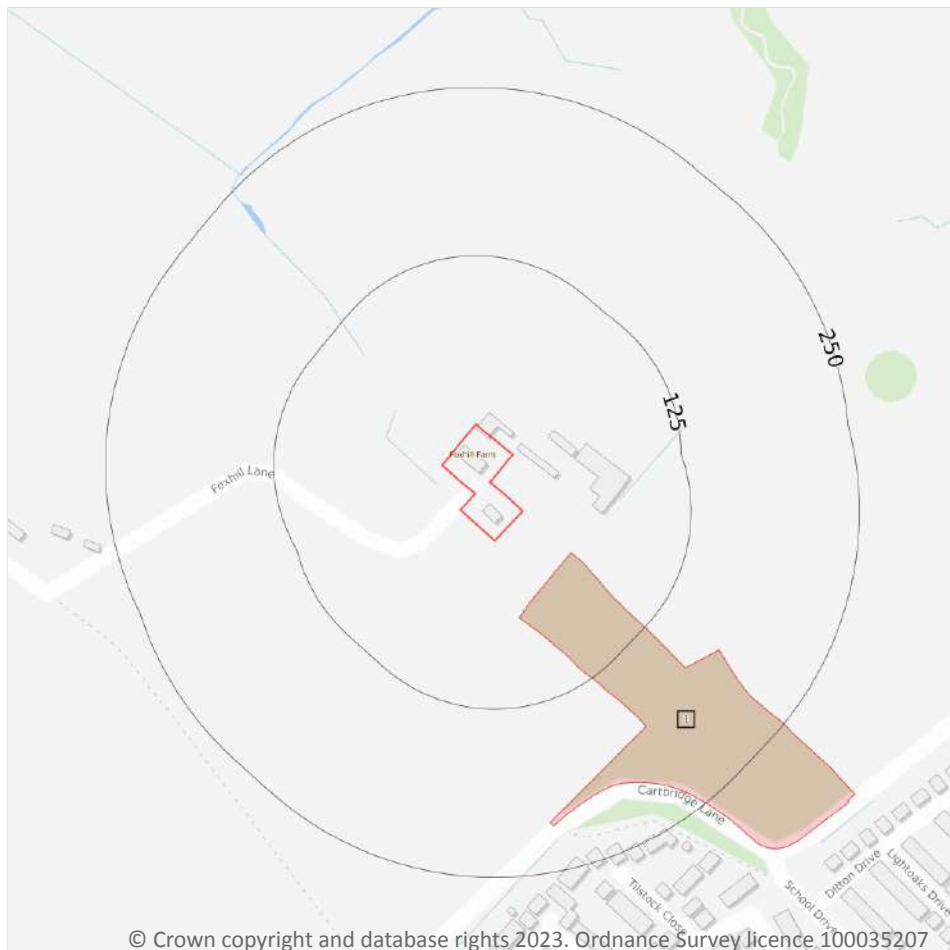
0

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

This data is sourced from Natural England.



13 Habitat designations



- 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

1

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

Features are displayed on the Habitat designations map on [page 68](#) >

ID	Location	Main Habitat	Other habitats
1	47m SE	Deciduous woodland	Main habitat: DWOOD (INV > 50%); GQSIG (INV > 50%)

This data is sourced from Natural England.



13.2 Habitat Networks

Records within 250m

0

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

This data is sourced from Natural England.

13.3 Open Mosaic Habitat

Records within 250m

0

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

This data is sourced from Natural England.

13.4 Limestone Pavement Orders

Records within 250m

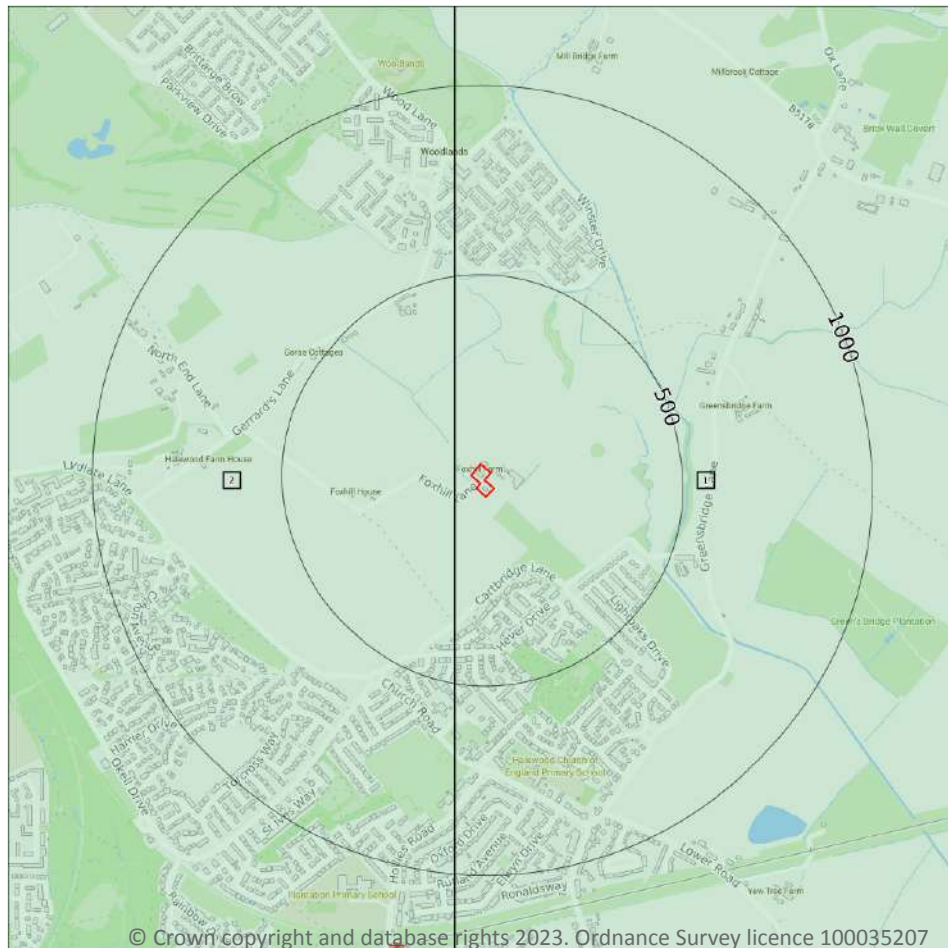
0

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

This data is sourced from Natural England.



14 Geology 1:10,000 scale - Availability



— Site Outline
Search buffers in metres (m)

- Full coverage
- Partial coverage
- No coverage

14.1 10k Availability

Records within 500m

2

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 70](#) >

ID	Location	Artificial	Superficial	Bedrock	Mass movement	Sheet No.
1	On site	No coverage	Full	Full	No coverage	SJ48NE
2	44m W	No coverage	Full	Full	No coverage	SJ48NW

This data is sourced from the British Geological Survey.



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

14.2 Artificial and made ground (10k)

Records within 500m

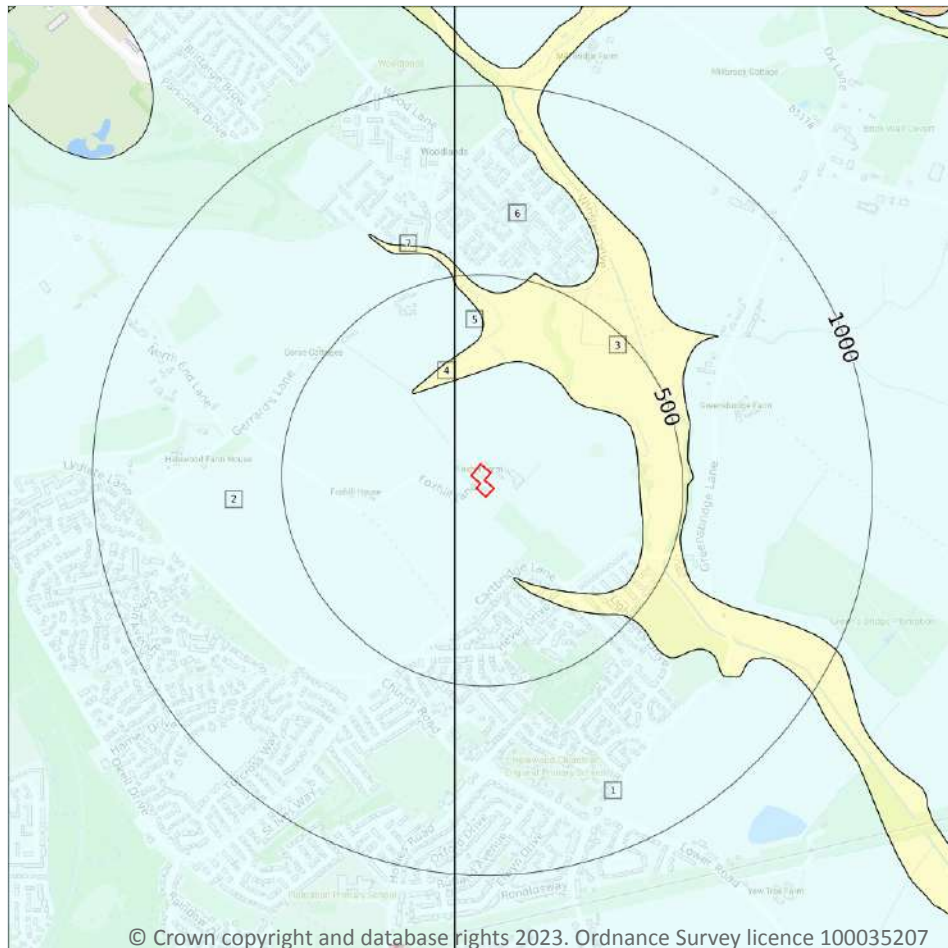
0

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

This data is sourced from the British Geological Survey.



Geology 1:10,000 scale - Superficial



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

7

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 72](#) >

ID	Location	LEX Code	Description	Rock description
1	On site	TILLD-DMTN	Till, Devensian - Diamicton	Diamicton
2	44m W	TILLD-DMTN	Till, Devensian - Diamicton	Diamicton
3	227m S	ALV-XCZSV	Alluvium - Clay, Silt, Sand And Gravel	Clay, Silt, Sand And Gravel



ID	Location	LEX Code	Description	Rock description
4	232m N	ALV-XCZSV	Alluvium - Clay, Silt, Sand And Gravel	Clay, Silt, Sand And Gravel
5	291m N	TILLD-DMTN	Till, Devensian - Diamicton	Diamicton
6	453m N	TILLD-DMTN	Till, Devensian - Diamicton	Diamicton
7	483m N	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

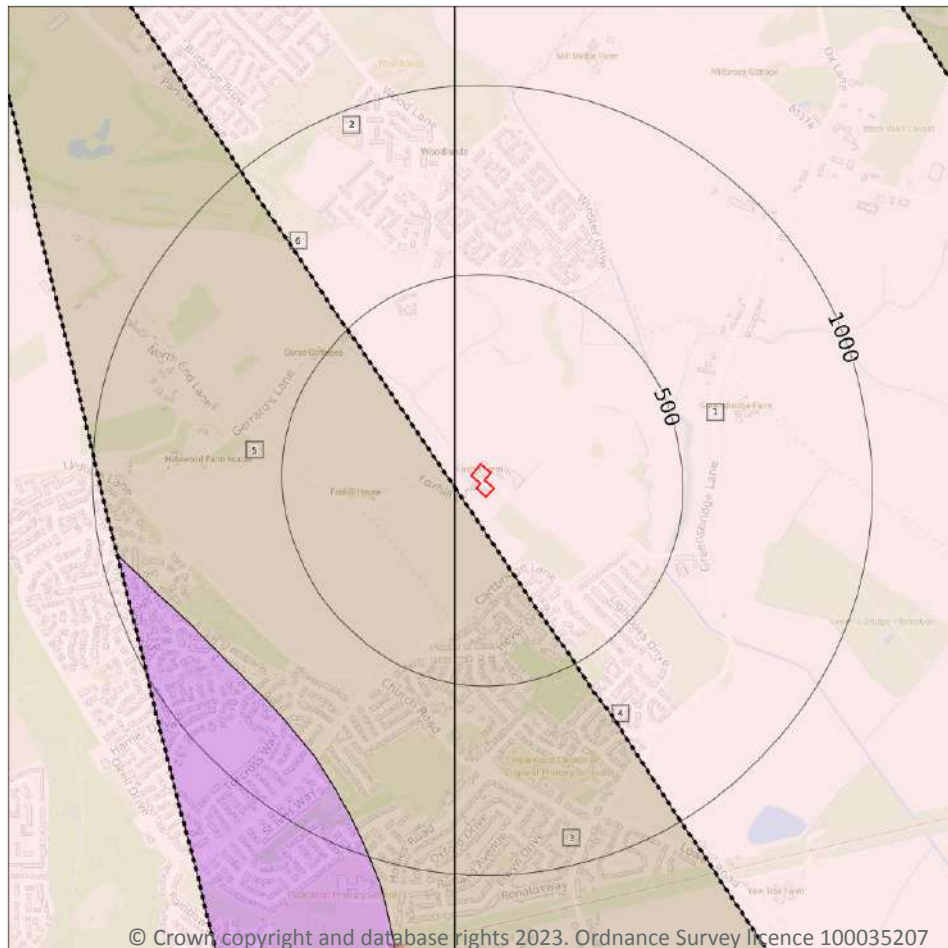
0

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

4

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

Features are displayed on the Geology 1:10,000 scale - Bedrock map on [page 74 >](#)

ID	Location	LEX Code	Description	Rock age
1	On site	WLSF-SDST	Wilmslow Sandstone Formation - Sandstone	Early Triassic Epoch
2	44m W	WLSF-SDST	Wilmslow Sandstone Formation - Sandstone	Early Triassic Epoch
3	46m SW	KNSF-SDST	Kinnerton Sandstone Formation - Sandstone	Early Triassic Epoch
5	53m W	KNSF-SDST	Kinnerton Sandstone Formation - Sandstone	Early Triassic Epoch



This data is sourced from the British Geological Survey.

14.6 Bedrock faults and other linear features (10k)

Records within 500m

2

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.

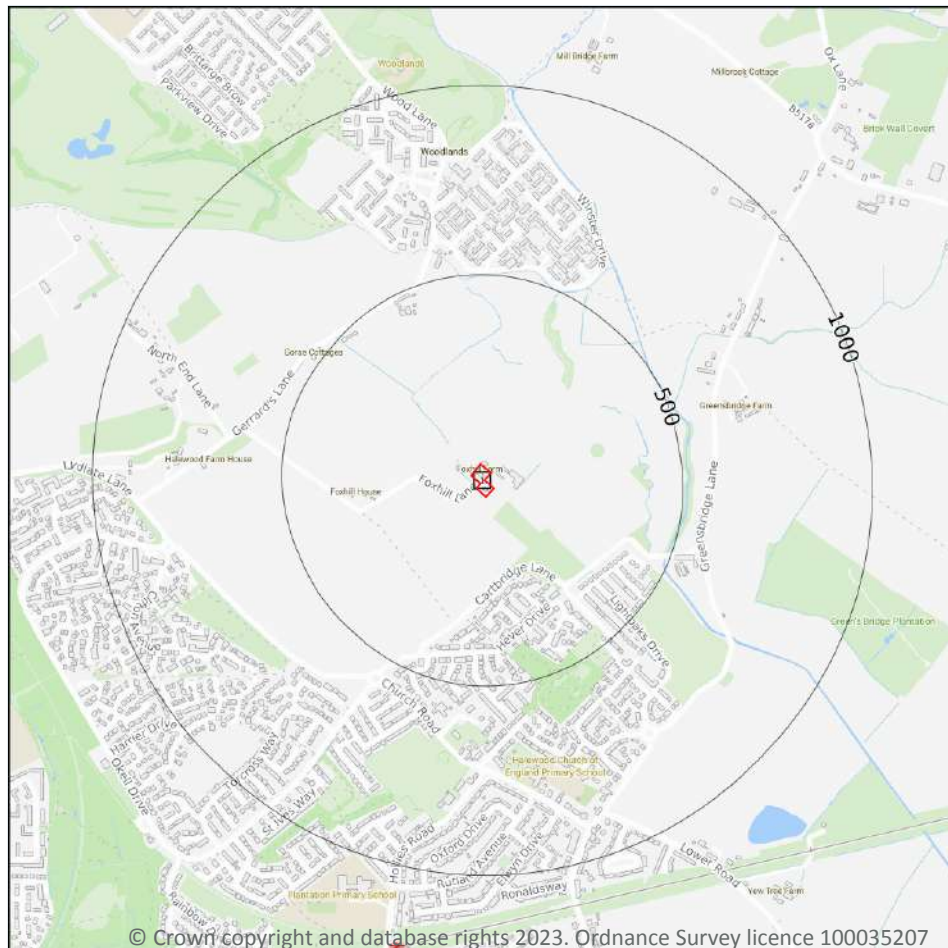
Features are displayed on the Geology 1:10,000 scale - Bedrock map on [page 74 >](#)

ID	Location	Category	Description
4	46m SW	FAULT	Normal fault, inferred; crossmarks on downthrow side
6	53m W	FAULT	Normal fault, inferred; crossmarks on downthrow side

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 76](#) >

ID	Location	Artificial	Superficial	Bedrock	Mass movement	Sheet No.
1	On site	No coverage	Full	Full	No coverage	EW097_runcorn_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

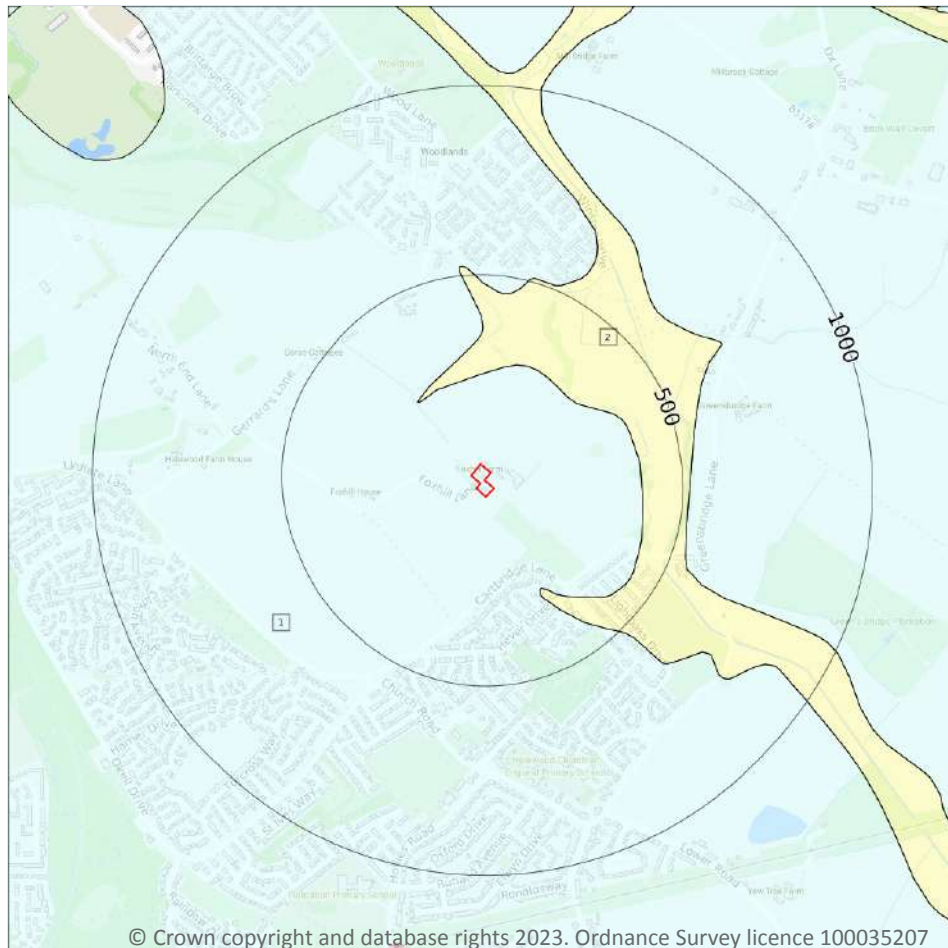
0

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

2

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 78 >](#)

ID	Location	LEX Code	Description	Rock description
1	On site	TILLD-DMTN	TILL, DEVANSIAN	DIAMICTON
2	223m N	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**2**

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
44m W	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)

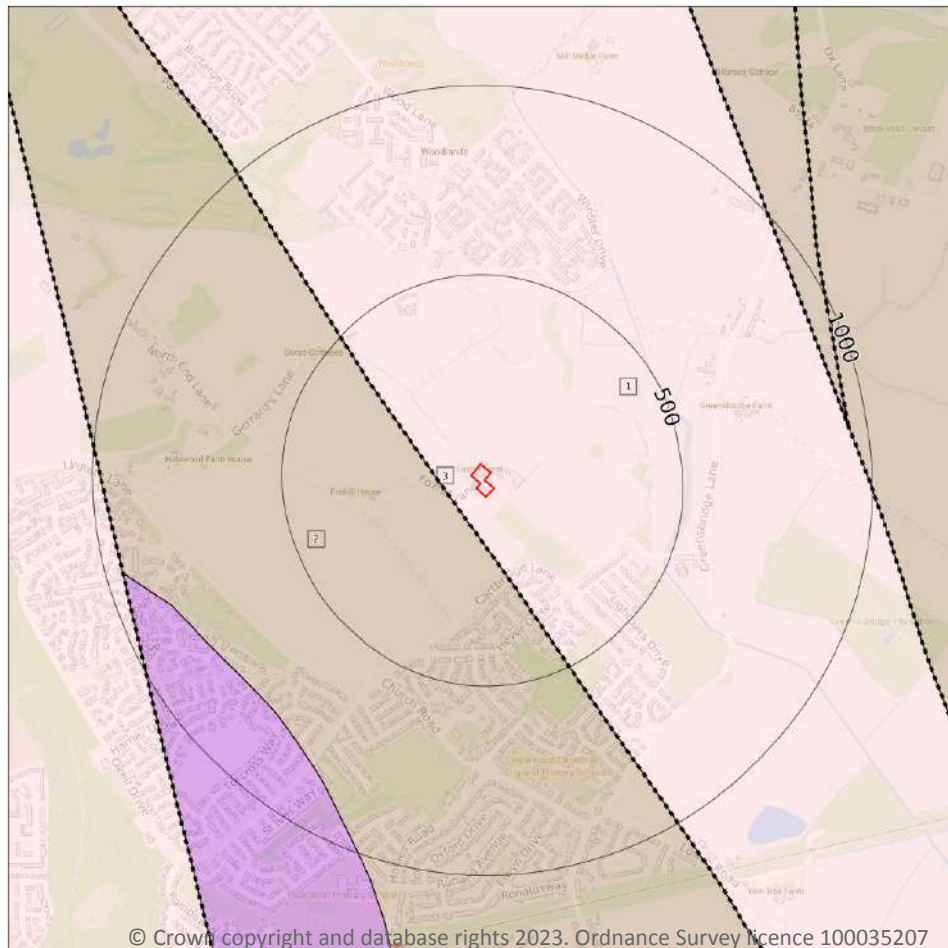
Records within 50m**0**

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

2

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 80](#) >

ID	Location	LEX Code	Description	Rock age
1	On site	WLSF-SDST	WILMSLOW SANDSTONE FORMATION - SANDSTONE	-
2	70m SW	KNSF-SDST	KINNERTON SANDSTONE FORMATION - SANDSTONE	-

This data is sourced from the British Geological Survey.



15.9 Bedrock permeability (50k)

Records within 50m

2

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	Intergranular	High	High
44m W	Intergranular	High	High

This data is sourced from the British Geological Survey.

15.10 Bedrock faults and other linear features (50k)

Records within 500m

1

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 80](#) >

ID	Location	Category	Description
3	70m SW	FAULT	Fault, inferred

This data is sourced from the British Geological Survey.



16 Boreholes

16.1 BGS Boreholes

Records within 250m

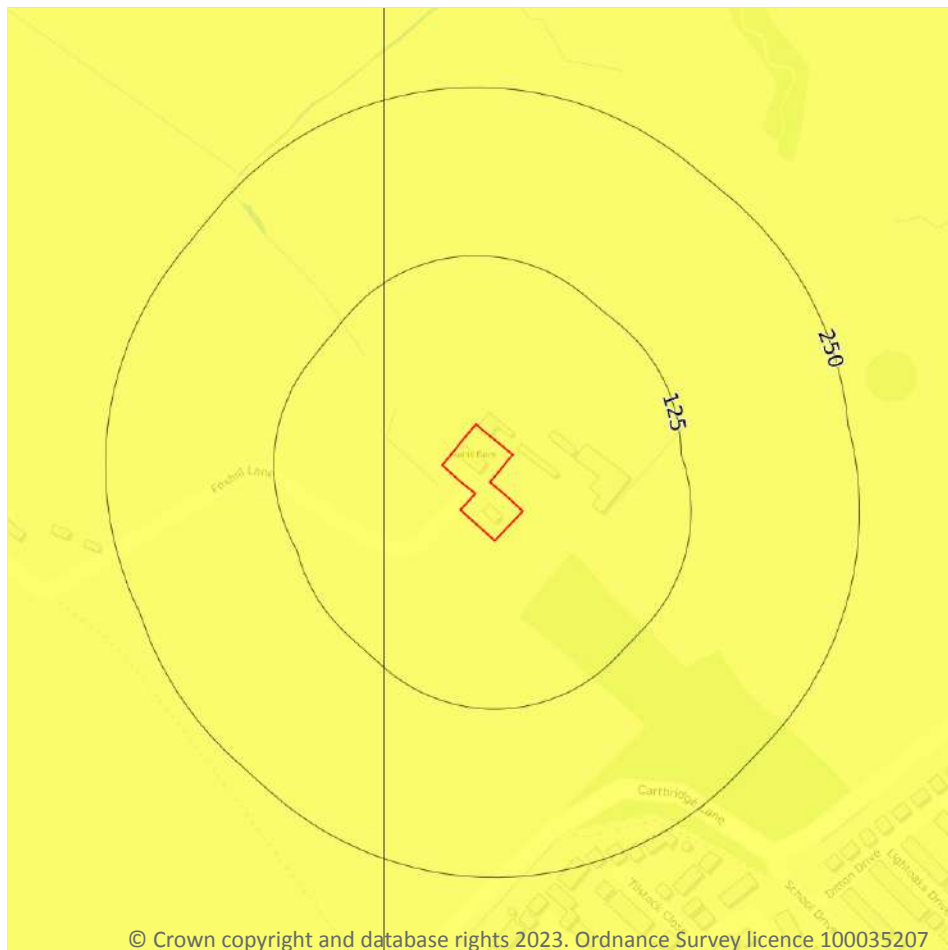
0

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

2

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).

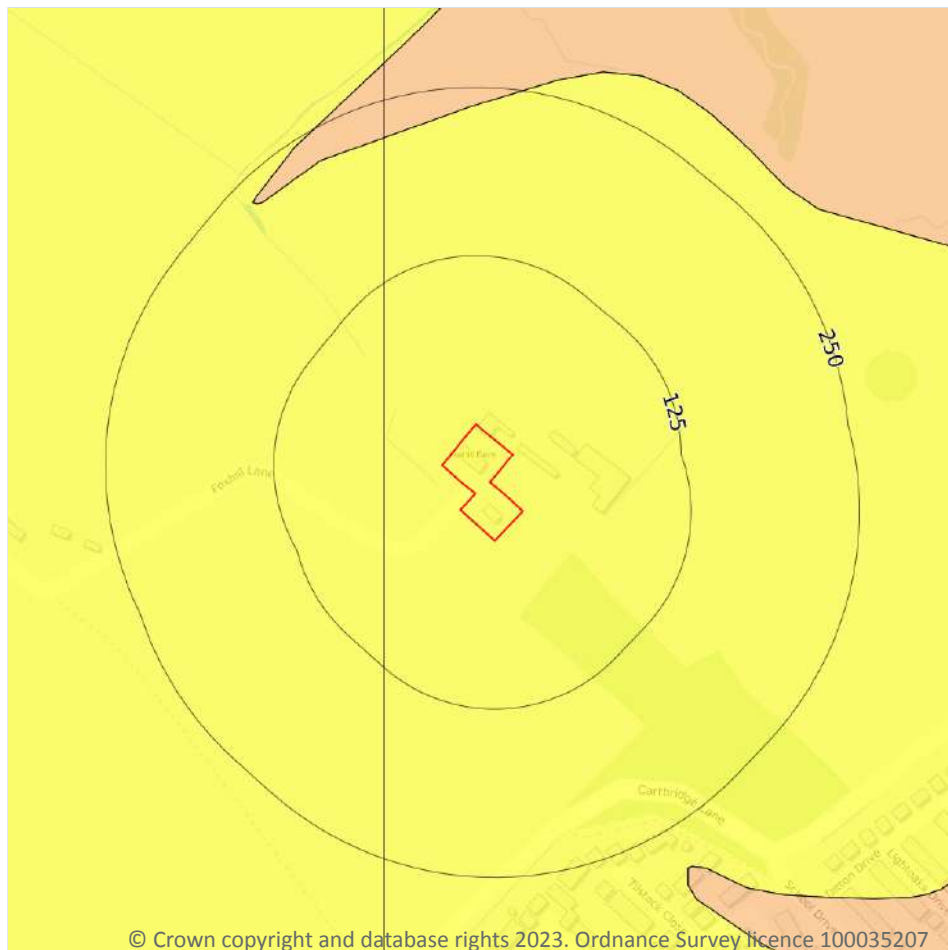
Features are displayed on the Natural ground subsidence - Shrink swell clays map on [page 83](#) >

Location	Hazard rating	Details
On site	Very low	Ground conditions predominantly low plasticity.
44m W	Very low	Ground conditions predominantly low plasticity.

This data is sourced from the British Geological Survey.



Natural ground subsidence - Running sands



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

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17.2 Running sands

Records within 50m

2

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

Features are displayed on the Natural ground subsidence - Running sands map on [page 84](#) >

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.

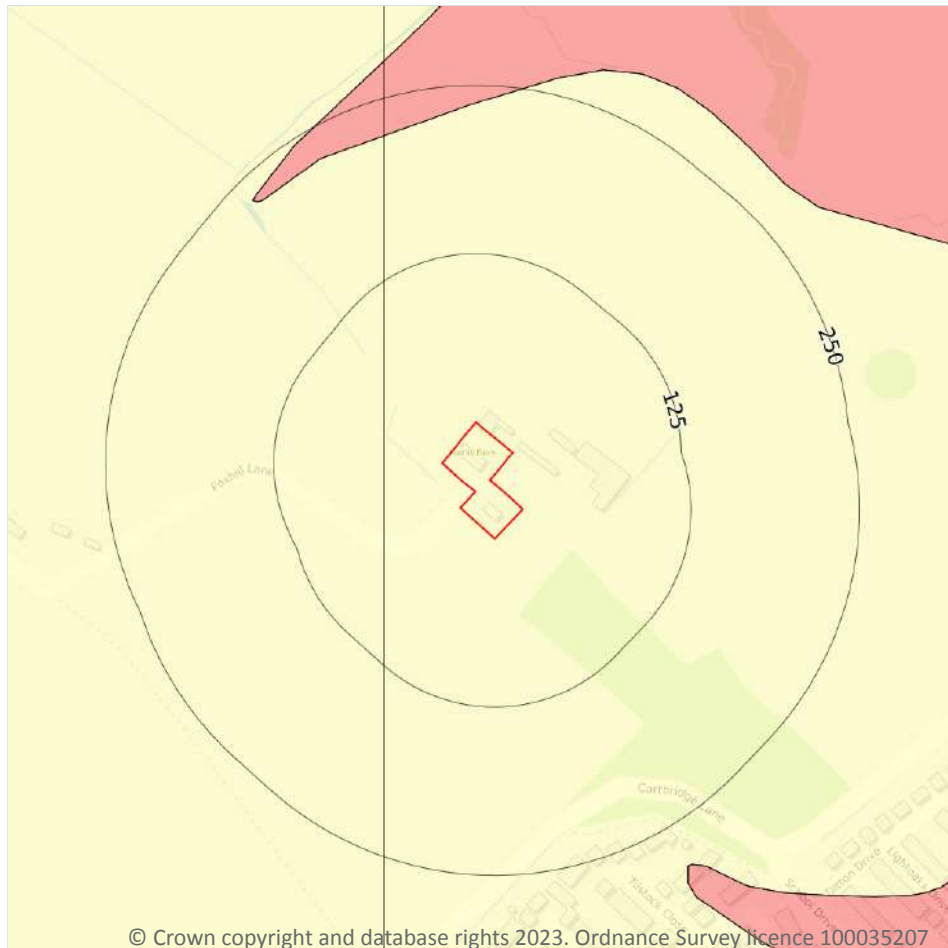


Location	Hazard rating	Details
44m W	Very low	Running sand conditions are unlikely. No identified constraints on land use due to running conditions unless water table rises rapidly.

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

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17.3 Compressible deposits

Records within 50m

2

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

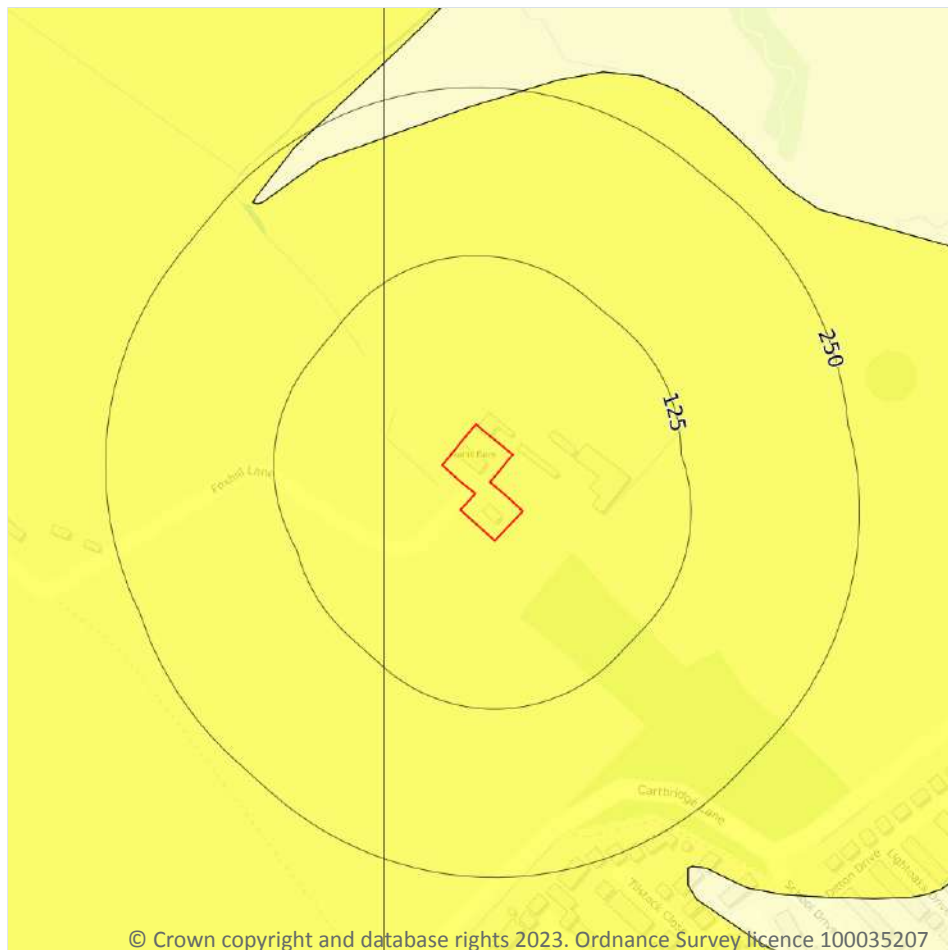
Features are displayed on the Natural ground subsidence - Compressible deposits map on [page 86 >](#)

Location	Hazard rating	Details
On site	Negligible	Compressible strata are not thought to occur.
44m W	Negligible	Compressible strata are not thought to occur.

This data is sourced from the British Geological Survey.



Natural ground subsidence - Collapsible deposits



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

17.4 Collapsible deposits

Records within 50m

2

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.

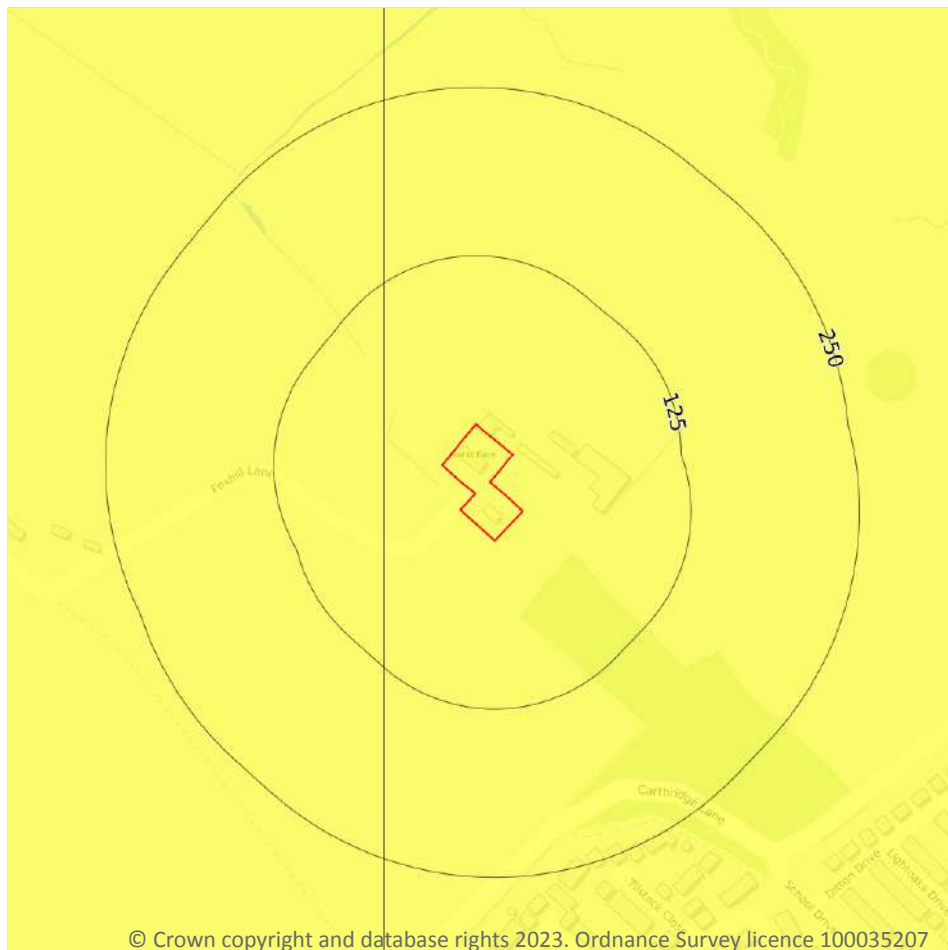
Features are displayed on the Natural ground subsidence - Collapsible deposits map on [page 87 >](#)

Location	Hazard rating	Details
On site	Very low	Deposits with potential to collapse when loaded and saturated are unlikely to be present.
44m W	Very low	Deposits with potential to collapse when loaded and saturated are unlikely to be present.

This data is sourced from the British Geological Survey.



Natural ground subsidence - Landslides



— Site Outline
Search buffers in metres (m)

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

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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 88](#) >

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.

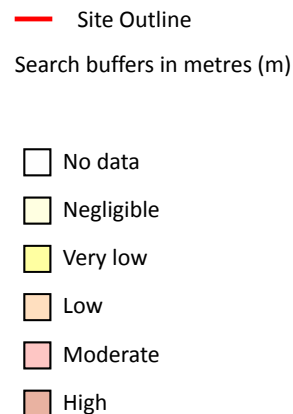
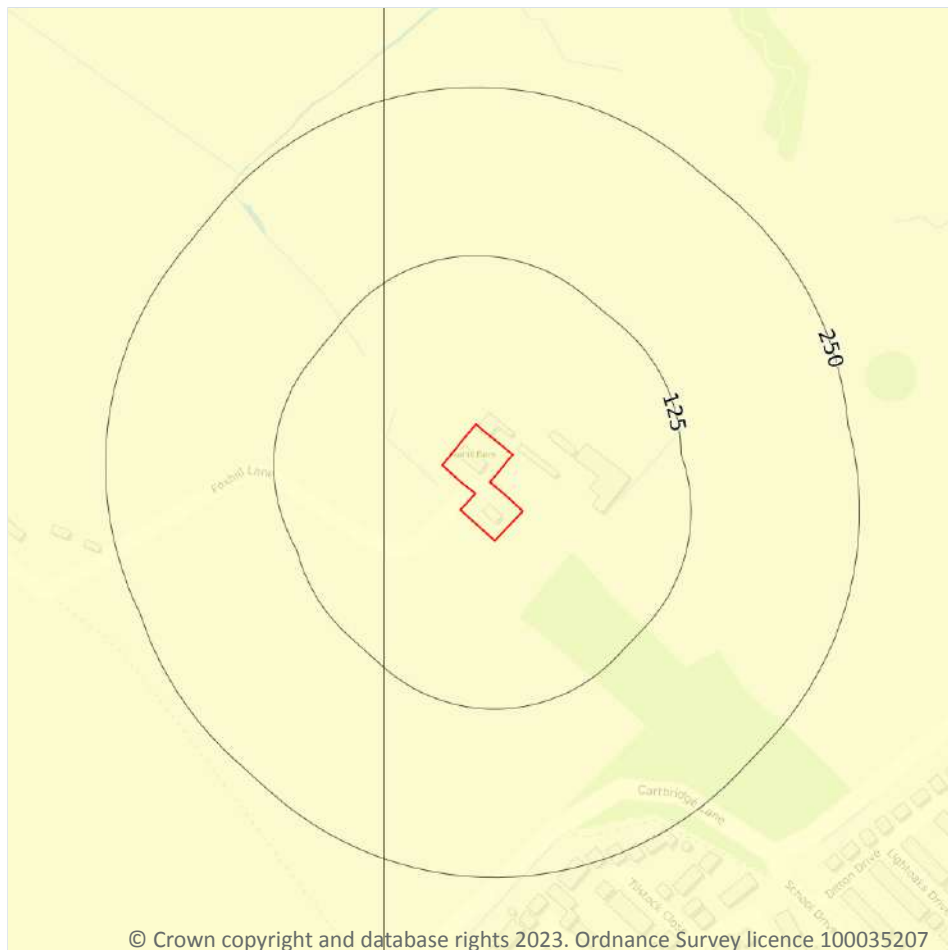


Location	Hazard rating	Details
44m W	Very low	Slope instability problems are not likely to occur but consideration to potential problems of adjacent areas impacting on the site should always be considered.

This data is sourced from the British Geological Survey.



Natural ground subsidence - Ground dissolution of soluble rocks



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17.6 Ground dissolution of soluble rocks

Records within 50m

2

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 90](#)

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.

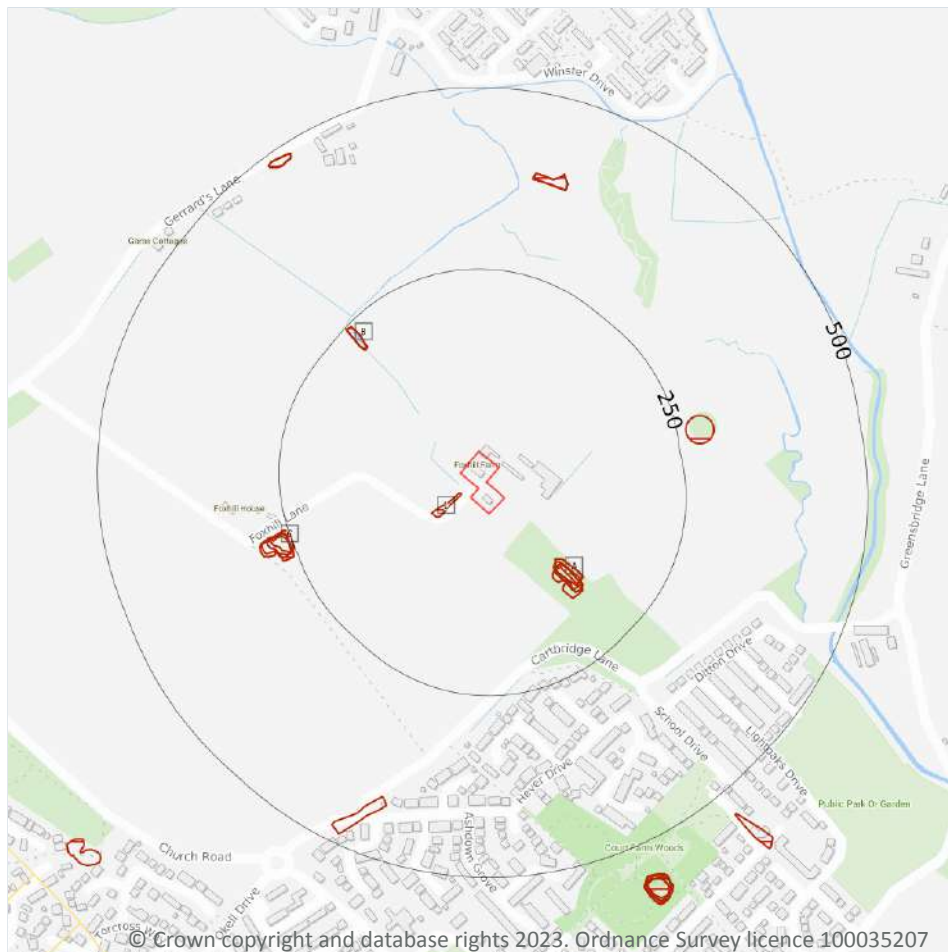


Location	Hazard rating	Details
44m W	Negligible	Soluble rocks are either not thought to be present within the ground, or not prone to dissolution. Dissolution features are unlikely to be present.

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

12

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 92](#) >

ID	Location	Land Use	Year of mapping	Mapping scale
1	14m SW	Ponds	1891	1:10560
A	109m SE	Ponds	1950	1:10560
A	109m SE	Pond	1967	1:10560
A	112m SE	Ponds	1938	1:10560
A	117m SE	Pond	1925	1:10560
A	117m SE	Pond	1904	1:10560
A	117m SE	Pond	1891	1:10560
A	119m SE	Pond	1851	1:10560
B	209m NW	Pond	1980	1:10000
B	209m NW	Pond	1974	1:10000
B	209m NW	Pond	1967	1:10560
C	249m W	Pond	1955	1:10560

This data is sourced from Ordnance Survey/Groundsure.

18.3 Underground workings

Records within 1000m

0

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

This 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

1

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

Features are displayed on the Mining and ground workings map on [page 92 >](#)

ID	Location	Name	Commodity	Class	Likelihood
6	792m SW	Not available	Vein Mineral	A	Underground mine workings are uncommon, although the geology is similar to that worked elsewhere. Potential for difficult ground conditions are unlikely and are at a level where they need not be considered.

This data is sourced from the British Geological Survey.

18.7 JPB mining areas

Records on site

0

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

This data is sourced from Johnson Poole and Bloomer.



18.8 The Coal Authority non-coal mining

Records within 500m**0**

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

This data is sourced from The Coal Authority.

18.9 Researched mining

Records within 500m**0**

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

This data is sourced from Groundsure.

18.10 Mining record office plans

Records within 500m**0**

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

This data is sourced from Groundsure.

18.11 BGS mine plans

Records within 500m**0**

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

This data is sourced from Groundsure.



18.12 Coal mining

Records on site	1
-----------------	---

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

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

This data is sourced from the Coal Authority.

18.13 Brine areas

Records on site	0
-----------------	---

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

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

18.14 Gypsum areas

Records on site	0
-----------------	---

Generalised areas that may be affected by gypsum extraction.

This data is sourced from British Gypsum.

18.15 Tin mining

Records on site	0
-----------------	---

Generalised areas that may be affected by historical tin mining.

This data is sourced from Groundsure.

18.16 Clay mining

Records on site	0
-----------------	---

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

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



19 Ground cavities and sinkholes

19.1 Natural cavities

Records within 500m

0

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

This data is sourced from Stantec UK Ltd.

19.2 Mining cavities

Records within 1000m

0

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

This data is sourced from Stantec UK Ltd.

19.3 Reported recent incidents

Records within 500m

0

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

This data is sourced from Groundsure.

19.4 Historical incidents

Records within 500m

0

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

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



This data is sourced from Groundsure.

19.5 National karst database

Records within 500m

0

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

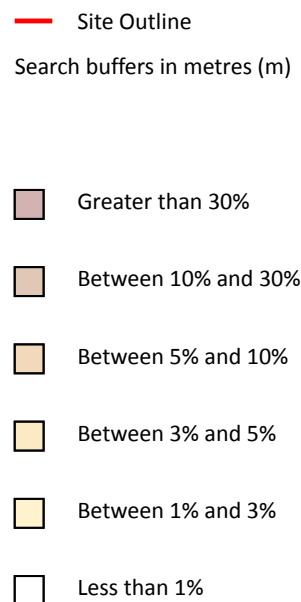
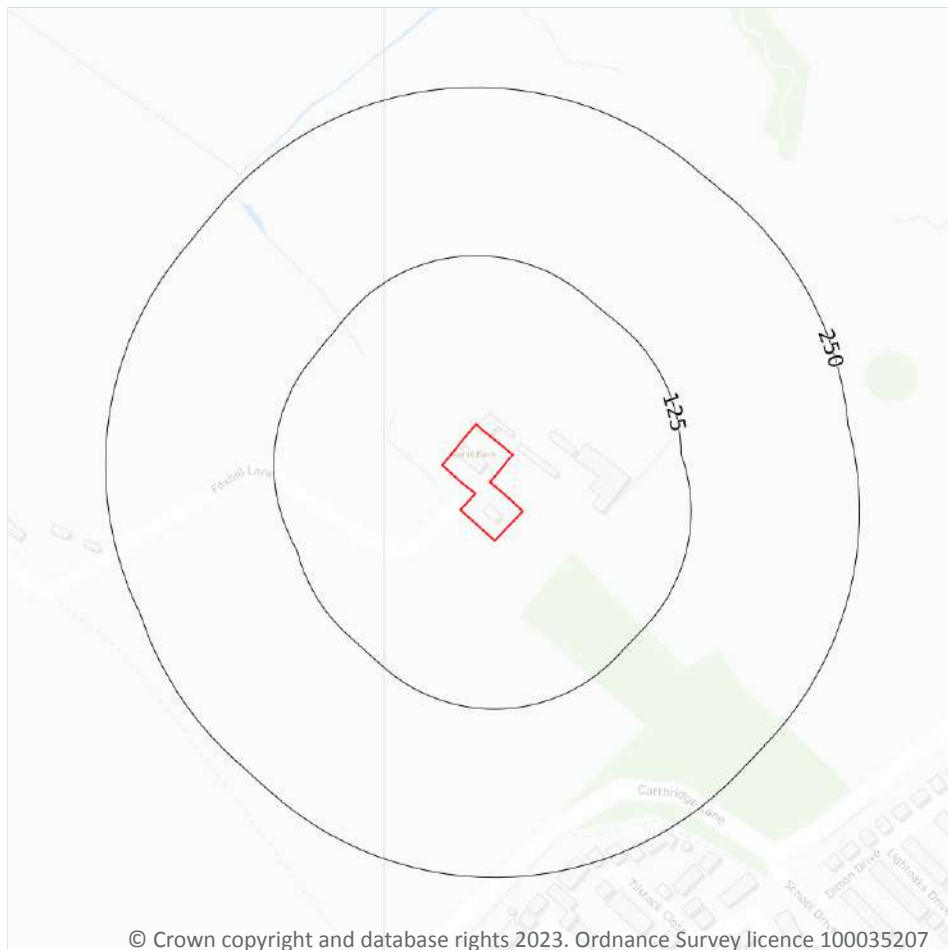
Since the database was set up in 2002 data covering most of the evaporite karst areas of the UK have now been added, along with data covering about 60% of the Chalk, and 35% of the Carboniferous Limestone outcrops. Many of the classic upland karst areas have yet to be included. Recorded so far are: Over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

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

This data is sourced from the British Geological Survey.



20 Radon



20.1 Radon

Records on site

1

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

Features are displayed on the Radon map on [page 99](#) >

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

3

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 - 25 mg/kg	No data	100 mg/kg	60 mg/kg	1.8 mg/kg	90 - 120 mg/kg	15 - 30 mg/kg
44m W	15 - 25 mg/kg	No data	100 mg/kg	60 mg/kg	1.8 mg/kg	90 - 120 mg/kg	15 - 30 mg/kg
44m W	15 - 25 mg/kg	No data	100 mg/kg	60 mg/kg	1.8 mg/kg	90 - 120 mg/kg	15 - 30 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

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**0**

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

This data is sourced from Ordnance Survey/Groundsure.

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 1

Records within 500m

0

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

This data is sourced from publicly available information by Groundsure.

22.9 Crossrail 2

Records within 500m

0

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

This data is sourced from publicly available information by Groundsure.

22.10 HS2

Records within 500m

0

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

This data is sourced from HS2 Ltd.



Data providers

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

Terms and conditions

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



APPENDIX C

Preliminary Conceptual Model

POTENTIAL RECEPTOR	COMMENTS	Include in PCM
PROPERTY: Other		
On Site		
Crops	None intended on site	✗
Domestic Produce	May be grown in residential gardens	✓
Livestock	None anticipated on site	✗
Domestic Animals	May be owned by residents	✓
Game	None on site	✗
Off Site		
Crops	Possibly in fields surrounding site	✓
Domestic Produce	No current adjacent houses	✗
Livestock	Possibly in fields surrounding site	✓
Domestic Animals	No current adjacent houses/residents	✗
Game	Possibly in fields surrounding the site	✓
PROPERTY: Buildings		
On Site		
	Residential Properties, services, flora	✓
Off Site		
	Recreational walkers, Farm buildings, services, flora	✓
HUMANS		
On Site		
Residents	Future Residents	✓
Construction workers	During ground excavations	✓
Employees	Landscape Gardeners	✓
Surface water users	No current surface water abstractions located on site	✗
Off Site		
Residents	Unlikely	✗
Recreational users & Employees	Recreational walkers & Agricultural Workers	✓
Groundwater users	No groundwater abstractions within 250 m.	✗
Controlled Waters		
On Site		
Surface Waters	No surface water features on site	✗
Groundwater	The superficial Boulder Clay deposits are not considered to represent a sensitive receptor. The underlying bedrock is classified as Principal aquifer and presents a potential receptor.	✓
Off Site		
Controlled Waters	Field drains are located 13 m west, 72 m east and 96 m north-west of the site.	✓
Ecological Systems		
On/Off Site		
SSSIs, national nature reserves, SACs etc	None on site or located within 250 m 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 soil	Dermal contact/ingestion of soil at surface	Soil	Humans (on-site/off-site), domestic pets	Low-Medium
2	Contaminated soils	Particulate inhalation	Wind blown particulates	Inhalation of particulates	Air	Humans (on-site/off-site), domestic pets	Low-Medium
3	Contaminated Soils	Impaired produce growth	Uptake of contaminants by homegrown produce resulting in loss	Uptake during growth	Vegetable produce	Property (domestic produce)	Low
4	Contaminated Soils	Ingestion of Contaminants	Uptake of contaminants by homegrown produce	Consumption of homegrown produce	Vegetable produce	Humans	Low
5	Contaminated Soils	Gas / Vapour Inhalation	Breakdown of organic compounds through unsaturated zone of soil leading to inhalation	Inhalation of Vapours/ground gas	Air	Humans (on-site/off-site, domestic pets)	Low
6	Contaminated Soils	Damage to structure/services	Direct contact of contaminants with building structures/services	Direct contact	Soil/Water	Flora, services	Low
7	Contaminated Soils	Degradation of perched water quality	Dissolution or suspension of contaminants into perched waters	Dissolution or Suspension	Water	Perched waters, surface waters	Low
8	Contaminated Soils	Pollution of underlying groundwater	Dissolution or suspension of contaminants into groundwaters (Bedrock aquifer)	Dissolution or Suspension	Water	Groundwaters	Low

Table B: Preliminary Conceptual Model

***Relative Risk 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.

APPENDIX D

Site Photographs



P1: The farmhouse



P2: Derelict barn to the north of the farm house



P3: Inside the derelict barn



P4: The south of the farm house



5: The south of the farm house



P6: Garden area to the south of the occupied section of the farmhouse



This appendix is for illustrative purposes only and is for use only in conjunction with associated reports relating to the project details adjacent. BEK accepts no liability for the misinterpretation or use of this illustration by any other parties.

Site: Foxhill Farm, Halewood
Title: Appendix D - Photographs

Comments:

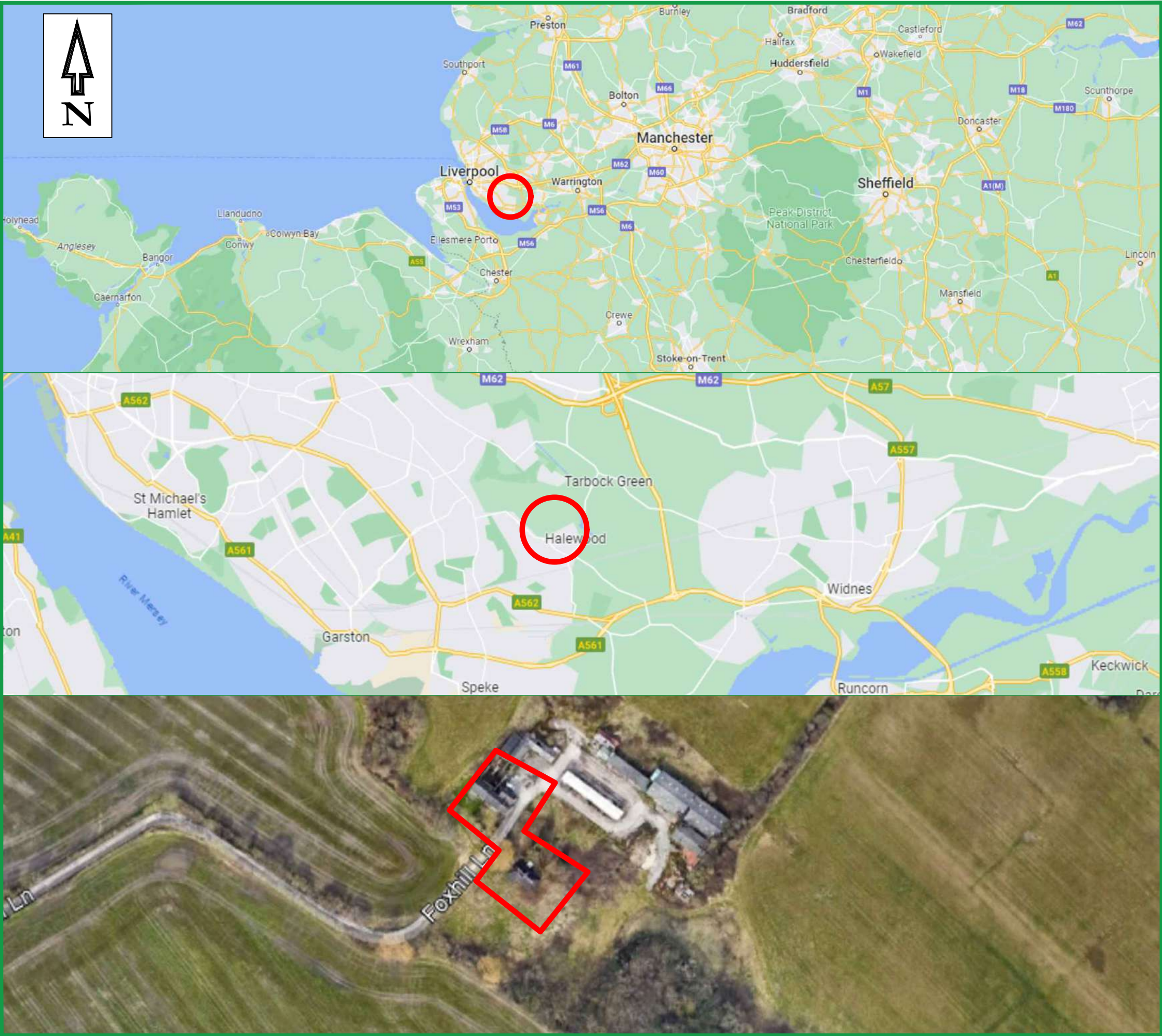
Photographs 1 to 6

Project No: 23134	Created By: AM	Date: October 2023
Client: Sabford Limited		

	
P7: The bungalow in the south of the site	P8: The south of the site
	
P9: External chimney on farmhouse	P10: The north-western side of the farmhouse and barn
	
P11: External chimney	P12: External chimney
 This appendix is for illustrative purposes only and is for use only in conjunction with associated reports relating to the project details adjacent. BEK accepts no liability for the misinterpretation or use of this illustration by any other parties. Site: Foxhill Farm, Halewood Title: Appendix D - Photographs	
Comments:	
Photographs 7 to 12	
Project No: 23134	Created By: AM Date: October 2023
Client: Sabford Limited	

APPENDIX E

Drawings



LEGEND

— SITE LOCATION

REV	DESCRIPTION	DATE	BY



GEO-ENVIRONMENTAL CONSULTING ENGINEERS

No 2 Landiwick Court, Metcalf Drive, Altham Business Park, Lancashire

Tel: 01254 377622 Mob: 07906753583

Email: mbuckley@bekenviro.co.uk

Web: www.bekenviro.co.uk

CLIENT.

SABFORD LIMITED

JOB TITLE.

LAND AT FOXHILL FARM,
HALEWOOD

DRAWING TITLE.

SITE LOCATION PLAN

SCALE © A3. N.T.S	DRAWN BY. D.E.	APPROVED BY. M.B.	DATE. 27/09/23
DRAWING No. 23134-1			REV. -



LEGEND



SITE FOOTPRINT

REV	DESCRIPTION	DATE	BY



GEO-ENVIRONMENTAL CONSULTING ENGINEERS

No 2 Landiwick Court, Metcalf Drive, Altham Business
Park, Lancashire, BB5 5GY
Tel: 01254 377622 Mob: 07906753583
Email: mbuckley@bekenviro.co.uk
Web: www.bekenviro.co.uk

CLIENT.

SABFORD LIMITED

JOB TITLE.

LAND AT FOXHILL FARM,
HALEWOOD

DRAWING TITLE.

SITE LAYOUT PLAN

SCALE © A3.
N'TS

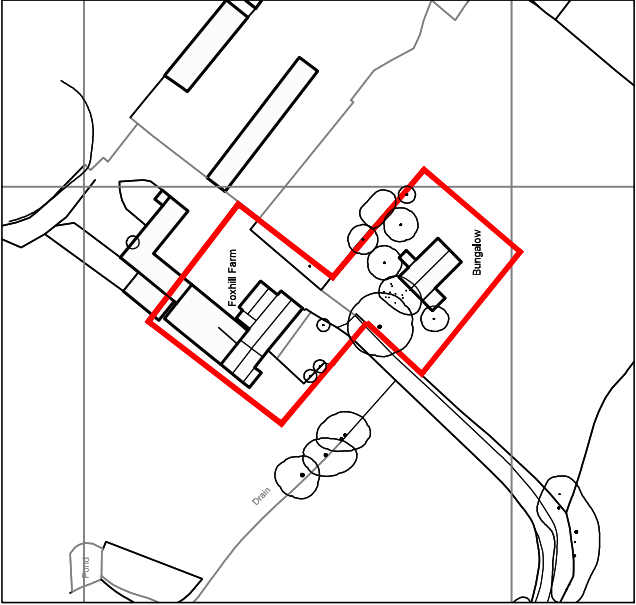
DRAWN BY.
D.E.

APPROVED BY.
M.B.

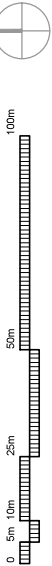
DATE.
27/09/23

DRAWING No.
23134-2

REV.
-



1:1250 Location Plan



	Footprint Area	Volume
Existing	497.5m ²	2589m ³
Proposed	419m ²	2094m ³

