



## **Phase I Geo-environmental Report**

**Project:** BK UK Barnsley  
Wombwell Lane, Barnsley,  
S70 3NS

**Client:** Burger King UK

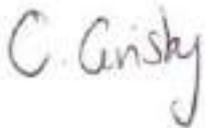
**Reference:** M44628-JNP-XX-XX-RP-G-1001 P01

**Date:** June 2024

## DOCUMENT CONTROL SHEET



Prepared by.....  
Bryony Reynolds  
Graduate Geo-Environmental Engineer



Checked by.....  
Charlotte Grisby MSci  
Graduate Geo-environmental Engineer



Approved by.....  
Hilary Ilsley BSc (Jnt Hons) MSc CBiol MSB SQP SiLC QP  
Associate Geo-environmental Scientist

FOR AND ON BEHALF OF JNP GROUP

**Date:** 21 June 2024

**Document Issue Record**

Rev	Date	Description	Prepared	Checked	Approved
P01	June 2024	First Issue	BR	CG	HI

*This document is for the sole use and reliance of JNP Group's Client and has been prepared in accordance with the scope of the appointment of JNP Group and is subject to the terms of that appointment.*

*JNP Group accepts no liability for any use of this document other than by its Client and only for the purposes for which it has been prepared.*

*No person other than the Client may copy (in whole or in part) or use the contents of this document, without the prior written permission of JNP Group.*

*Any advice, opinions or recommendations within this document should be read and relied upon only in the context of this document as a whole.*

*Any comments given within this document are based on the understanding that the proposed works to be undertaken will be as described in the introduction. The information referred to and provided by others and will be assumed to be correct and will not have been checked by JNP Group, JNP Group will not accept any liability or responsibility for any inaccuracy in such information.*

*Any deviation from the recommendations or conclusions contained in this document should be referred to JNP Group in writing for comment and JNP Group reserve the right to reconsider their recommendations and conclusions contained within. JNP Group will not accept any liability or responsibility for any changes or deviations from the recommendations noted in this document without prior consultation and our full approval.*

## Contents

<b>EXECUTIVE SUMMARY .....</b>	<b>1</b>
<b>1 INTRODUCTION.....</b>	<b>3</b>
1.1 GENERAL .....	3
1.2 OBJECTIVES .....	3
1.3 METHODOLOGY .....	3
<b>2 SITE DESCRIPTION .....</b>	<b>4</b>
<b>3 GEOLOGY, HYDROGEOLOGY AND HYDROLOGY .....</b>	<b>5</b>
3.1 GEOLOGY.....	5
3.2 BGS BOREHOLE RECORDS .....	6
3.3 RADON.....	6
3.4 BACKGROUND SOIL CHEMICAL CONCENTRATIONS .....	6
3.5 COAL MINING.....	6
3.6 MINING, MINERAL EXTRACTION AND NATURAL CAVITIES.....	7
3.7 HYDROGEOLOGY .....	7
3.8 HYDROLOGY .....	8
3.9 POLLUTION INCIDENTS TO CONTROLLED WATERS .....	8
3.10 DISCHARGE CONSENTS.....	8
<b>4 SITE HISTORY .....</b>	<b>10</b>
4.1 HISTORICAL MAPPING.....	10
4.2 UNEXPLODED ORDNANCE REVIEW .....	14
4.3 SITE HISTORICAL SUMMARY .....	14
<b>5 INFORMATION HELD BY STATUTORY AUTHORITIES.....</b>	<b>15</b>
5.1 SUMMARY .....	15
5.2 ENVIRONMENTALLY SENSITIVE AREAS.....	16
<b>6 UK CONTAMINATED LAND LEGISLATIVE FRAMEWORK .....</b>	<b>17</b>
6.1 GENERAL .....	17
<b>7 CONCEPTUAL SITE MODEL AND PRELIMINARY RISK ASSESSMENT.....</b>	<b>19</b>
7.1 GENERAL .....	19
7.2 POTENTIAL SOURCES OF CONTAMINATION .....	19
7.3 RECEPTORS .....	20
7.4 PATHWAYS.....	20
7.5 POLLUTANT LINKAGES.....	21
7.6 PRELIMINARY RISK ASSESSMENT .....	23
<b>8 CONCLUSIONS OF DESK STUDY .....</b>	<b>24</b>
8.1 CONCLUSIONS .....	24
8.2 RECOMMENDATIONS.....	24
<b>9 REFERENCES.....</b>	<b>25</b>
<b>FIGURES / DRAWINGS .....</b>	<b>29</b>



---

<b>APPENDIX A:</b>	<b>LIMITATIONS.....</b>	<b>30</b>
<b>APPENDIX B:</b>	<b>THIRD PARTY DRAWINGS .....</b>	<b>34</b>
<b>APPENDIX C:</b>	<b>PHOTO DOCUMENT.....</b>	<b>35</b>
<b>APPENDIX D:</b>	<b>GROUNDSURE REPORT .....</b>	<b>36</b>
<b>APPENDIX E:</b>	<b>HISTORICAL MAPS .....</b>	<b>37</b>

## EXECUTIVE SUMMARY

Site location	Wombwell Lane, Barnsley, S70 3NS		
Development scheme	The conversion of an existing restaurant unit to a drive through Burger King restaurant.		
NGR	SE 375 052.		
Current use	On-site: Car Park.	Off-site: Commercial, retail and sports facilities, residential and road infrastructure.	
Historical use And UXO	<p>The site was undeveloped agricultural land until approximately 1960, where the site was used as a football ground. The site appeared to have been developed into a car park by the late 1980s to early 1990s. A building was developed in the southern half of the site by 2009 and later demolished. The site was redeveloped into a car park by 2015 and remains today.</p> <p>The surrounding area was initially agricultural field with a railway to the north in the mid-1800s with few quarries approximately 500 m to the north and south-west of the site. By the 1890s, a colliery was developed to the north of the site which was later developed into a chemical plant by the 1930s and a clay pit by the 1950s. The clay pit was unused by the 1990s. To the west there was a railway developed by 1904 with industrial and commercial businesses surrounding the railway. The railway was partially dismantled by the mid to late 1970s. There were brickworks to the south-east of the site by the early 1900s which was labelled as 'works' by the 1960s and unused by 2016. To the south of the site, there was a superstore developed in the late 1980s to early 1990s, which was expanded into a retail park by 2001.</p> <p>A low UXO risk has been identified at the site.</p>		
Geology	Alluvium Deposits Pennine Middle Coal Measure Formation.		
Coal Mining Risk Assessment	Coal measures strata are present beneath the site.		
Hydrogeology	Superficial and bedrock are Secondary-A Aquifers.		
Hydrology	The Dob Sike runs 179 m to the south of the site.		
Environmentally sensitive sites	<p>Site of Special Scientific Interest (SSSI) located 565 m to the southeast of the site, relating to Stairfoot Brickworks.</p> <p>Green Belt located 232 m to the southwest of the site.</p>		
Preliminary Risk Assessment	Risk Receptor	Risk	Justification
	HUMAN HEALTH	MEDIUM	<p>The site itself has not had a contaminative past however, contamination associated with recent development on site may be present.</p> <p>Off site historical land uses include a chemical works, railway and colliery, which may be a source of mobile contamination.</p> <p>A nearby recent landfill 203 m east of the site is a ground gas risk.</p>

	GROUNDWATER	MEDIUM		The site is located on productive strata (Secondary -A Aquifer for both superficial and bedrock) but is not within a SPZ.
	SURFACE WATER	LOW		The nearest water feature is 143 m to the west, therefore due to the distance, it is not considered to be a sensitive receptor .
	ECOLOGY	NONE		Based on the assumption that there are no sensitive/ protected species on site (subject to any ecological survey undertaken).
	PROPERTY & INFRASTRUCURE	MEDIUM		The site itself has not had a contaminative past however, contamination associated with recent development on site may be present. Off site historical land uses include a chemical works, railway and colliery, which may be a source of mobile contamination. A recent landfill located 203 m east as well as historical landfills are a potential ground gas risk.
<b>Recommendations</b>	A ground investigation should be undertaken to verify the above including chemical testing and gas monitoring.			

## **1 INTRODUCTION**

### **1.1 General**

1.1.1 JNP Group was instructed by Burger King UK to undertake a desk study of:

Wombwell Lane,  
Barnsley,  
S70 3NS

hereinafter referred to as 'the site'. This report is subject to the limitations presented in **Appendix A**.

1.1.2 It is understood that the site is to be redeveloped for a drive through restaurant with a car park.

1.1.3 The proposed redevelopment layout is shown on external Drawing Reference 2681-URB-BA-ZZ-DR-A-103100. Rev P00 (September 2023) produced by URBANEDGE (**Appendix B**).

1.1.4 All comments given are based on the understanding that the proposed redevelopment will be as detailed above.

### **1.2 Objectives**

1.2.1 The scope of work comprised non-intrusive (desk-based) research and a site walkover. This report contains details of the site, development of an initial conceptual model, and a preliminary risk assessment with regard to contaminated land issues.

### **1.3 Methodology**

1.3.1 This report has been compiled in accordance with the on-line Land contamination: risk management (LCRM) guidance produced by the Environment Agency (June 2019). This can be found on the UK government website: <https://www.gov.uk/guidance/land-contamination-how-to-manage-the-risks>.

1.3.2 With regard to geotechnical aspects, reference is also made to the requirements of BS EN 1997, Eurocode 7, Geotechnical Design, and associated standards.

## 2 SITE DESCRIPTION

- 2.1.1 The site is located off Wombwell Lane, in Stairfoot approximately 3.1 miles from Barnsley town centre (see Figure 1 Key Plan). The centre of the site is located at National Grid Reference SE 375 052. The site covers an area of approximately 0.21 hectares.
- 2.1.2 The site comprises of a car park with several lights and cctv cameras sporadically distributed across the site. There are several of manholes, predominantly in the north-west of the site. There is a drainage run to the south-east corner of the site. The northern and western boundaries of the site comprise of car parking spaces with a path around the perimeter. The eastern boundary of the site comprises of car parking spaces with a slope from the adjacent road. The southern boundary comprises of car parking spaces.
- 2.1.3 The site is relatively flat at approximately 49 m AOD.
- 2.1.4 The ground consists of hardstanding and is generally in good condition.
- 2.1.5 A selection of photographs taken during the site walkover are included as Appendix C.
- 2.1.6 The surrounding land to the north comprises of a slope (~1 m high), sloping to the south, from Wombwell Lane, and a heritage park approximately 30 m from the site, comprising of public footpaths and green spaces. There is an electricity substation present adjacent to the northern boundary of the site. There are two BT manhole covers adjacent to the north-east corner and the south-west corner of the site. The land to the east consists of a road which is around 0.50 m higher than the site with a fuel station approximately 20 m from the site, and retail outlets. The surrounding area to the south consists of a superstore. There are residential properties, sports facility and warehouses located between 10 and 400 m to the west of the site. There are several car servicing trades to the north-west of the site.
- 2.1.7 The surrounding land uses are summarised in Table 2.1 below.

**Table 2.1 Surrounding Land Use**

Direction	Land Use
North	Road and heritage site comprising of public footpaths and greenspaces.
East	Fuel station and retail outlets.
South	A car park and a superstore.
West	Residential properties, sports facility, garages and warehouses.

### 3 GEOLOGY, HYDROGEOLOGY AND HYDROLOGY

#### 3.1 Geology

- 3.1.1 The geology of the site has been determined by reference to the 1:50,000 scale British Geological Survey (BGS) online GeoIndex Tool as well as to the BGS 1:50,000 Series published geological map, Sheet 87 Barnsley.
- 3.1.2 No recorded artificial or made ground is indicated at the site, however, from the site walkover hardstanding is present across the site. Given the developed nature of the site, made ground is anticipated to be present.
- 3.1.3 Artificial and made ground is recorded by the Groundsure Report to be present 49 m to 261 m between the north and north-east of the site.
- 3.1.4 The superficial geology of the site to be is indicated to be Alluvium, which is described by the BGS as *“Normally soft to firm, consolidated, compressible silty clay, but can contain layers of silt, sand, peat and basal gravel. A stronger, desiccated surface zone may be present”*.
- 3.1.5 The underlying “bedrock” geology is indicated to be strata of the Pennine Middle Coal Measures Formation which is described by the BGS as *“Interbedded grey mudstone, siltstone, pale grey sandstone and commonly coal seams.”* The sandstone is described by the BGS as *“Medium strong to extremely strong medium to widely jointed thinly to thickly bedded fine to coarse-grained SANDSTONE may contain slate or mudstone and siltstone beds. Weathers to a loose to very dense sand, gravel or silty/clayey sand.”* The Mudstone is described by the BGS as *“Very weak to medium strong usually fissured MUDSTONE. Weathers to a firm to stiff silty clay”*. The solid geology is shown to dip approximately 5 degrees to the northeast.
- 3.1.6 There are two faults recorded within 500 m of the site. One is located 280 m, and one is located 496 m to the south of the site. Due to the distance from the site, these faults are not considered to pose a significant risk to the site.
- 3.1.7 The following table summarises the potential risks from a range of geological hazards at the site as identified in a site-specific Groundsure Report which has been obtained and is included in **Appendix D**.

**Table 3.1 Geological Hazards**

Hazard	Risk
Shrinking or swelling clay	Low
Landslide ground	Very Low
Ground dissolution	Negligible
Compressible soils	Very Low
Collapsible soils	Very Low
Running sand	Low

- 3.1.8 Based upon the above, none of these geological hazards are considered to pose a constraint to the proposed development.

### 3.2 BGS Borehole Records

- 3.2.1 JNP Group has consulted online borehole records held by the BGS. The records of two boreholes exist within 250 m of the site (SE30NE9 and SE30NE15).
- 3.2.2 Borehole SE30NE9 records “soil, clay and rubble” between ground level and 2.4 m below ground level (bgl). Coal was recorded at 2.4 m bgl however no thickness is supplied. The Oaks Rock (sandstone) is recorded to be present from around 2.4 m bgl. A second coal seam is recorded to be present approximately 6.1 m bgl, no thickness is supplied.
- 3.2.3 Borehole SE30NE15 is a recorded water well however no information on groundwater was provided. The borehole was drilled open hole and encountered sandstone bedrock at 348 m bgl.

### 3.3 Radon

- 3.3.1 The Groundsure Report states that the Health Protection Agency identified less than 1% of homes above the action level. The British Geological Survey Information Services Group indicates that no radon protection measures are necessary for the intended development at the site.
- 3.3.2 Reference to BRE211 ‘Radon: guidance on protective measures for new dwellings’ indicates that the site does not lie within an area where geological information indicates that basic radon protection may be required. Therefore, this confirms that no radon protection measures are necessary for the proposed development.

### 3.4 Background Soil Chemical Concentrations

- 3.4.1 From a review of the Groundsure Report and the UK Soil Observatory map viewer (<http://mapapps2.bgs.ac.uk/ukso/home.html>) the following range of background metallic soil concentrations are anticipated at the site :

- arsenic 15 - 25 mg/kg;
- barium 426 mg/kg;
- cadmium 0.32 – 1.8 mg/kg;
- chromium 60 - 90 mg/kg;
- copper 28 mg/kg;
- lead 75 - 200 mg/kg;
- nickel 21 - 45 mg/kg
- vanadium 70 mg/kg and;
- zinc 88 mg/kg.

- 3.4.2 Therefore, naturally elevated concentrations of lead are anticipated at the site or within close proximity.

### 3.5 Coal Mining

- 3.5.1 There was extensive historical underground mining in the surrounding area of the site. JNP Group have obtained a Coal Authority Mining Report (**Appendix D**) for the site which is summarised below:

- 3.5.2 There are no probable unrecorded shallow workings or spine roadways recorded by the Coal Authority at the site.
- 3.5.3 No mine entries are recorded by the Coal Authority within 100 m of the site.
- 3.5.4 No outcrops, faults, fissures or breaklines are recorded at site by the Coal Authority.
- 3.5.5 According to the Coal Authority Report, four coal seams are recorded to be present beneath the site (Meltonfield, Barnsley, Fenton and Silkstone coal seams) mined from the New Oaks, an unnamed and Barnsley colliery.
- 3.5.6 The coal seams are recorded to be at depths between 129 and 605 m bgl beneath the site.
- 3.5.7 The extraction thickness of these seams was between 0.89 and 1.88 m and were last mined between 1883 and 1979.
- 3.5.8 There are no recorded Coal Authority managed tips within 500 m of the site.
- 3.5.9 The Coal Authority has not received a damage notice or claim for the subject property, or any property within 50 m of the site.
- 3.5.10 No mine gas or mine water treatment schemes are recorded by the Coal Authority within 500 m of the site.

### 3.6 Mining, Mineral Extraction and Natural Cavities

- The Groundsure report records four surface ground workings within 0 to 50 m and 39 between 50 and 250 m of the site. The closest surface ground workings are recorded to be a colliery located 14 m to the north-east and a pond located 14 m to the north-west.
- There are two underground workings recorded in the Groundsure Report within 500 m of the site. The closest underground workings recorded are located 14 m to the north-east and are associated with a colliery.
- The Groundsure report records three BritPits within 50 to 250 m of the site and six within 250 to 500 m of the site. The closest BritPit is located 114 m to the north of the site and is associated with underground workings at New Oaks Colliery.
- There is one recorded mining cavity recorded in the Groundsure Report within 500 m of the site, located 389 m to the east of the site, associated with shale.
- There are no natural cavities located within 1 km of the site;
- No brine or gypsum extraction has occurred within 1 km of the site;
- No tin or clay mining areas are located within 1 km of the site.

### 3.7 Hydrogeology

- 3.7.1 The Aquifer Maps contained in the Groundsure Report indicates that the site is underlain by a Secondary-A Aquifers. The aquifer status refers to the Alluvium Deposits and Pennine Middle Coal Measures respectively.
- 3.7.2 The Environment Agency define a Secondary-A Aquifer as:
- “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.”*

3.7.3 The Groundsure Report lists one licensed groundwater abstraction from the superficial deposits, located 999 m to the north-west of the site. The current status of the water abstraction is unknown.

3.7.4 The site's proximity to groundwater Source Protection Zones (SPZs) was determined by reference to Defra's Magic Map website (<https://magic.defra.gov.uk/>). These zones show the risk of contamination of major licensed groundwater abstractions from any activities that might cause pollution in the area, with the closer the activity, the greater the associated risk. The maps show four main zones (inner, outer, total catchment and special interest) to a groundwater source.

3.7.5 The site does not lie within 1 km of a groundwater source protection zone.

### **3.8 Hydrology**

3.8.1 The nearest surface water feature is an unnamed and disused? canal which is located 143 m to the west of the site. Three further surface water features including the Dob Sike, located 179 m to the south, and two ponds located approximately 260 and 540 m to the north and north-east from the site respectively.

3.8.2 According to historical maps (see Section 4), a former canal flowed in a south-easterly direction approximately 180 m to the south of the site. It is understood that the canal was partially infilled with the remaining canal existing to the west of the site.

### **3.9 Pollution Incidents to Controlled Waters**

3.9.1 Records held by the Environment Agency identified four pollution incidents to controlled waters within 1 km of the site. These were all classified as Category 4 – No Impact and are as follows:

- 343 m to the west of the site in July 2002 where the pollutant was described as 'asbestos';
- 368 m to the south-east of the site in June 2001 where the pollutant was described as 'Vegetable Cuttings and Deposits';
- 393 m to the south-east of the site in June 2001 where the pollutant was described as 'Crude Oil'.

### **3.10 Discharge Consents**

3.10.1 The Groundsure Report identifies ten licensed discharge consents within 1 km of the site, summarised as follows:

- 118 m to the north of the site, issued in January 1982, to discharge unspecified trade discharges to the Dob Dyke. The consent was revoked in January 1983.
- 308 m to the east of the site, issued in March 2002, to discharge sewage to a tributary of the Dob Dyke. The consent was revoked in March 2005. A new license was issued in April 2005 and is assumed to be current.
- 334 m to the south-east of the site, issued in January 1983 to discharge site contaminated surface water to the Dob Syke. The consent was revoked in June 1996.
- 334 m to the south-east of the site, issued in June 1996 to discharge site contaminated surface water to the Dob Syke. No revocation date is supplied.

- 418 m to the south-east of the site, issued in November 1989 to discharge sewage to the Dob Syke. The consent was revoked in November 2018.
- 433 m to the south-east of the site, issued in November 2018 to discharge sewage to the River Dove. No revocation date is supplied.
- 439 m to the south-east of the site, issued in November 1997 to discharge sewage to the Dob Sike. The consent was revoked in March 2005.
- 485 m to the east of the site, issued in November 1987 to discharge sewage to a tributary of the Dob Dyke. The consent was revoked in March 2002.

## 4 SITE HISTORY

### 4.1 Historical Mapping

4.1.1 The history of the site and the surrounding area has been determined from a review of historical map extracts, obtained as part of the Groundsure report. Copies of these extracts are included in **Appendix E**. The historical land uses on site and in close proximity to the site are summarised as follows:

**Table 4.1 Site Historical Summary**

Date	On-site Historical Land Use	Off-site Historical Land Use
1850-1854	The site was within an agricultural field. A drainage ditch appeared to be present across the southern quarter of the site, orientated north-west, south-east.	<p>A road named 'Wombwell Lane' was present adjacent to the northern boundary of the site.</p> <p>A drainage ditch appeared to be present to the west of the site.</p> <p>A railway was present approximately 40 m to the north and was orientated north-west, southeast. Ardsley Station was denoted approximately 250 m to the north-east.</p> <p>A Brick Yard 100 m, a Reservoir 320 m and a Bleach and Dye works were indicated to the north-west.</p> <p>A Quarry was indicated approximately 430 m to the north.</p> <p>The residential area of Ardsley was shown from 500 m to the north.</p> <p>A trough and culvert are denoted 100 and 200 m to the south-east.</p> <p>The area to the south was predominantly agricultural fields.</p> <p>The Dob Sike was shown to be present approximately 190 m to the south.</p> <p>A canal named 'Dearne Valley and Dove Canal' was present approximately 150 m to the west, flowing towards the south-east approximately 250 m to the south of the site. From approximately 600 m to the south-east, the map shows the canal forked with the canal to the south and 'The Eight Locks' to the south-east.</p> <p>An 'old' sandstone quarry is noted approximately 550 m to the south-west.</p>
1890 - 1894	The drainage ditch does not appear to be present on the site. No further significant changes.	<p>A colliery named 'New Oaks' was developed approximately 50 m to the north with coke ovens, brick kilns and ponds noted.</p> <p>An un-named building was developed adjacent to the north-west boundary of the site.</p> <p>The trough and the culvert to the south-east were no longer shown.</p>

Date	On-site Historical Land Use	Off-site Historical Land Use
		<p>The quarry to the north and old sandstone quarry to the south were infilled.</p> <p>A well was shown to be present to the west of the site.</p> <p>The Bleach and Dye Works to the north-west was no longer labelled.</p> <p>There is a coal railway extension denoted from 500 m to the north-west of the site.</p>
1904	No significant changes.	<p>Further developments of buildings adjacent to the north-west boundary were indicated.</p> <p>Excavation was noted present within the New Oaks Colliery to the north.</p> <p>A Cricket Ground approximately 150 m and a Brick Works with areas of excavation approximately 350 m was developed to the south-east.</p> <p>A Flint Glass Works was developed approximately 250 m to the north-west.</p> <p>There was a railway developed approximately 375 m to the west named 'Stairfoot &amp; Cudworth Line' in a north, south orientation. South of the railway, it became the 'Chapelton Brach Extension'.</p> <p>There was significant residential development from 500 m to the north-west named 'Hunningley'.</p>
1929-1931	No significant changes.	<p>The colliery to the north was no longer shown to be a colliery but was labelled as 'Oaks Chemical Plant' with areas of excavation.</p> <p>The land adjacent to the western boundary was used as allotment gardens.</p>
1931	No significant changes.	Four tanks were shown to be present around the chemical plant to the north of the site.
1948	No significant changes.	There was a large area of excavation to the north of the Oaks Chemical Plant, approximately 100 m north of the site.
1951-1955	No significant changes.	<p>The excavation to the north was labelled as a clay pit and had a tramway through the centre.</p> <p>The excavation at the brick yard to the southeast had also expanded.</p>
1960	The site was shown as a football ground.	<p>Two pavilions were developed 110 and 60 m to the south-east and south-west respectively.</p> <p>The well to the west of the site was removed.</p> <p>The chemical works to the north was named 'Works' and the tanks associated were no longer shown. However, three circular structures were</p>

Date	On-site Historical Land Use	Off-site Historical Land Use
		developed approximately 130 m to the north-east.
1966	No significant changes.	<p>There was building developments in the northern half of the allotment gardens adjacent to the western boundary.</p> <p>A second football ground was developed approximately 160 m to the east.</p>
1974-1977	No significant changes.	<p>The works to the north was demolished and the clay pit was labelled as disused.</p> <p>There was significant residential development from 500 m to the north-east.</p> <p>The pits with the works to the south-east were also labelled as disused.</p> <p>The Eight Locks to the south-east was no longer labelled and appeared to be straightened.</p> <p>The canal to the south and west of the site was no longer labelled appeared to be disused and partially infilled.</p> <p>The allotment gardens adjacent to the western boundary was no longer shown.</p> <p>The railway to the west named 'Stairfoot &amp; Cudworth Line' was shown to be dismantled.</p> <p>A garage approximately 125 m and warehouses 250 m to the north-west and west were developed.</p> <p>Works, a Foundry and a Factory were developed between 250 and 600 m to the north-west.</p>
1982-1987	No significant changes.	<p>The pit to the north was labelled as 'clay pit' and assumed to have been reopened. A number of drains were noted to be present within the pit.</p> <p>The football ground to the north-east was no longer labelled.</p> <p>A garage was developed approximately 310 m to the southeast.</p> <p>The canal to the south was labelled as 'disused'.</p>
1987-1992	The site is developed into a car park.	<p>A superstore was developed approximately 90 m south.</p> <p>The land to the east of the site was labelled as 'Rugby Football Ground'.</p>
1990	No significant changes.	<p>The railway to the north was labelled as 'dismantled'. The clay pit to the north was labelled as a refuse tip. A building was developed approximately 40 m to the east.</p> <p>An electricity substation was denoted adjacent to the northern boundary.</p>



## **4.2 Unexploded Ordnance Review**

- 4.2.1 Whilst JNP Group are not experts on this, according to online mapping provided by Zetica (<https://zeticauxo.com/downloads-and-resources/risk-maps/>) the site lies with an area of Low risk of unexploded ordnance (UXO).

## **4.3 Site Historical Summary**

- 4.3.1 The site was undeveloped agricultural land until approximately 1960, where the site was used as a football ground. The site appeared to have been developed into a car park by the late 1980s to early 1990s. A building was developed in the southern half of the site by 2009 and later demolished. The site was redeveloped into a car park by 2015 and remains today.
- 4.3.2 The surrounding area was initially agricultural field with a railway to the north in the mid-1800s with few quarries approximately 500 m to the north and south-west of the site. By the 1890s, a colliery was developed to the north of the site which was later developed into a chemical plant by the 1930s and a clay pit by the 1950s. The clay pit was unused by the 1990s. To the west there was a railway developed by 1904 with industrial and commercial businesses surrounding the railway. The railway was partially dismantled by the mid to late 1970s. There were brickworks to the south-east of the site by the early 1900s which was labelled as 'works' by the 1960s and unused by 2016. To the south of the site, there was a superstore developed in the late 1980s to early 1990s, which was expanded into a retail park by 2001.

## 5 INFORMATION HELD BY STATUTORY AUTHORITIES

### 5.1 Summary

5.1.1 This section details any relevant information held in the registers maintained by statutory bodies as identified in the Groundsure Report (**Appendix D**).

**Table 5.1 Statutory Information Summary**

	On-Site	0-250m	250-500m	Details
<b>Waste</b>				
Active or Recent Landfills	0	1	0	Located 203 m to the east of the site, relating to household, commercial and industrial waste. The recorded status is 'Closure'.
Historical Landfills (BGS)	0	0	1	Located 472 m to the north-west of the site, regarding a disused canal. No waste type is supplied.
Historical Landfill (LA)	0	2	0	Located 57 m and 58 m to the north-east of the site relating to refuse tips present on 1990 and 1995 mapping respectively.
Historical Landfill (EA/NRW)	0	4	4	The two closest are located 44 and 157 m to the north-east of the site, relating to inert, industrial, commercial, household, special and liquid sludge. The last recorded for the landfill 44 m from the site was December 1992. No last recorded date is supplied for the landfill 157 m from the site.
Historical Waste Site	0	3	1	The closest is located 93 m to the north-east, relating to ground workings and refuse heap. The most recent is located 186 m to the south-east of the site, relating to a metal recycling yard, which has a planning application date of May 2023.
Licensed Waste Site	0	1	4	The closest is located 137 m to the north-west of the site, relating to a metal recycling site, issued in September 1997. The status is expired.
Waste Exemptions	0	5	14	The closest is 130 m to the south-east, relating to burning waste in the open.
<b>Environmental Permits, Incidents and Registers</b>				
Part A(1) and IPPC Authorised Activities	0	0	0	None recorded within 500 m of the site.
Part A(2) and Part B Activities and Enforcements	0	6	2	The closest two are located 50 m to the south-east and 74 m to the east of the site. These are associated with unloading of petrol into storage at service stations and respraying of road vehicles respectfully.
COMAH & NIHHS Sites	0	0	0	None recorded within 500 m of the site.
<b>Industrial and Contaminative Premises</b>				
Fuel Sites	0	1	0	Located 25 m to the south-east of the site.

	On-Site	0-250m	250-500m	Details
Contemporary industrial data				Electrical features, vehicle hire and rentals, fuel stations, vehicle cleaning services, gas features, vehicle repairs testing and servicing, conservatories, vehicle cleaning services, signs, beds and bedding, general construction supplies, catering and nonspecific food products, second hand vehicles and business parks and industrial estates.
Historical Industrial land uses	0	69	89	Garage, railway sidings, unspecified works, chemical plant, colliery, refuse heap, brick works, unspecified ground workings and heaps, flint glass works, unspecified pit, unspecified tank, clay pit, unspecified quarry, tramway sidings, glass works, disused canal, unspecified warehouse, railway station, tan yard, police station, nursery, unspecified factory and bleach and dye works.
Historical Tanks	0	22	12	The closest is located 58 m to the north-east of the site.
Historical energy features	0	11	18	The closest is located 2 m north of the site, regarding an electric substation, dated 1990.
Historical Garages	0	4	5	The closest is located 107 m to the north-west of the site, dated 1972.
Historical Railway	0	2	-	The closest is located 33 m to the north-east and is described as 'abandoned'.

## 5.2 Environmentally Sensitive Areas

5.2.1 The sensitive land use map within the Groundsure Report indicates:

- There is a Site of Special Scientific Interest (SSSI) located 565 m to the south-east of the site, relating to Stairfoot Brickworks.
- There is a Green Belt located 232 m to the south-west of the site.

## 6 UK CONTAMINATED LAND LEGISLATIVE FRAMEWORK

### 6.1 General

- 6.1.1 Given that the site is being assessed with the potential for future development, the most applicable appraisal relates to the requirements of the Planning Regime as described in the National Planning Policy Framework.
- 6.1.2 In order to proceed with an assessment of contamination issues it is essential that there is compliance with UK guidance as detailed in the on-line Land contamination: risk management (LCRM) guidance produced by the Environment Agency (June 2019). This can be found on the UK government website: <https://www.gov.uk/guidance/land-contamination-how-to-manage-the-risks>.
- 6.1.3 Part IIA of the Environmental Protection Act, 1990, which was enacted by Section 57 of the Environment Act 1995, and the associated Contaminated Land (England) Regulations 2000 (SI 2000/227), was introduced on 1 April 2000. It created a new statutory regime for the identification and remediation of land where contamination poses an unacceptable risk to human health and the environment. The guidance was subject to a review by DEFRA in 2012, and a revision was published.
- 6.1.4 Part IIA provides a statutory definition of contaminated land:
- 6.1.5 *“any land which appears to the Local Authority in whose area it is situated to be in such a condition by reason of substances in, on or under the land, that significant harm is being caused, or that there is a significant possibility of significant harm being caused, or that pollution of controlled waters is being or is likely to be caused”.*
- 6.1.6 Controlled waters are considered to be all groundwaters, inland surface waters, and estuarine and coastal waters.
- 6.1.7 To determine whether land falls under the Part IIA definition of contaminated land, the site should be evaluated in the context of a risk-based framework. The assessment of contaminated land is typically a two-phase process, which is initially based on a qualitative assessment of the likelihood of complete pollution linkages, with a quantitative element that seeks to determine the degree and the significance of the harm. Land is only defined as ‘Contaminated Land’ if a “significant pollutant linkage” is present.
- 6.1.8 A pollutant linkage must comprise the following:
- Source** - a contaminant at a concentration capable of causing adverse health or environmental effects.
- Receptor** - there must be a receptor (e.g. human, controlled waters, ecological, or property) present, which may be at risk of harm or impact from the source.
- Pathway** - there must be an exposure pathway through which the receptor comes into contact with the contamination source.
- 6.1.9 Each of these elements can exist independently, but they create risk only when they are linked together, so that a particular contaminant affects a particular receptor, through a particular pathway.
- 6.1.10 The responsible authority then needs to consider whether the identified pollution linkage:
- is resulting in significant harm being caused to the receptor in the pollutant linkage;

- presents a significant possibility of significant harm being caused to that receptor;
  - is resulting in the pollution of controlled waters, which constitute the receptor; or is likely to result in such pollution.
- 6.1.11 If a pollutant linkage is demonstrated, then the Part IIA legislation provides powers for remedial action to be enforced by the Local Authority in whose area the contaminated land is situated.
- 6.1.12 In addition, JNP Group has undertaken a preliminary risk assessment based on the probability of receptor exposure to the identified source and the consequences of such exposure.
- 6.1.13 Risk management, which can include site surfacing, formal management systems, legal requirements; is then considered to provide an overall residual risk. The categories of environmental risk used by JNP Group are given in the table that follows.

**Table 6.1 Risk Matrix**

Environmental Risks		
HIGH		Issues within this category likely to provide a significant cost or liability. Further detailed investigation may be required to clarify the risk.
MEDIUM		It is possible that issues within this category may provide a cost or liability. Further investigation may be required to clarify the risk.
LOW		It is unlikely that issues within this category will provide a significant cost or liability. Basic investigation may be required to clarify the risk.
NONE		No source – pathway – receptor linkage present.

## **7 CONCEPTUAL SITE MODEL AND PRELIMINARY RISK ASSESSMENT**

### **7.1 General**

7.1.1 This section uses information from field observations and all the data sources presented herein to provide a conceptual model and qualitative assessment of the potential risks posed to human health and environmental receptors from potential on-site and off-site sources of contamination. The assessment is presented as a 'source-pathway-receptor' model in accordance with Part IIA of the Environmental Protection Act 1990.

7.1.2 The conceptual site model has been developed assuming that the site will be redeveloped for a drive through restaurant with a car park.

### **7.2 Potential Sources of Contamination**

#### **7.2.1 Potential On-Site Sources of Contamination**

- The site remained undeveloped until the late 1980s to early 1990s where it was developed into a carpark. A building was developed in the southern half of the site by 2009 and then was demolished and the site was redeveloped into a carpark.
- Heavy metals, hydrocarbons, and soil gas associated with limited made ground materials may be present as a result of previous phases of development including imported and site generated fill materials.

#### **7.2.2 Potential Off-Site Sources of Contamination**

- There is an operational fuel station located 25 m to the east, a car park to the south and a road adjacent to the northern boundary of the site, which are potential sources of metals and hydrocarbons. It is likely that the fuel station has underground tanks which may be a source of contamination.
- The land to the north has a historical land use as a railway, colliery, clay pit and chemical works with associated tanks, therefore is considered a potential source of leachable metals and hydrocarbons. Due to the associated made ground and infilled ground north of the site, of unknown material, and the unknown depth of the pit, it is a potential source of hazardous land gas.
- Chemical works were recorded to the north-east of the site until the 1930s, when 'works' were denoted until 1961. There is a low risk of potential airborne emissions and fallout contaminants from the works onto the site.
- Historical maps indicated that there was a canal withing 250 m to the south and west of the site was partially infilled by the early 1990s. The material backfilled in this canal is unknown, therefore, it is a potential source of ground gas. However, based on guidance given in CL:AIRE research bulletin RB17 (CL:AIRE 2012), as likely depth of the infilled ground is unlikely to be greater than 5.00 m, and the soil atmosphere is likely to be aerobic and of small area, the former clay pit and canal are unlikely to generate significant volumes of ground gas. RB17 indicates that even where ground gas is present from made ground and recycled soils, it generally does not pose a risk.
- There are a number of recent and historical landfill sites within 250 m of the site which potentially pose a ground gas risk to the site. The nearest recent landfill was located 203 m east for the disposal of household, commercial and industrial waste, where the

potential gas generation risk is the greatest as it last recorded waste deposition in the early 1990.

### **7.3 Receptors**

7.3.1 The site is to be redeveloped for a drive through restaurant with a car park.

7.3.2 The primary receptors, considered to be potentially at risk from any identified contamination are as follows:

#### **Human Health**

- Construction workers during the redevelopment phase;
- Residential end users.

#### **Controlled Waters**

- The Alluvium beneath the site is classified as a Secondary-A Aquifer. JNP Group does consider groundwater to be a sensitive receptor;
- The nearest controlled surface water is 179 m to the south. It is not considered to be a sensitive receptor due to its distance from, from the site.

#### **Ecological**

- The site is not located within an environmentally designated sensitive area;
- Given the site setting sensitive species are considered unlikely to be present at the site (subject to any ecological survey undertaken).

#### **Property / Infrastructure**

- Concrete vulnerability to aggressive ground conditions;
- Build-up of gases with potential for explosion;
- Water supply pipework.

### **7.4 Pathways**

7.4.1 Potential contaminant migration pathways considered relevant to the site are:

#### **Human Health**

- Ingestion of contaminated soils and dust particles;
- Direct physical contact with near surface soils and contaminated dust particles;
- Inhalation of wind-blown contaminated dust;
- Inhalation of vapours and gases, migrating vertically into the atmosphere;
- Inhalation of vapours and gases, migrating vertically into buildings and confined spaces;
- Consumption of contaminated potable water.

#### **Controlled Waters**

- Leaching of contaminants in made ground / natural ground into groundwater;
- Lateral migration of contaminated groundwater into the Dob Sike

- Vertical migration of contaminated shallow groundwater impacting deeper groundwater in the aquifer sequence;
- Run-off of site-derived contamination into the Dob Sike during construction.

**Ecological**

- Migration of contamination through groundwater and subsequent uptake by plant roots;
- Direct contact between ecological receptors and contaminated surface water;
- Direct contact between ecological receptors and contaminated soils;
- Ingestion of contaminated soils/surface waters by ecological receptors;
- Inhalation of vapours or wind-blown dust by ecological receptors.

**Property**

- Direct physical contact with near surface soils;
- Migration of vapours and gases into buildings and confined spaces.

**7.5 Pollutant Linkages**

7.5.1 A 'pollutant linkage' describes the relationship between a contaminant, a pathway and a receptor, a 'pollutant' being the contaminant in a pollutant linkage. A contaminant, pathway and receptor must all be present for a pollutant linkage to exist, which forms the basis for determination that a piece of land is Contaminated Land. Potential sources, pathways and receptors have been assessed. The following Tables summarise the significant pollutant linkages potentially active at the site.

**Table 7.1 Potential Source-Pathway-Receptor Linkages for Human Health Risk Assessment**

Source	Pathway	Receptor
Contaminated soils and waters	Ingestion of soil / water	On-site female worker On-site construction worker
	Ingestion of building dust	
	Dermal contact with soil	
	Dermal contact with building dust	
	Inhalation of fugitive soil dust	
	Inhalation of fugitive building dust	
	Inhalation of vapours in outdoor air	
	Inhalation of vapours in indoor air	
	Consumption of contaminated potable water	
Ground gas and landfill gas	Vertical and lateral migration	

**Table 7.2 Potential Source Pathway Receptor Linkages for Controlled Waters Risk Assessment**

Source	Pathway	Receptor
Contaminated soils	Leaching mechanisms	Groundwater stored in the Alluvium Deposits and the Pennine Middle Coal Measure Formation.
	Run-off during construction works	Dob Sike
Contaminated groundwater	Vertical migration	Groundwater stored in the Alluvium Deposits and the Pennine Middle Coal Measure Formation.
	Lateral and vertical migration (baseflow)	Dob Sike

**Table 7.3 Potential Source-Pathway-Receptor Linkages for Ecological Risk Assessment**

Source	Pathway	Receptor
Contaminated soils and waters	Migration of contamination through groundwater and subsequent uptake by plant roots;	Ecological receptors
	Direct contact between ecological receptors and contaminated surface water;	
	Direct contact between ecological receptors and contaminated soils;	
	Ingestion of contaminated soils/surface waters by ecological receptors;	
	Inhalation of vapours or wind-blown dust by ecological receptors.	
Ground gas and landfill gas	Inhalation of gases	

**Table 7.4 Potential Source-Pathway-Receptor Linkages for Property Risk Assessment**

Source	Pathway	Receptor
Contaminated soils	Contact with contaminated soils	Concrete
		Water supply pipe materials
Ground gas and landfill gas	Vertical and lateral migration and accumulation in voids	Residential housing / Commercial properties

## 7.6 Preliminary Risk Assessment

7.6.1 From the information obtained from the desk study JNP Group has undertaken a preliminary risk assessment.

**Table 7.5 Preliminary Risk Assessment**

Risk Receptor	Risk		Justification
HUMAN HEALTH	MEDIUM		The site itself has not had a contaminative past however, contamination associated with recent development on site may be present. Off site historical land uses include a chemical works, railway and colliery, which may be a source of mobile contamination. A nearby recent landfill 203 m east of the site is a ground gas risk.
GROUNDWATER	MEDIUM		The site is located on productive strata (Secondary -A Aquifer for both superficial and bedrock) but is not within a SPZ.
SURFACE WATER	LOW		The nearest water feature is 143 m to the west, therefore due to the distance, it is not considered to be a sensitive receptor .
ECOLOGY	NONE		Based on the assumption that there are no sensitive/ protected species on site (subject to any ecological survey undertaken).
PROPERTY & INFRASTRUCURE	MEDIUM		The site itself has not had a contaminative past however, contamination associated with recent development on site may be present. Off site historical land uses include a chemical works, railway and colliery, which may be a source of mobile contamination. A recent landfill located 203 m east as well as historical landfills are a potential ground gas risk.

7.6.2 In line with BS ISO 18400-202:2018 based on the conceptual site model as above the site is considered to be probably contaminated mainly as a result of off site risks.

## 8 CONCLUSIONS OF DESK STUDY

### 8.1 Conclusions

8.1.1 The desk-based research has identified that:

- The geological succession below the site comprises of Alluvium deposits overlying the Pennine Middle Coal Measures Formation. Both of these are classified as Secondary-A Aquifers.
- The site has historical land use of an agricultural field, an industrial/commercial building and a car park. Heavy metals and hydrocarbons could be present.
- Off site risks from historical activities (chemical works, pits railway land) from mobile contaminated and from a nearby landfill have been identified.
- Radon gas protection measures are not required.

8.1.2 Based on information contained within desk study, it is the opinion of JNP Group that the potential site conditions provide a MEDIUM environmental risk and hence further investigation, and assessment is required.

### 8.2 Recommendations

8.2.1 Based on the conclusions from the desk study and the intended redevelopment of the site JNP Group recommends that the following intrusive works are undertaken:

- Chemical testing of made ground and natural soils beneath the site. As no specific sources have been identified the sampling regime should provide suitable spatial distribution across the site to suit the proposed development. The testing should comprise of a standard suite of heavy metals, Total Petroleum Hydrocarbons and asbestos. Selected samples should be tested for Total Organic Carbon (TOC), Soil Organic Matter (SOM) and pH;
- Testing of the soils to identify volume change potential of any cohesive material, concrete classification, and design CBR values.
- The installation of gas and groundwater monitoring standpipes to assess off site gas risks. . Vapour monitoring should be undertaken if gross hydrocarbon contamination be encountered.

## 9 REFERENCES

1. AGS: 1999 : Electronic transfer of geotechnical and geo-environmental data (3rd edition). Association of Geotechnical and Geo-environmental Specialists.
2. ASTM : 1992 : Standard Test Method for Penetration Test and Split-Barrel Sampling of Soils. Designation D1586-84 (reapproved 1992). American Society for Testing and Materials, West Conshohocken, USA.
3. BRE. 1991 (revised 2003). Special Digest 365: Soakaway Design.
4. BRE. 2005. Special Digest 1 : Concrete in Aggressive Ground. Building Research Establishment.
5. BS EN 1997-1:2004 Geotechnical design - Part 1 – General rules, British Standards Institution, London.
6. BS EN ISO 14688-1 Soil – Identification and description, British Standards Institution, London.
7. BS EN ISO 14688-2 Soil – Classification principles and quantitative description characteristics, British Standards Institution, London.
8. BS EN ISO 14689-1 Rock – Identification and description, British Standards Institution, London.
9. BS 1377. 1990. Methods of Test for soils for civil engineering purposes. British Standards Institution. London.
10. BS 5930. 2015 +A1 2019. Code of practice for site investigations. British Standards Institution. London.
11. BS 8485. 2015. Code of practice for the design of protective measures for methane and carbon dioxide ground gases for new buildings. British Standards Institution. London.
12. BS 8576. 2013. Guidance on investigations for ground gas – Permanent gases and Volatile Organic Compounds (VOC). British Standards Institution. London.
13. BS 10175. 2001+A1:2013 +A2:2017. Investigation of potentially contaminated sites - code of practice. British Standards Institution. London.
14. BS ISO 17924:2018. Soil quality – Assessment of human exposure from ingestion of soil and soil material – Procedure for the estimation of the human bioaccessibility / bioavailability of metals in soil. British Standards Institution. London.
15. BS ISO 18400-202:2018. Soil quality – Sampling. Part 202: Preliminary investigations. British Standards Institution. London.
16. BS ISO 18400-202:2018. Soil quality – Sampling. Part 203: Investigation of potentially contaminated sites. British Standards Institution. London.
17. BS ISO 18400-202:2018. Soil quality – Sampling. Part 205: Guidance on the procedure for investigation of natural, near-natural and cultivated sites. British Standards Institution. London.
18. BS ISO 18400-104:2018. Soil quality – Sampling. Part 104: Strategies. British Standards Institution. London.
19. Burland J B and M C Burbidge. 1985. Settlement of foundations on sand and gravel. Proc. ICE, Part 1, Vol 78.

20. Card G, Wilson S, Mortimore S. 2012. A Pragmatic Approach to Ground Gas Risk Assessment. CL:AIRE Research Bulletin RB17. CL:AIRE. London.
21. CL:AIRE and Chartered Institute of Environmental Health (CIEH). 2008. Guidance on Comparing Soil Contamination Data with a Critical Concentration. CL:AIRE / CIEH. London.
22. CL:AIRE. 2011. The Definition of Waste: Development Industry Code of Practice, Version 2. CL:AIRE London.
23. CL:AIRE. 2013. SP1010 – Development of Category 4 Screening Levels for Assessment of Land Affected by Contamination. CL:AIRE. London.
24. CL:AIRE. 2016. Control of Asbestos Regulations 2012. Interpretation for managing and Working with Asbestos in Soil and Construction and Demolition Materials. Industry Guidance. CL:AIRE. London.
25. CL:AIRE. 2017. Petroleum Hydrocarbons in Groundwater: Guidance on assessing petroleum hydrocarbons using existing hydrogeological risk assessment methodologies. CL:AIRE. London.
26. Clayton C R I. 1990. SPT energy transmission: theory, measurement and significance. Ground Engineering, December.
27. Chengini A and N A Trenter. 1995. The shear strength and deformation behaviour of a glacial till. Proceedings of International Conference on Advances in site investigation practice. ICE, London.
28. Clayton C R I. 1995. The Standard Penetration Test (SPT) : Methods and use. CIRIA Report 143. Construction Industry Research Information Association, London.
29. Croney D and J C Jacobs. 1967. The frost susceptibility of soils and road materials. RRL Report LR90. Transport Research Laboratory (formerly Road Research Laboratory), Crowthorne
30. CIRIA C665. 2007. Assessing Risks Posed by Hazardous Ground Gases to Buildings. CIRIA, London
31. CIRIA C733. 2014. Asbestos in Soil and Made Ground: A Guide to Understanding and Managing risks. CIRIA. London.
32. DEFRA.2014. PB14163. Water Framework Directive implementation in England and Wales: new and updated standards to protect the water environment.
33. DEFRA. 2014. SP1010 - Development of Category 4 Screening Levels for Assessment of Land Affected by Contamination – Policy Companion Document. DEFRA. London.
34. de Mello V F B : 1971 : The Standard penetration Test. State of the Art Report. 4th Pan American Conference on Soil Mechanics and Foundation Engineering. Puerto Rico. Vol 1.
35. Driscoll R. 1983. The influence of vegetation on swelling and shrinking of clay soils in Britain. Geotechnique 23 (2): 93-105
36. Environment Agency. 2005. The UK Approach for Evaluating Human Health Risks from Petroleum Hydrocarbons in Soils. P5-080/TR3.
37. Environment Agency. 2006. Remedial Targets Methodology. Hydrogeological Risk Assessment for Land Contamination.

38. Environment Agency. 2008. Compilation of Data for Priority Organic Pollutants for Derivation of Soil Guideline Values. Science Report SC050021/SR7.
39. Environment Agency. 2009. Human Health Toxicological Assessment of Contaminants in Soil. Science Report SC050021/SR2. Bristol.
40. Environment Agency. 2009. Updated technical background to the CLEA model. Science Report SC050021/SR3. Bristol.
41. Environment Agency. 2009. CLEA Software (Version 1.06) - Science Report SC050021/SR4. Bristol.
42. Environment Agency. 2010. Waste acceptance at landfills – Guidance on waste acceptance procedures and criteria. Bristol.
43. Environment Agency. 2013. Chemical Standards Database - <http://evidence.environment-agency.gov.uk/ChemicalStandards/ChemicalsByName.aspx>
44. Environment Agency. 2019. Land Contamination: Risk Management. UK Government Website - <https://www.gov.uk/guidance/land-contamination-how-to-manage-the-risks>.
45. Eurocode 7. 1997. Geotechnical Design - Part 3, Design assisted by field testing. Pre-standard ENV 1997-3. British Standards Institution, London.
46. Gibbs H J and W G Holtz. 1957. Research on determining the density of sands by spoon penetration testing. Proceedings of 4th International Conference on Soil Mechanics and Foundation Engineering, London.
47. HD25/94. 1994. Design Manual for Roads and Bridges Volume 7. The Department of Transport.
48. Hobbs P R N, Hallam J R, Forster A, Entwistle D C, Jones L D, Cripps A C, Northmore K J, Self S J and Meakin J L, 2002. Engineering geology of British rocks and soils – Mudstone of the Mercia Mudstone Group. BGS Research Report PR/01/02.
49. IAN 73/06. 2009. Design Guidance for Road Pavement Foundations (Draft HD25).
50. Land Quality Management & Chartered Institute of Environmental Health (2015) The LQM/CIEH S4UL for Human Health Risk Assessment - LQM CIEH. Land Quality Press, Nottingham.
51. Lord J A, Clayton C R I and Mortimore R N 2002. Engineering in Chalk. CIRIA Report no. C574.
52. Nixon I K. 1982. Standard penetration test. State of the art report. Proceedings of the Second European Symposium on Penetration Testing, Amsterdam.
53. Peck R B, W E Hanson and T H Thornburn. 1974. Foundation Engineering, 2nd Edition. Wiley, New York.
54. Rodin S, B O Corbett, D E Sherwood and S Thorburn. 1974. Penetration testing in the UK, State of the art report. Proceedings of Symposium on Engineering Behaviour of Glacial Materials, Birmingham.
55. Skempton A W. 1986. Standard Penetration Test procedures and the effects in sands of overburden pressure, relative density, particle size, ageing and overconsolidation. Geotechnique 36, No 3.

56. Society of Brownfield Risk Assessment. Development of Generic Assessment Criteria for Assessing Vapour Risks to Human Health from Volatile Contaminants in Groundwater. Version 1. February 2017.
57. Sowers G F. 1979. Introductory Soil Mechanics and Foundations. Macmillan.
58. Stroud M A. 1974. The standard penetration test in insensitive clays and soft rocks. Proceedings of European Symposium on Penetration Testing, Stockholm.
59. Stroud M A and F G Butler. 1975. The standard penetration test and the engineering properties of glacial materials. Proceedings of Symposium on Engineering Behaviour of Glacial Materials, Birmingham.
60. Stroud M A. 1988. The standard penetration test - its application and interpretation on Penetration Testing in the UK, Birmingham. Thomas Telford, London.
61. Terzaghi K and R B Peck. 1967. Soil Mechanics in Engineering Practice, 2nd Edition. John Wiley, London.
62. Tokimatsu K. 1988. Penetration testing for dynamic problems. Proceedings of First International Symposium on Penetration Testing.
63. TPH Criteria Working Group. 1997. Total Petroleum Hydrocarbon Group Series. Volume 3. Selection of Representative TPH Fractions Based on Fate and Transport Considerations.
64. Water Framework Directive UK Technical Advisory Group. 2014. River and Lake Assessment Method Specific Pollutants (metals); Metal Bioavailability Assessment Tool (M-BAT). Scotland.
65. Wilson S, Card G and Haines S. 2008. Ground Gas Handbook. Dunbeath. Whittles Publishing.
66. British Geological Survey (BGS) online tool: GeoIndex - British Geological Survey (bgs.ac.uk)

## FIGURES / DRAWINGS

# Figure 1

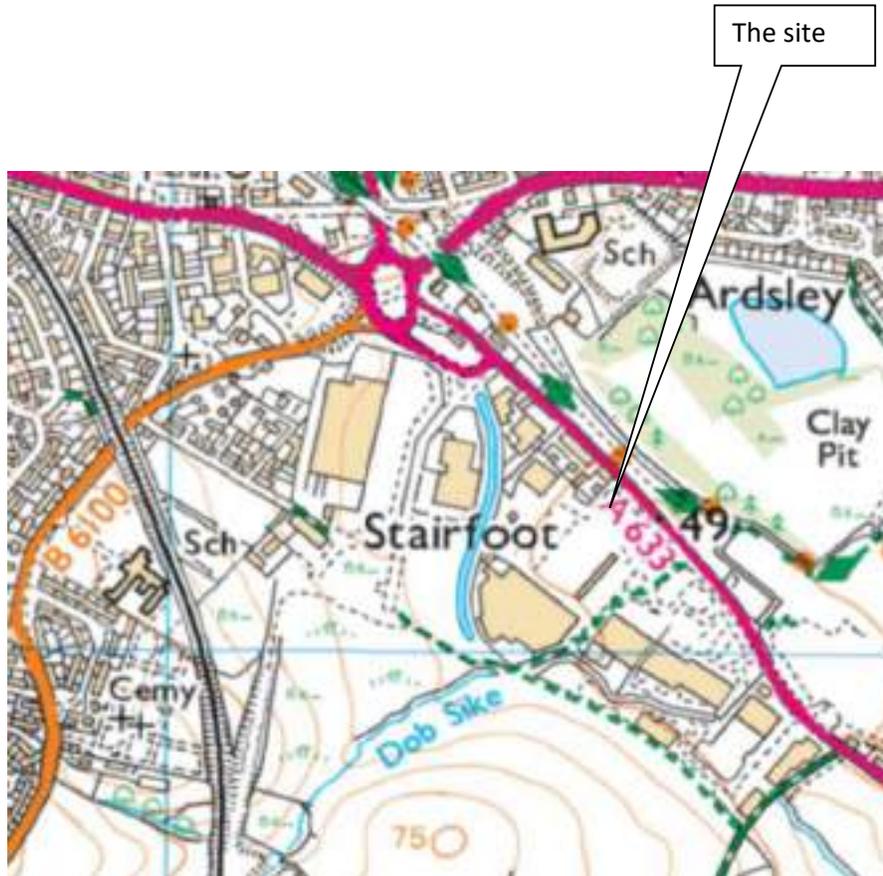
## Site Location Plan

Project:

BKUK Barnsley

Project No:

M44628



Reproduced from Ordnance Survey with the permission of the National Mapping Agency of Great Britain.  
Crown Copyright Reserved Licence No. AL813427

## **APPENDIX A: LIMITATIONS**

## INTRODUCTION

This report is confidential and has been prepared solely for the benefit of the client and those parties with whom a warranty agreement has been executed, or with whom an assignment has been agreed. Should any third party wish to use or rely upon the contents of the report, written approval must be sought from JNP Group; a charge may be levied against such approval. JNP Group accepts no responsibility or liability for the consequences of this document being used for any purpose or project other than for which it was commissioned, and: this document to any third party with whom and agreement has not been executed.

Any comments given within this report are based on the understanding that the proposed works to be undertaken will be as described in the introduction and the information referred to and provided by others and will be assumed to be correct and will not have been checked by JNP Group and JNP Group will not accept any liability or responsibility for any inaccuracy in such information.

Any deviation from the recommendations or conclusions contained in this report should be referred to JNP Group in writing for comment and JNP Group reserve the right to reconsider their recommendations and conclusions contained within. JNP Group will not accept any liability or responsibility for any changes or deviations from the recommendations noted in this report without prior consultation and our full approval.

The details contained within this report reflect the site conditions prevailing at the time of investigation. JNP Group warrants the accuracy of this report up to and including that date. Additional information, improved practice or changes in legislation may necessitate this report having to be reviewed in whole or in part after that date. If necessary, this report should be referred back to JNP Group for re-assessment and, if necessary, re-appraisal.

This report is only valid when used in its entirety. Any information or advice included in the report should not be relied upon until considered in the context of the whole report. Whilst this report and the opinion made herein are correct to the best of JNP Group' belief, JNP Group cannot guarantee the accuracy or completeness of any information provided by third parties.

The report represents the finding and opinions of experience geotechnical and geo-environmental engineers. JNP Group does not provide legal advice and the advice of lawyers may also be required.

It should be noted that the following were not included as part of the agreed scope of works with the client: detailed ecological surveys and assessment; groundwater monitoring and sampling; geotechnical requirements etc.

JNP Group has provided advice and made recommendations based on the findings of the work undertaken, however this is subject to the approval / acceptance by the relevant Regulatory Authorities.

### Objectives

The work undertaken to provide the basis of this report comprised a study of available documented information from a variety of sources (including the Client), together with (where appropriate) a brief walk over inspection of the site. The opinions given in this report have been dictated by the finite data on which they are based and are relevant only to the purpose for which the report was commissioned. The information reviewed should not be considered exhaustive and has been accepted in good faith as providing true and representative data pertaining to site conditions. Should additional information become available which may affect the opinions expressed in this report, JNP Group reserves the right to review such information and, if warranted, to modify the opinions accordingly. It should be noted

that any risks identified in this report are perceived risks based on the information reviewed; actual risks can only be assessed following a physical investigation of the site.

#### Phase II Intrusive Investigations

The investigation of the site has been carried out to provide sufficient information concerning the type and degree of contamination, and ground and groundwater conditions to allow a reasonable risk assessment to be made.

Where intrusive investigations have been undertaken, they have been designed to provide a reasonable level of assurance on the conditions. Given the discrete nature sampling, no investigation technique is capable of identifying all conditions present in all areas. The number of sampling points and the methods of sampling and testing do not preclude the existence of localised “hotspots” of contamination where concentrations may be significantly higher than those actually encountered. The risk assessment and opinions provided, inter alia, take into consideration currently available guidance relating to acceptable contamination concentrations; no liability can be accepted for the retrospective effects of any future changes or amendments to these values.

The objectives of the investigation have been linked to establishing the risks associated with potential human targets, building materials, the environment (including adjacent land), and to surface and ground water. The amount of exploratory work and chemical testing undertaken has necessarily been restricted by the short timescale available, and the locations of exploratory holes have been restricted to areas unoccupied by the building(s) on the site and by buried services.

Gas and groundwater levels may vary from those reported due to seasonal, or other effects.

It should also be noted that the assessment of soil results has been undertaken using data from a previous consultant; gas monitoring and groundwater samples have been collected using existing monitoring wells not constructed by JNP Group.

Although preliminary comment has have been provided by JNP Group regarding UXO and Invasive Species, JNP Group not experts in these and as such specialist advice should be sought regarding the presence of UXO and invasive species at the site.

#### **Gas Membranes**

Where JNP Group are commissioned to undertake the inspection and validation of a gas membrane, we, at the time of inspection, will ensure that the membrane is laid in accordance with the relevant arrangements and sections. At that time we will ensure that the venting media is laid correctly in preparation of the membrane and we will ensure that any tears in the membrane or bad workmanship is reported and instructions given to be rectified. Thereafter it is the duty of the Principal Contractor to ensure that tears and defects are rectified.

#### **Remediation and Verification Reports Limitations**

The risk assessment and opinions provided, inter alia, take into consideration currently available guidance relating to acceptable contamination concentrations; no liability can be accepted for the retrospective effects of any future changes or amendments to these values.

Where intrusive investigations have been undertaken, they have been designed to provide a reasonable level of assurance on the conditions. Given the discrete nature sampling, no investigation technique is capable of identifying all conditions present in all areas. The number of sampling points and the methods of sampling and testing do not preclude the existence of localised “hotspots” of contamination where concentrations may be significantly higher than those actually encountered.

If costs have been included in relation to the site remediation these must be confirmed by a qualified quantity surveyor. The opinions given in this report have been dictated by the finite data on which they are based and are relevant only to the purpose for which the report was commissioned. The information reviewed from Third Party should not be considered exhaustive and has been accepted in good faith as providing true and representative data pertaining to site conditions. Should additional information become available which may affect the opinions expressed in this report, JNP Group reserves the right to review such information and, if warranted, to modify the opinions accordingly.

Whilst this report and the opinion made herein are correct to the best of JNP Group's belief, JNP Group cannot guarantee the accuracy or completeness of any information provided by third parties.

It should also be noted that the assessment of soil results has been undertaken using data from a previous consultant; gas monitoring and groundwater samples have been collected using existing monitoring wells not constructed by JNP Group.

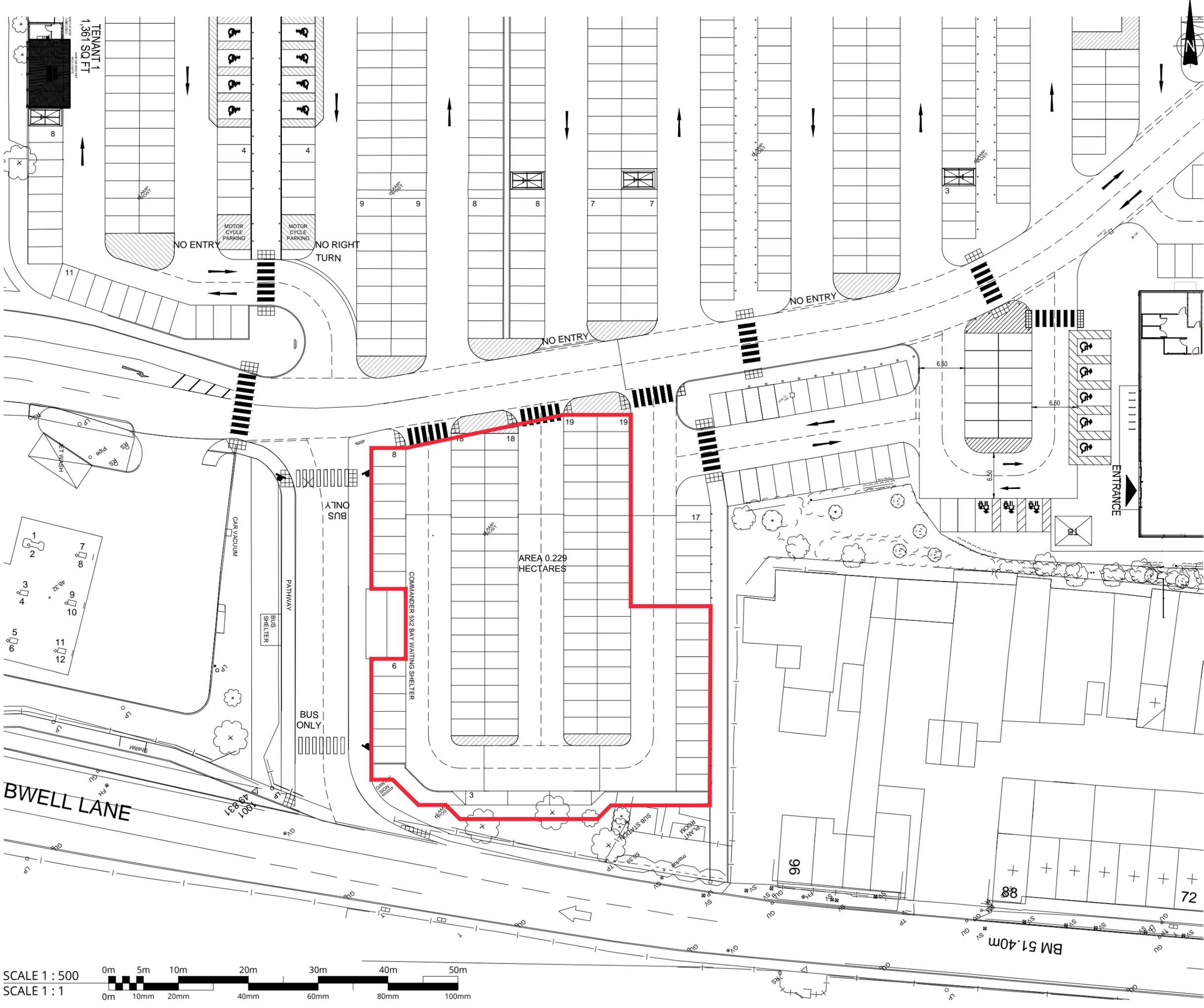
Gas and groundwater levels may vary from those reported due to seasonal, or other effects.

---

---

## APPENDIX B: THIRD PARTY DRAWINGS

Ref.	Description	Rev.	Date
------	-------------	------	------



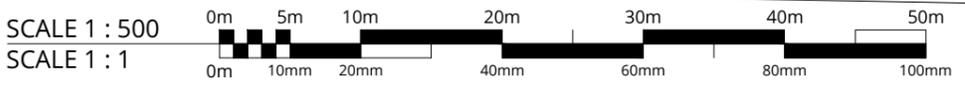
Copyright of this drawing is the property of Urban Edge Architecture Limited. It must not be reproduced or amended nor used in the execution of any works whether in conjunction with the proposed works for which it is prepared or otherwise without the express consent in writing of Urban Edge Architecture Limited.

Urban Edge Architecture Limited  
 One Scotgate Mews, Scotgate,  
 Stamford, Lincolnshire, PE9 2FX.

Tel. +44 (0)1780 755 665  
 Fax. +44 (0)1780 755 360

**DO NOT SCALE FROM THIS DRAWING - ALL DIMENSIONS TO BE CHECKED ON SITE, ANY DISCREPANCIES RAISED WITH URBAN EDGE**

**DRAWING TO BE READ IN COLOUR**



Rev No	Description	Drawn By	Date



Client  
**BKUK GROUP LIMITED**

Project  
**BURGER KING BARNSELY**

Drawing  
**EXISTING BLOCK PLAN SHOWING PROPOSED APPLICATION BOUNDARY**

Issue Purpose  
**PLANNING**

UE Proj No	Scale	Date	Drawn	Status	Revision
2763	A3 @ 1:500	SEP 2023	DWN	-	P00

Project - Organisation - Volume/System - Level - Type - Role - Number  
**2681-URB-BA-ZZ-DR-A-103101**

## APPENDIX C: PHOTO DOCUMENT



View from the northern boundary, facing south.



View from the southwest corner of the site, facing north.

---



View from the western boundary of the site, facing east.



View from the eastern boundary of the site, facing west.

---



View from the southeast corner of the site, facing north.



View of the eastern boundary showing a drain and levels between the road and the car park, facing east.



View of the manhole covers to the northwest of the site, facing east.



View of the manhole covers to the northwest of the site and electric substation adjacent to the northern boundary of the site, facing north.

---

## APPENDIX D: GROUNDSURE REPORT

---

TESCO STORES LTD, TESCO SUPERMARKET, WOMBWELL LANE, STAIRFOOT, BARNSELY, S70 3NS

## Order Details

**Date:** 10/06/2024  
**Your ref:** GO3181  
**Our Ref:** GS-TN9-9YK-1XC-O2P

## Site Details

**Location:** 437598 405203  
**Area:** 0.21 ha  
**Authority:** [Barnsley Metropolitan Borough Council](#) ↗



[Summary of findings](#)

[p. 2 >](#)

[Aerial image](#)

[p. 9 >](#)

[OS MasterMap site plan](#)

[p.14 >](#)

[Insight User Guide](#) ↗

Contact us with any questions at:

[info@groundsure.com](mailto:info@groundsure.com) ↗

01273 257 755

## Summary of findings

Page	Section	<a href="#">Past land use &gt;</a>	On site	0-50m	50-250m	250-500m	500-2000m
<a href="#">15 &gt;</a>	<a href="#">1.1 &gt;</a>	<a href="#">Historical industrial land uses &gt;</a>	0	16	37	64	-
<a href="#">20 &gt;</a>	<a href="#">1.2 &gt;</a>	<a href="#">Historical tanks &gt;</a>	0	0	17	10	-
<a href="#">21 &gt;</a>	<a href="#">1.3 &gt;</a>	<a href="#">Historical energy features &gt;</a>	0	1	5	12	-
22	1.4	Historical petrol stations	0	0	0	0	-
<a href="#">22 &gt;</a>	<a href="#">1.5 &gt;</a>	<a href="#">Historical garages &gt;</a>	0	0	4	5	-
23	1.6	Historical military land	0	0	0	0	-
Page	Section	<a href="#">Past land use - un-grouped &gt;</a>	On site	0-50m	50-250m	250-500m	500-2000m
<a href="#">24 &gt;</a>	<a href="#">2.1 &gt;</a>	<a href="#">Historical industrial land uses &gt;</a>	0	19	50	89	-
<a href="#">30 &gt;</a>	<a href="#">2.2 &gt;</a>	<a href="#">Historical tanks &gt;</a>	0	0	22	12	-
<a href="#">32 &gt;</a>	<a href="#">2.3 &gt;</a>	<a href="#">Historical energy features &gt;</a>	0	2	9	18	-
33	2.4	Historical petrol stations	0	0	0	0	-
<a href="#">33 &gt;</a>	<a href="#">2.5 &gt;</a>	<a href="#">Historical garages &gt;</a>	0	0	6	6	-
Page	Section	<a href="#">Waste and landfill &gt;</a>	On site	0-50m	50-250m	250-500m	500-2000m
<a href="#">35 &gt;</a>	<a href="#">3.1 &gt;</a>	<a href="#">Active or recent landfill &gt;</a>	0	0	1	0	-
<a href="#">36 &gt;</a>	<a href="#">3.2 &gt;</a>	<a href="#">Historical landfill (BGS records) &gt;</a>	0	0	0	1	-
<a href="#">36 &gt;</a>	<a href="#">3.3 &gt;</a>	<a href="#">Historical landfill (LA/mapping records) &gt;</a>	0	0	2	0	-
<a href="#">36 &gt;</a>	<a href="#">3.4 &gt;</a>	<a href="#">Historical landfill (EA/NRW records) &gt;</a>	0	2	2	4	-
<a href="#">38 &gt;</a>	<a href="#">3.5 &gt;</a>	<a href="#">Historical waste sites &gt;</a>	0	0	3	1	-
<a href="#">39 &gt;</a>	<a href="#">3.6 &gt;</a>	<a href="#">Licensed waste sites &gt;</a>	0	0	1	4	-
<a href="#">41 &gt;</a>	<a href="#">3.7 &gt;</a>	<a href="#">Waste exemptions &gt;</a>	0	0	5	14	-
Page	Section	<a href="#">Current industrial land use &gt;</a>	On site	0-50m	50-250m	250-500m	500-2000m
<a href="#">43 &gt;</a>	<a href="#">4.1 &gt;</a>	<a href="#">Recent industrial land uses &gt;</a>	0	2	17	-	-
<a href="#">45 &gt;</a>	<a href="#">4.2 &gt;</a>	<a href="#">Current or recent petrol stations &gt;</a>	0	1	0	0	-
45	4.3	Electricity cables	0	0	0	0	-
45	4.4	Gas pipelines	0	0	0	0	-
46	4.5	Sites determined as Contaminated Land	0	0	0	0	-



46	4.6	Control of Major Accident Hazards (COMAH)	0	0	0	0	-
46	4.7	Regulated explosive sites	0	0	0	0	-
46	4.8	Hazardous substance storage/usage	0	0	0	0	-
46	4.9	Historical licensed industrial activities (IPC)	0	0	0	0	-
47	4.10	Licensed industrial activities (Part A(1))	0	0	0	0	-
<b>47 &gt;</b>	<b>4.11 &gt;</b>	<b><u>Licensed pollutant release (Part A(2)/B) &gt;</u></b>	0	0	6	2	-
48	4.12	Radioactive Substance Authorisations	0	0	0	0	-
<b>48 &gt;</b>	<b>4.13 &gt;</b>	<b><u>Licensed Discharges to controlled waters &gt;</u></b>	0	0	1	9	-
50	4.14	Pollutant release to surface waters (Red List)	0	0	0	0	-
50	4.15	Pollutant release to public sewer	0	0	0	0	-
<b>50 &gt;</b>	<b>4.16 &gt;</b>	<b><u>List 1 Dangerous Substances &gt;</u></b>	0	0	0	1	-
<b>51 &gt;</b>	<b>4.17 &gt;</b>	<b><u>List 2 Dangerous Substances &gt;</u></b>	0	0	0	1	-
<b>51 &gt;</b>	<b>4.18 &gt;</b>	<b><u>Pollution Incidents (EA/NRW) &gt;</u></b>	0	0	0	4	-
52	4.19	Pollution inventory substances	0	0	0	0	-
52	4.20	Pollution inventory waste transfers	0	0	0	0	-
52	4.21	Pollution inventory radioactive waste	0	0	0	0	-
Page	Section	<b><u>Hydrogeology &gt;</u></b>	On site	0-50m	50-250m	250-500m	500-2000m
<b>53 &gt;</b>	<b>5.1 &gt;</b>	<b><u>Superficial aquifer &gt;</u></b>	Identified (within 500m)				
<b>55 &gt;</b>	<b>5.2 &gt;</b>	<b><u>Bedrock aquifer &gt;</u></b>	Identified (within 500m)				
<b>57 &gt;</b>	<b>5.3 &gt;</b>	<b><u>Groundwater vulnerability &gt;</u></b>	Identified (within 50m)				
58	5.4	Groundwater vulnerability- soluble rock risk	None (within 0m)				
58	5.5	Groundwater vulnerability- local information	None (within 0m)				
<b>59 &gt;</b>	<b>5.6 &gt;</b>	<b><u>Groundwater abstractions &gt;</u></b>	0	0	0	0	6
<b>61 &gt;</b>	<b>5.7 &gt;</b>	<b><u>Surface water abstractions &gt;</u></b>	0	0	0	0	1
61	5.8	Potable abstractions	0	0	0	0	0
62	5.9	Source Protection Zones	0	0	0	0	-
62	5.10	Source Protection Zones (confined aquifer)	0	0	0	0	-
Page	Section	<b><u>Hydrology &gt;</u></b>	On site	0-50m	50-250m	250-500m	500-2000m
<b>63 &gt;</b>	<b>6.1 &gt;</b>	<b><u>Water Network (OS MasterMap) &gt;</u></b>	0	0	9	-	-

<a href="#">64</a> >	<a href="#">6.2</a> >	<a href="#">Surface water features</a> >	0	0	3	-	-
<a href="#">65</a> >	<a href="#">6.3</a> >	<a href="#">WFD Surface water body catchments</a> >	1	-	-	-	-
<a href="#">65</a> >	<a href="#">6.4</a> >	<a href="#">WFD Surface water bodies</a> >	0	0	0	-	-
<a href="#">65</a> >	<a href="#">6.5</a> >	<a href="#">WFD Groundwater bodies</a> >	1	-	-	-	-
Page	Section	<a href="#">River and coastal flooding</a> >	On site	0-50m	50-250m	250-500m	500-2000m
67	7.1	Risk of flooding from rivers and the sea	None (within 50m)				
<a href="#">68</a> >	<a href="#">7.2</a> >	<a href="#">Historical Flood Events</a> >	0	0	1	-	-
68	7.3	Flood Defences	0	0	0	-	-
68	7.4	Areas Benefiting from Flood Defences	0	0	0	-	-
68	7.5	Flood Storage Areas	0	0	0	-	-
69	7.6	Flood Zone 2	None (within 50m)				
69	7.7	Flood Zone 3	None (within 50m)				
Page	Section	<a href="#">Surface water flooding</a> >					
<a href="#">70</a> >	<a href="#">8.1</a> >	<a href="#">Surface water flooding</a> >	1 in 30 year, 0.3m - 1.0m (within 50m)				
Page	Section	<a href="#">Groundwater flooding</a> >					
<a href="#">72</a> >	<a href="#">9.1</a> >	<a href="#">Groundwater flooding</a> >	Negligible (within 50m)				
Page	Section	<a href="#">Environmental designations</a> >	On site	0-50m	50-250m	250-500m	500-2000m
<a href="#">73</a> >	<a href="#">10.1</a> >	<a href="#">Sites of Special Scientific Interest (SSSI)</a> >	0	0	0	0	2
74	10.2	Conserved wetland sites (Ramsar sites)	0	0	0	0	0
74	10.3	Special Areas of Conservation (SAC)	0	0	0	0	0
74	10.4	Special Protection Areas (SPA)	0	0	0	0	0
74	10.5	National Nature Reserves (NNR)	0	0	0	0	0
<a href="#">75</a> >	<a href="#">10.6</a> >	<a href="#">Local Nature Reserves (LNR)</a> >	0	0	0	0	1
<a href="#">75</a> >	<a href="#">10.7</a> >	<a href="#">Designated Ancient Woodland</a> >	0	0	0	0	6
75	10.8	Biosphere Reserves	0	0	0	0	0
76	10.9	Forest Parks	0	0	0	0	0
76	10.10	Marine Conservation Zones	0	0	0	0	0
<a href="#">76</a> >	<a href="#">10.11</a> >	<a href="#">Green Belt</a> >	0	0	1	0	0
76	10.12	Proposed Ramsar sites	0	0	0	0	0



77	10.13	Possible Special Areas of Conservation (pSAC)	0	0	0	0	0
77	10.14	Potential Special Protection Areas (pSPA)	0	0	0	0	0
77	10.15	Nitrate Sensitive Areas	0	0	0	0	0
<a href="#">77</a> >	<a href="#">10.16</a> >	<a href="#">Nitrate Vulnerable Zones</a> >	1	0	0	0	1
<a href="#">79</a> >	<a href="#">10.17</a> >	<a href="#">SSSI Impact Risk Zones</a> >	1	-	-	-	-
<a href="#">80</a> >	<a href="#">10.18</a> >	<a href="#">SSSI Units</a> >	0	0	0	0	2
Page	Section	Visual and cultural designations	On site	0-50m	50-250m	250-500m	500-2000m
82	11.1	World Heritage Sites	0	0	0	-	-
82	11.2	Area of Outstanding Natural Beauty	0	0	0	-	-
82	11.3	National Parks	0	0	0	-	-
82	11.4	Listed Buildings	0	0	0	-	-
83	11.5	Conservation Areas	0	0	0	-	-
83	11.6	Scheduled Ancient Monuments	0	0	0	-	-
83	11.7	Registered Parks and Gardens	0	0	0	-	-
Page	Section	<a href="#">Agricultural designations</a> >	On site	0-50m	50-250m	250-500m	500-2000m
<a href="#">84</a> >	<a href="#">12.1</a> >	<a href="#">Agricultural Land Classification</a> >	Urban (within 250m)				
85	12.2	Open Access Land	0	0	0	-	-
<a href="#">85</a> >	<a href="#">12.3</a> >	<a href="#">Tree Felling Licences</a> >	0	0	2	-	-
85	12.4	Environmental Stewardship Schemes	0	0	0	-	-
86	12.5	Countryside Stewardship Schemes	0	0	0	-	-
Page	Section	<a href="#">Habitat designations</a> >	On site	0-50m	50-250m	250-500m	500-2000m
<a href="#">87</a> >	<a href="#">13.1</a> >	<a href="#">Priority Habitat Inventory</a> >	0	0	2	-	-
88	13.2	Habitat Networks	0	0	0	-	-
<a href="#">88</a> >	<a href="#">13.3</a> >	<a href="#">Open Mosaic Habitat</a> >	0	0	2	-	-
88	13.4	Limestone Pavement Orders	0	0	0	-	-
Page	Section	<a href="#">Geology 1:10,000 scale</a> >	On site	0-50m	50-250m	250-500m	500-2000m
<a href="#">89</a> >	<a href="#">14.1</a> >	<a href="#">10k Availability</a> >	Identified (within 500m)				
<a href="#">90</a> >	<a href="#">14.2</a> >	<a href="#">Artificial and made ground (10k)</a> >	0	1	5	10	-
<a href="#">92</a> >	<a href="#">14.3</a> >	<a href="#">Superficial geology (10k)</a> >	1	0	2	1	-



93	14.4	Landslip (10k)	0	0	0	0	-
<a href="#">94</a> >	<a href="#">14.5</a> >	<a href="#">Bedrock geology (10k)</a> >	1	0	2	7	-
<a href="#">95</a> >	<a href="#">14.6</a> >	<a href="#">Bedrock faults and other linear features (10k)</a> >	0	0	1	4	-
Page	Section	<a href="#">Geology 1:50,000 scale</a> >	On site	0-50m	50-250m	250-500m	500-2000m
<a href="#">96</a> >	<a href="#">15.1</a> >	<a href="#">50k Availability</a> >	Identified (within 500m)				
<a href="#">97</a> >	<a href="#">15.2</a> >	<a href="#">Artificial and made ground (50k)</a> >	0	1	2	1	-
<a href="#">98</a> >	<a href="#">15.3</a> >	<a href="#">Artificial ground permeability (50k)</a> >	0	1	-	-	-
<a href="#">99</a> >	<a href="#">15.4</a> >	<a href="#">Superficial geology (50k)</a> >	1	0	0	1	-
<a href="#">100</a> >	<a href="#">15.5</a> >	<a href="#">Superficial permeability (50k)</a> >	Identified (within 50m)				
100	15.6	Landslip (50k)	0	0	0	0	-
100	15.7	Landslip permeability (50k)	None (within 50m)				
<a href="#">101</a> >	<a href="#">15.8</a> >	<a href="#">Bedrock geology (50k)</a> >	1	0	0	6	-
<a href="#">102</a> >	<a href="#">15.9</a> >	<a href="#">Bedrock permeability (50k)</a> >	Identified (within 50m)				
<a href="#">102</a> >	<a href="#">15.10</a> >	<a href="#">Bedrock faults and other linear features (50k)</a> >	0	0	1	2	-
Page	Section	<a href="#">Boreholes</a> >	On site	0-50m	50-250m	250-500m	500-2000m
<a href="#">103</a> >	<a href="#">16.1</a> >	<a href="#">BGS Boreholes</a> >	0	0	2	-	-
Page	Section	<a href="#">Natural ground subsidence</a> >					
<a href="#">104</a> >	<a href="#">17.1</a> >	<a href="#">Shrink swell clays</a> >	Low (within 50m)				
<a href="#">105</a> >	<a href="#">17.2</a> >	<a href="#">Running sands</a> >	Low (within 50m)				
<a href="#">107</a> >	<a href="#">17.3</a> >	<a href="#">Compressible deposits</a> >	Moderate (within 50m)				
<a href="#">109</a> >	<a href="#">17.4</a> >	<a href="#">Collapsible deposits</a> >	Very low (within 50m)				
<a href="#">110</a> >	<a href="#">17.5</a> >	<a href="#">Landslides</a> >	Very low (within 50m)				
<a href="#">111</a> >	<a href="#">17.6</a> >	<a href="#">Ground dissolution of soluble rocks</a> >	Negligible (within 50m)				
Page	Section	<a href="#">Mining and ground workings</a> >	On site	0-50m	50-250m	250-500m	500-2000m
<a href="#">113</a> >	<a href="#">18.1</a> >	<a href="#">BritPits</a> >	0	0	3	6	-
<a href="#">115</a> >	<a href="#">18.2</a> >	<a href="#">Surface ground workings</a> >	0	4	39	-	-
<a href="#">117</a> >	<a href="#">18.3</a> >	<a href="#">Underground workings</a> >	0	2	0	0	5
118	18.4	Underground mining extents	0	0	0	0	-
<a href="#">118</a> >	<a href="#">18.5</a> >	<a href="#">Historical Mineral Planning Areas</a> >	0	0	2	2	-



<a href="#">118</a> >	<a href="#">18.6</a> >	<a href="#">Non-coal mining</a> >	1	0	2	5	12
121	18.7	JPB mining areas	None (within 0m)				
121	18.8	The Coal Authority non-coal mining	0	0	0	0	-
121	18.9	Researched mining	0	0	0	0	-
122	18.10	Mining record office plans	0	0	0	0	-
122	18.11	BGS mine plans	0	0	0	0	-
<a href="#">122</a> >	<a href="#">18.12</a> >	<a href="#">Coal mining</a> >	Identified (within 0m)				
122	18.13	Brine areas	None (within 0m)				
123	18.14	Gypsum areas	None (within 0m)				
123	18.15	Tin mining	None (within 0m)				
123	18.16	Clay mining	None (within 0m)				
Page	Section	<a href="#">Ground cavities and sinkholes</a> >	On site	0-50m	50-250m	250-500m	500-2000m
124	19.1	Natural cavities	0	0	0	0	-
<a href="#">125</a> >	<a href="#">19.2</a> >	<a href="#">Mining cavities</a> >	0	0	0	1	0
125	19.3	Reported recent incidents	0	0	0	0	-
125	19.4	Historical incidents	0	0	0	0	-
126	19.5	National karst database	0	0	0	0	-
Page	Section	<a href="#">Radon</a> >					
<a href="#">127</a> >	<a href="#">20.1</a> >	<a href="#">Radon</a> >	Less than 1% (within 0m)				
Page	Section	<a href="#">Soil chemistry</a> >	On site	0-50m	50-250m	250-500m	500-2000m
<a href="#">129</a> >	<a href="#">21.1</a> >	<a href="#">BGS Estimated Background Soil Chemistry</a> >	1	1	-	-	-
129	21.2	BGS Estimated Urban Soil Chemistry	0	0	-	-	-
129	21.3	BGS Measured Urban Soil Chemistry	0	0	-	-	-
Page	Section	<a href="#">Railway infrastructure and projects</a> >	On site	0-50m	50-250m	250-500m	500-2000m
130	22.1	Underground railways (London)	0	0	0	-	-
130	22.2	Underground railways (Non-London)	0	0	0	-	-
131	22.3	Railway tunnels	0	0	0	-	-
<a href="#">131</a> >	<a href="#">22.4</a> >	<a href="#">Historical railway and tunnel features</a> >	0	21	19	-	-
133	22.5	Royal Mail tunnels	0	0	0	-	-



<a href="#">133</a> >	<a href="#">22.6</a> >	<a href="#">Historical railways</a> >	0	2	2	-	-
133	22.7	Railways	0	0	0	-	-
133	22.8	Crossrail 1	0	0	0	0	-
134	22.9	Crossrail 2	0	0	0	0	-
<a href="#">134</a> >	<a href="#">22.10</a> >	<a href="#">HS2</a> >	0	0	0	2	-

## Recent aerial photograph



Capture Date: 19/04/2021

Site Area: 0.21ha



## Recent site history - 2018 aerial photograph

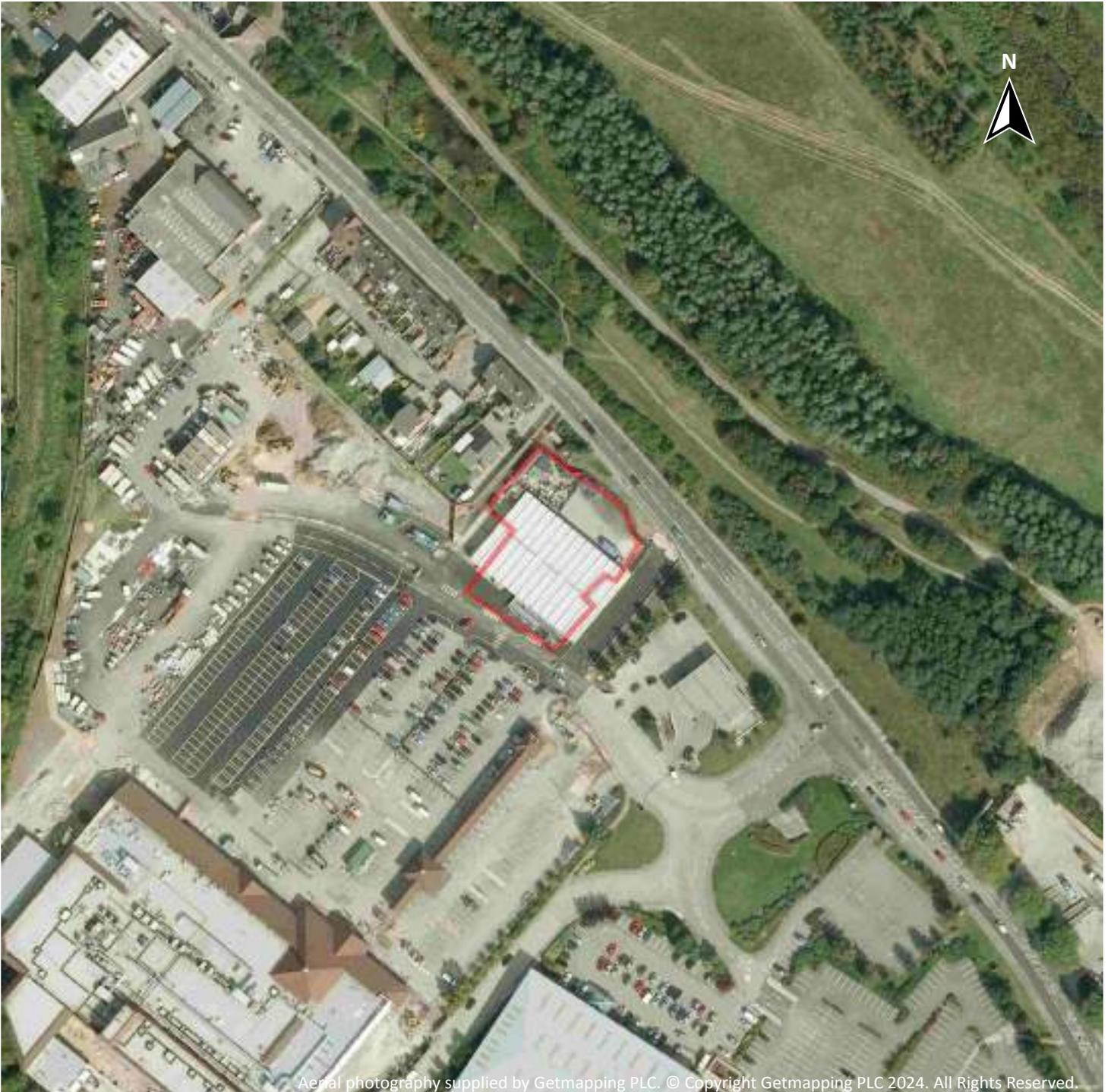


Capture Date: 01/07/2018

Site Area: 0.21ha



## Recent site history - 2012 aerial photograph

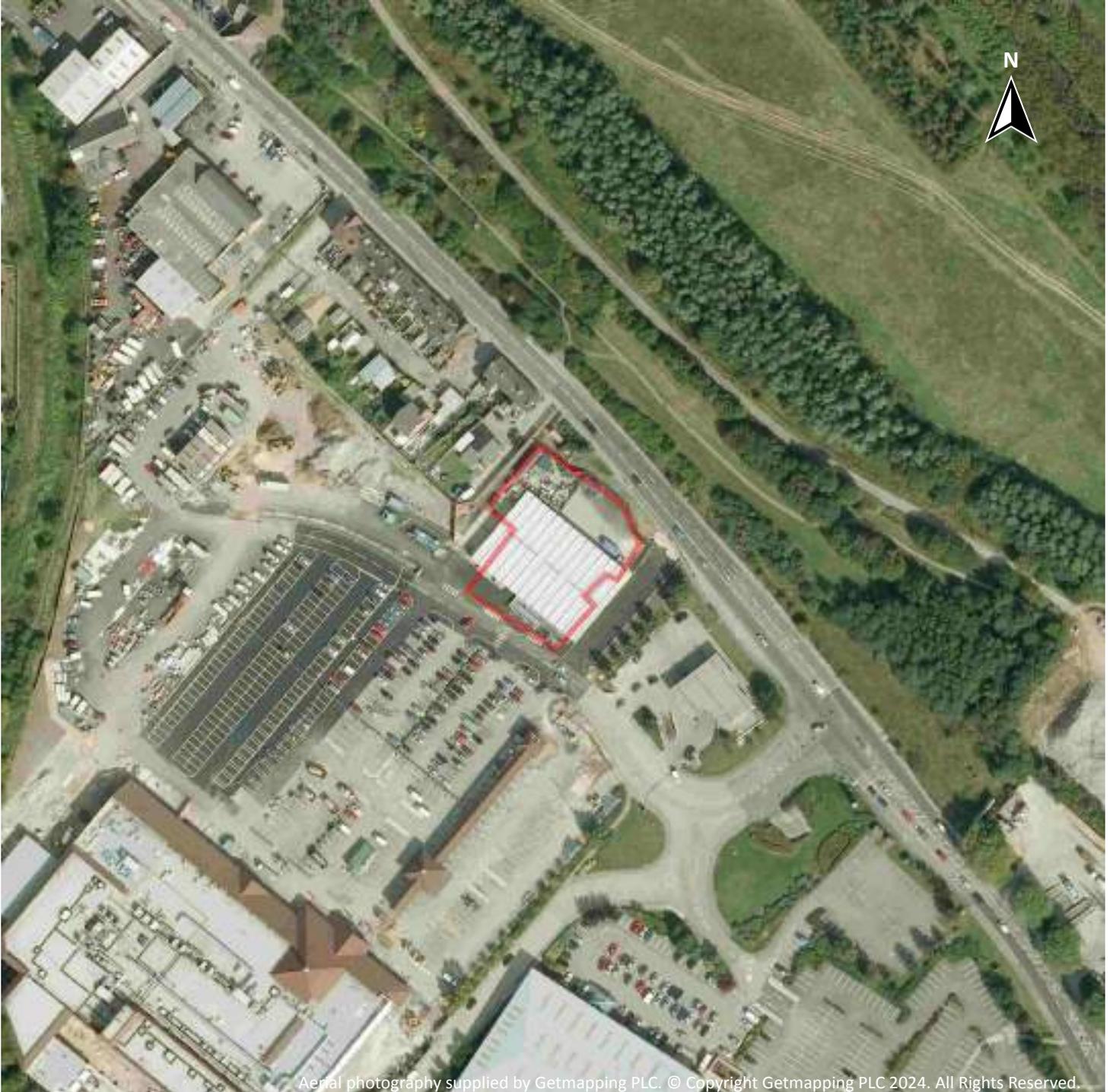


Capture Date: 26/03/2012

Site Area: 0.21ha



## Recent site history - 2009 aerial photograph



Capture Date: 11/09/2009

Site Area: 0.21ha



## Recent site history - 1999 aerial photograph



Capture Date: 10/07/1999

Site Area: 0.21ha



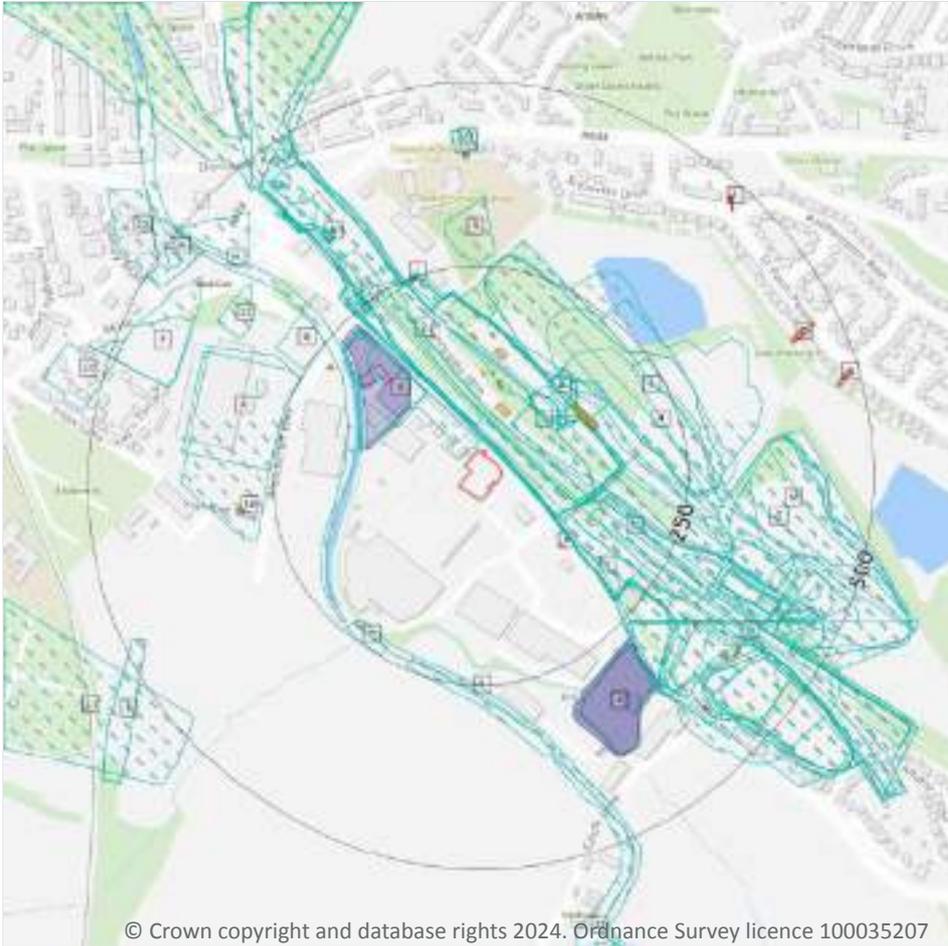
## OS MasterMap site plan



Site Area: 0.21ha



# 1 Past land use



**Site Outline**

Search buffers in metres (m)

-  Historical industrial land uses
-  Historical tanks
-  Historical energy features
-  Historical garages

© Crown copyright and database rights 2024. Ordnance Survey licence 100035207

## 1.1 Historical industrial land uses

**Records within 500m** **117**

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
B	5m N	Garage	1974 - 1992	1488606

ID	Location	Land use	Dates present	Group ID
A	9m NE	Unspecified Works	1966	1438981
A	9m NE	Railway Sidings	1966	1549333
A	10m NE	Chemical Plant	1948 - 1951	1491039
C	10m NE	Railway Sidings	1948	1462288
A	12m NE	Railway Sidings	1904 - 1948	1499321
1	14m NE	Railway Sidings	1904	1479013
A	14m NE	Colliery	1904	1522430
A	15m NE	Railway Sidings	1951	1457989
A	15m NE	Railway Sidings	1951	1457990
C	15m NE	Railway Sidings	1931 - 1938	1524667
A	18m NE	Railway Sidings	1982	1540369
2	35m NE	Railway Sidings	1890	1458655
A	35m NE	Colliery	1890	1471424
A	38m NE	Chemical Plant	1931 - 1938	1545244
A	45m NE	Chemical Plant	1938	1498483
A	84m NE	Refuse Heap	1948	1556137
D	86m SE	Brick Works	1931 - 1938	1468111
A	91m NE	Refuse Heap	1938	1520413
A	91m NE	Unspecified Ground Workings and Heaps	1931 - 1938	1516634
A	92m NE	Refuse Heap	1951	1519578
A	93m NE	Unspecified Ground Workings	1938	1551476
A	94m NE	Unspecified Heap	1948	1417704
A	99m NE	Unspecified Ground Workings	1951	1547210
B	103m NW	Flint Glass Works	1938	1515350
B	103m NW	Flint Glass Works	1931 - 1938	1469132
B	104m NW	Flint Glass Works	1951	1547310
D	107m E	Railway Sidings	1974	1461577
A	111m NE	Unspecified Pits	1904	1423389



ID	Location	Land use	Dates present	Group ID
A	120m NE	Unspecified Tank	1951	1435149
A	126m NE	Unspecified Tanks	1966	1426414
D	130m E	Clay Pit	1992	1436298
F	138m NE	Unspecified Quarry	1966	1428060
F	138m NE	Unspecified Disused Pit	1974	1431755
3	139m SE	Unspecified Ground Workings	1948	1414452
G	140m NE	Unspecified Pit	1948	1513833
4	140m NE	Clay Pit	1951	1534296
D	144m E	Railway Sidings	1931 - 1938	1524668
H	145m W	Disused Canal	1966	1469588
F	153m NE	Clay Pit	1982 - 1992	1551768
G	173m NE	Tramway Sidings	1951	1430903
B	174m NW	Glass Works	1948	1411695
D	222m SE	Brick Works	1948	1508075
5	224m SW	Disused Canal	1987	1478189
6	232m SW	Cuttings	1951	1410381
7	234m S	Cuttings	1951	1410382
I	237m NW	Railway Buildings	1966	1442386
I	240m NW	Railway Building	1974	1520487
I	241m NW	Railway Building	1938	1460737
I	242m NW	Railway Building	1951	1493149
D	247m SE	Unspecified Works	1992	1545355
K	248m NW	Unspecified Warehouses	1974	1424434
K	248m NW	Unspecified Warehouse	1982 - 1992	1549053
8	250m NW	Unspecified Works	1974 - 1992	1484703
9	253m N	Unspecified Heap	1982 - 1992	1525591
D	256m SE	Brick Works	1951	1463449
D	258m SE	Unspecified Works	1977 - 1987	1482419



ID	Location	Land use	Dates present	Group ID
D	258m SE	Unspecified Works	1966	1492019
L	275m SE	Garage	1987	1457802
D	278m SE	Railway Building	1904	1430516
K	286m W	Unspecified Heap	1931 - 1938	1535021
M	297m E	Clay Pit	1951	1514463
D	310m E	Refuse Heap	1974	1438073
D	321m SE	Unspecified Works	1982	1500734
M	322m E	Unspecified Disused Pit	1982 - 1992	1460834
D	326m SE	Unspecified Works	1966	1492039
D	326m SE	Railway Building	1951	1430517
D	330m SE	Brick Works	1904	1466945
11	344m NW	Bleach and Dye works	1850	1409670
N	344m NW	Railway Building	1938	1546841
N	344m NW	Railway Station	1931 - 1938	1513412
N	347m NW	Railway Building	1948	1492663
N	348m NW	Railway Station	1951	1506173
N	351m NW	Railway Building	1904	1552542
D	351m SE	Disused Workings	1987	1426485
M	360m E	Unspecified Quarry	1966	1428061
D	360m SE	Railway Building	1904	1430515
12	362m S	Disused Canal	1951	1541027
N	374m NW	Railway Station	1966	1554367
D	375m SE	Unspecified Pit	1951	1507153
N	376m NW	Railway Station	1938	1503845
D	378m SE	Unspecified Tank	1904	1435148
D	379m SE	Unspecified Pit	1904	1493165
N	379m NW	Railway Station	1948	1480758
M	379m E	Unspecified Disused Pit	1974	1431772



ID	Location	Land use	Dates present	Group ID
N	381m NW	Railway Station	1890	1468104
N	382m NW	Railway Station	1904	1503770
D	384m SE	Unspecified Ground Workings	1948	1414451
D	386m SE	Unspecified Pit	1931 - 1938	1546839
D	389m E	Unspecified Pit	1931 - 1938	1544951
H	393m NW	Tan Yard	1850	1411705
D	404m SE	Unspecified Disused Pit	1987	1518223
O	404m N	Police Station	1938	1501498
O	405m N	Police Station	1931 - 1951	1469199
O	406m N	Police Station	1966	1554544
P	406m W	Unspecified Works	1974	1459241
D	407m SE	Unspecified Disused Pit	1977	1431773
D	407m SE	Unspecified Pit	1966	1548421
P	407m W	Unspecified Works	1982 - 1992	1504652
N	408m NW	Railway Building	1951	1430521
D	419m SE	Unspecified Pit	1966	1532347
D	422m SE	Unspecified Ground Workings	1951	1414450
D	424m SE	Unspecified Pit	1948	1530098
N	436m NW	Railway Buildings	1951	1484912
D	438m E	Unspecified Heap	1966	1417703
N	438m NW	Railway Buildings	1904	1462086
N	444m NW	Railway Building	1974	1430522
D	452m SE	Unspecified Pit	1966	1551551
R	454m NW	Unspecified Works	1982 - 1992	1484591
R	470m NW	Unspecified Foundry	1974	1421020
N	470m NW	Unspecified Heap	1948	1417705
U	471m SW	Cuttings	1977 - 1987	1480376
U	471m SW	Cuttings	1966	1480472



ID	Location	Land use	Dates present	Group ID
N	474m NW	Unspecified Ground Workings	1904	1414453
13	474m SW	Cemetery	1890	1541876
14	491m W	Nursery	1966 - 1974	1518051
15	493m NW	Unspecified Factory	1974 - 1992	1498742

This data is sourced from Ordnance Survey / Groundsure.

## 1.2 Historical tanks

<b>Records within 500m</b>	<b>27</b>
----------------------------	-----------

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

Features are displayed on the Past land use map on [page 15 >](#)

ID	Location	Land use	Dates present	Group ID
A	58m NE	Tanks	1931	232650
A	88m N	Unspecified Tank	1893 - 1906	243803
A	91m N	Tanks	1960	239189
A	94m N	Tanks	1960	247936
A	103m N	Tanks	1960	239885
A	107m N	Unspecified Tank	1960	248247
A	107m N	Unspecified Tank	1960	237084
A	125m NE	Tanks	1960	232649
A	126m NE	Unspecified Tank	1960	228976
A	127m N	Tanks	1931	232651
A	128m NE	Unspecified Tank	1960	228977
A	133m NE	Unspecified Tank	1960	228978
A	139m N	Unspecified Tank	1960	236029
A	139m N	Unspecified Tank	1960	236272



ID	Location	Land use	Dates present	Group ID
A	151m N	Tanks	1931	232652
A	154m N	Unspecified Tank	1931	228981
A	164m N	Unspecified Tank	1893 - 1906	242754
D	268m SE	Unspecified Tank	1983	239634
10	291m W	Unspecified Tank	1982 - 1990	243040
D	324m SE	Unspecified Tank	1963	237934
D	325m SE	Unspecified Tank	1983	233450
D	325m SE	Unspecified Tank	1983	233451
D	326m SE	Unspecified Tank	-	222624
D	326m SE	Unspecified Tank	1962	233449
D	382m SE	Unspecified Tank	1906	228975
D	394m SE	Unspecified Tank	-	222523
D	394m SE	Unspecified Tank	1962	228974

*This data is sourced from Ordnance Survey / Groundsure.*

### 1.3 Historical energy features

<b>Records within 500m</b>	<b>18</b>
----------------------------	-----------

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

Features are displayed on the Past land use map on [page 15 >](#)

ID	Location	Land use	Dates present	Group ID
A	2m N	Electricity Substation	1990 - 1995	135727
E	120m SE	Electricity Substation	1995	131156
E	125m SE	Gas Governor	1995	131955
B	220m NW	Electricity Substation	1972 - 1990	146528
J	245m N	Electricity Substation	1983 - 1990	136637



ID	Location	Land use	Dates present	Group ID
J	245m N	Electricity Substation	1995	141690
O	399m N	Electricity Substation	1992	139697
O	400m N	Electricity Substation	1967	142681
D	408m SE	Electricity Substation	-	128789
D	408m SE	Electricity Substation	1962 - 1995	139486
D	412m SE	Electricity Substation	1990 - 1995	139522
Q	430m NE	Electricity Substation	1981 - 1993	146977
Q	430m NE	Electricity Substation	1966	138386
S	466m E	Electricity Substation	1966	134977
T	467m NE	Electricity Substation	1967	133548
T	473m NE	Electricity Substation	1992	132615
T	473m NE	Electricity Substation	1992	133697
S	480m E	Electricity Substation	1981 - 1993	141726

*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**

**9**

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



Features are displayed on the Past land use map on [page 15 >](#)

ID	Location	Land use	Dates present	Group ID
B	107m NW	Garage	1972	44174
B	109m NW	Garage	1982 - 1990	45724
B	150m NW	Garage	1982 - 1990	44604
B	157m NW	Garage	1972	42595
L	273m SE	Garage	1995	45842
L	273m SE	Garage	-	41051
L	279m SE	Garage	1962	43892
L	280m SE	Garage	1963	41646
L	328m SE	Garage	1961	43225

*This data is sourced from Ordnance Survey / Groundsure.*

## 1.6 Historical military land

Records within 500m

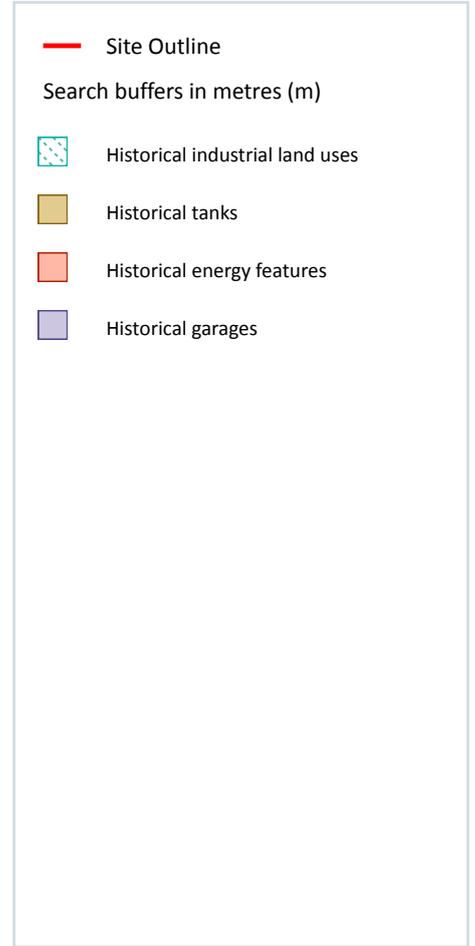
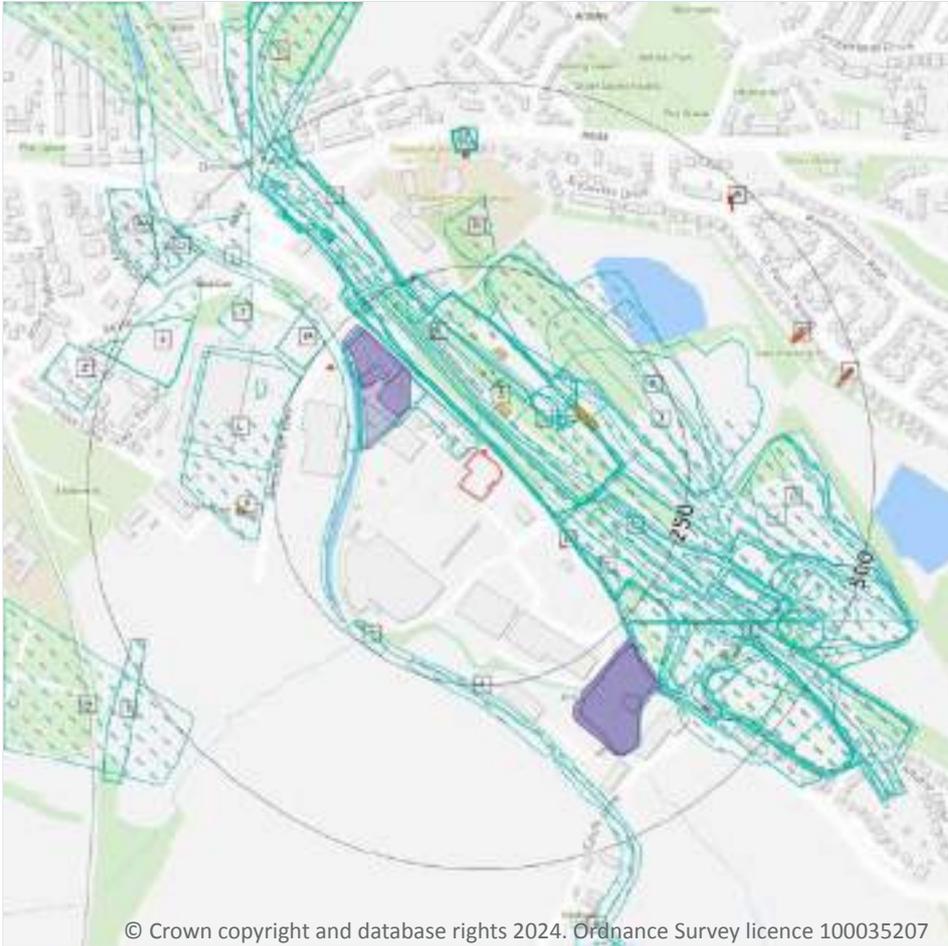
0

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



© Crown copyright and database rights 2024. Ordnance Survey licence 100035207

### 2.1 Historical industrial land uses

Records within 500m

158

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 24 >](#)

ID	Location	Land Use	Date	Group ID
B	5m N	Garage	1992	1488606
B	5m N	Garage	1982	1488606
B	5m N	Garage	1974	1488606

ID	Location	Land Use	Date	Group ID
A	9m NE	Railway Sidings	1966	1549333
A	9m NE	Unspecified Works	1966	1438981
A	10m NE	Chemical Plant	1948	1491039
C	10m NE	Railway Sidings	1948	1462288
A	12m NE	Railway Sidings	1938	1499321
1	14m NE	Railway Sidings	1904	1479013
A	14m NE	Colliery	1904	1522430
D	15m NE	Railway Sidings	1951	1457989
C	15m NE	Railway Sidings	1938	1524667
C	15m NE	Railway Sidings	1931	1524667
A	18m NE	Railway Sidings	1982	1540369
A	35m NE	Colliery	1890	1471424
D	35m NE	Railway Sidings	1890	1458655
A	38m NE	Chemical Plant	1938	1545244
A	38m NE	Chemical Plant	1931	1545244
A	45m NE	Chemical Plant	1938	1498483
A	54m NE	Chemical Plant	1951	1491039
A	84m NE	Refuse Heap	1948	1556137
E	86m SE	Brick Works	1938	1468111
E	86m SE	Brick Works	1931	1468111
A	91m NE	Refuse Heap	1938	1520413
A	91m NE	Refuse Heap	1938	1520413
A	91m NE	Unspecified Ground Workings and Heaps	1938	1516634
A	91m NE	Unspecified Ground Workings and Heaps	1931	1516634
F	91m N	Railway Sidings	1938	1499321
F	91m N	Railway Sidings	1931	1499321
A	92m NE	Refuse Heap	1951	1519578
A	93m NE	Unspecified Ground Workings	1938	1551476



ID	Location	Land Use	Date	Group ID
A	93m NE	Unspecified Ground Workings	1938	1551476
A	94m NE	Unspecified Heap	1948	1417704
A	99m NE	Unspecified Ground Workings	1951	1547210
E	102m SE	Brick Works	1938	1468111
E	102m SE	Brick Works	1938	1468111
B	103m NW	Flint Glass Works	1938	1515350
B	103m NW	Flint Glass Works	1938	1469132
B	103m NW	Flint Glass Works	1931	1469132
B	104m NW	Flint Glass Works	1951	1547310
E	107m E	Railway Sidings	1974	1461577
A	111m NE	Unspecified Pits	1904	1423389
A	120m NE	Unspecified Tank	1951	1435149
A	126m NE	Unspecified Tanks	1966	1426414
E	130m E	Clay Pit	1992	1436298
H	138m NE	Unspecified Quarry	1966	1428060
H	138m NE	Unspecified Disused Pit	1974	1431755
2	139m SE	Unspecified Ground Workings	1948	1414452
I	140m NE	Unspecified Pit	1948	1513833
3	140m NE	Clay Pit	1951	1534296
E	144m E	Railway Sidings	1938	1524668
E	144m E	Railway Sidings	1931	1524668
J	145m W	Disused Canal	1966	1469588
H	153m NE	Clay Pit	1992	1551768
H	153m NE	Clay Pit	1982	1551768
I	173m NE	Tramway Sidings	1951	1430903
B	174m NW	Glass Works	1948	1411695
E	222m SE	Brick Works	1948	1508075
4	224m SW	Disused Canal	1987	1478189



ID	Location	Land Use	Date	Group ID
5	232m SW	Cuttings	1951	1410381
6	234m S	Cuttings	1951	1410382
D	237m NW	Railway Buildings	1966	1442386
D	240m NW	Railway Building	1974	1520487
D	241m NW	Railway Building	1938	1460737
D	242m NW	Railway Building	1951	1493149
E	247m SE	Unspecified Works	1992	1545355
L	248m NW	Unspecified Warehouse	1992	1549053
L	248m NW	Unspecified Warehouse	1982	1549053
L	248m NW	Unspecified Warehouses	1974	1424434
M	250m NW	Unspecified Works	1992	1484703
M	250m NW	Unspecified Works	1982	1484703
M	250m NW	Unspecified Works	1974	1484703
N	253m N	Unspecified Heap	1992	1525591
N	253m N	Unspecified Heap	1982	1525591
E	256m SE	Brick Works	1951	1463449
E	258m SE	Unspecified Works	1966	1492019
E	258m SE	Unspecified Works	1977	1482419
E	258m SE	Unspecified Works	1987	1482419
O	275m SE	Garage	1987	1457802
E	278m SE	Railway Building	1904	1430516
L	286m W	Unspecified Heap	1938	1535021
L	286m W	Unspecified Heap	1931	1535021
Q	297m E	Clay Pit	1951	1514463
E	310m SE	Railway Sidings	1951	1457990
E	310m E	Refuse Heap	1974	1438073
E	321m SE	Unspecified Works	1982	1500734
Q	322m E	Unspecified Disused Pit	1992	1460834



ID	Location	Land Use	Date	Group ID
Q	322m E	Unspecified Disused Pit	1982	1460834
E	326m SE	Unspecified Works	1966	1492039
E	326m SE	Railway Building	1951	1430517
E	330m SE	Brick Works	1904	1466945
7	344m NW	Bleach and Dye works	1850	1409670
F	344m NW	Railway Building	1938	1546841
F	344m NW	Railway Station	1938	1513412
F	344m NW	Railway Station	1931	1513412
F	347m NW	Railway Building	1948	1492663
F	348m NW	Railway Station	1951	1506173
F	351m NW	Railway Building	1904	1552542
E	351m SE	Disused Workings	1987	1426485
Q	360m E	Unspecified Quarry	1966	1428061
E	360m SE	Railway Building	1904	1430515
8	362m S	Disused Canal	1951	1541027
F	374m NW	Railway Station	1966	1554367
E	375m SE	Unspecified Pit	1951	1507153
F	376m NW	Railway Station	1938	1503845
E	378m SE	Unspecified Tank	1904	1435148
E	379m SE	Unspecified Pit	1904	1493165
F	379m NW	Railway Station	1948	1480758
Q	379m E	Unspecified Disused Pit	1974	1431772
F	381m NW	Railway Station	1890	1468104
F	382m NW	Railway Station	1904	1503770
E	384m SE	Unspecified Ground Workings	1948	1414451
E	386m SE	Unspecified Pit	1938	1546839
E	386m SE	Unspecified Pit	1931	1546839
E	388m SE	Unspecified Pit	1938	1546839



ID	Location	Land Use	Date	Group ID
E	388m SE	Unspecified Pit	1938	1546839
E	389m E	Unspecified Pit	1938	1544951
E	389m E	Unspecified Pit	1931	1544951
E	389m E	Unspecified Pit	1938	1544951
E	389m E	Unspecified Pit	1938	1544951
J	393m NW	Tan Yard	1850	1411705
E	404m SE	Unspecified Disused Pit	1987	1518223
R	404m N	Police Station	1938	1501498
R	405m N	Police Station	1948	1469199
R	406m N	Police Station	1966	1554544
S	406m W	Unspecified Works	1974	1459241
E	407m SE	Unspecified Pit	1966	1548421
E	407m SE	Unspecified Disused Pit	1977	1431773
S	407m W	Unspecified Works	1992	1504652
S	407m W	Unspecified Works	1982	1504652
R	408m N	Police Station	1938	1469199
R	408m N	Police Station	1931	1469199
F	408m NW	Railway Building	1951	1430521
R	408m N	Police Station	1951	1469199
E	419m SE	Unspecified Pit	1966	1532347
E	422m SE	Unspecified Ground Workings	1951	1414450
E	424m SE	Unspecified Pit	1948	1530098
F	436m NW	Railway Buildings	1951	1484912
E	438m E	Unspecified Heap	1966	1417703
F	438m NW	Railway Buildings	1904	1462086
F	444m NW	Railway Building	1974	1430522
E	452m SE	Unspecified Pit	1966	1551551
U	454m NW	Unspecified Works	1992	1484591



ID	Location	Land Use	Date	Group ID
U	454m NW	Unspecified Works	1982	1484591
U	470m NW	Unspecified Foundry	1974	1421020
F	470m NW	Unspecified Heap	1948	1417705
X	471m SW	Cuttings	1966	1480472
X	471m SW	Cuttings	1977	1480376
X	471m SW	Cuttings	1987	1480376
F	474m NW	Unspecified Ground Workings	1904	1414453
9	474m SW	Cemetery	1890	1541876
Y	489m NW	Railway Sidings	1948	1499321
Z	491m W	Nursery	1974	1518051
Z	491m W	Nursery	1966	1518051
Y	492m NW	Railway Sidings	1904	1499321
AA	493m NW	Unspecified Factory	1992	1498742
AA	493m NW	Unspecified Factory	1982	1498742
AA	493m NW	Unspecified Factory	1974	1498742

This data is sourced from Ordnance Survey / Groundsure.

## 2.2 Historical tanks

### Records within 500m

34

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 24 >](#)

ID	Location	Land Use	Date	Group ID
A	58m NE	Tanks	1931	232650
A	88m N	Unspecified Tank	1893	243803
A	88m N	Unspecified Tank	1906	243803
A	91m N	Tanks	1960	239189
A	91m N	Tanks	1960	239189



ID	Location	Land Use	Date	Group ID
A	94m N	Tanks	1960	247936
A	94m N	Tanks	1960	247936
A	103m N	Tanks	1960	239885
A	103m N	Tanks	1960	239885
A	107m N	Unspecified Tank	1960	248247
A	107m N	Unspecified Tank	1960	237084
A	125m NE	Tanks	1960	232649
A	126m NE	Unspecified Tank	1960	228976
A	127m N	Tanks	1931	232651
A	128m NE	Unspecified Tank	1960	228977
A	133m NE	Unspecified Tank	1960	228978
A	139m N	Unspecified Tank	1960	236029
A	139m N	Unspecified Tank	1960	236272
A	151m N	Tanks	1931	232652
A	154m N	Unspecified Tank	1931	228981
K	164m N	Unspecified Tank	1893	242754
K	164m N	Unspecified Tank	1906	242754
E	268m SE	Unspecified Tank	1983	239634
E	268m SE	Unspecified Tank	1983	239634
P	291m W	Unspecified Tank	1982	243040
P	291m W	Unspecified Tank	1990	243040
E	324m SE	Unspecified Tank	1963	237934
E	325m SE	Unspecified Tank	1983	233450
E	325m SE	Unspecified Tank	1983	233451
E	326m SE	Unspecified Tank	-	222624
E	326m SE	Unspecified Tank	1962	233449
E	382m SE	Unspecified Tank	1906	228975
E	394m SE	Unspecified Tank	-	222523



ID	Location	Land Use	Date	Group ID
E	394m SE	Unspecified Tank	1962	228974

This data is sourced from Ordnance Survey / Groundsure.

## 2.3 Historical energy features

<b>Records within 500m</b>	<b>29</b>
----------------------------	-----------

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 24 >](#)

ID	Location	Land Use	Date	Group ID
A	2m N	Electricity Substation	1990	135727
A	2m N	Electricity Substation	1995	135727
G	120m SE	Electricity Substation	1995	131156
G	125m SE	Gas Governor	1995	131955
B	220m NW	Electricity Substation	1982	146528
B	220m NW	Electricity Substation	1990	146528
B	221m NW	Electricity Substation	1972	146528
D	245m N	Electricity Substation	1983	136637
D	245m N	Electricity Substation	1983	136637
D	245m N	Electricity Substation	1990	136637
D	245m N	Electricity Substation	1995	141690
R	399m N	Electricity Substation	1992	139697
R	399m N	Electricity Substation	1992	139697
R	400m N	Electricity Substation	1967	142681
E	408m SE	Electricity Substation	-	128789
E	408m SE	Electricity Substation	1995	139486
E	408m SE	Electricity Substation	1995	139486
E	409m SE	Electricity Substation	1962	139486
E	412m SE	Electricity Substation	1990	139522



ID	Location	Land Use	Date	Group ID
E	412m SE	Electricity Substation	1995	139522
T	430m NE	Electricity Substation	1981	146977
T	430m NE	Electricity Substation	1966	138386
T	430m NE	Electricity Substation	1993	146977
V	466m E	Electricity Substation	1966	134977
W	467m NE	Electricity Substation	1967	133548
W	473m NE	Electricity Substation	1992	132615
W	473m NE	Electricity Substation	1992	133697
V	480m E	Electricity Substation	1981	141726
V	480m E	Electricity Substation	1993	141726

*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**

**12**

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

Features are displayed on the Past land use - un-grouped map on [page 24 >](#)

ID	Location	Land Use	Date	Group ID
B	107m NW	Garage	1972	44174
B	109m NW	Garage	1982	45724
B	109m NW	Garage	1990	45724

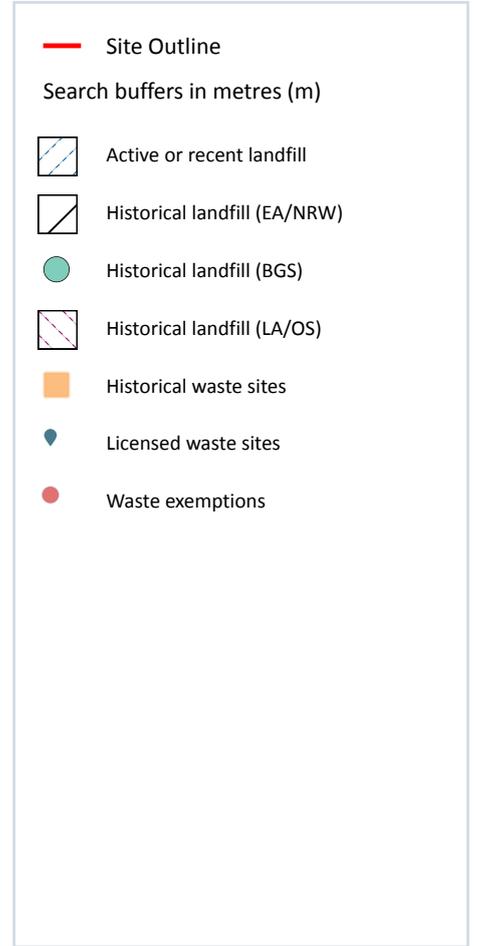
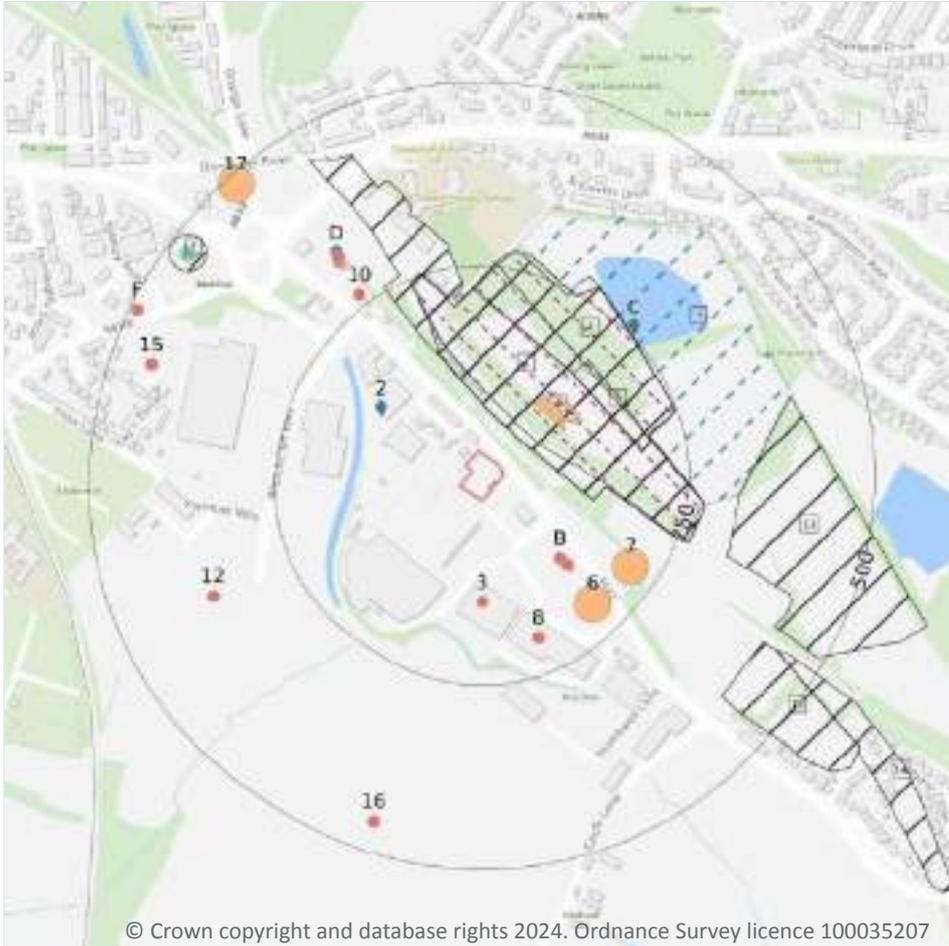


ID	Location	Land Use	Date	Group ID
B	150m NW	Garage	1982	44604
B	150m NW	Garage	1990	44604
B	157m NW	Garage	1972	42595
O	273m SE	Garage	1995	45842
O	273m SE	Garage	1995	45842
O	273m SE	Garage	-	41051
O	279m SE	Garage	1962	43892
O	280m SE	Garage	1963	41646
O	328m SE	Garage	1961	43225

*This data is sourced from Ordnance Survey / Groundsure.*



## 3 Waste and landfill



### 3.1 Active or recent landfill

Records within 500m

1

Active or recently closed landfill sites under Environment Agency/Natural Resources Wales regulation. Features are displayed on the Waste and landfill map on [page 35 >](#)

ID	Location	Details
9	203m E	<p>Operator: Bdr Waste Disposal Limited            Site Address: Bdr Waste Disposal Limited, Stairfoot North Quarry, Wombwell Lane, Stairfoot, Barnsley, South Yorkshire, S71 5BZ</p> <p>WML Number: 60588            EPR Reference: 644167            Landfill type: A04: Household, Commercial &amp; Industrial Waste Landfill            Status: Closure            IPPC Reference: -            EPR Number: EA/EPR/YP3990ZT</p>

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

### 3.2 Historical landfill (BGS records)

Records within 500m

1

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.

Features are displayed on the Waste and landfill map on [page 35 >](#)

ID	Location	Address	BGS Number	Risk	Waste Type
E	472m NW	Disused Canal, Doncaster Rd, Barnsley, Yorks	1891	No risk to aquifer	N/A

This data is sourced from the British Geological Survey.

### 3.3 Historical landfill (LA/mapping records)

Records within 500m

2

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

Features are displayed on the Waste and landfill map on [page 35 >](#)

ID	Location	Site address	Source	Data type
A	57m NE	Refuse Tip	1990 mapping	Polygon
A	58m NE	Refuse Tip	1995 mapping	Polygon

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

### 3.4 Historical landfill (EA/NRW records)

Records within 500m

8

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

Features are displayed on the Waste and landfill map on [page 35 >](#)



ID	Location	Details		
1	44m NE	Site Address: Stairfoot Landfill Site, Stairfoot (North Quarry), Stairfoot, Barnsley Licence Holder Address: Cleansing Division, Smithies Lane, Barnsley	Waste Licence: Yes Site Reference: WD2 B20, 4400/B20, WD2 S10, WD20 B772 Waste Type: Inert, Industrial, Commercial, Household, Special, Liquid sludge Environmental Permitting Regulations (Waste) Reference: - Licence Issue: 03/12/1986 Licence Surrender: 31/12/1990	Operator: Barnsley Metropolitan Borough Council Licence Holder: Barnsley Metropolitan Borough Council First Recorded 31/12/1987 Last Recorded: 31/12/1992
A	44m NE	Site Address: Stairfoot Brickworks, North Quarry Phase 2, Wombwell Lane, Stairfoot Licence Holder Address: Public Services Department, Cleansing Division, Smithies Lane, Barnsley	Waste Licence: Yes Site Reference: 4400/B266, 20B266, 20B772, WD2 B21, CD2, WD20 B772 Waste Type: Industrial, Commercial, Household Environmental Permitting Regulations (Waste) Reference: - Licence Issue: 17/07/1991 Licence Surrender: -	Operator: - Licence Holder: Barnsley Metropolitan Borough Council First Recorded - Last Recorded: -
4	157m NE	Site Address: Stairfoot North Quarry Phase 2, Wombwell Lane, Stairfoot, Barnsley Licence Holder Address: Wombwell Lane, Stairfoot, Barnsley	Waste Licence: Yes Site Reference: WD20 B297, WD20 B772, 4400/B297, 20B297 Waste Type: Inert, Industrial, Commercial, Household, Special Environmental Permitting Regulations (Waste) Reference: - Licence Issue: 29/07/1980 Licence Surrender: 30/04/1988	Operator: - Licence Holder: The Yorkshire Brick Company Limited First Recorded 31/01/1992 Last Recorded: -
5	157m NE	Site Address: Stairfoot Quarry, Wombwell Lane, Stairfoot, Barnsley Licence Holder Address: Wombwell Lane, Stairfoot, Barnsley	Waste Licence: Yes Site Reference: 4400/B266, WD20 B266 Waste Type: Commercial Environmental Permitting Regulations (Waste) Reference: - Licence Issue: 04/10/1979 Licence Surrender: 27/08/1980	Operator: - Licence Holder: The Yorkshire Brick Company First Recorded - Last Recorded: -
11	317m E	Site Address: Stairfoot Quarry No.2, Wombwell Lane, Stairfoot, Barnsley Licence Holder Address: -	Waste Licence: Yes Site Reference: WD2 S9, WD2 B6, 2B6(2), 4400/B6 Waste Type: Inert, Industrial, Commercial, Household, Special, Liquid sludge Environmental Permitting Regulations (Waste) Reference: - Licence Issue: 07/04/1982 Licence Surrender: 31/12/1987	Operator: Barnsley Metropolitan Borough Council Licence Holder: Barnsley Metropolitan Borough Council First Recorded 31/12/1982 Last Recorded: 31/12/1987



ID	Location	Details		
13	414m SE	Site Address: Stairfoot Brickworks Quarry, Wombwell Lane, Stairfoot, Barnsley Licence Holder Address: -	Waste Licence: Yes Site Reference: 2B9, 4400/B9, WD2 B9, WD255 Waste Type: Inert, Industrial, Commercial, Household, Liquid sludge Environmental Permitting Regulations (Waste) Reference: - Licence Issue: 17/01/1978 Licence Surrender: 31/12/1982	Operator: Yorkshire Brick Company Licence Holder: Yorkshire Brick Company First Recorded 31/12/1976 Last Recorded: 31/12/1982
14	438m SE	Site Address: Disused railway cutting to the rear of 39 Wombell Lane, Stairfoot, Barnsley Licence Holder Address: 38 Wombwell Lane, Stairfoot, Barnsley	Waste Licence: Yes Site Reference: 4400/B430, WD20 B430 Waste Type: Inert, Commercial Environmental Permitting Regulations (Waste) Reference: - Licence Issue: 16/05/1984 Licence Surrender: 29/05/1991	Operator: William Gosney Limited Licence Holder: William Gosney Limited First Recorded 16/05/1984 Last Recorded: 31/12/1989
E	446m NW	Site Address: Disused Canal - Doncaster Road, Stairfoot, Barnsley Licence Holder Address: -	Waste Licence: - Site Reference: - Waste Type: - Environmental Permitting Regulations (Waste) Reference: - Licence Issue: - Licence Surrender: -	Operator: - Licence Holder: - First Recorded - Last Recorded: -

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

### 3.5 Historical waste sites

**Records within 500m**

**4**

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

Features are displayed on the Waste and landfill map on [page 35 >](#)

ID	Location	Address	Further Details	Date
A	93m NE	Site Address: N/A	Type of Site: Ground Workings and Refuse Heap Planning application reference: N/A Description: N/A Data source: Historic Mapping Data Type: Polygon	1931



ID	Location	Address	Further Details	Date
6	179m SE	Site Address: Tesco Stores Ltd, Wombwell Lane, BARNSELY, South Yorkshire, S70 3NS	Type of Site: Recycling Unit (New/Extension) Planning application reference: 2007/1728 Description: Scheme comprises construction of single storey tomra recycling unit and extension of recycling area. An application (ref: 2007/1728) for detailed planning permission was granted by Barnsley B.C. Planning decision obtained Data source: Historic Planning Application Data Type: Point	-
7	186m SE	Site Address: Lafarge Readymix Concrete, Wombwell Lane, Stairfoot, Barnsley, South Yorkshire, S70 3NS, YORK.HUMB	Type of Site: Metal Recycling Yard Planning application reference: 2023/0241 Description: Scheme comprises change of use to metal recycling yard for the storage and separation of metals and associated provisions including storage container, office block, weighbridge and lay down enclosures. Data source: Historic Planning Application Data Type: Point	04/05/2023
17	461m NW	Site Address: Grange Lane, Carlisle Engineering Works, Grange Lane, Stairfoot, BARNSELY, South Yorkshire, S70 3NJ	Type of Site: Waste Transfer Station Planning application reference: 98/411 Description: Scheme includes weighbridge & car parking. The work will involve the construction of the industrial buildings, major concrete works and enabling works with car parking facilities. Detailed plans have been approved. Detailed plans have been approved. Data source: Historic Planning Application Data Type: Point	01/04/1999

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

### 3.6 Licensed waste sites

<b>Records within 500m</b>	<b>5</b>
----------------------------	----------

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

Features are displayed on the Waste and landfill map on [page 35 >](#)



ID	Location	Details		
2	137m NW	Site Name: South Yorkshire Dismantlers Site Address: Land/premises At, Wombwell Lane, Stairfoot, Barnsley, South Yorkshire, S70 3NX Correspondence Address: -	Type of Site: Metal Recycling Site (Vehicle Dismantler) Size: 25000 tonnes Environmental Permitting Regulations (Waste) Licence Number: 626582 EPR reference: EA/EPR/RP3098ZP Operator: Kathleen Armitage Waste Management licence No: 61967 Annual Tonnage: 4999	Issue Date: 24/09/1997 Effective Date: 24/09/1997 Modified: - Surrendered Date: - Expiry Date: - Cancelled Date: - Status: Expired
C	260m NE	Site Name: Stairfoot Landfill Site Address: Stairfoot North Quarry, Wombwell Lane, Stairfoot, Barnsley, S Yorks Correspondence Address: Thurcroft Heritage Centre, Thurcroft, Rotherham, South Yorks, S66 9AB	Type of Site: Co-Disposal Landfill Site Size: >= 75000 tonnes Environmental Permitting Regulations (Waste) Licence Number: BDR002 EPR reference: - Operator: B D R Waste Disposal Ltd Waste Management licence No: 60588 Annual Tonnage: 0	Issue Date: 17/07/1991 Effective Date: - Modified: - Surrendered Date: - Expiry Date: - Cancelled Date: - Status: Issued
C	260m NE	Site Name: Stairfoot Landfill Site Address: Stairfoot North Quarry, Wombwell Lane, Stairfoot, Barnsley, S Yorks Correspondence Address: Thurcroft Heritage Centre, Thurcroft, Rotherham, South Yorks, S66 9AB	Type of Site: Household, Commercial & Industrial Waste Landfill Size: >= 75000 tonnes Environmental Permitting Regulations (Waste) Licence Number: BDR002 EPR reference: - Operator: B D R Waste Disposal Ltd Waste Management licence No: 60588 Annual Tonnage: 0	Issue Date: 17/07/1991 Effective Date: - Modified: - Surrendered Date: - Expiry Date: - Cancelled Date: - Status: Issued
C	260m NE	Site Name: Stairfoot Landfill Site Address: Stairfoot North Quarry, Wombwell Lane, Stairfoot, Barnsley, South Yorkshire, S71 5BZ Correspondence Address: -	Type of Site: Household, Commercial & Industrial Waste Landfill Size: 25000 tonnes Environmental Permitting Regulations (Waste) Licence Number: 644167 EPR reference: EA/EPR/YP3990ZT Operator: Bdr Waste Disposal Limited Waste Management licence No: 60588 Annual Tonnage: 5000	Issue Date: 17/07/1991 Effective Date: 17/07/1991 Modified: - Surrendered Date: - Expiry Date: - Cancelled Date: - Status: Closure



ID	Location	Details		
D	328m NW	Site Name: W F S Metals Ltd Site Address: Wombwell Lane, Stairfoot, Barnsley, South Yorkshire, S70 3NT Correspondence Address: -	Type of Site: Metal Recycling Site (mixed MRS's) Size: 25000 tonnes Environmental Permitting Regulations (Waste) Licence Number: 644184 EPR reference: EA/EPR/RP3290ZC Operator: W F S Metals Limited Waste Management licence No: 60568 Annual Tonnage: 548	Issue Date: 04/12/1989 Effective Date: 04/12/1989 Modified: - Surrendered Date: - Expiry Date: - Cancelled Date: - Status: Expired

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

### 3.7 Waste exemptions

<b>Records within 500m</b>	<b>19</b>
----------------------------	-----------

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

Features are displayed on the Waste and landfill map on [page 35 >](#)

ID	Location	Site	Reference	Category	Sub-Category	Description
B	130m SE	Former Stairfoot Brickworks, Off Wombwell Lane, Stairfoot, Barnsley, S70 3ns	WEX288605	Disposing of waste exemption	Not on a farm	Burning waste in the open
3	138m S	Unit 4 Barnsley Retail Park Wombwell Lane Barnsley South Yorkshire S70 3ns	EPR/LE5343LQ /A001	Storing waste exemption	Non-agricultural waste only	Storage of waste in a secure place
B	144m SE	Larfarge Concrete, Wombwell Lane, Stairfoot, Barnsley, S703ns	WEX365923	Storing waste exemption	Not on a farm	Storage of waste in a secure place
B	144m SE	Larfarge Concrete, Wombwell Lane, Stairfoot, Barnsley, S703ns	WEX365923	Treating waste exemption	Not on a farm	Recovery of scrap metal
8	201m S	Unit 5, Barnsley Trade Park, Wombwell Lane, Barnsley, S70 3ns	WEX112980	Storing waste exemption	Not on a farm	Storage of waste in a secure place
10	265m NW	Stairfoot Metals, Wombwell Lane, Barnsley, S70 3nt	WEX077976	Treating waste exemption	Not on a farm	Recovery of scrap metal

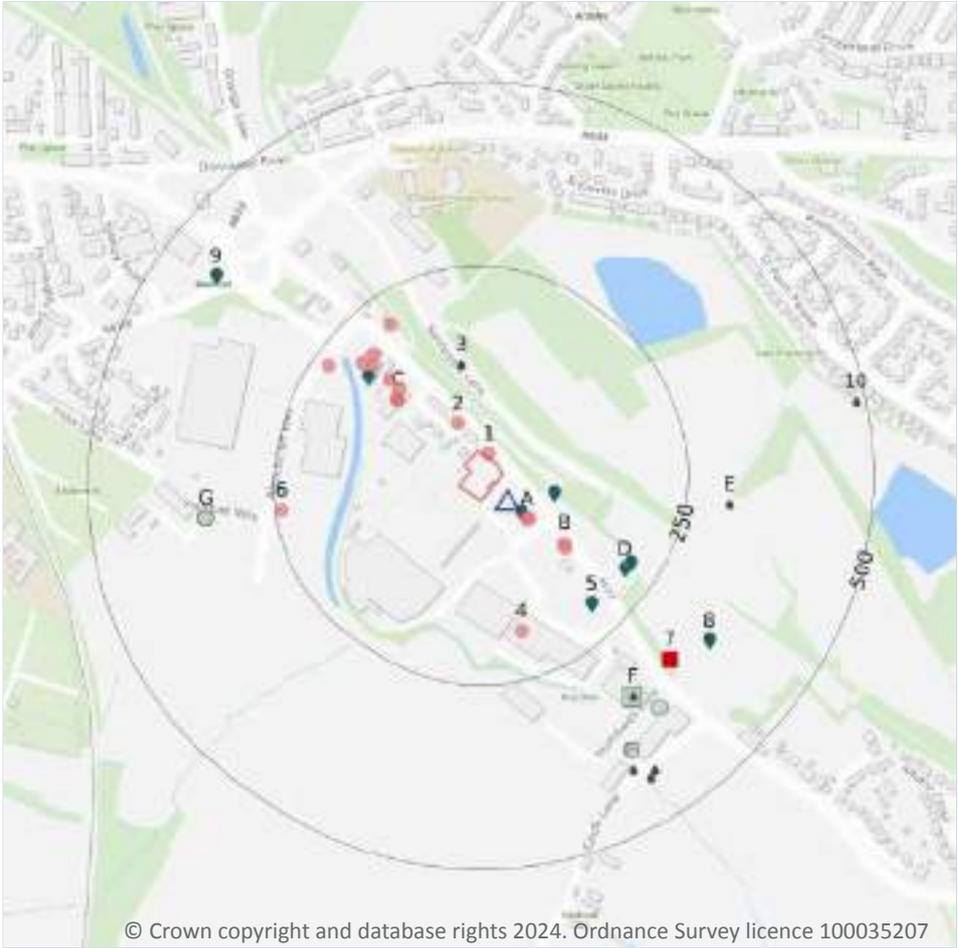


ID	Location	Site	Reference	Category	Sub-Category	Description
D	317m NW	Wombwell Lane, Barnsley, S70 3nt	WEX223214	Treating waste exemption	Not on a farm	Recovery of scrap metal
D	319m NW	Veka Recycling Centre Wombwell Lane Barnsley South Yorkshire S70 3nt	EPR/JH0714AA /A001	Treating waste exemption	Non-agricultural waste only	Preparatory treatments (baling, sorting, shredding etc)
D	324m NW	Lh & Sc Trading Wombwell Lane Barnsley South Yorkshire S70 3nt	EPR/AF0806PB /A001	Storing waste exemption	Non-agricultural waste only	Storage of waste in a secure place
D	324m NW	Lh & Sc Trading Wombwell Lane Barnsley South Yorkshire S70 3nt	EPR/AF0806PB /A001	Treating waste exemption	Non-agricultural waste only	Preparatory treatments (baling, sorting, shredding etc)
D	324m NW	Lh & Sc Trading Wombwell Lane Barnsley South Yorkshire S70 3nt	EPR/AF0806PB /A001	Treating waste exemption	Non-agricultural waste only	Sorting mixed waste
D	324m NW	Lh & Sc Trading Wombwell Lane Barnsley South Yorkshire S70 3nt	EPR/AF0806PB /A001	Treating waste exemption	Non-agricultural waste only	Recovery of scrap metal
12	365m SW	-	WEX363378	Using waste exemption	Not on a farm	Use of waste in construction
15	445m W	The Bungalow, Albion Road, Barnsley, S70 3dy	WEX215717	Disposing of waste exemption	Not on a farm	Burning waste in the open
16	459m S	-	WEX346970	Storing waste exemption	On a farm	Storage of sludge
F	490m NW	Stanley Road, Barnsley, S70 3pg	WEX308479	Using waste exemption	Not on a farm	Use of waste to manufacture finished goods
F	490m NW	Stanley Road, Barnsley, S70 3pg	WEX308479	Storing waste exemption	Not on a farm	Storage of waste in a secure place
F	490m NW	Stanley Road, Barnsley, S70 3pg	WEX177556	Storing waste exemption	Not on a farm	Storage of waste in a secure place
F	490m NW	Stanley Road, Barnsley, S70 3pg	WEX177556	Using waste exemption	Not on a farm	Use of waste to manufacture finished goods

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



## 4 Current industrial land use



- Site Outline
- Search buffers in metres (m)
- Recent industrial land uses
- ▲ Current or recent petrol stations
- ◆ Licensed pollutant release (Part A(2)/B)
- ◆ Licensed Discharges to controlled waters
- List 1 Dangerous Substances
- List 2 Dangerous Substances
- Pollution Incidents (EA/NRW)

### 4.1 Recent industrial land uses

**Records within 250m** **19**

Current potentially contaminative industrial sites.

Features are displayed on the Current industrial land use map on [page 43](#) >

ID	Location	Company	Address	Activity	Category
1	5m N	Electricity Sub Station	South Yorkshire, S70	Electrical Features	Infrastructure and Facilities
2	45m NW	Sanders Travel	88, Wombwell Lane, Stairfoot, Barnsley, South Yorkshire, S70 3NX	Vehicle Hire and Rental	Hire Services

ID	Location	Company	Address	Activity	Category
A	62m SE	Tesco Petrol Station	Petrol Station Tesco Supermarket, Wombwell Lane, Stairfoot, Barnsley, South Yorkshire, S70 3NS	Petrol and Fuel Stations	Road and Rail
A	64m SE	Tesco Barnsley Extra	Wombwell Lane, Stairfoot, Barnsley, South Yorkshire, S70 3NS	Vehicle Cleaning Services	Personal, Consumer and Other Services
B	122m SE	Electricity Sub Station	South Yorkshire, S70	Electrical Features	Infrastructure and Facilities
B	127m SE	Gas Governor Station	South Yorkshire, S70	Gas Features	Infrastructure and Facilities
C	127m NW	Barnsley Towbar Centre	Unit 5 Harris Motor Bodies, Wombwell Lane, Barnsley, South Yorkshire, S70 3NX	Vehicle Repair, Testing and Servicing	Repair and Servicing
C	127m NW	The Sprayshop	Jack Harris Precinct, Wombwell Lane, Stairfoot, Barnsley, South Yorkshire, S70 3NX	Vehicle Repair, Testing and Servicing	Repair and Servicing
C	127m NW	Crest Home Improvements Ltd	Jack Harris Precinct, Wombwell Lane, Stairfoot, Barnsley, South Yorkshire, S70 3NX	Conservatories	Consumer Products
C	127m NW	Expert Valeting	Jack Harris Precinct, Wombwell Lane, Stairfoot, Barnsley, South Yorkshire, S70 3NX	Vehicle Cleaning Services	Personal, Consumer and Other Services
C	135m NW	On Signs	Unit 2 Jack Harris Precinct, Wombwell Lane, Stairfoot, Barnsley, South Yorkshire, S70 3NX	Signs	Industrial Products
C	153m NW	Stairfoot M O T Centre	Jack Harris Precinct, Wombwell Lane, Stairfoot, Barnsley, South Yorkshire, S70 3NX	Vehicle Repair, Testing and Servicing	Repair and Servicing
C	182m NW	G R Systems Ltd	Jack Harris Precinct, Wombwell Lane, Stairfoot, Barnsley, South Yorkshire, S70 3NX	Conservatories	Consumer Products
4	186m S	Bensons's for Beds	Unit 3b Barnsley Retail Park, Wombwell Lane, Stairfoot, Barnsley, South Yorkshire, S70 3NS	Beds and Bedding	Consumer Products
C	191m NW	Roundbrand T W F	Unit 1, Bleachcroft Way, Stairfoot, Barnsley, South Yorkshire, S70 3PA	General Construction Supplies	Industrial Products
C	195m NW	B F S Barnsley Food Catering Supplies Ltd	Unit 2, Bleachcroft Way, Stairfoot, Barnsley, South Yorkshire, S70 3PA	Catering and Non Specific Food Products	Foodstuffs
C	207m NW	M D Car Sales	Cars 4 U, Wombwell Lane, Stairfoot, Barnsley, South Yorkshire, S70 3NT	Secondhand Vehicles	Motoring



ID	Location	Company	Address	Activity	Category
C	228m NW	Electricity Sub Station	South Yorkshire, S70	Electrical Features	Infrastructure and Facilities
6	242m W	Stairfoot Business Park	South Yorkshire, S70	Business Parks and Industrial Estates	Industrial Features

*This data is sourced from Ordnance Survey.*

## 4.2 Current or recent petrol stations

**Records within 500m**

**1**

Open, closed, under development and obsolete petrol stations.

Features are displayed on the Current industrial land use map on [page 43](#) >

ID	Location	Company	Address	LPG	Status
A	25m SE	TESCO EXTRA	Wombwell Lane, Stairfoot, Barnsley, South Yorkshire, S70 3NS	No	Open

*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

8

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

Features are displayed on the Current industrial land use map on [page 43 >](#)

ID	Location	Address	Details	
A	50m SE	Tesco Stores Limited, Wombwell Lane, Barnsley, S70 3NS	Process: Unloading of Petrol into Storage at Service Stations Status: Current Permit Permit Type: Part B	Enforcement: No Enforcement Notified Date of enforcement: No Enforcement Notified Comment: No Enforcement Notified
A	74m E	J Harrys (Motor Bodies), Wombwell Lane, Stairfoot, Barnsley, S70 3NX	Process: Respraying of Road Vehicles Status: Historical Permit Permit Type: Part B	Enforcement: No Enforcements Notified Date of enforcement: No Enforcements Notified Comment: No Enforcements Notified
C	176m NW	J Harris (Motor Bodies), Wombwell Lane, Stairfoot, Barnsley, S70 3NX	Process: Respraying of Road Vehicles Status: Historical Permit Permit Type: Part B	Enforcement: No Enforcements Notified Date of enforcement: No Enforcements Notified Comment: No Enforcements Notified
5	204m SE	Hope Cement Ltd (Previously Lafarge Aggregates Ltd), Wombwell Lane, Barnsley, S70 3NS	Process: Use of Bulk Cement Status: Historical Permit Permit Type: Part B	Enforcement: No Enforcement Notified Date of enforcement: No Enforcement Notified Comment: No Enforcement Notified
D	207m SE	Stairfoot MOT Centre Ltd, Wombwell Lane Stairfoot, Barnsley, S70 3NX	Process: Waste Oil Burner 0.4 MW Status: New Legislation Applies Permit Type: Part B	Enforcement: No Enforcement Notified Date of enforcement: No Enforcement Notified Comment: No Enforcement Notified

ID	Location	Address	Details	
D	210m SE	Redland Readymix Ltd, Wombwell Lane, Stairfoot, Barnsley, S70 3NS	Process: Use of Bulk Cement Status: Historical Permit Permit Type: Part B	Enforcement: No Enforcements Notified Date of enforcement: No Enforcements Notified Comment: No Enforcements Notified
8	357m SE	Hansons Building Products Limited, Wombwell Lane, Barnsley, S70 3NS	Process: Manufacture of Clay Status: Historical Permit Permit Type: Part A2	Enforcement: No Enforcement Notified Date of enforcement: No Enforcement Notified Comment: No Enforcement Notified
9	422m NW	Perfecta Bedding Wombwell Mills, Barnsley Rd, Wombwell, S73 8EA	Process: Timber Manufacture Status: Historical Permit Permit Type: Part B	Enforcement: No Enforcements Notified Date of enforcement: No Enforcements Notified Comment: No Enforcements Notified

*This data is sourced from Local Authority records.*

## 4.12 Radioactive Substance Authorisations

Records within 500m

0

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

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

## 4.13 Licensed Discharges to controlled waters

Records within 500m

10

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 43 >](#)

ID	Location	Address	Details	
3	118m N	STAIRFOOT BRICKWORKS,BARNSELEY (YTD, CO LTD)	Effluent Type: TRADE DISCHARGES - UNSPECIFIED Permit Number: 3668 Permit Version: 1 Receiving Water: DOB DYKE	Status: POST NRA LEGISLATION WHERE ISSUE DATE > 31-AUG-89 (HISTORIC ONLY) Issue date: 11/01/1982 Effective Date: 11/01/1982 Revocation Date: 10/01/1983



ID	Location	Address	Details	
E	308m E	ST PAULS PARADE SEWAGE PUMPING STN, ARDSLEY, BARNSELY	Effluent Type: SEWAGE DISCHARGES - PUMPING STATION - WATER COMPANY Permit Number: C4870 Permit Version: 2 Receiving Water: TRIBUTARY OF DOB DYKE	Status: MODIFIED - (WRA 91 SCHED 10 - AS AMENDED BY ENV ACT 1995) Issue date: 08/03/2002 Effective Date: 08/03/2002 Revocation Date: 31/03/2005
E	308m E	ST PAULS PARADE SEWAGE PUMPING STN, ARDSLEY, BARNSELY	Effluent Type: SEWAGE DISCHARGES - PUMPING STATION - WATER COMPANY Permit Number: C4870 Permit Version: 3 Receiving Water: TRIBUTARY OF DOB DYKE	Status: MODIFIED - (WRA 91 SCHED 10 - AS AMENDED BY ENV ACT 1995) Issue date: 08/03/2002 Effective Date: 01/04/2005 Revocation Date: -
F	334m SE	STAIRFOOT BRICKWORKS, STAIRFOOT, BARNSELY, SOUTH YORKSHIRE	Effluent Type: TRADE DISCHARGES - SITE DRAINAGE (CONTAM SURFACE WATER, NOT WASTE SIT) Permit Number: 3668 Permit Version: 2 Receiving Water: DOB SYKE	Status: TRANSFERRED FROM R(PP)A 1951-1961 Issue date: 11/01/1983 Effective Date: 11/01/1983 Revocation Date: 16/06/1996
F	334m SE	STAIRFOOT BRICKWORKS, STAIRFOOT, BARNSELY, SOUTH YORKSHIRE	Effluent Type: TRADE DISCHARGES - SITE DRAINAGE (CONTAM SURFACE WATER, NOT WASTE SIT) Permit Number: 3668 Permit Version: 3 Receiving Water: DOB SYKE	Status: TRANSFERRED FROM R(PP)A 1951-1961 Issue date: 17/06/1996 Effective Date: 17/06/1996 Revocation Date: -
H	418m SE	STAIRFOOT SPS, WOMBWELL LANE, WOMBWELL, BARNSELY, SOUTH YORKSHIRE, S70 3NS	Effluent Type: SEWAGE DISCHARGES - PUMPING STATION - WATER COMPANY Permit Number: WADC417 Permit Version: 1 Receiving Water: DOB SYKE	Status: TRANSFERRED FROM WATER ACT 1989 Issue date: 02/11/1989 Effective Date: 02/11/1989 Revocation Date: 27/11/2018
H	433m SE	STAIRFOOT SPS, WOMBWELL LANE, WOMBWELL, BARNSELY, SOUTH YORKSHIRE, S70 3NS	Effluent Type: SEWAGE DISCHARGES - SEWER STORM OVERFLOW - WATER COMPANY Permit Number: WADC417 Permit Version: 2 Receiving Water: RIVER DOVE	Status: VARIED UNDER EPR 2010 Issue date: 28/11/2018 Effective Date: 28/11/2018 Revocation Date: -
H	433m SE	STAIRFOOT SPS, WOMBWELL LANE, WOMBWELL, BARNSELY, SOUTH YORKSHIRE, S70 3NS	Effluent Type: SEWAGE DISCHARGES - PUMPING STATION - WATER COMPANY Permit Number: WADC417 Permit Version: 2 Receiving Water: RIVER DOVE	Status: VARIED UNDER EPR 2010 Issue date: 28/11/2018 Effective Date: 28/11/2018 Revocation Date: -



ID	Location	Address	Details	
H	439m SE	STAIRFOOT (WOMBWELL LANE) SPS, WOMBWELL LANE, STAIRFOOT, BARNSELEY, SOUTH YORKSHIRE	Effluent Type: SEWAGE DISCHARGES - PUMPING STATION - WATER COMPANY Permit Number: YWUCD1/100 Permit Version: 1 Receiving Water: DOB SIKE	Status: REVOKED (WRA 91, S88 & SCHED 10 AS AMENDED BY ENV ACT 1995) Issue date: 12/11/1997 Effective Date: 12/11/1997 Revocation Date: 29/03/2005
10	485m E	ST PAULS PARADE SEWAGE PUMPING STN, ARDSLEY, BARNSELEY	Effluent Type: SEWAGE DISCHARGES - PUMPING STATION - WATER COMPANY Permit Number: C4870 Permit Version: 1 Receiving Water: TRIBUTARY OF DOB DYKE	Status: TRANSFERRED FROM COPA 1974 Issue date: 18/11/1987 Effective Date: 18/11/1987 Revocation Date: 07/03/2002

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

#### 4.14 Pollutant release to surface waters (Red List)

Records within 500m

0

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

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

#### 4.15 Pollutant release to public sewer

Records within 500m

0

Discharges of Special Category Effluents to the public sewer.

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

#### 4.16 List 1 Dangerous Substances

Records within 500m

1

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

Features are displayed on the Current industrial land use map on [page 43 >](#)

ID	Location	Name	Status	Receiving Water	Authorised Substances
7	333m SE	Barnsley M.b.c., Stairfoot Landfill Site, Barnsley	Active	Don, Dearne, Dob Syke	Mercury (other), Cadmium



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

## 4.17 List 2 Dangerous Substances

Records within 500m

1

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

Features are displayed on the Current industrial land use map on [page 43 >](#)

ID	Location	Name	Status	Receiving Water	Authorised Substances
F	335m SE	Stairfoot Landfill Site, Site Drainage	Active	Dob Syke	Iron

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

## 4.18 Pollution Incidents (EA/NRW)

Records within 500m

4

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

Features are displayed on the Current industrial land use map on [page 43 >](#)

ID	Location	Details	
G	343m W	Incident Date: 29/07/2002 Incident Identification: 95268 Pollutant: Specific Waste Materials Pollutant Description: Asbestos	Water Impact: Category 4 (No Impact) Land Impact: Category 3 (Minor) Air Impact: Category 4 (No Impact)
G	343m W	Incident Date: 29/07/2002 Incident Identification: 95268 Pollutant: Specific Waste Materials Pollutant Description: Asbestos	Water Impact: Category 4 (No Impact) Land Impact: Category 3 (Minor) Air Impact: Category 4 (No Impact)
F	368m SE	Incident Date: 11/06/2001 Incident Identification: 8513 Pollutant: General Biodegradable Materials and Wastes Pollutant Description: Vegetable Cuttings and Deposits	Water Impact: Category 3 (Minor) Land Impact: Category 4 (No Impact) Air Impact: Category 4 (No Impact)
H	393m SE	Incident Date: 13/06/2001 Incident Identification: 9060 Pollutant: Sewage Materials Pollutant Description: Crude Sewage	Water Impact: Category 3 (Minor) Land Impact: Category 4 (No Impact) Air Impact: Category 4 (No Impact)

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



#### 4.19 Pollution inventory substances

Records within 500m

0

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

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

#### 4.20 Pollution inventory waste transfers

Records within 500m

0

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

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

#### 4.21 Pollution inventory radioactive waste

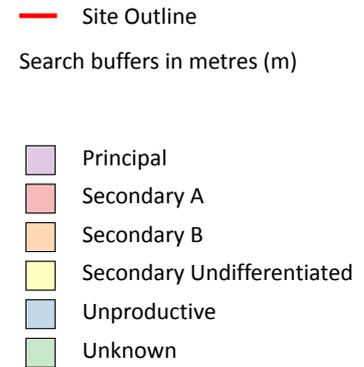
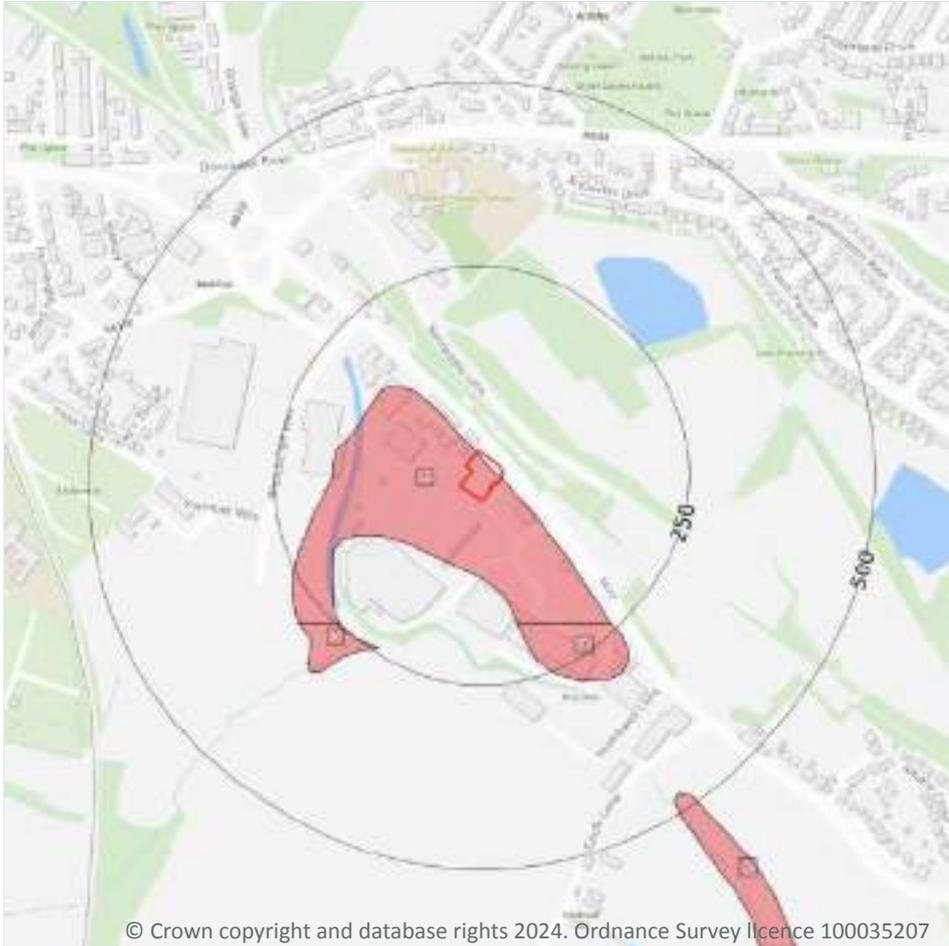
Records within 500m

0

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

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

## 5 Hydrogeology - Superficial aquifer



### 5.1 Superficial aquifer

Records within 500m

4

Aquifer status of groundwater held within superficial geology.

Features are displayed on the Hydrogeology map on [page 53](#) >

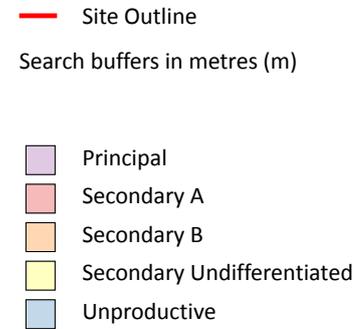
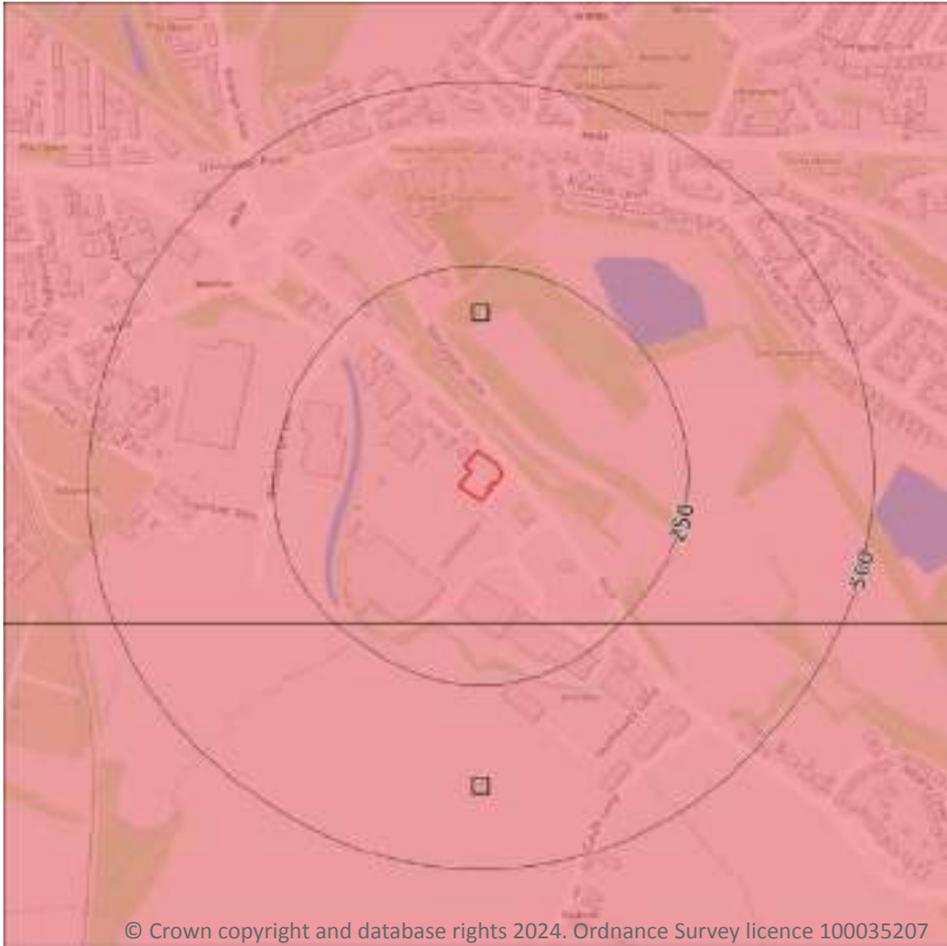
ID	Location	Designation	Description
1	On site	Secondary A	<b>Permeable layers capable of supporting water supplies at a local rather than strategic scale, and in some cases forming an important source of base flow to rivers. These are generally aquifers formerly classified as minor aquifers</b>
2	172m S	Secondary A	Permeable layers capable of supporting water supplies at a local rather than strategic scale, and in some cases forming an important source of base flow to rivers. These are generally aquifers formerly classified as minor aquifers

ID	Location	Designation	Description
3	244m SW	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	477m SE	Secondary A	Permeable layers capable of supporting water supplies at a local rather than strategic scale, and in some cases forming an important source of base flow to rivers. These are generally aquifers formerly classified as minor aquifers

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



## Bedrock aquifer



© Crown copyright and database rights 2024. Ordnance Survey licence 100035207

### 5.2 Bedrock aquifer

Records within 500m

2

Aquifer status of groundwater held within bedrock geology.

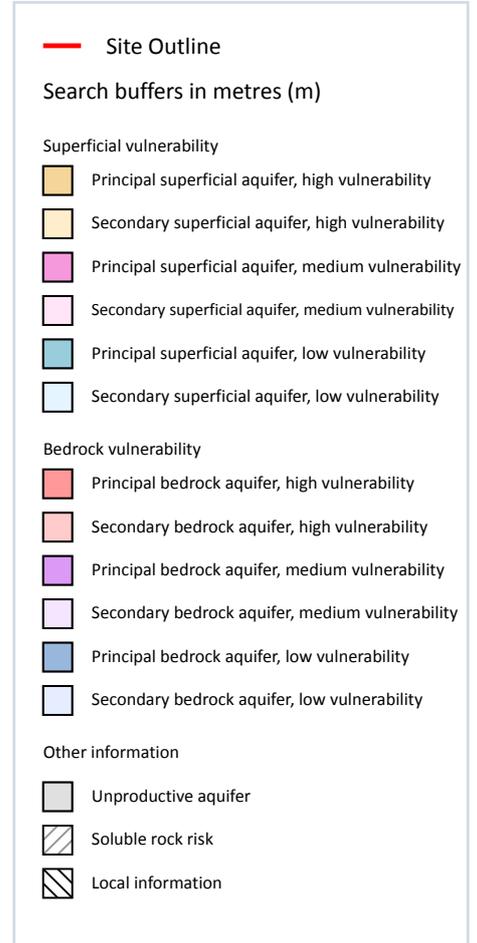
Features are displayed on the Bedrock aquifer map on [page 55](#) >

ID	Location	Designation	Description
1	On site	Secondary A	<b>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</b>
2	165m S	Secondary A	Permeable layers capable of supporting water supplies at a local rather than strategic scale, and in some cases forming an important source of base flow to rivers. These are generally aquifers formerly classified as minor aquifers

*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 57 >](#)

ID	Location	Summary	Soil / surface	Superficial geology	Bedrock geology
1	On site	<b>Summary Classification:</b> Secondary bedrock aquifer - High Vulnerability <b>Combined classification:</b> Productive Bedrock Aquifer, Productive Superficial Aquifer	<b>Leaching class:</b> Low <b>Infiltration value:</b> <40% <b>Dilution value:</b> <300mm/year	<b>Vulnerability:</b> Medium <b>Aquifer type:</b> Secondary <b>Thickness:</b> <3m <b>Patchiness value:</b> <90% <b>Recharge potential:</b> No Data	<b>Vulnerability:</b> High <b>Aquifer type:</b> Secondary <b>Flow mechanism:</b> Well connected fractures
2	On site	<b>Summary Classification:</b> Secondary bedrock aquifer - High Vulnerability <b>Combined classification:</b> Productive Bedrock Aquifer, No Superficial Aquifer	<b>Leaching class:</b> Low <b>Infiltration value:</b> <40% <b>Dilution value:</b> <300mm/year	<b>Vulnerability:</b> - <b>Aquifer type:</b> - <b>Thickness:</b> <3m <b>Patchiness value:</b> <90% <b>Recharge potential:</b> No Data	<b>Vulnerability:</b> High <b>Aquifer type:</b> Secondary <b>Flow mechanism:</b> 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

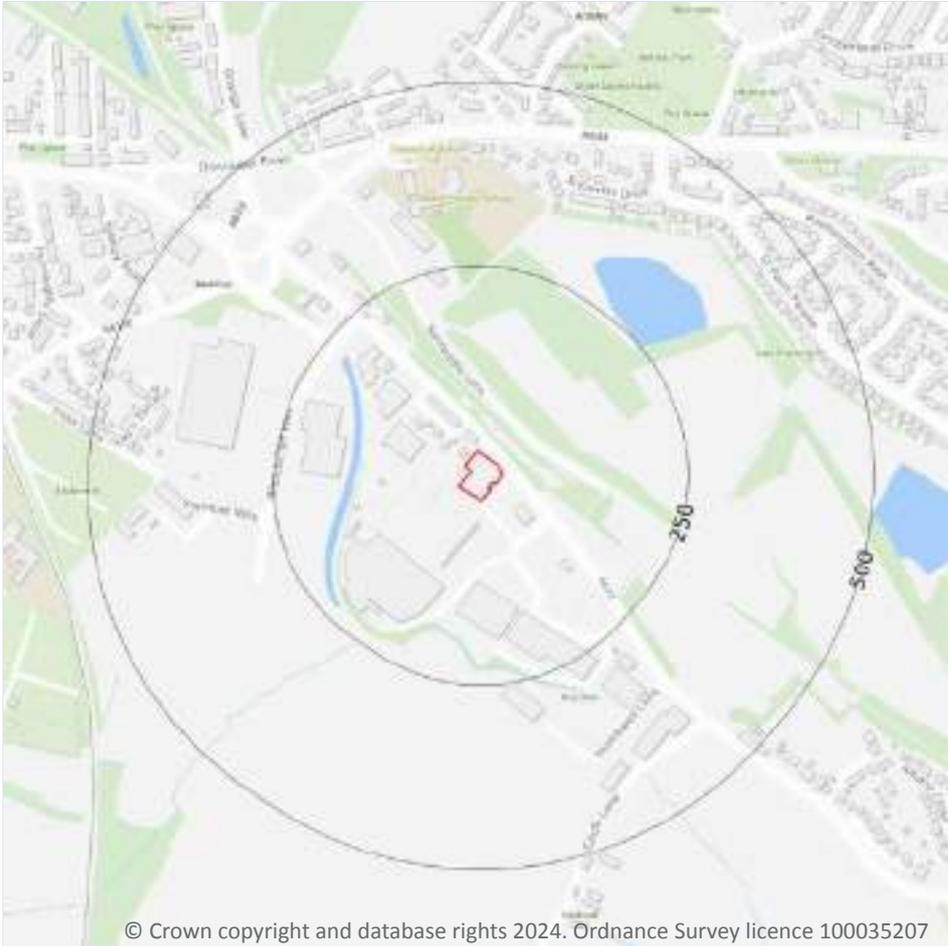
0

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](mailto:enquiries@environment-agency.gov.uk) ↗.

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



## Abstractions and Source Protection Zones



### 5.6 Groundwater abstractions

Records within 2000m

6

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 59](#) >

ID	Location	Details	
-	999m NW	Status: Historical Licence No: 2/27/08/124 Details: General Washing/Process Washing Direct Source: GROUNDWATERS Point: WELL - SUPERFICIAL DRIFT - STAIRFOOT Data Type: Point Name: C SOAR & SONS Easting: 437150 Northing: 406130	Annual Volume (m <sup>3</sup> ): - Max Daily Volume (m <sup>3</sup> ): - Original Application No: - Original Start Date: 14/07/1999 Expiry Date: - Issue No: 100 Version Start Date: 14/07/1999 Version End Date: -
-	999m NW	Status: Historical Licence No: 2/27/08/124 Details: General Washing/Process Washing Direct Source: GROUNDWATERS Point: WELL - SUPERFICIAL DRIFT - STAIRFOOT Data Type: Point Name: C SOAR & SONS Easting: 437150 Northing: 406130	Annual Volume (m <sup>3</sup> ): - Max Daily Volume (m <sup>3</sup> ): - Original Application No: - Original Start Date: 14/07/1999 Expiry Date: - Issue No: 100 Version Start Date: 14/07/1999 Version End Date: -
-	1336m E	Status: Historical Licence No: 2/27/08/029 Details: General Farming & Domestic Direct Source: GROUNDWATERS Point: SPRING NO1 Data Type: Point Name: LOW LAITHES DAIRY FARM LTD Easting: 438900 Northing: 405600	Annual Volume (m <sup>3</sup> ): - Max Daily Volume (m <sup>3</sup> ): - Original Application No: - Original Start Date: 20/01/1966 Expiry Date: - Issue No: 100 Version Start Date: 09/01/1990 Version End Date: -
-	1336m E	Status: Historical Licence No: 2/27/08/029 Details: General Farming & Domestic Direct Source: GROUNDWATERS Point: SPRING NO1 - LOW LAITHES Data Type: Point Name: LOW LAITHES DAIRY FARM LTD Easting: 438900 Northing: 405600	Annual Volume (m <sup>3</sup> ): - Max Daily Volume (m <sup>3</sup> ): - Original Application No: - Original Start Date: 20/01/1966 Expiry Date: - Issue No: 100 Version Start Date: 09/01/1990 Version End Date: -
-	1478m E	Status: Historical Licence No: 2/27/08/029 Details: General Farming & Domestic Direct Source: GROUNDWATERS Point: SPRING NO2 Data Type: Point Name: LOW LAITHES DAIRY FARM LTD Easting: 439100 Northing: 405100	Annual Volume (m <sup>3</sup> ): - Max Daily Volume (m <sup>3</sup> ): - Original Application No: - Original Start Date: 20/01/1966 Expiry Date: - Issue No: 100 Version Start Date: 09/01/1990 Version End Date: -



ID	Location	Details	
-	1478m E	Status: Historical Licence No: 2/27/08/029 Details: General Farming & Domestic Direct Source: GROUNDWATERS Point: SPRING NO2 - LOW LAITHES Data Type: Point Name: LOW LAITHES DAIRY FARM LTD Easting: 439100 Northing: 405100	Annual Volume (m <sup>3</sup> ): - Max Daily Volume (m <sup>3</sup> ): - Original Application No: - Original Start Date: 20/01/1966 Expiry Date: - Issue No: 100 Version Start Date: 09/01/1990 Version End Date: -

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

## 5.7 Surface water abstractions

<b>Records within 2000m</b>	<b>1</b>
-----------------------------	----------

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 59 >](#)

ID	Location	Details	
-	1824m SW	Status: Historical Licence No: 2/27/08/128 Details: Make-Up or Top Up Water Direct Source: SURFACE WATER Point: INLAND WATER - RIVER DOVE Data Type: Line Name: NUTTALL Easting: 436550 Northing: 403450	Annual Volume (m <sup>3</sup> ): - Max Daily Volume (m <sup>3</sup> ): - Original Application No: - Original Start Date: 13/09/2002 Expiry Date: 31/03/2017 Issue No: 1 Version Start Date: 13/09/2002 Version End Date: -

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

## 5.8 Potable abstractions

<b>Records within 2000m</b>	<b>0</b>
-----------------------------	----------

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

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



## 5.9 Source Protection Zones

Records within 500m

0

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

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

## 5.10 Source Protection Zones (confined aquifer)

Records within 500m

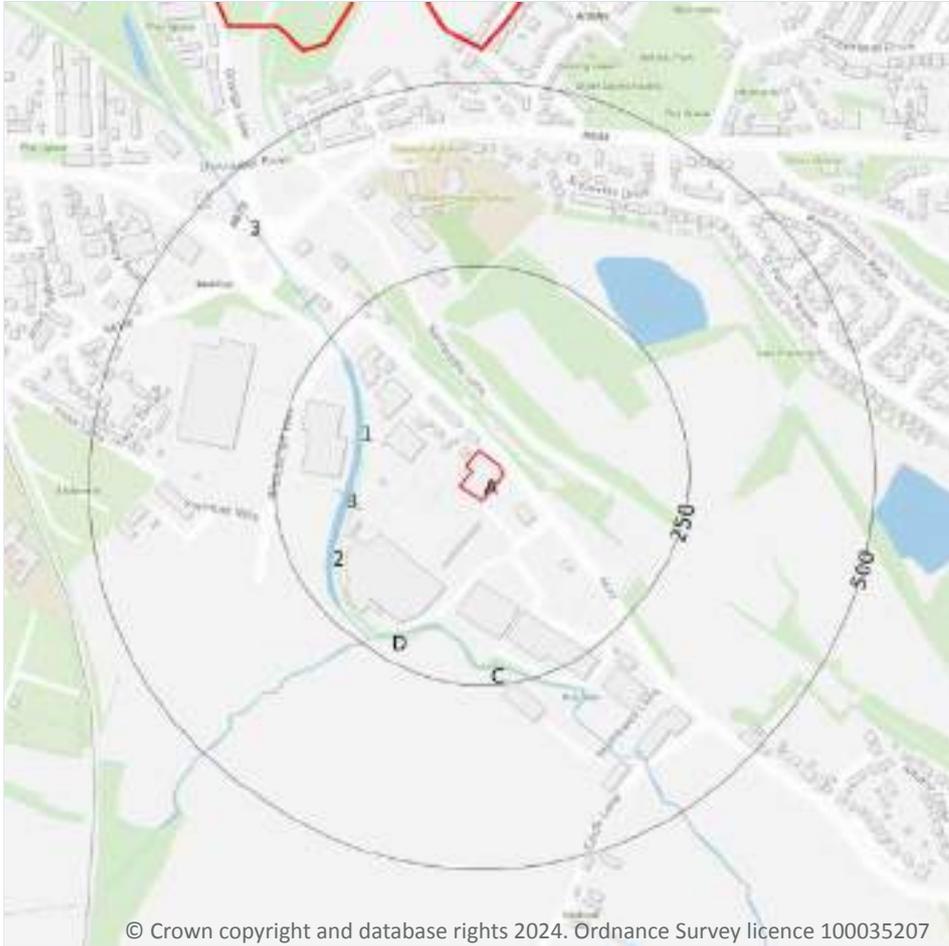
0

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

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



## 6 Hydrology



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

### 6.1 Water Network (OS MasterMap)

Records within 250m

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 63](#) >

ID	Location	Type of water feature	Ground level	Permanence	Name
1	143m 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
2	152m W	Inland river not influenced by normal tidal action.	On ground surface	Watercourse contains water year round (in normal circumstances)	-
B	152m W	Inland river not influenced by normal tidal action.	Underground	Watercourse contains water year round (in normal circumstances)	-
B	163m W	Inland river not influenced by normal tidal action.	On ground surface	Watercourse contains water year round (in normal circumstances)	-
C	179m S	Inland river not influenced by normal tidal action.	On ground surface	Watercourse contains water year round (in normal circumstances)	Dob Sike
D	202m SW	Inland river not influenced by normal tidal action.	On ground surface	Watercourse contains water year round (in normal circumstances)	Dob Sike
3	218m NW	Inland river not influenced by normal tidal action.	Not provided	Watercourse contains water year round (in normal circumstances)	-
D	231m SW	Inland river not influenced by normal tidal action.	On ground surface	Watercourse contains water year round (in normal circumstances)	-
D	239m SW	Inland river not influenced by normal tidal action.	On ground surface	Watercourse contains water year round (in normal circumstances)	Dob Sike

*This data is sourced from the Ordnance Survey.*

## 6.2 Surface water features

**Records within 250m**

**3**

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

Features are displayed on the Hydrology map on [page 63 >](#)

*This data is sourced from the Ordnance Survey.*



### 6.3 WFD Surface water body catchments

<b>Records on site</b>	<b>1</b>
------------------------	----------

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 63 >](#)

ID	Location	Type	Water body catchment	Water body ID	Operational catchment	Management catchment
A	On site	River	Dove from Source to River Dearne	GB104027057510	Dearne	Don and Rother

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

### 6.4 WFD Surface water bodies

<b>Records identified</b>	<b>1</b>
---------------------------	----------

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 63 >](#)

ID	Location	Type	Name	Water body ID	Overall rating	Chemical rating	Ecological rating	Year
-	1154m S	River	Dove from Source to River Dearne	<a href="#">GB104027057510 ↗</a>	Moderate	Fail	Moderate	2019

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

### 6.5 WFD Groundwater bodies

<b>Records on site</b>	<b>1</b>
------------------------	----------

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.

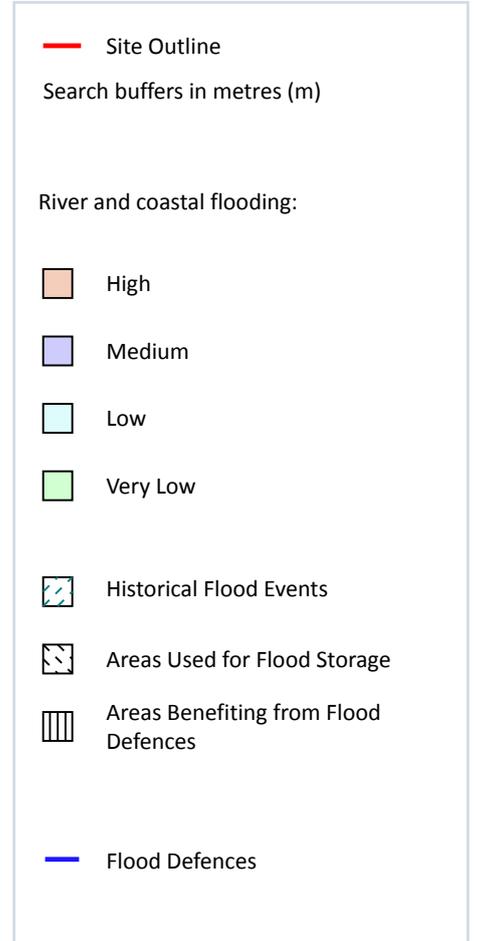
Features are displayed on the Hydrology map on [page 63 >](#)

ID	Location	Name	Water body ID	Overall rating	Chemical rating	Quantitative	Year
A	On site	Don & Rother Millstone grit & Coal Measures	<a href="#">GB40402G992300</a> ↗	Poor	Poor	Good	2019

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



## 7 River and coastal flooding



### 7.1 Risk of flooding from rivers and the sea

Records within 50m

0

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

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

## 7.2 Historical Flood Events

Records within 250m

1

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.

Features are displayed on the River and coastal flooding map on [page 67 >](#)

ID	Location	Event name	Date of flood	Flood source	Flood cause	Type of flood
1	237m NE	June 2007 Surface Water Flooding Yorkshire	2007-06-15 2007-06-25	Other	Unknown	No data

*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 100 year, 0.1m - 0.3m**

Highest risk within 50m

**1 in 30 year, 0.3m - 1.0m**

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

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

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.

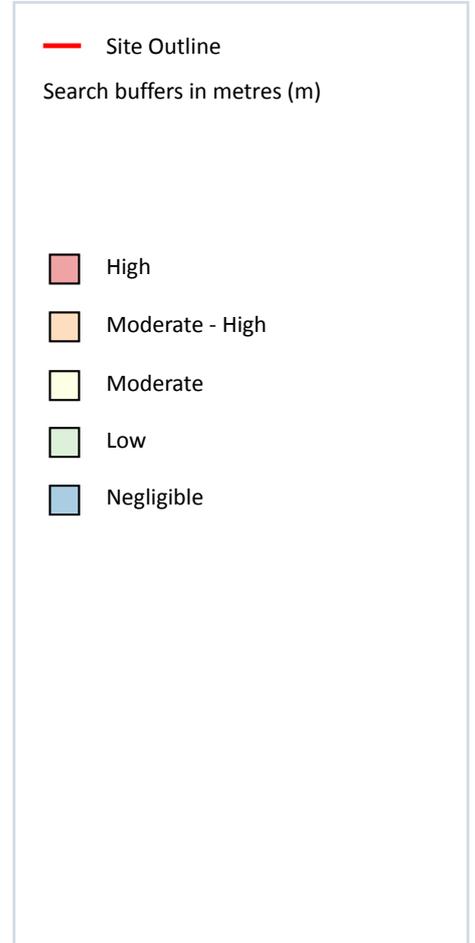
The table below shows the maximum flood depths for a range of return periods for the site.

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 0.1m and 0.3m
1 in 30 year	Negligible

*This data is sourced from Ambiental Risk Analytics.*



## 9 Groundwater flooding



© Crown copyright and database rights 2024. Ordnance Survey licence 100035207

### 9.1 Groundwater flooding

**Highest risk on site**

**Negligible**

**Highest risk within 50m**

**Negligible**

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 72 >](#)

*This data is sourced from Ambiental Risk Analytics.*

## 10 Environmental designations



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

### 10.1 Sites of Special Scientific Interest (SSSI)

Records within 2000m

2

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

Features are displayed on the Environmental designations map on [page 73](#) >

ID	Location	Name	Data source
2	565m SE	Stairfoot Brickworks	Natural England

ID	Location	Name	Data source
4	1394m SE	Dearne Valley Wetlands	Natural England

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

## 10.2 Conserved wetland sites (Ramsar sites)

**Records within 2000m** **0**

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

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

## 10.3 Special Areas of Conservation (SAC)

**Records within 2000m** **0**

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

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

## 10.4 Special Protection Areas (SPA)

**Records within 2000m** **0**

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

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

## 10.5 National Nature Reserves (NNR)

**Records within 2000m** **0**

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

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



## 10.6 Local Nature Reserves (LNR)

Records within 2000m

1

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

Features are displayed on the Environmental designations map on [page 73 >](#)

ID	Location	Name	Data source
-	1541m NW	Dearne Valley Park	Natural England

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

## 10.7 Designated Ancient Woodland

Records within 2000m

6

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

Features are displayed on the Environmental designations map on [page 73 >](#)

ID	Location	Name	Woodland Type
3	1366m NE	Unknown	Ancient & Semi-Natural Woodland
6	1612m NE	Unknown	Ancient & Semi-Natural Woodland
-	1742m S	Wombwell Wood	Ancient Replanted Woodland
-	1746m S	Wombwell Wood	Ancient & Semi-Natural Woodland
-	1805m NE	Unknown	Ancient & Semi-Natural Woodland
-	1877m NE	Unknown	Ancient & Semi-Natural Woodland

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

## 10.8 Biosphere Reserves

Records within 2000m

0

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



local community.

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

## 10.9 Forest Parks

Records within 2000m

0

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

*This data is sourced from the Forestry Commission.*

## 10.10 Marine Conservation Zones

Records within 2000m

0

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

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

## 10.11 Green Belt

Records within 2000m

1

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

Features are displayed on the Environmental designations map on [page 73 >](#)

ID	Location	Name	Local Authority name
1	232m SW	South and West Yorkshire	Barnsley

*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

2

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	River Dearne NVZ	Surface Water	278	Existing



Location	Name	Type	NVZ ID	Status
749m N	River Dearne NVZ	Surface Water	278	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 79 >](#)

ID	Location	Type of developments requiring consultation
1	On site	<p>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.</p> <p>Minerals, Oil and Gas - Planning applications for quarries, including: new proposals, Review of Minerals Permissions (ROMP), extensions, variations to conditions etc. Oil &amp; gas exploration/extraction.</p> <p>Rural non-residential - Large non residential developments outside existing settlements/urban areas where footprint exceeds 1ha.</p> <p>Rural residential - Any residential development of 100 or more houses outside existing settlements/urban areas.</p> <p>Air pollution - Any industrial/agricultural development that could cause AIR POLLUTION (incl: industrial processes, livestock &amp; poultry units with floorspace &gt; 500m<sup>2</sup>, slurry lagoons &amp; digestate stores &gt; 200m<sup>2</sup>, manure stores &gt; 250t).</p> <p>Combustion - General combustion processes &gt;20MW energy input. Incl: energy from waste incineration, other incineration, landfill gas generation plant, pyrolysis/gasification, anaerobic digestion, sewage treatment works, other incineration/ combustion.</p> <p>Waste - Landfill. Incl: inert landfill, non-hazardous landfill, hazardous landfill.</p> <p>Composting - Any composting proposal with more than 75000 tonnes maximum annual operational throughput. Incl: open windrow composting, in-vessel composting, anaerobic digestion, other waste management.</p> <p>Discharges - Any discharge of water or liquid waste of more than 5m<sup>3</sup>/day to ground (ie to seep away) or to surface water, such as a beck or stream.</p> <p>Water supply - Large infrastructure such as warehousing / industry where total net additional gross internal floorspace following development is 1,000m<sup>2</sup> or more.</p>

*This data is sourced from Natural England.*

## 10.18 SSSI Units

Records within 2000m

2

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.

Features are displayed on the SSSI Impact Zones and Units map on [page 79 >](#)

ID: A  
 Location: 565m SE  
 SSSI name: Stairfoot Brickworks  
 Unit name: Embankment  
 Broad habitat: Earth Heritage  
 Condition: Unfavourable - Declining  
 Reportable features:

Feature name	Feature condition	Date of assessment
ED - Westphalian	Unfavourable - Declining	04/05/2023



ID: 5  
Location: 1394m SE  
SSSI name: Dearne Valley Wetlands  
Unit name: Railway Woodland  
Broad habitat: Broadleaved, Mixed And Yew Woodland - Lowland  
Condition: Favourable  
Reportable features:

Feature name	Feature condition	Date of assessment
Aggregations of breeding birds - Willow Tit, Poecile montanus	Favourable	01/03/2021
Assemblages of breeding birds - Scrub	Favourable	01/03/2021

*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

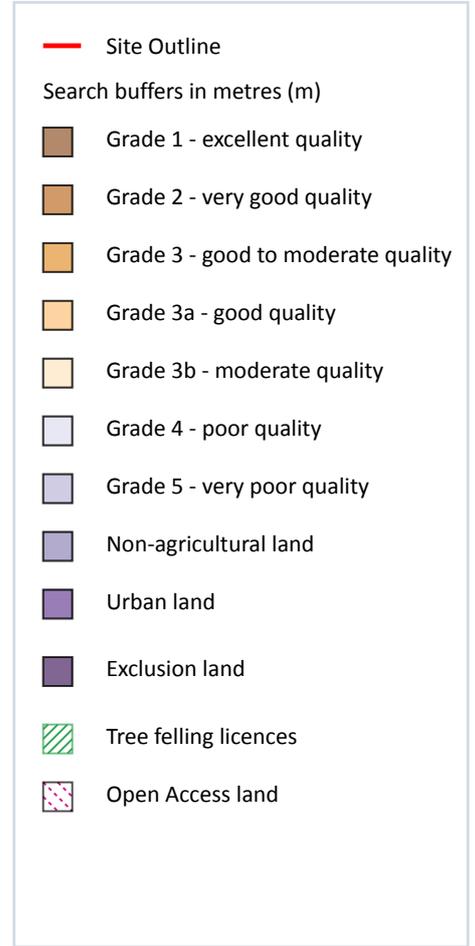
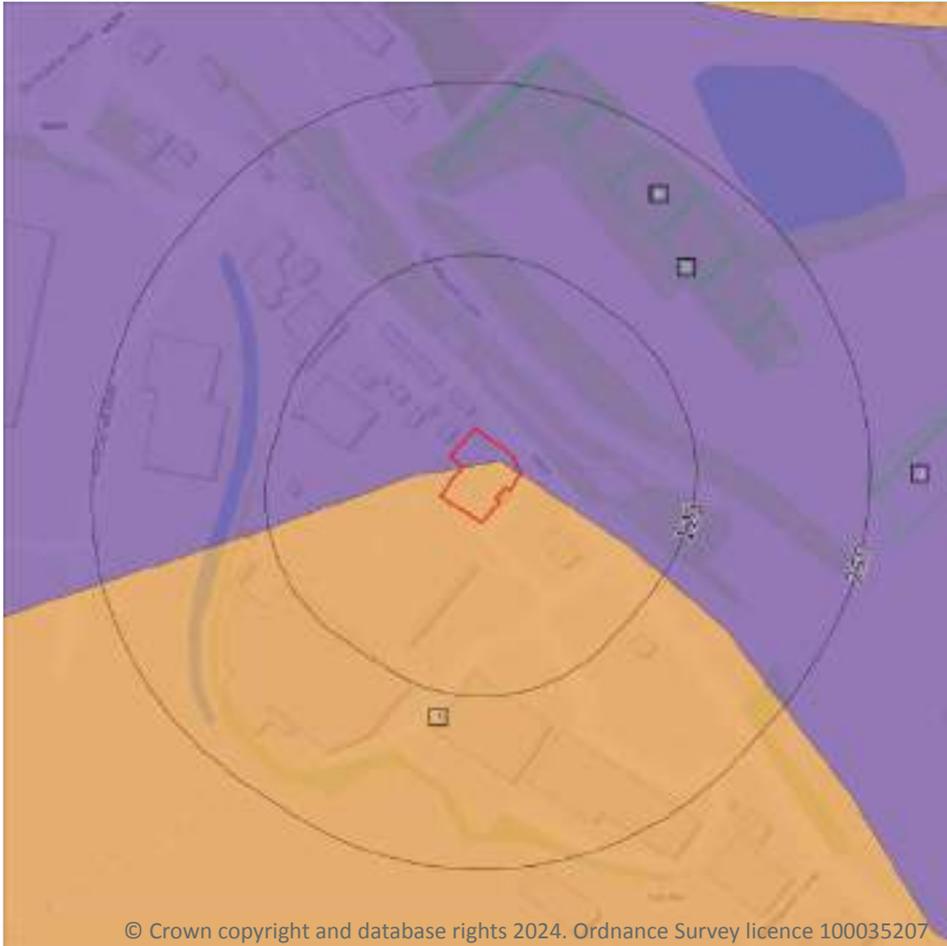
0

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



© Crown copyright and database rights 2024. Ordnance Survey licence 100035207

### 12.1 Agricultural Land Classification

Records within 250m

2

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

Features are displayed on the Agricultural designations map on [page 84](#) >

ID	Location	Classification	Description
1	On site	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.
2	On site	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

2

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.

Features are displayed on the Agricultural designations map on [page 84](#) >

ID	Location	Description	Reference	Application date
3	177m N	Selective Fell/Thin (Unconditional)	012/16/16-17	22/06/2016
4	245m E	Selective Fell/Thin (Unconditional)	012/16/16-17	22/06/2016

*This data is sourced from the Forestry Commission.*

## 12.4 Environmental Stewardship Schemes

Records within 250m

0

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

*This data is sourced from Natural England.*



## 12.5 Countryside Stewardship Schemes

Records within 250m

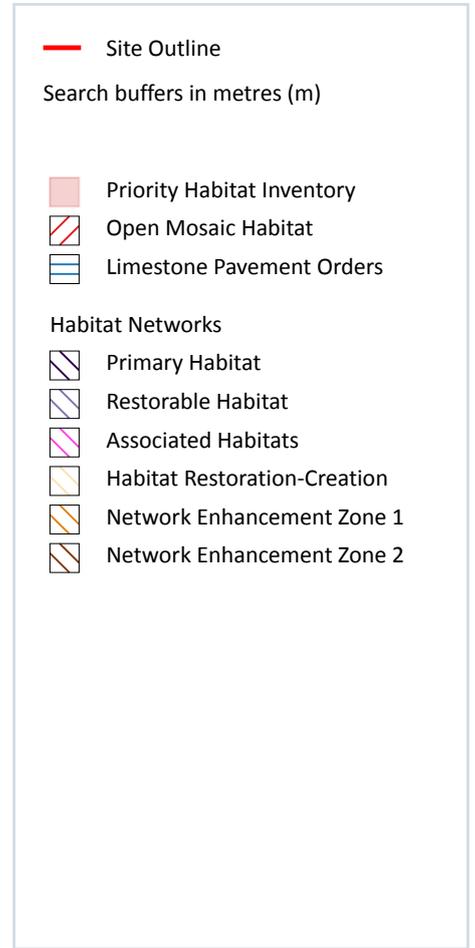
0

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

*This data is sourced from Natural England.*



## 13 Habitat designations



### 13.1 Priority Habitat Inventory

Records within 250m

2

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 87 >](#)

ID	Location	Main Habitat	Other habitats
1	64m NE	Deciduous woodland	Main habitat: DWOOD (INV > 50%)
3	173m NE	Deciduous woodland	Main habitat: DWOOD (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

2

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.

Features are displayed on the Habitat designations map on [page 87 >](#)

ID	Location	Site reference	Identification confidence	Primary source	Secondary source	Tertiary source
2	152m W	NLUD Ref: 440800270	Low	National Land Use Database - Previously Developed Land	British Geological Survey BRITPITS database	UK Perspectives Aerial Photography
4	218m NE	BRITPITS ref: 214	Low	British Geological Survey BRITPITS database	UK Perspectives Aerial Photography	-

*This data is sourced from Natural England.*

## 13.4 Limestone Pavement Orders

Records within 250m

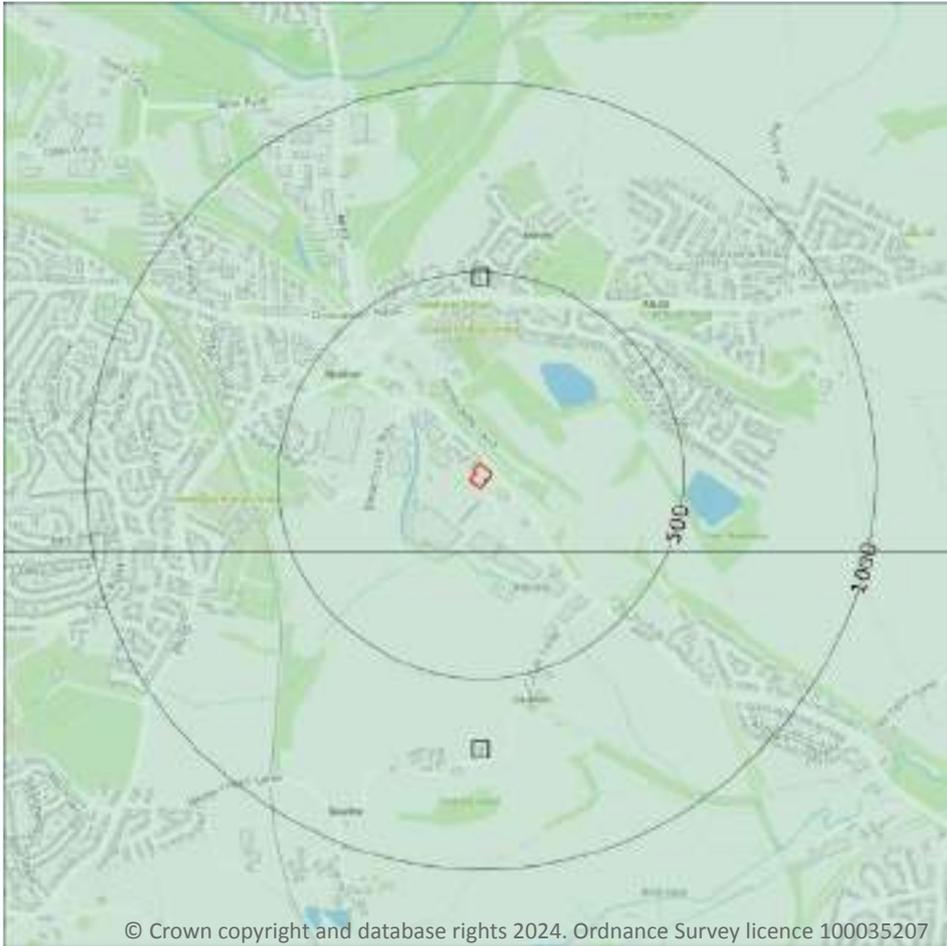
0

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

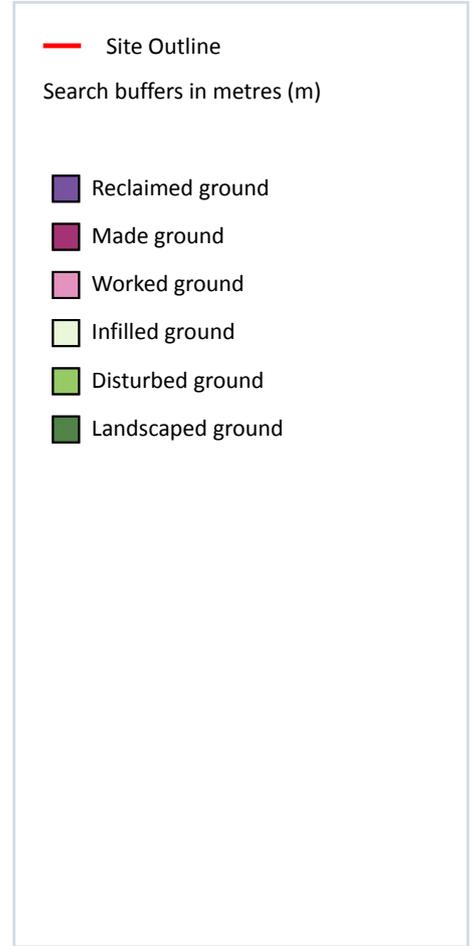
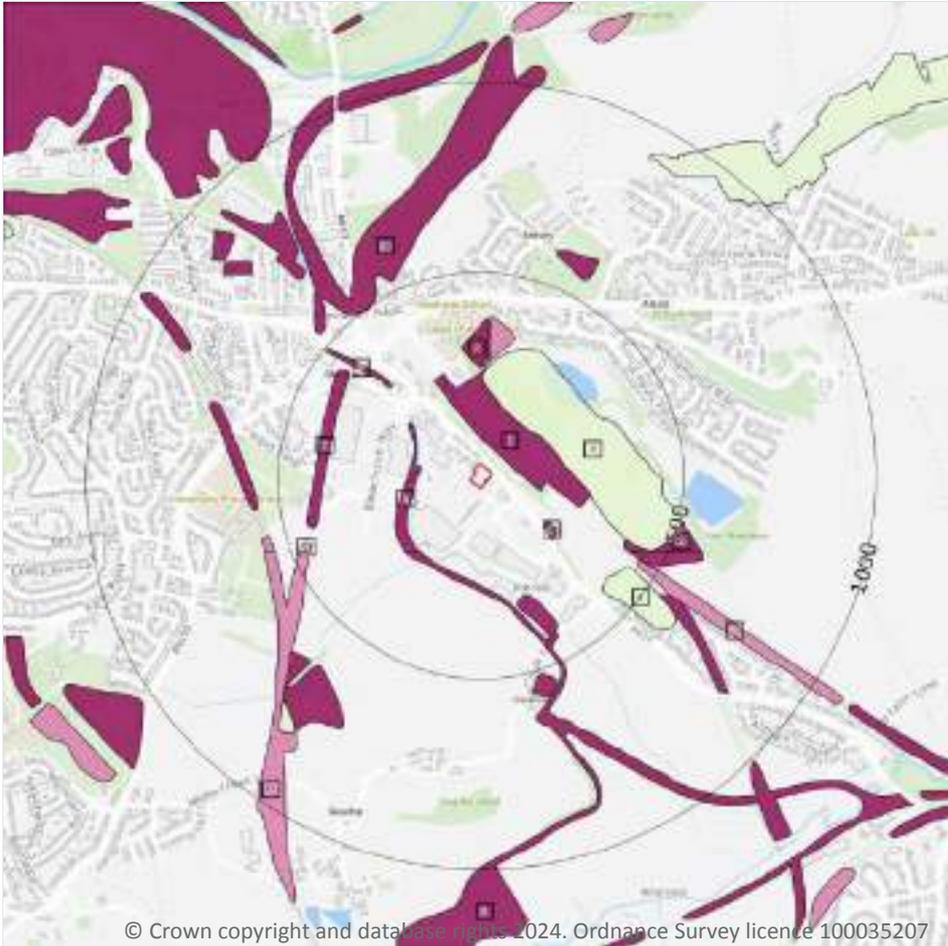
An indication on the coverage of 1:10,000 scale geology data for the site, the most detailed dataset provided by the British Geological Survey. Either 'Full', 'Partial' or 'No coverage' for each geological theme.

Features are displayed on the Geology 1:10,000 scale - Availability map on [page 89](#) >

ID	Location	Artificial	Superficial	Bedrock	Mass movement	Sheet No.
1	On site	Full	Full	Full	No coverage	SE30NE
2	165m S	Full	Full	Full	Full	SE30SE

*This data is sourced from the British Geological Survey.*

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



© Crown copyright and database rights 2024. Ordnance Survey licence 100035207

### 14.2 Artificial and made ground (10k)

Records within 500m

16

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

Features are displayed on the Geology 1:10,000 scale - Artificial and made ground map on [page 90](#) >

ID	Location	LEX Code	Description	Rock description
1	46m NE	MGR-ARTDP	Made Ground (Undivided)	Artificial Deposit
2	131m W	MGR-ARTDP	Made Ground (Undivided)	Artificial Deposit
3	145m NE	WMGR-ARTDP	Infilled Ground	Artificial Deposit
4	186m SE	MGR-ARTDP	Made Ground (Undivided)	Artificial Deposit

ID	Location	LEX Code	Description	Rock description
5	226m SW	MGR-ARTDP	Made Ground (Undivided)	Artificial Deposit
A	250m N	MGR-ARTDP	Made Ground (Undivided)	Artificial Deposit
A	269m N	WGR-VOID	Worked Ground (Undivided)	Void
6	299m NW	MGR-ARTDP	Made Ground (Undivided)	Artificial Deposit
7	373m W	MGR-ARTDP	Made Ground (Undivided)	Artificial Deposit
B	387m SE	MGR-ARTDP	Made Ground (Undivided)	Artificial Deposit
8	403m SE	WMGR-ARTDP	Infilled Ground	Artificial Deposit
B	408m SE	MGR-ARTDP	Made Ground (Undivided)	Artificial Deposit
9	442m SE	WGR-VOID	Worked Ground (Undivided)	Void
C	447m W	WGR-VOID	Worked Ground (Undivided)	Void
D	456m SW	WGR-VOID	Worked Ground (Undivided)	Void
10	495m NW	MGR-ARTDP	Made Ground (Undivided)	Artificial Deposit

*This data is sourced from the British Geological Survey.*



## Geology 1:10,000 scale - Superficial



© Crown copyright and database rights 2024. Ordnance Survey licence 100035207

- 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

4

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 92](#) >

ID	Location	LEX Code	Description	Rock description
1	On site	ALV-XCZ	Alluvium - Clay And Silt	Clay And Silt
2	172m S	ALV-XCZ	Alluvium - Clay And Silt	Clay And Silt
3	242m SW	ALV-XCZ	Alluvium - Clay And Silt	Clay And Silt
4	469m SE	ALV-XCZ	Alluvium - Clay And Silt	Clay And Silt



*This data is sourced from the British Geological Survey.*

## 14.4 Landslip (10k)

**Records within 500m**

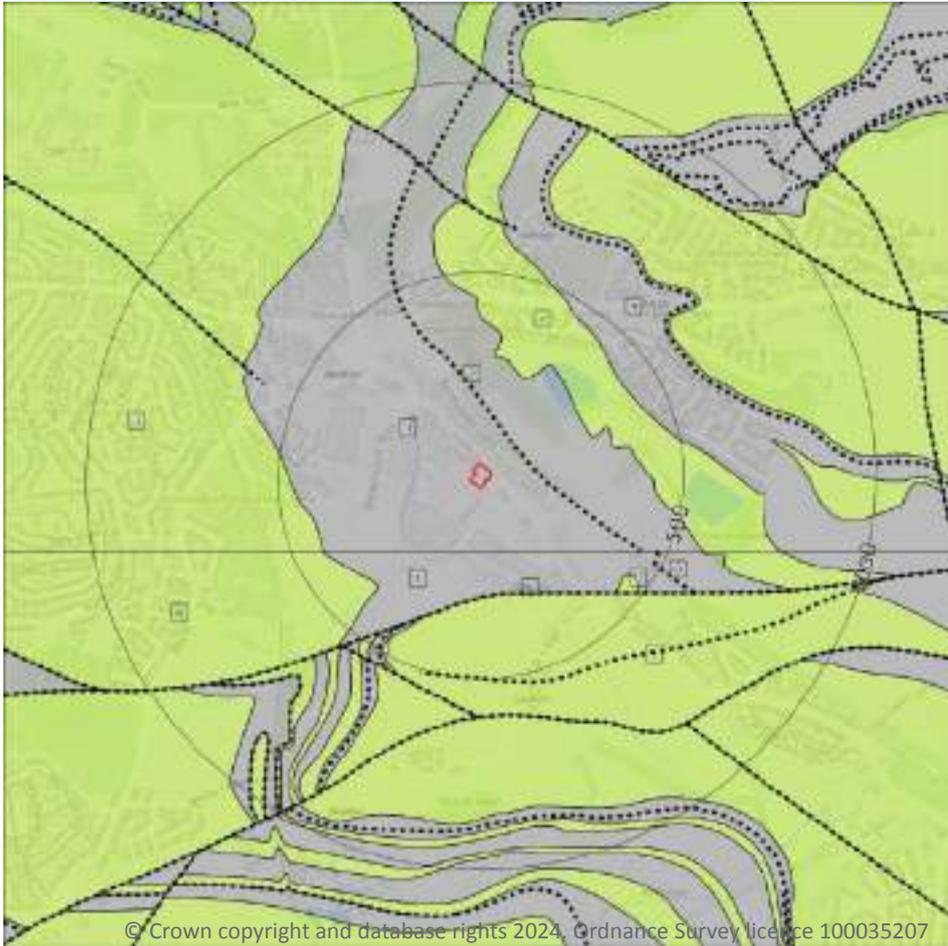
**0**

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.

© Crown copyright and database rights 2024. Ordnance Survey licence 100035207

### 14.5 Bedrock geology (10k)

Records within 500m

10

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 94](#) >

ID	Location	LEX Code	Description	Rock age
1	On site	PMCM-MDSS	Pennine Middle Coal Measures Formation - Mudstone, Siltstone And Sandstone	Bolsoviaian Sub-age - Duckmantian Sub-age
3	165m S	PMCM-MDSS	Pennine Middle Coal Measures Formation - Mudstone, Siltstone And Sandstone	Bolsoviaian Sub-age - Duckmantian Sub-age
4	250m NE	ACR-SDST	Ackton Rock - Sandstone	Bolsoviaian Sub-age



ID	Location	LEX Code	Description	Rock age
5	280m S	OR-SDST	Oaks Rock - Sandstone	Duckmantian Sub-age
7	363m S	PMCM-MDSS	Pennine Middle Coal Measures Formation - Mudstone, Siltstone And Sandstone	Bolsoviaian Sub-age - Duckmantian Sub-age
8	363m SW	OR-SDST	Oaks Rock - Sandstone	Duckmantian Sub-age
9	412m NE	PMCM-MDSS	Pennine Middle Coal Measures Formation - Mudstone, Siltstone And Sandstone	Bolsoviaian Sub-age - Duckmantian Sub-age
11	417m W	OR-SDST	Oaks Rock - Sandstone	Duckmantian Sub-age
12	434m SE	PMCM-SDST	Pennine Middle Coal Measures Formation - Sandstone	Bolsoviaian Sub-age - Duckmantian Sub-age
13	457m SW	PMCM-SDST	Pennine Middle Coal Measures Formation - Sandstone	Bolsoviaian Sub-age - Duckmantian Sub-age

*This data is sourced from the British Geological Survey.*

## 14.6 Bedrock faults and other linear features (10k)

**Records within 500m**

**5**

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 94 >](#)

ID	Location	Category	Description
2	90m NE	FOSSIL_HORIZON	Fossil horizon, marine band
6	280m S	FAULT	Normal fault, inferred
10	415m SW	FOSSIL_HORIZON	Fossil horizon, marine band
14	475m SE	FOSSIL_HORIZON	Fossil horizon, marine band
15	496m S	FAULT	Normal fault, inferred

*This data is sourced from the British Geological Survey.*



## 15 Geology 1:50,000 scale - Availability



- Site Outline
- Search buffers in metres (m)
- Geological map tile

### 15.1 50k Availability

Records within 500m

1

An indication on the coverage of 1:50,000 scale geology data for the site. Either 'Full' or 'No coverage' for each geological theme.

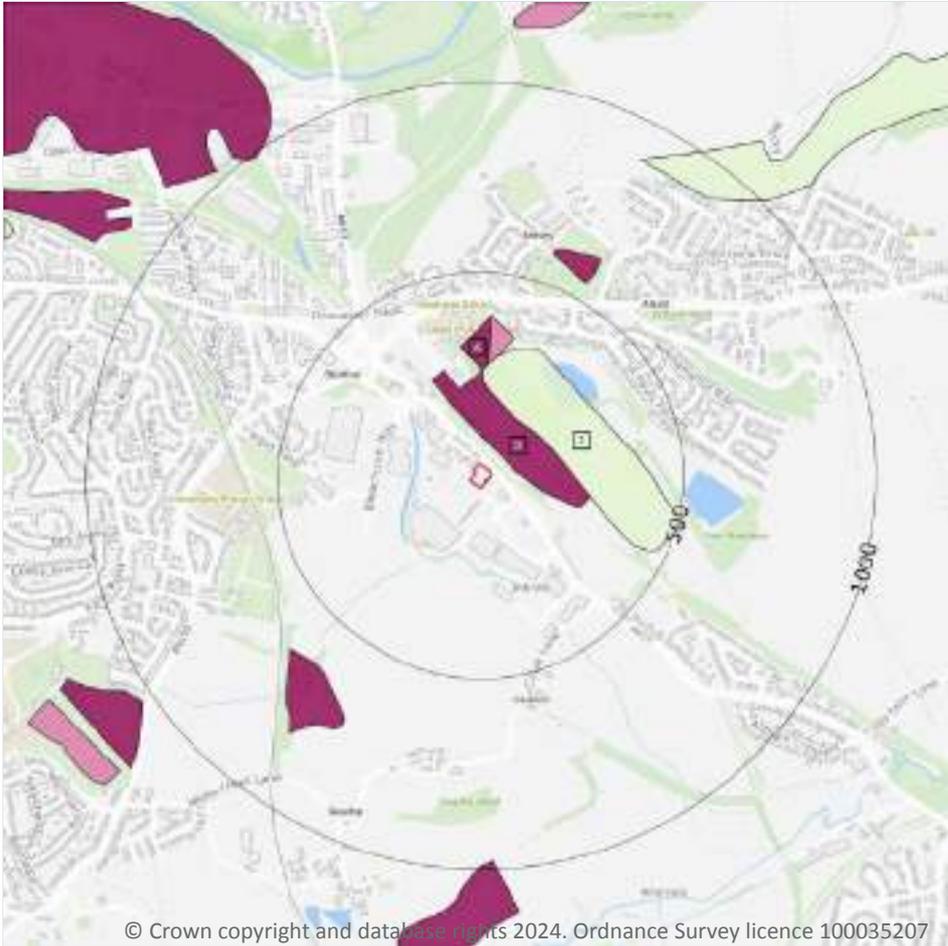
Features are displayed on the Geology 1:50,000 scale - Availability map on [page 96](#) >

ID	Location	Artificial	Superficial	Bedrock	Mass movement	Sheet No.
1	On site	No coverage	Full	Full	Full	EW087_barnsley_v4

*This data is sourced from the British Geological Survey.*



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



© Crown copyright and database rights 2024. Ordnance Survey licence 100035207

— Site Outline  
Search buffers in metres (m)

- Made ground
- Worked ground
- Infilled ground
- Disturbed ground
- Landscaped ground

### 15.2 Artificial and made ground (50k)

Records within 500m

4

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

Features are displayed on the Geology 1:50,000 scale - Artificial and made ground map on [page 97 >](#)

ID	Location	LEX Code	Description	Rock description
1	49m NE	MGR-ARTDP	MADE GROUND (UNDIVIDED)	ARTIFICIAL DEPOSIT
2	149m NE	WMGR-ARTDP	INFILLED GROUND	ARTIFICIAL DEPOSIT
A	243m N	MGR-ARTDP	MADE GROUND (UNDIVIDED)	ARTIFICIAL DEPOSIT
A	261m N	WGR-VOID	WORKED GROUND (UNDIVIDED)	VOID

*This data is sourced from the British Geological Survey.*

### 15.3 Artificial ground permeability (50k)

Records within 50m

1

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

Location	Flow type	Maximum permeability	Minimum permeability
49m NE	Mixed	Very High	Low

*This data is sourced from the British Geological Survey.*



## Geology 1:50,000 scale - Superficial



© Crown copyright and database rights 2024. Ordnance Survey licence 100035207

- 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 99](#) >

ID	Location	LEX Code	Description	Rock description
1	On site	ALV-XCZ	ALLUVIUM	CLAY AND SILT
2	477m SE	ALV-XCZSV	ALLUVIUM	CLAY, SILT, SAND AND GRAVEL

*This data is sourced from the British Geological Survey.*



## 15.5 Superficial permeability (50k)

Records within 50m

1

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

Location	Flow type	Maximum permeability	Minimum permeability
On site	Intergranular	Low	Very 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

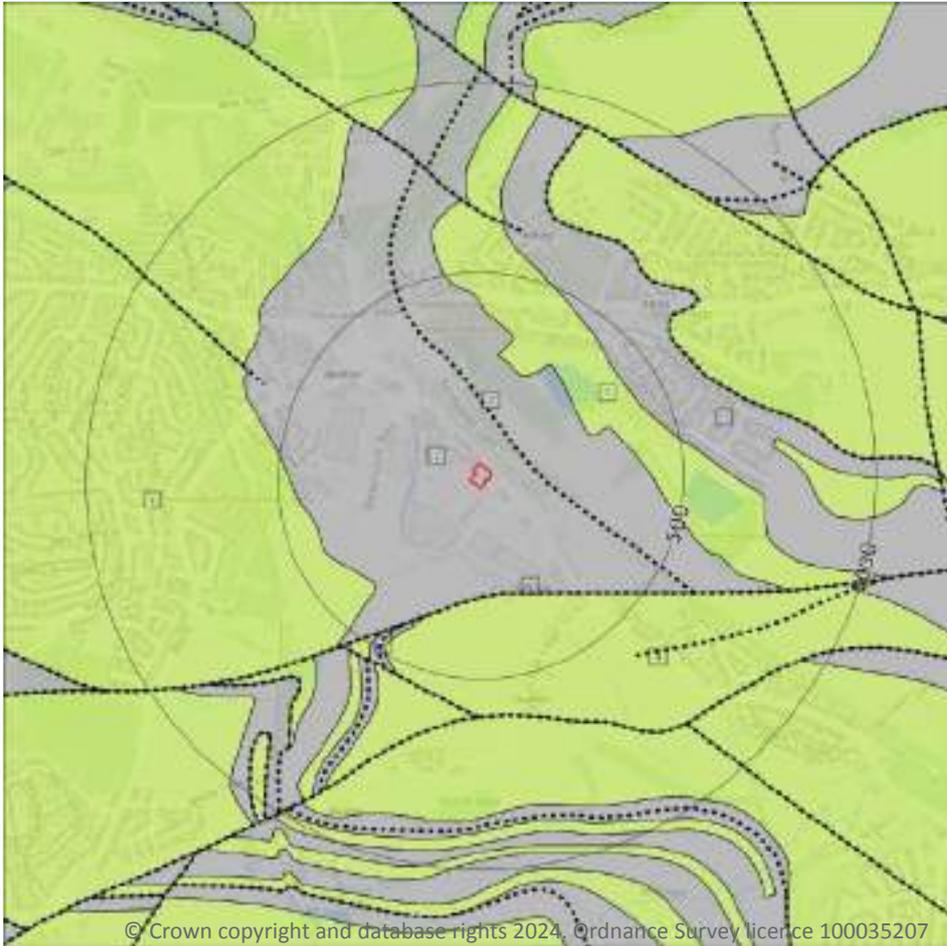
0

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

7

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 101](#) >

ID	Location	LEX Code	Description	Rock age
1	On site	PMCM-MDSS	PENNINE MIDDLE COAL MEASURES FORMATION - MUDSTONE, SILTSTONE AND SANDSTONE	WESTPHALIAN
3	253m N	ACR-SDST	ACKTON ROCK - SANDSTONE	WESTPHALIAN
4	280m S	OR-SDST	OAKS ROCK - SANDSTONE	WESTPHALIAN

ID	Location	LEX Code	Description	Rock age
6	357m S	PMCM-MDSS	PENNINE MIDDLE COAL MEASURES FORMATION - MUDSTONE, SILTSTONE AND SANDSTONE	WESTPHALIAN
7	366m SW	OR-SDST	OAKS ROCK - SANDSTONE	WESTPHALIAN
9	417m NE	PMCM-MDSS	PENNINE MIDDLE COAL MEASURES FORMATION - MUDSTONE, SILTSTONE AND SANDSTONE	WESTPHALIAN
10	458m SW	PMCM-SDST	PENNINE MIDDLE COAL MEASURES FORMATION - SANDSTONE	WESTPHALIAN

This data is sourced from the British Geological Survey.

## 15.9 Bedrock permeability (50k)

<b>Records within 50m</b>	<b>1</b>
---------------------------	----------

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

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

This data is sourced from the British Geological Survey.

## 15.10 Bedrock faults and other linear features (50k)

<b>Records within 500m</b>	<b>3</b>
----------------------------	----------

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.

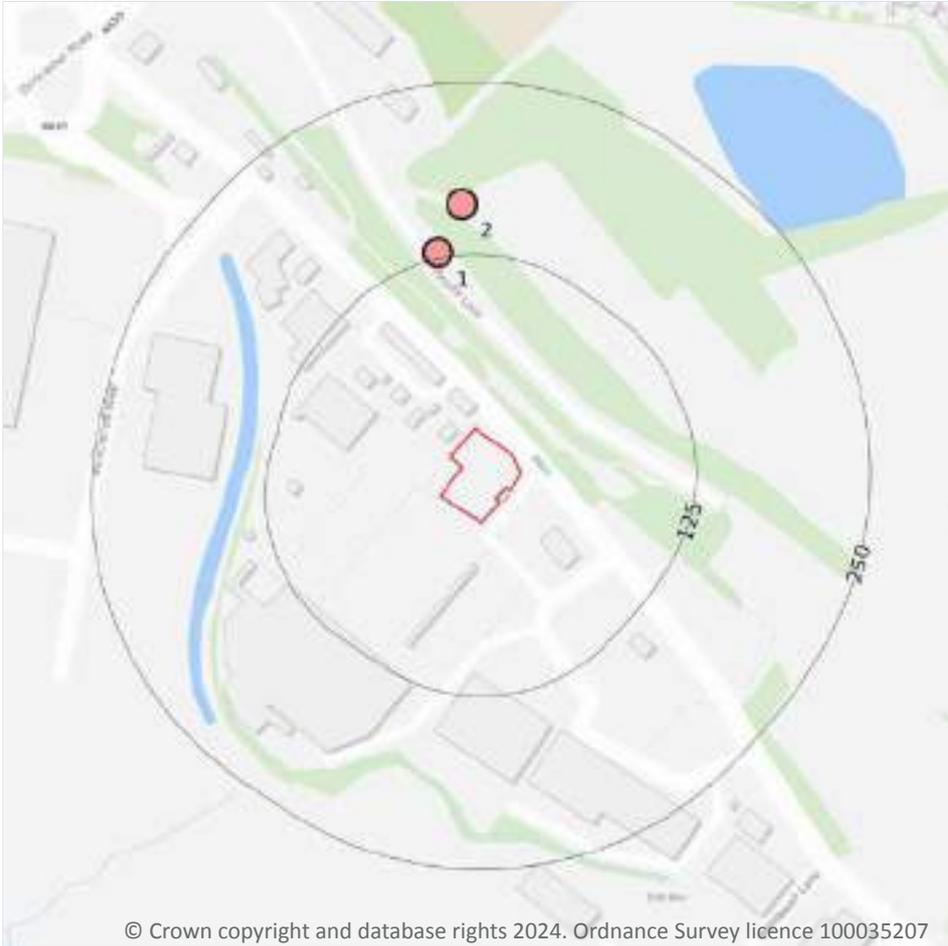
Features are displayed on the Geology 1:50,000 scale - Bedrock map on [page 101](#) >

ID	Location	Category	Description
2	91m NE	FOSSIL_HORIZON	Marine band
5	280m S	FAULT	Fault, inferred
8	415m SW	FOSSIL_HORIZON	Marine band

This data is sourced from the British Geological Survey.



## 16 Boreholes



— Site Outline  
Search buffers in metres (m)

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

### 16.1 BGS Boreholes

Records within 250m

2

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

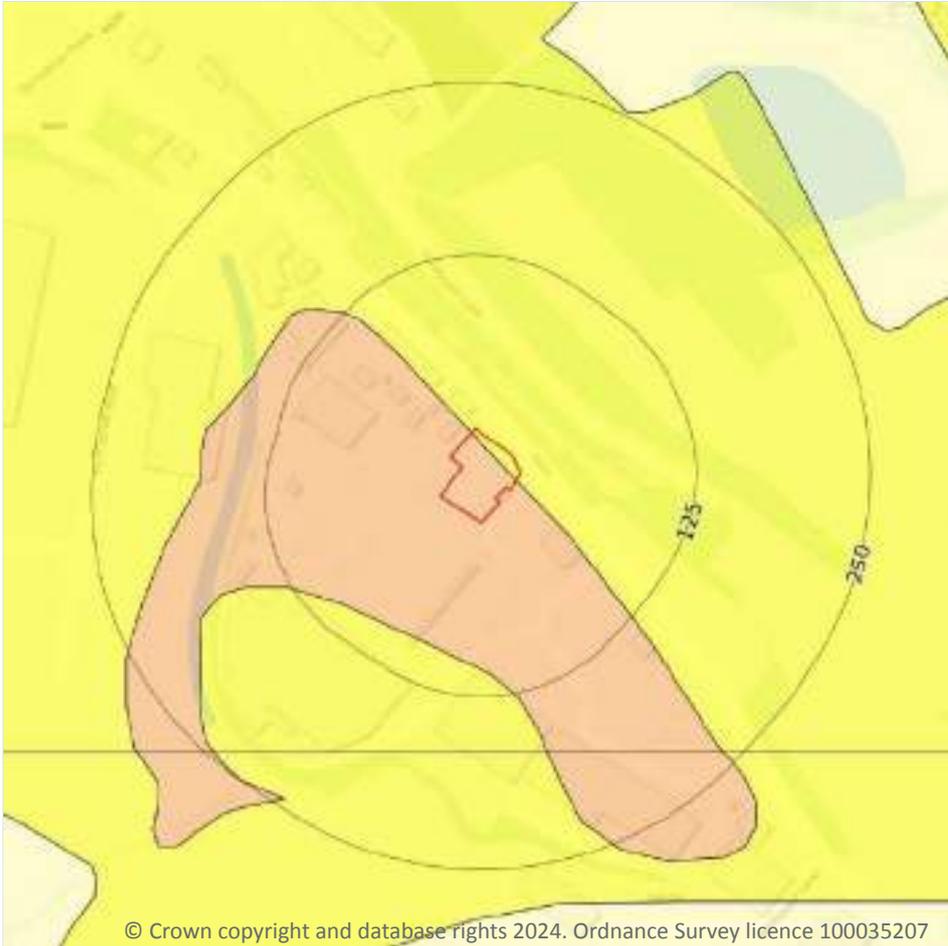
Features are displayed on the Boreholes map on [page 103](#) >

ID	Location	Grid reference	Name	Length	Confidential	Web link
1	129m N	437565 405360	NEW OAKS COLLIERY	308.15	N	<a href="#">83500</a> ↗
2	162m N	437582 405395	NEW OAKS SURFACE BH	404.16	N	<a href="#">83508</a> ↗

*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).

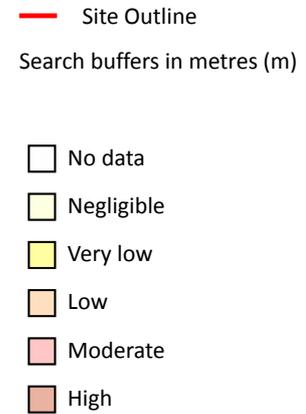
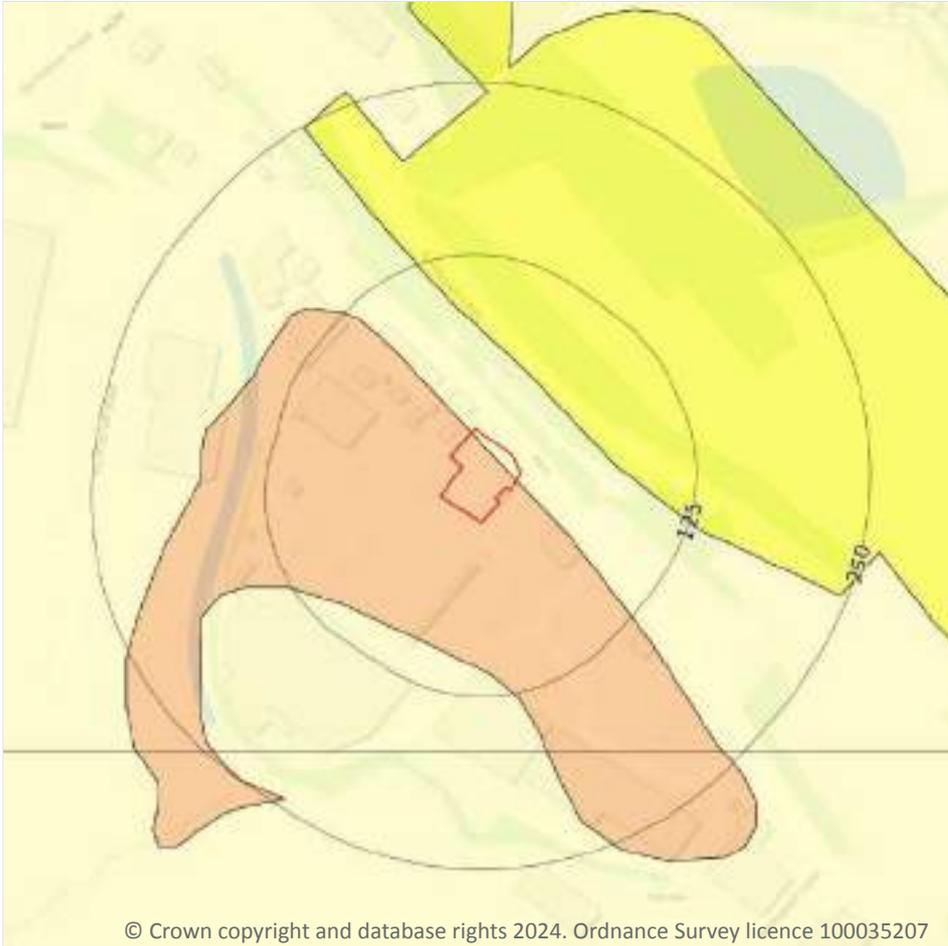
Features are displayed on the Natural ground subsidence - Shrink swell clays map on [page 104 >](#)

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

*This data is sourced from the British Geological Survey.*



## Natural ground subsidence - Running sands



© Crown copyright and database rights 2024. Ordnance Survey licence 100035207

### 17.2 Running sands

Records within 50m

3

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 105 >](#)

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

Location	Hazard rating	Details
On site	Low	Running sand conditions may be present. Constraints may apply to land uses involving excavation or the addition or removal of water.
49m NE	Very low	Running sand conditions are unlikely. No identified constraints on land use due to running conditions unless water table rises rapidly.

*This data is sourced from the British Geological Survey.*



## Natural ground subsidence - Compressible deposits



— Site Outline  
Search buffers in metres (m)

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

### 17.3 Compressible deposits

Records within 50m

3

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 107 >](#)

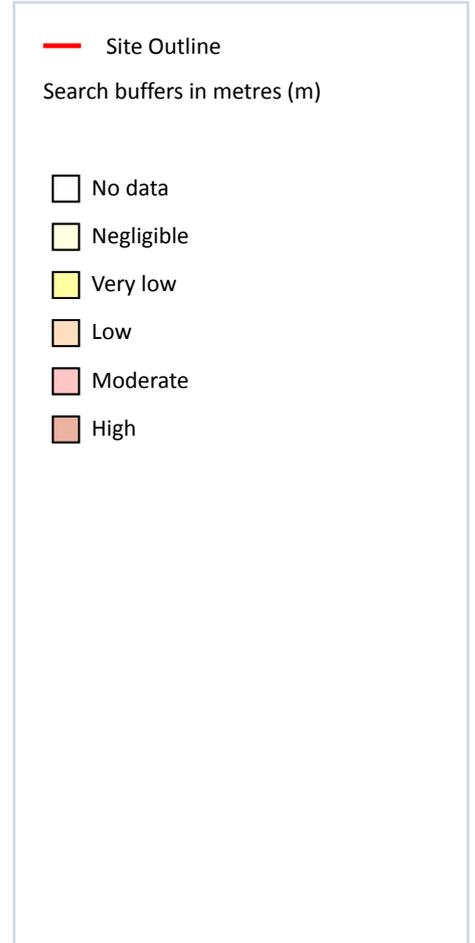
Location	Hazard rating	Details
On site	Negligible	Compressible strata are not thought to occur.
On site	Moderate	Compressibility and uneven settlement hazards are probably present. Land use should consider specifically the compressibility and variability of the site.

Location	Hazard rating	Details
49m NE	Very low	Compressibility and uneven settlement problems are not likely to be significant on the site for most land uses.

*This data is sourced from the British Geological Survey.*



## Natural ground subsidence - Collapsible deposits



### 17.4 Collapsible deposits

Records within 50m

2

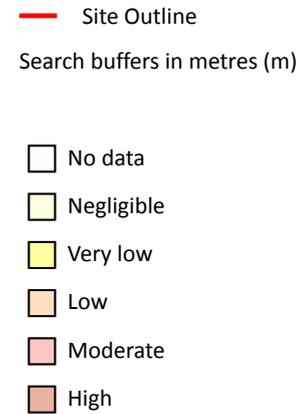
The potential hazard presented by natural deposits that could collapse when a load (such as a building) is placed on them or they become saturated with water.

Features are displayed on the Natural ground subsidence - Collapsible deposits map on [page 109 >](#)

Location	Hazard rating	Details
On site	Negligible	Deposits with potential to collapse when loaded and saturated are believed not to be present.
On site	Very low	Deposits with potential to collapse when loaded and saturated are unlikely to be present.

*This data is sourced from the British Geological Survey.*

## Natural ground subsidence - Landslides



### 17.5 Landslides

Records within 50m

1

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

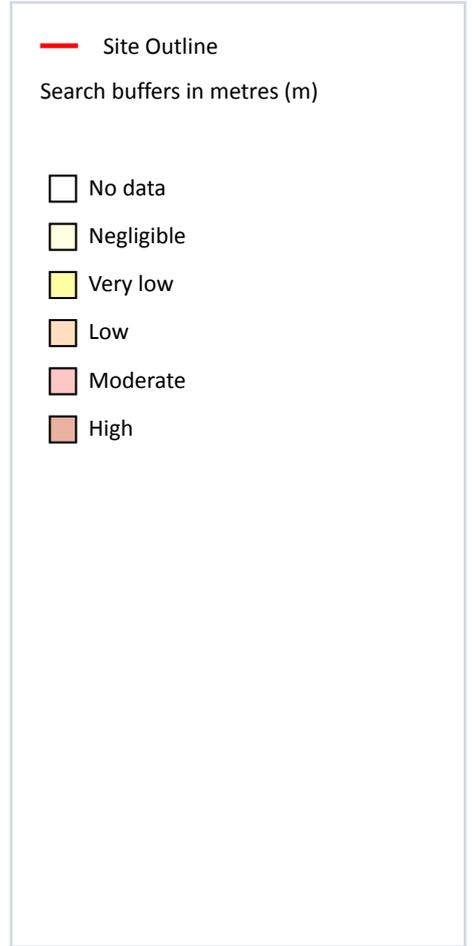
Features are displayed on the Natural ground subsidence - Landslides map on [page 110](#) >

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

*This data is sourced from the British Geological Survey.*



## Natural ground subsidence - Ground dissolution of soluble rocks



© Crown copyright and database rights 2024. Ordnance Survey licence 100035207

### 17.6 Ground dissolution of soluble rocks

Records within 50m

1

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

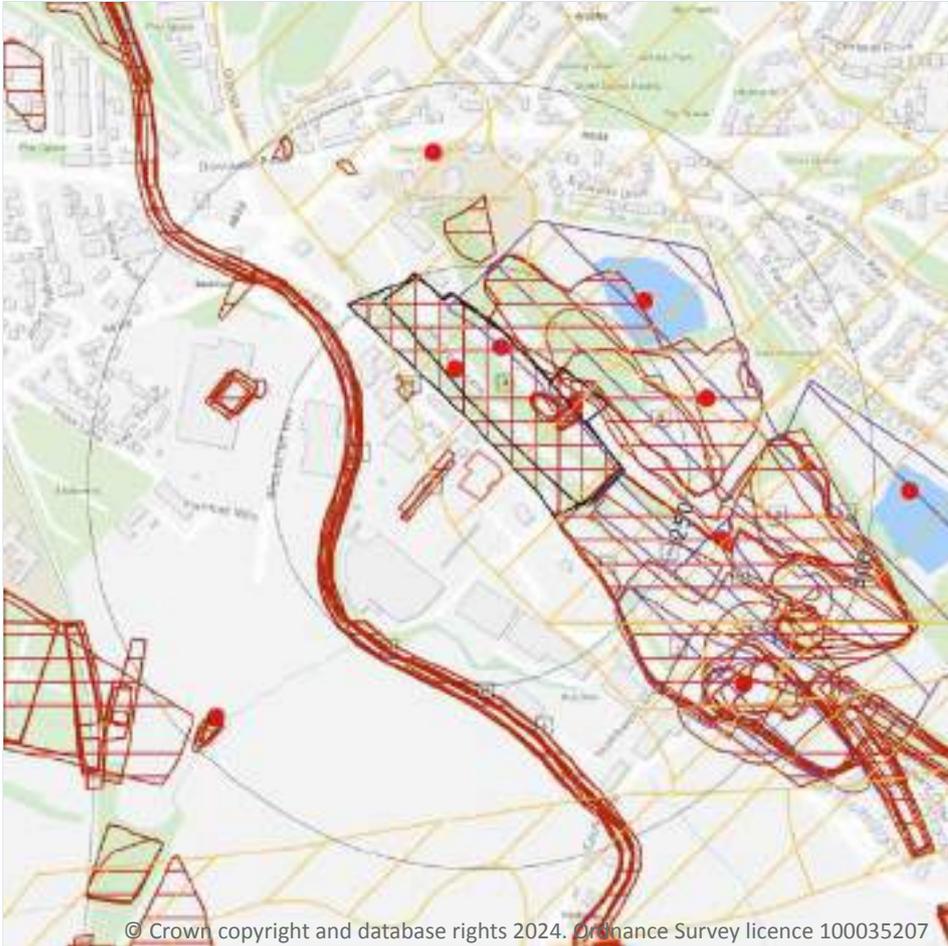
Features are displayed on the Natural ground subsidence - Ground dissolution of soluble rocks map on [page 111 >](#)

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

*This data is sourced from the British Geological Survey.*



## 18 Mining and ground workings



- Site Outline
- Search buffers in metres (m)
- BritPits
- Surface ground workings
- Underground workings
- Underground mining extents
- Historical mineral planning areas
- TCA non-coal mining
- Non Coal Mining
- Sporadic underground mining of restricted extent possible
- Localised small scale underground mining possible
- Small scale mining possible
- Underground mining known or likely within or in close proximity
- Underground mining known within or in very close proximity

### 18.1 BritPits

Records within 500m

9

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

Features are displayed on the Mining and ground workings map on [page 113](#) >

ID	Location	Details	Description
1	114m N	Name: New Oaks Colliery Address: Stairfoot, WORSBROUGH, South Yorkshire Commodity: Coal, Deep Status: Ceased	Type: Working is wholly underground, access by shaft, adit or drift. Working may be termed Colliery, Mine, Drift Mine, Slant, Level, Adit or Ingoing Eye (Ingaun Ee - Scots) Status description: Site which, at date of entry, has ceased to extract minerals. May be considered as Closed by operator. May be considered to have Active, Dormant or Expired planning permissions by Mineral Planning Authority
D	132m NE	Name: Stairfoot Brick Pit Address: Stairfoot, BARNSELEY, South Yorkshire Commodity: Clay & Shale Status: Historic	Type: A surface mineral working. It may be termed Quarry, Sand Pit, Clay Pit or Opencast Coal Site Status description: Historic mineral workings, usually historic building stone sites, where not currently active and the location is not known for certain. These sites usually predate the Ordnance Survey mapping.
9	143m N	Name: New Oaks Colliery Shaft Address: Stairfoot, BARNSELEY, South Yorkshire Commodity: Coal, Deep Status: Ceased	Type: Working is wholly underground, access by shaft, adit or drift. Working may be termed Colliery, Mine, Drift Mine, Slant, Level, Adit or Ingoing Eye (Ingaun Ee - Scots) Status description: Site which, at date of entry, has ceased to extract minerals. May be considered as Closed by operator. May be considered to have Active, Dormant or Expired planning permissions by Mineral Planning Authority
14	294m E	Name: Stairfoot Brick Pit Address: Stairfoot, BARNSELEY, South Yorkshire Commodity: Clay & Shale Status: Ceased	Type: A surface mineral working. It may be termed Quarry, Sand Pit, Clay Pit or Opencast Coal Site Status description: Site which, at date of entry, has ceased to extract minerals. May be considered as Closed by operator. May be considered to have Active, Dormant or Expired planning permissions by Mineral Planning Authority
15	297m NE	Name: Stairfoot Brick Pit Address: Stairfoot, BARNSELEY, South Yorkshire Commodity: Clay & Shale Status: Ceased	Type: A surface mineral working. It may be termed Quarry, Sand Pit, Clay Pit or Opencast Coal Site Status description: Site which, at date of entry, has ceased to extract minerals. May be considered as Closed by operator. May be considered to have Active, Dormant or Expired planning permissions by Mineral Planning Authority
16	308m E	Name: Stairfoot Brickworks No 2 Address: Stairfoot, BARNSELEY, South Yorkshire Commodity: Clay & Shale Status: Ceased	Type: A surface mineral working. It may be termed Quarry, Sand Pit, Clay Pit or Opencast Coal Site Status description: Site which, at date of entry, has ceased to extract minerals. May be considered as Closed by operator. May be considered to have Active, Dormant or Expired planning permissions by Mineral Planning Authority



ID	Location	Details	Description
A	408m N	Name: Ardsley Bindstone Quarry Address: Ardsley, BARNSELEY, South Yorkshire Commodity: Sandstone Status: Ceased	Type: A surface mineral working. It may be termed Quarry, Sand Pit, Clay Pit or Opencast Coal Site Status description: Site which, at date of entry, has ceased to extract minerals. May be considered as Closed by operator. May be considered to have Active, Dormant or Expired planning permissions by Mineral Planning Authority
L	429m SE	Name: Stairfoot Brickworks Address: Stairfoot, BARNSELEY, South Yorkshire Commodity: Clay & Shale Status: Ceased	Type: A surface mineral working. It may be termed Quarry, Sand Pit, Clay Pit or Opencast Coal Site Status description: Site which, at date of entry, has ceased to extract minerals. May be considered as Closed by operator. May be considered to have Active, Dormant or Expired planning permissions by Mineral Planning Authority
T	451m SW	Name: Dob Sike Address: Stairfoot, BARNSELEY, South Yorkshire Commodity: Sandstone Status: Ceased	Type: A surface mineral working. It may be termed Quarry, Sand Pit, Clay Pit or Opencast Coal Site Status description: Site which, at date of entry, has ceased to extract minerals. May be considered as Closed by operator. May be considered to have Active, Dormant or Expired planning permissions by Mineral Planning Authority

This data is sourced from the British Geological Survey.

## 18.2 Surface ground workings

<b>Records within 250m</b>	<b>43</b>
----------------------------	-----------

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 113 >](#)

ID	Location	Land Use	Year of mapping	Mapping scale
B	14m NE	Colliery	1904	1:10560
C	14m NW	Pond	1890	1:10560
C	19m NW	Pond	1982	1:10000
B	35m NE	Colliery	1890	1:10560
D	84m NE	Refuse Heap	1948	1:10560
E	86m SE	Brick Works	1938	1:10560
E	86m SE	Brick Works	1931	1:10560



ID	Location	Land Use	Year of mapping	Mapping scale
D	91m NE	Refuse Heap	1938	1:10560
D	91m NE	Refuse Heap	1938	1:10560
D	92m NE	Refuse Heap	1951	1:10560
D	93m NE	Unspecified Ground Workings	1938	1:10560
D	93m NE	Unspecified Ground Workings	1938	1:10560
D	94m NE	Unspecified Heap	1948	1:10560
D	99m NE	Unspecified Ground Workings	1951	1:10560
E	102m SE	Brick Works	1938	1:10560
E	102m SE	Brick Works	1938	1:10560
D	104m NE	Pond	1904	1:10560
D	111m NE	Unspecified Pits	1904	1:10560
2	116m NW	Ponds	1890	1:10560
4	130m E	Clay Pit	1992	1:10000
5	138m W	Water Bodies	1974	1:10000
F	138m W	Water Body	1992	1:10000
F	138m W	Water Body	1982	1:10000
G	138m NE	Unspecified Quarry	1966	1:10560
G	138m NE	Unspecified Disused Pit	1974	1:10000
6	139m SE	Unspecified Ground Workings	1948	1:10560
7	140m NE	Unspecified Pit	1948	1:10560
H	140m W	Canal	1890	1:10560
8	140m NE	Clay Pit	1951	1:10560
H	143m W	Canal	1948	1:10560
H	143m W	Canal	1904	1:10560
H	144m W	Canal	1938	1:10560
H	144m W	Canal	1931	1:10560
H	144m W	Canal	1938	1:10560
I	145m W	Disused Canal	1966	1:10560



ID	Location	Land Use	Year of mapping	Mapping scale
I	145m W	Canal	1951	1:10560
G	153m NE	Clay Pit	1992	1:10000
G	153m NE	Clay Pit	1982	1:10000
K	221m SW	Canal	1966	1:10560
L	222m SE	Brick Works	1948	1:10560
K	224m SW	Disused Canal	1987	1:10000
11	232m SW	Cuttings	1951	1:10560
12	234m S	Cuttings	1951	1:10560

This is data is sourced from Ordnance Survey/Groundsure.

### 18.3 Underground workings

**Records within 1000m**

**7**

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

Features are displayed on the Mining and ground workings map on [page 113 >](#)

ID	Location	Land Use	Year of mapping	Mapping scale
B	14m NE	Colliery	1904	1:10560
B	35m NE	Colliery	1890	1:10560
-	957m NW	Colliery	1974	1:10000
-	957m NW	Unspecified Mine	1966	1:10560
-	962m NW	Colliery	1982	1:10000
-	986m S	Colliery	1904	1:10560
-	990m S	Colliery	1890	1:10560

This is data is sourced from Ordnance Survey/Groundsure.



## 18.4 Underground mining extents

Records within 500m

0

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

*This data is sourced from Groundsure.*

## 18.5 Historical Mineral Planning Areas

Records within 500m

4

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.

Features are displayed on the Mining and ground workings map on [page 113 >](#)

ID	Location	Site Name	Mineral	Type	Planning Status	Planning Status Date
3	116m NE	Stairfoot No.2	Clay, bricks	Surface mineral working	Valid	Not available
J	226m SE	Stairfoot No.1	Clay, bricks	Surface mineral working	Valid	Not available
13	267m SE	Stairfoot No.2	Clay, bricks	Surface mineral working	Valid	Not available
L	394m SE	Stairfoot No.1	Clay, bricks	Surface mineral working	Valid	Not available

*This data is sourced from the British Geological Survey.*

## 18.6 Non-coal mining

Records within 1000m

20

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 113 >](#)



ID	Location	Name	Commodity	Class	Likelihood
A	On site	Not available	Iron Ore (Bedded)	B	<b>Underground mine workings may have occurred in the past or current mines may be working at significant depth to modern engineering standards. Potential for difficult ground conditions are unlikely and are at a level where they need not be considered.</b>
J	188m SE	Not available	Iron Ore (Bedded)	B	Underground mine workings may have occurred in the past or current mines may be working at significant depth to modern engineering standards. Potential for difficult ground conditions are unlikely and are at a level where they need not be considered.
10	197m NE	Not available	Iron Ore (Bedded)	B	Underground mine workings may have occurred in the past or current mines may be working at significant depth to modern engineering standards. Potential for difficult ground conditions are unlikely and are at a level where they need not be considered.
P	344m E	Not available	Iron Ore (Bedded)	B	Underground mine workings may have occurred in the past or current mines may be working at significant depth to modern engineering standards. Potential for difficult ground conditions are unlikely and are at a level where they need not be considered.
Q	353m SE	Not available	Iron Ore (Bedded)	B	Underground mine workings may have occurred in the past or current mines may be working at significant depth to modern engineering standards. Potential for difficult ground conditions are unlikely and are at a level where they need not be considered.
20	389m NE	Not available	Iron Ore (Bedded)	B	Underground mine workings may have occurred in the past or current mines may be working at significant depth to modern engineering standards. Potential for difficult ground conditions are unlikely and are at a level where they need not be considered.
22	421m S	Not available	Iron Ore (Bedded)	B	Underground mine workings may have occurred in the past or current mines may be working at significant depth to modern engineering standards. Potential for difficult ground conditions are unlikely and are at a level where they need not be considered.
23	447m SE	Not available	Iron Ore (Bedded)	B	Underground mine workings may have occurred in the past or current mines may be working at significant depth to modern engineering standards. Potential for difficult ground conditions are unlikely and are at a level where they need not be considered.
24	567m SE	Not available	Iron Ore (Bedded)	B	Underground mine workings may have occurred in the past or current mines may be working at significant depth to modern engineering standards. Potential for difficult ground conditions are unlikely and are at a level where they need not be considered.



ID	Location	Name	Commodity	Class	Likelihood
25	584m NE	Not available	Iron Ore (Bedded)	B	Underground mine workings may have occurred in the past or current mines may be working at significant depth to modern engineering standards. Potential for difficult ground conditions are unlikely and are at a level where they need not be considered.
-	683m E	Not available	Iron Ore (Bedded)	B	Underground mine workings may have occurred in the past or current mines may be working at significant depth to modern engineering standards. Potential for difficult ground conditions are unlikely and are at a level where they need not be considered.
-	741m E	Not available	Iron Ore (Bedded)	B	Underground mine workings may have occurred in the past or current mines may be working at significant depth to modern engineering standards. Potential for difficult ground conditions are unlikely and are at a level where they need not be considered.
-	839m SE	Not available	Iron Ore (Bedded)	B	Underground mine workings may have occurred in the past or current mines may be working at significant depth to modern engineering standards. Potential for difficult ground conditions are unlikely and are at a level where they need not be considered.
-	839m E	Not available	Iron Ore (Bedded)	B	Underground mine workings may have occurred in the past or current mines may be working at significant depth to modern engineering standards. Potential for difficult ground conditions are unlikely and are at a level where they need not be considered.
-	866m SE	Not available	Iron Ore (Bedded)	B	Underground mine workings may have occurred in the past or current mines may be working at significant depth to modern engineering standards. Potential for difficult ground conditions are unlikely and are at a level where they need not be considered.
-	919m E	Not available	Iron Ore (Bedded)	B	Underground mine workings may have occurred in the past or current mines may be working at significant depth to modern engineering standards. Potential for difficult ground conditions are unlikely and are at a level where they need not be considered.
-	929m NE	Not available	Iron Ore (Bedded)	B	Underground mine workings may have occurred in the past or current mines may be working at significant depth to modern engineering standards. Potential for difficult ground conditions are unlikely and are at a level where they need not be considered.
-	931m NE	Not available	Iron Ore (Bedded)	B	Underground mine workings may have occurred in the past or current mines may be working at significant depth to modern engineering standards. Potential for difficult ground conditions are unlikely and are at a level where they need not be considered.



ID	Location	Name	Commodity	Class	Likelihood
-	978m N	Not available	Iron Ore (Bedded)	B	Underground mine workings may have occurred in the past or current mines may be working at significant depth to modern engineering standards. Potential for difficult ground conditions are unlikely and are at a level where they need not be considered.
-	997m E	Not available	Iron Ore (Bedded)	B	Underground mine workings may have occurred in the past or current mines may be working at significant depth to modern engineering standards. Potential for difficult ground conditions are unlikely and are at a level where they need not be considered.

*This data is sourced from the British Geological Survey.*

## 18.7 JPB mining areas

**Records on site**

**0**

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

*This data is sourced from Johnson Poole and Bloomer.*

## 18.8 The Coal Authority non-coal mining

**Records within 500m**

**0**

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

*This data is sourced from The Coal Authority.*

## 18.9 Researched mining

**Records within 500m**

**0**

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

*This data is sourced from Groundsure.*



## 18.10 Mining record office plans

Records within 500m

0

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

*This data is sourced from Groundsure.*

## 18.11 BGS mine plans

Records within 500m

0

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

*This data is sourced from Groundsure.*

## 18.12 Coal mining

Records on site

1

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

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

*This data is sourced from the Coal Authority.*

## 18.13 Brine areas

Records on site

0

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

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

### 18.14 Gypsum areas

Records on site

0

Generalised areas that may be affected by gypsum extraction.

*This data is sourced from British Gypsum.*

### 18.15 Tin mining

Records on site

0

Generalised areas that may be affected by historical tin mining.

*This data is sourced from Groundsure.*

### 18.16 Clay mining

Records on site

0

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

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

## 19 Ground cavities and sinkholes



- Site Outline
- Search buffers in metres (m)
- Natural cavities (Area)
- Natural cavities (Point)
- Mining cavities
- Reported recent incidents
- Historical incidents
- BGS karst database (Point)
- BGS karst database (Line)
- BGS karst database (Area)

### 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

1

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.

Features are displayed on the Ground cavities and sinkholes map on [page 124 >](#)

ID	Location	Mine Address	Mineral	Data source	Publisher
1	389m E	Stairfoot, South Yorkshire	Shale	MINERIAL PLANNING RIGHTS APPLICATION RECORDS.	UNPUBLISHED

*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.

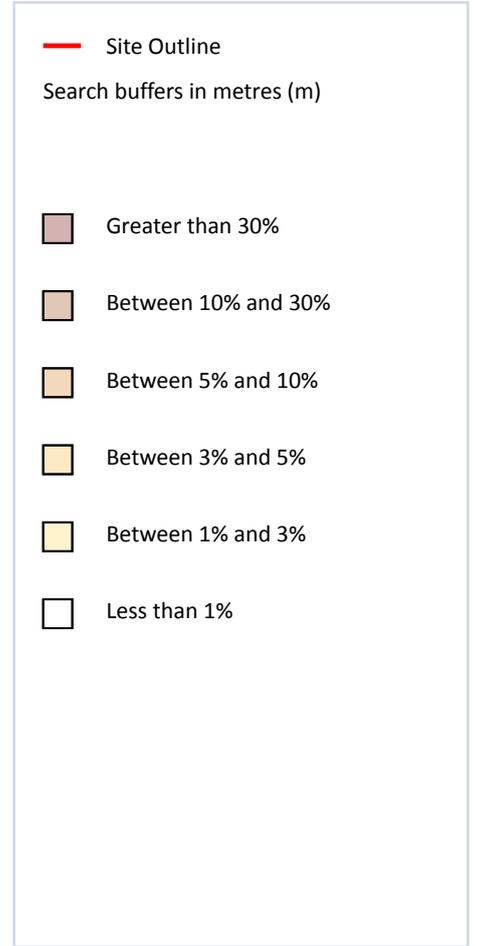
Since the database was set up in 2002 data covering most of the evaporite karst areas of the UK have now been added, along with data covering about 60% of the Chalk, and 35% of the Carboniferous Limestone outcrops. Many of the classic upland karst areas have yet to be included. Recorded so far are: Over 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 127 >](#)

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

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



## 21 Soil chemistry

### 21.1 BGS Estimated Background Soil Chemistry

Records within 50m

2

The estimated values provide the likely background concentration of the potentially harmful elements Arsenic, Cadmium, Chromium, Lead and Nickel in topsoil. The values are estimated primarily from rural topsoil data collected at a sample density of approximately 1 per 2 km<sup>2</sup>. In areas where rural soil samples are not available, estimation is based on stream sediment data collected from small streams at a sampling density of 1 per 2.5 km<sup>2</sup>; 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 - 200 mg/kg	60 - 120 mg/kg	1.8 mg/kg	60 - 90 mg/kg	30 - 45 mg/kg
29m SW	15 - 25 mg/kg	No data	100 - 200 mg/kg	60 - 120 mg/kg	1.8 mg/kg	60 - 90 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 km<sup>2</sup>).

*This data is sourced from the British Geological Survey.*

### 21.3 BGS Measured Urban Soil Chemistry

Records within 50m

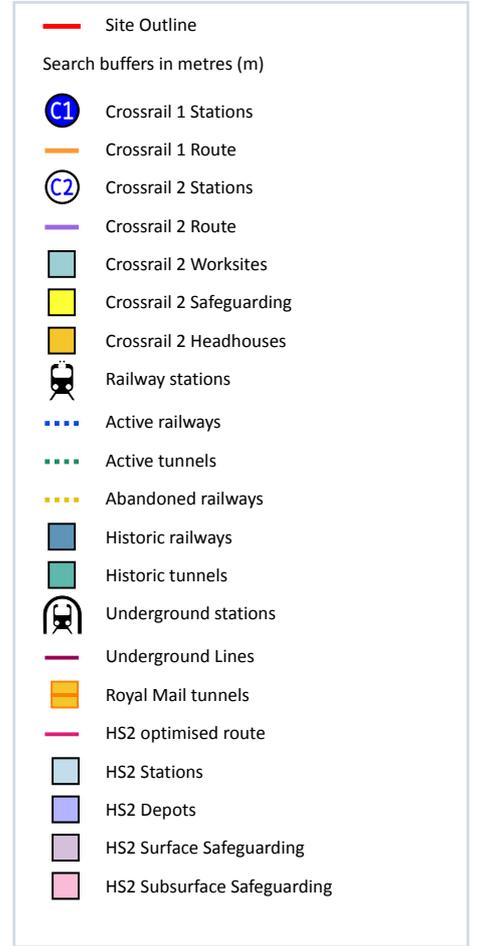
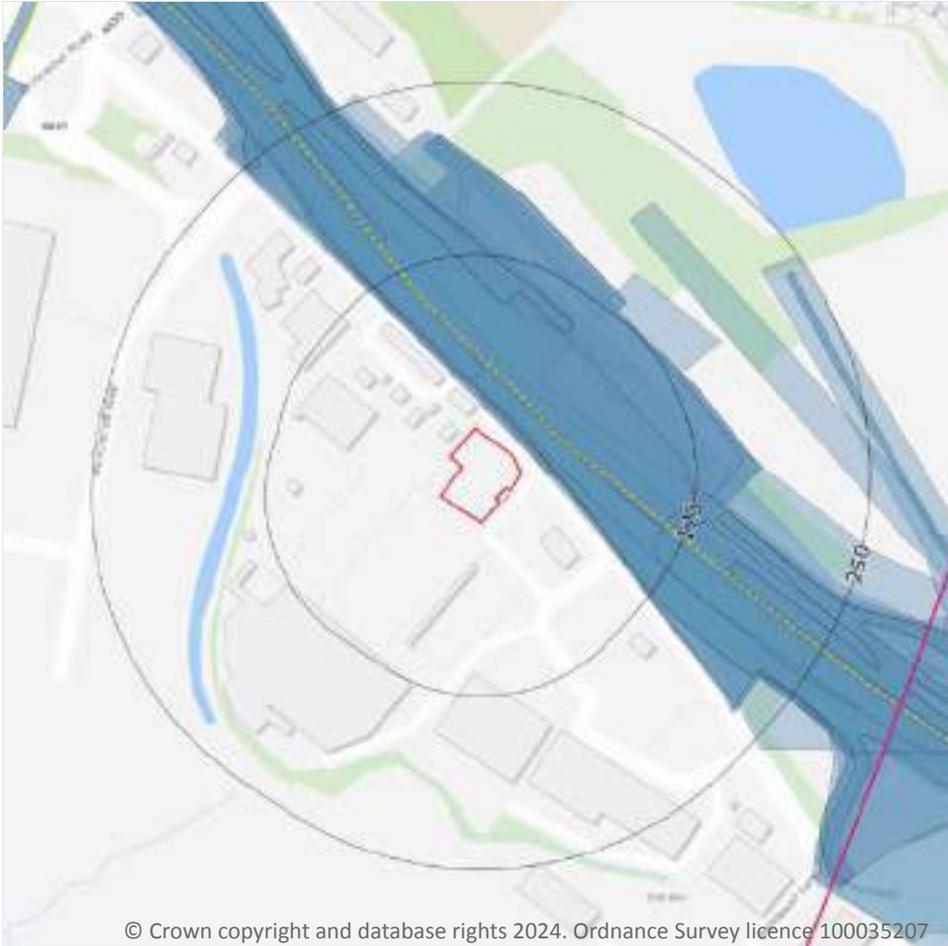
0

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 km<sup>2</sup>.

*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

40

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

Features are displayed on the Railway infrastructure and projects map on [page 130 >](#)

Location	Land Use	Year of mapping	Mapping scale
9m NE	Railway Sidings	1966	10560
10m NE	Railway Sidings	1948	10560
12m NE	Railway Sidings	1938	10560
14m NE	Railway Sidings	1904	10560
15m NE	Railway	1904	-
15m NE	Railway	1890	-
15m NE	Railway	1928	-
15m NE	Railway Sidings	1951	10560
15m NE	Railway Sidings	1938	10560
15m NE	Railway Sidings	1931	10560
17m NE	Railway Sidings	1960	1250
18m NE	Railway Sidings	1982	10000
19m NE	Railway	1906	-
19m NE	Railway	1931	-
19m NE	Railway	1890	-
22m NE	Railway Sidings	1960	2500
22m NE	Railway Sidings	1983	1250



Location	Land Use	Year of mapping	Mapping scale
35m NE	Railway Sidings	1890	10560
35m NE	Railway Sidings	1931	2500
41m NE	Railway Sidings	1960	2500
41m N	Railway Sidings	1893	2500
52m E	Railway Sidings	1931	2500
52m N	Railway Sidings	1906	2500
53m N	Railway Sidings	1893	2500
89m N	Railway Sidings	1931	2500
91m N	Railway Sidings	1938	10560
91m N	Railway Sidings	1931	10560
92m NE	Railway Sidings	1960	2500
93m NE	Railway Sidings	1960	1250
102m NW	Railway Sidings	1931	2500
103m NW	Railway Sidings	1906	2500
107m E	Railway Sidings	1974	10000
139m N	Railway Sidings	1931	2500
142m E	Railway Sidings	1906	2500
144m E	Railway Sidings	1938	10560
144m E	Railway Sidings	1931	10560
162m NW	Railway Sidings	1960	1250
173m NE	Tramway Sidings	1951	10560
200m SE	Railway Sidings	1906	2500
234m NE	Railway Sidings	1960	1250

*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

4

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

Features are displayed on the Railway infrastructure and projects map on [page 130 >](#)

Location	Description
33m NE	Abandoned
44m E	Dismantled
103m N	Dismantled
184m NW	Abandoned

*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

2

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.

Features are displayed on the Railway infrastructure and projects map on [page 130 >](#)

Location	Track Type	Speed (mph)	Speed (km/h)	Status
312m E	Surface Running Track	224mph	360kph	Section is scheduled for cancellation
325m E	Tunnel	224mph	360kph	Section is scheduled for cancellation

*This data is sourced from HS2 Ltd.*



## Data providers

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

## Terms and conditions

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



## **APPENDIX E: HISTORICAL MAPS**

**Site Details:**

TESCO STORES LTD, TESCO SUPERMARKET, WOMBWELL LANE, STAIRFOOT, BARNSELY, S70 3NS

**Client Ref:** GO3181  
**Report Ref:** GS-5XP-XNA-ZIR-K1H  
**Grid Ref:** 437595, 405199

**Map Name:** County Series

**Map date:** 1892-1893

**Scale:** 1:2,500

**Printed at:** 1:2,500



Surveyed 1892  
 Revised N/A  
 Edition 1892  
 Copyright N/A  
 Levelled N/A

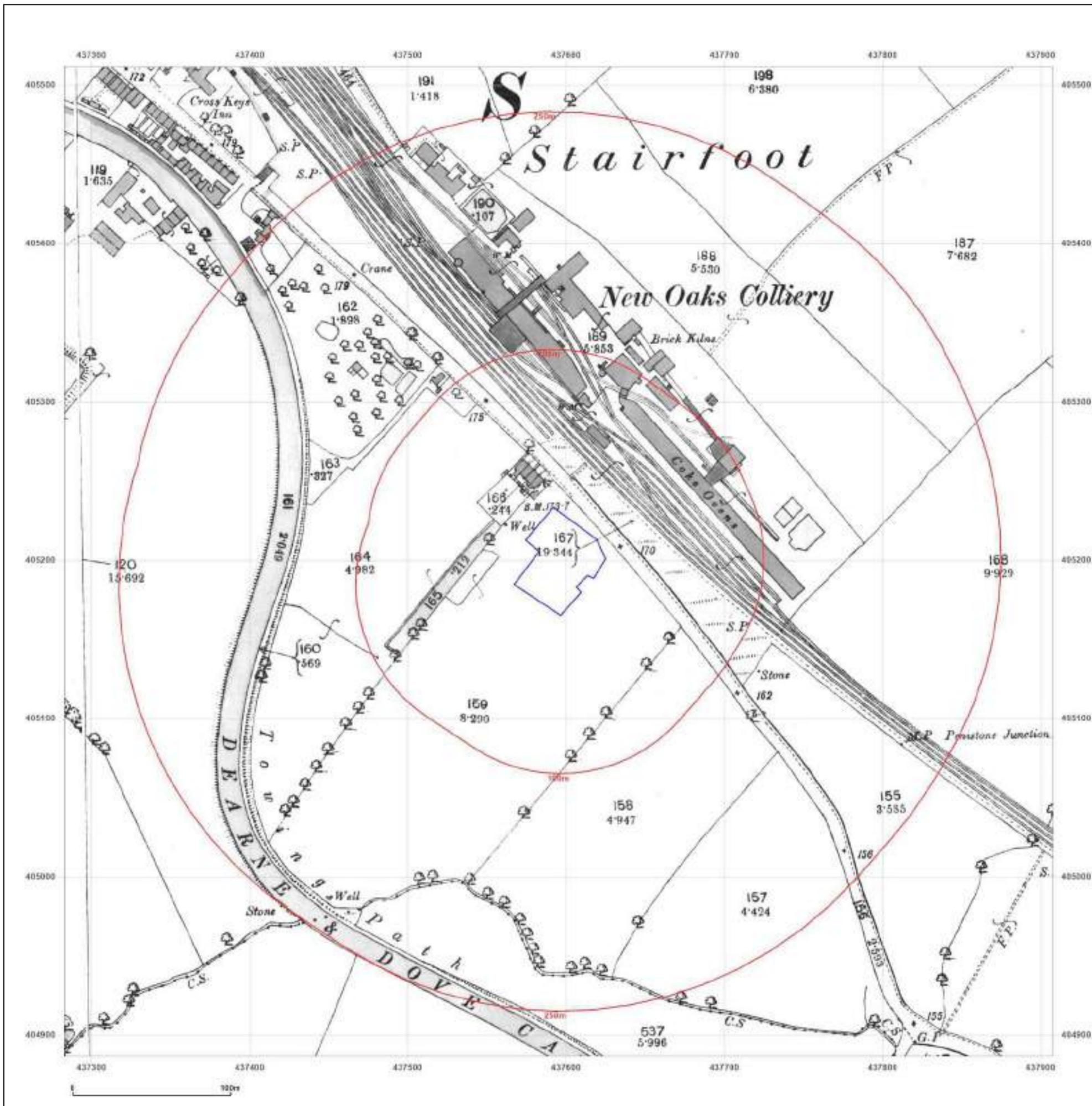


Produced by  
 Groundsure Insights  
 T: 08444 159000  
 E: [info@groundsure.com](mailto:info@groundsure.com)  
 W: [www.groundsure.com](http://www.groundsure.com)

© Crown copyright and database rights 2024 Ordnance Survey 100035207

Production date: 10 June 2024

Map legend available at:  
[www.groundsure.com/sites/default/files/groundsure\\_legend.pdf](http://www.groundsure.com/sites/default/files/groundsure_legend.pdf)



**Site Details:**

TESCO STORES LTD, TESCO SUPERMARKET, WOMBWELL LANE, STAIRFOOT, BARNSELY, S70 3NS

**Client Ref:** GO3181  
**Report Ref:** GS-5XP-XNA-ZIR-K1H  
**Grid Ref:** 437595, 405199

**Map Name:** County Series

**Map date:** 1906

**Scale:** 1:2,500

**Printed at:** 1:2,500



Surveyed 1890  
 Revised 1904  
 Edition N/A  
 Copyright N/A  
 Levelled N/A

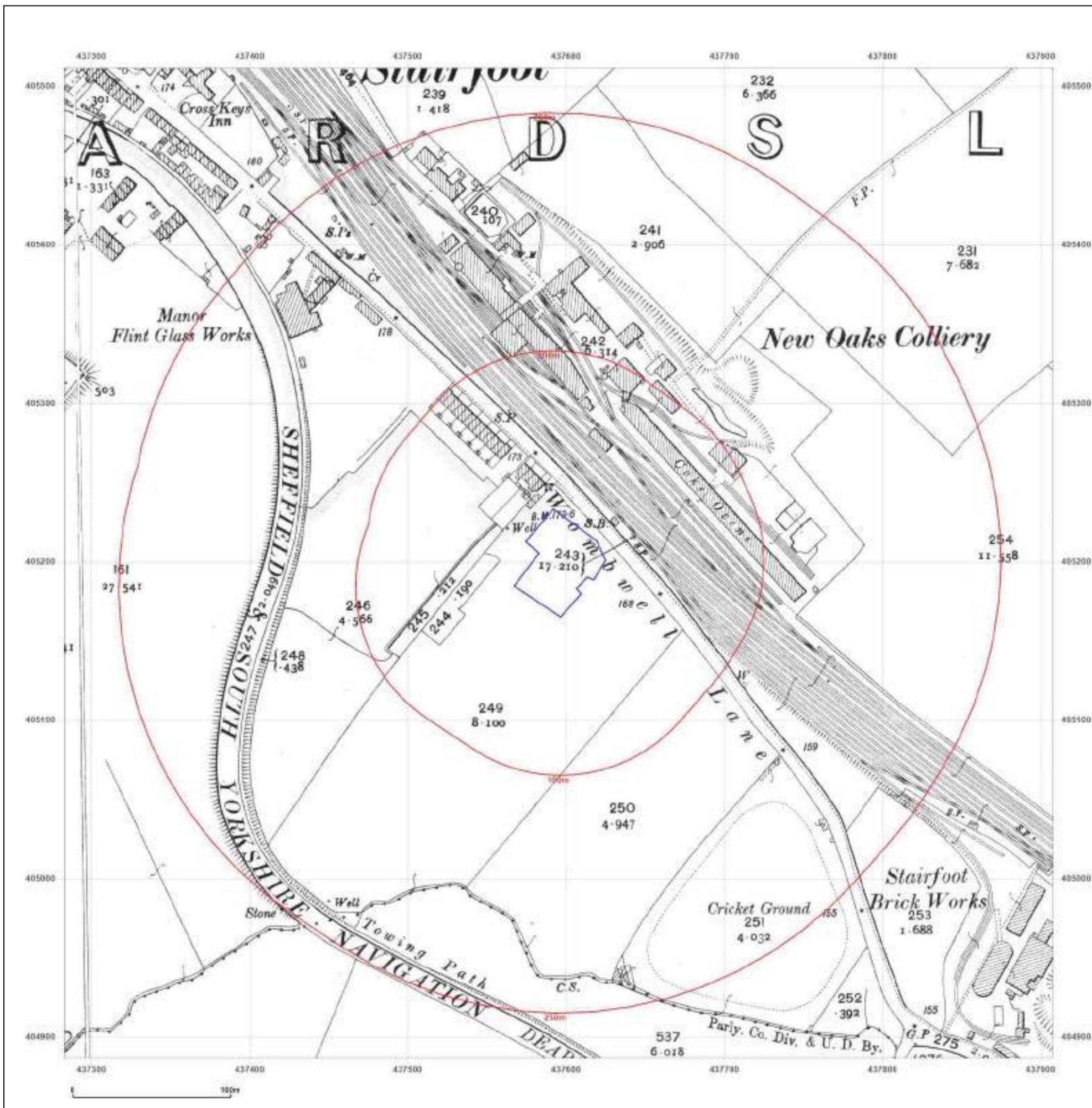


Produced by  
 Groundsure Insights  
 T: 08444 159000  
 E: [info@groundsure.com](mailto:info@groundsure.com)  
 W: [www.groundsure.com](http://www.groundsure.com)

© Crown copyright and database rights 2024 Ordnance Survey 100035207

Production date: 10 June 2024

Map legend available at:  
[www.groundsure.com/sites/default/files/groundsure\\_legend.pdf](http://www.groundsure.com/sites/default/files/groundsure_legend.pdf)



**Site Details:**

TESCO STORES LTD, TESCO SUPERMARKET, WOMBWELL LANE, STAIRFOOT, BARNSELY, S70 3NS

**Client Ref:** GO3181  
**Report Ref:** GS-5XP-XNA-ZIR-K1H  
**Grid Ref:** 437595, 405199

**Map Name:** County Series

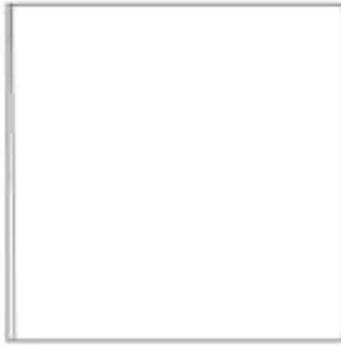
**Map date:** 1931

**Scale:** 1:2,500

**Printed at:** 1:2,500



Surveyed 1890  
Revised 1930  
Edition 1931  
Copyright N/A  
Levelled 1930



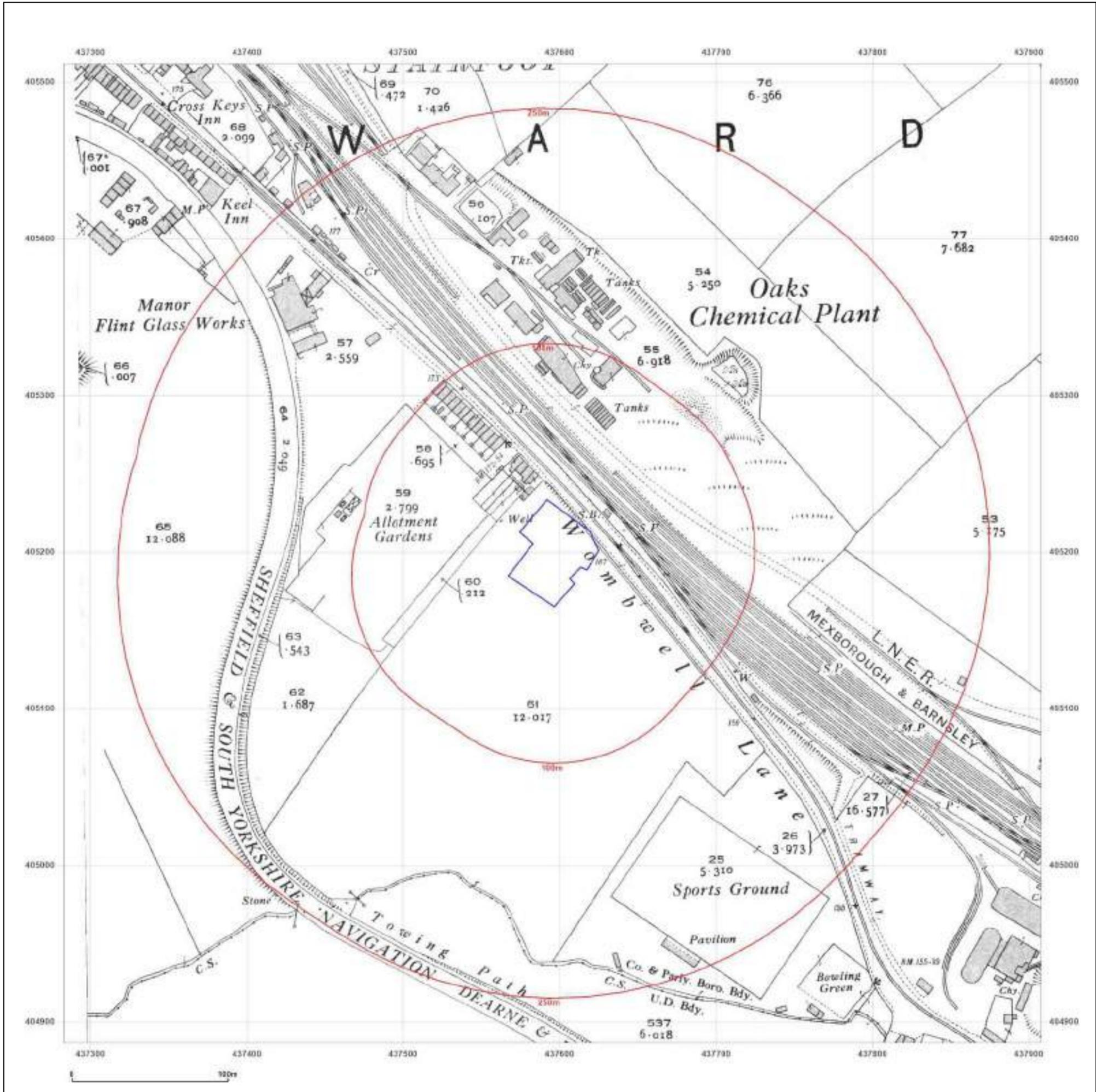


Produced by  
Groundsure Insights  
T: 08444 159000  
E: [info@groundsure.com](mailto:info@groundsure.com)  
W: [www.groundsure.com](http://www.groundsure.com)

© Crown copyright and database rights 2024 Ordnance Survey 100035207

Production date: 10 June 2024

Map legend available at:  
[www.groundsure.com/sites/default/files/groundsure\\_legend.pdf](http://www.groundsure.com/sites/default/files/groundsure_legend.pdf)



**Site Details:**

TESCO STORES LTD, TESCO SUPERMARKET, WOMBWELL LANE, STAIRFOOT, BARNSELY, S70 3NS

**Client Ref:** GO3181  
**Report Ref:** GS-5XP-XNA-ZIR-K1H  
**Grid Ref:** 437595, 405199

**Map Name:** National Grid

**Map date:** 1960

**Scale:** 1:1,250

**Printed at:** 1:2,000



Surveyed 1960  
 Revised 1960  
 Edition N/A  
 Copyright 1960  
 Levelled 1930

Surveyed 1960  
 Revised 1960  
 Edition N/A  
 Copyright 1960  
 Levelled 1929

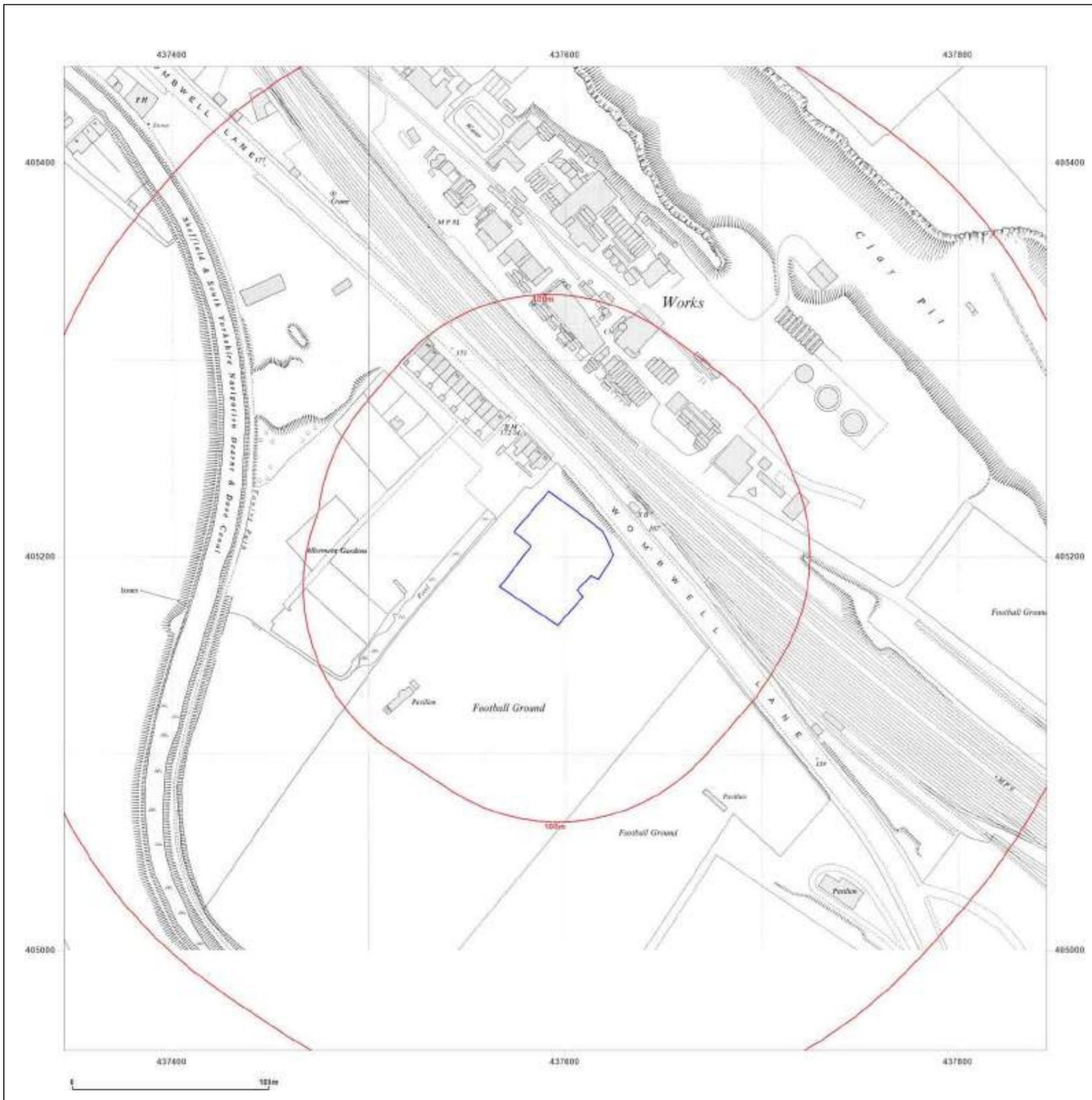


Produced by Groundsure Insights  
 T: 08444 159000  
 E: [info@groundsure.com](mailto:info@groundsure.com)  
 W: [www.groundsure.com](http://www.groundsure.com)

© Crown copyright and database rights 2024 Ordnance Survey 100035207

Production date: 10 June 2024

Map legend available at: [www.groundsure.com/sites/default/files/groundsure\\_legend.pdf](http://www.groundsure.com/sites/default/files/groundsure_legend.pdf)



**Site Details:**

TESCO STORES LTD, TESCO  
 SUPERMARKET, WOMBWELL  
 LANE, STAIRFOOT, BARNLEY,  
 S70 3NS

**Client Ref:** GO3181  
**Report Ref:** GS-5XP-XNA-ZIR-K1H  
**Grid Ref:** 437595, 405199

**Map Name:** National Grid

**Map date:** 1960-1961

**Scale:** 1:2,500

**Printed at:** 1:2,500



Surveyed 1960  
 Revised 1960  
 Edition N/A  
 Copyright 1962  
 Levelled 1930



Surveyed 1959  
 Revised 1961  
 Edition N/A  
 Copyright 1962  
 Levelled 1959

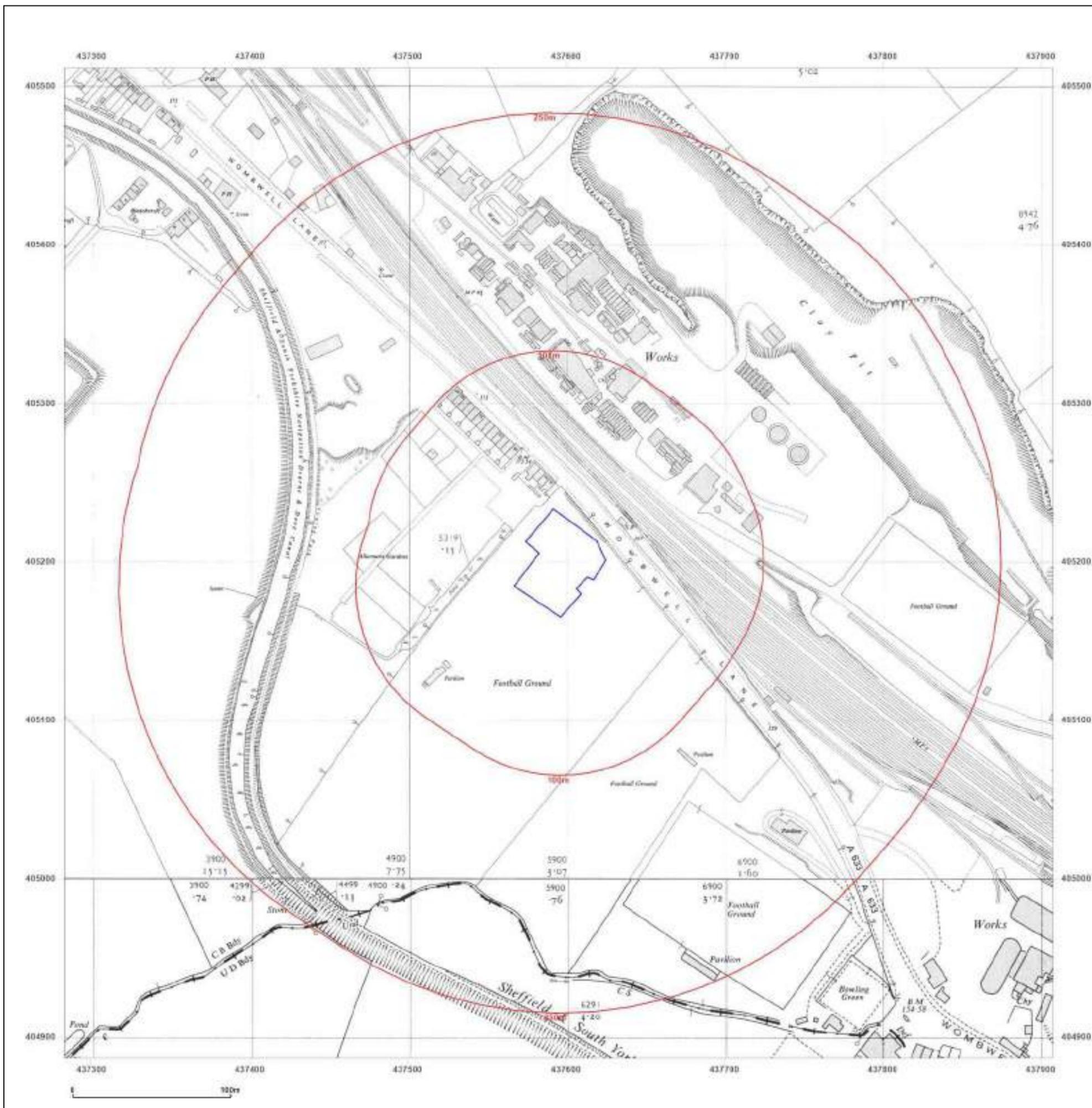


Produced by  
 Groundsure Insights  
 T: 08444 159000  
 E: [info@groundsure.com](mailto:info@groundsure.com)  
 W: [www.groundsure.com](http://www.groundsure.com)

© Crown copyright and database rights 2024 Ordnance Survey 100035207

Production date: 10 June 2024

Map legend available at:  
[www.groundsure.com/sites/default/files/groundsure\\_legend.pdf](http://www.groundsure.com/sites/default/files/groundsure_legend.pdf)



**Site Details:**

TESCO STORES LTD, TESCO SUPERMARKET, WOMBWELL LANE, STAIRFOOT, BARNSELEY, S70 3NS

**Client Ref:** GO3181  
**Report Ref:** GS-5XP-XNA-ZIR-K1H  
**Grid Ref:** 437595, 405199

**Map Name:** National Grid

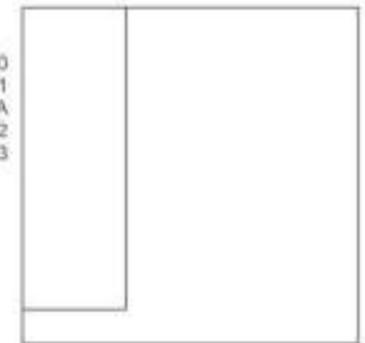
**Map date:** 1972

**Scale:** 1:1,250

**Printed at:** 1:2,000



Surveyed 1960  
 Revised 1971  
 Edition N/A  
 Copyright 1972  
 Levelled 1963

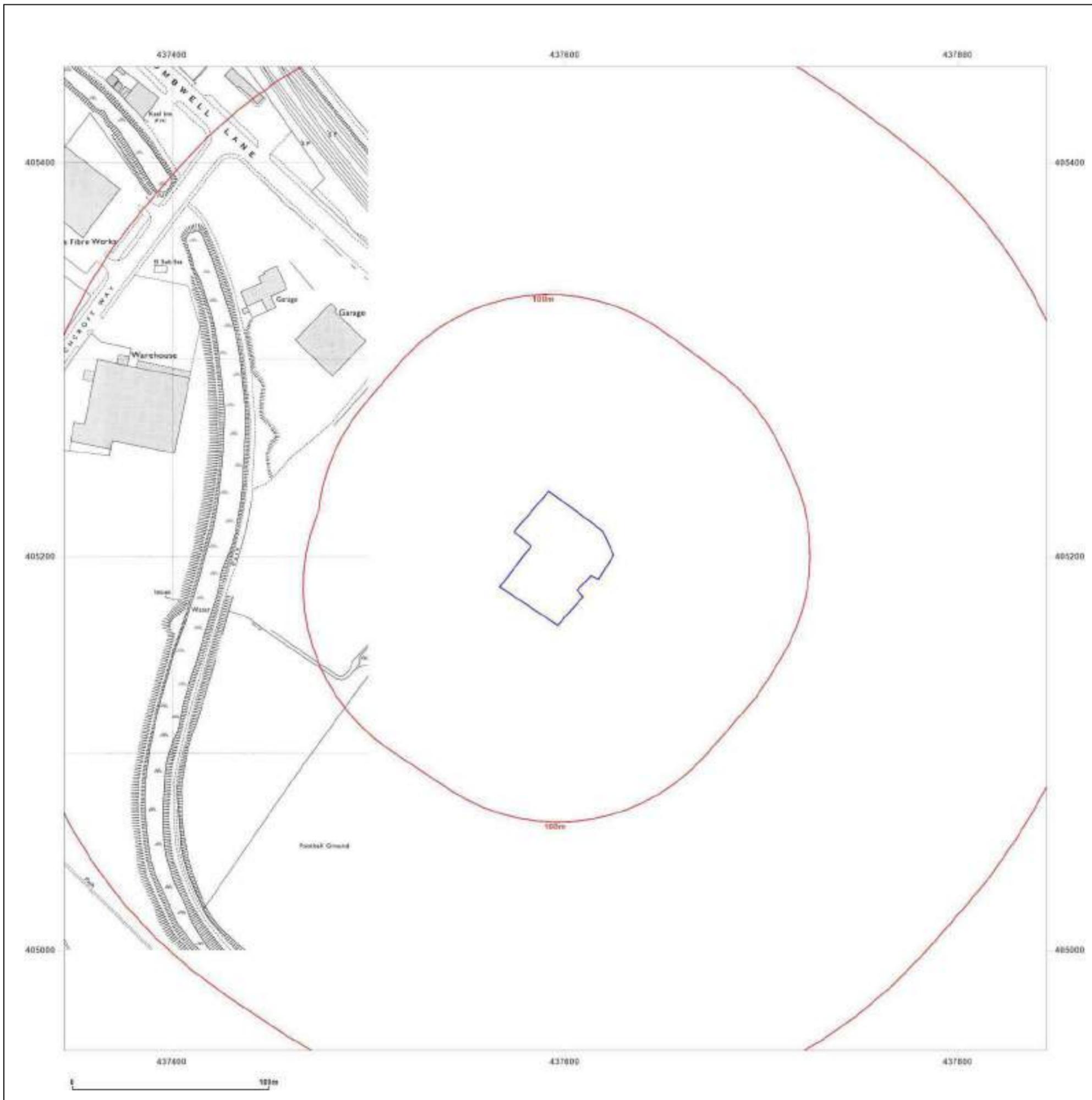


Produced by  
 Groundsure Insights  
 T: 08444 159000  
 E: [info@groundsure.com](mailto:info@groundsure.com)  
 W: [www.groundsure.com](http://www.groundsure.com)

© Crown copyright and database rights 2024 Ordnance Survey 100035207

Production date: 10 June 2024

Map legend available at:  
[www.groundsure.com/sites/default/files/groundsure\\_legend.pdf](http://www.groundsure.com/sites/default/files/groundsure_legend.pdf)



**Site Details:**

TESCO STORES LTD, TESCO SUPERMARKET, WOMBWELL LANE, STAIRFOOT, BARNSELY, S70 3NS

**Client Ref:** GO3181  
**Report Ref:** GS-5XP-XNA-ZIR-K1H  
**Grid Ref:** 437595, 405199

**Map Name:** National Grid  
**Map date:** 1982-1983  
**Scale:** 1:1,250  
**Printed at:** 1:2,000



Surveyed 1964 Revised 1982 Edition N/A Copyright 1982 Levelled 1964	Surveyed N/A Revised N/A Edition N/A Copyright 1983 Levelled 1964
---	---

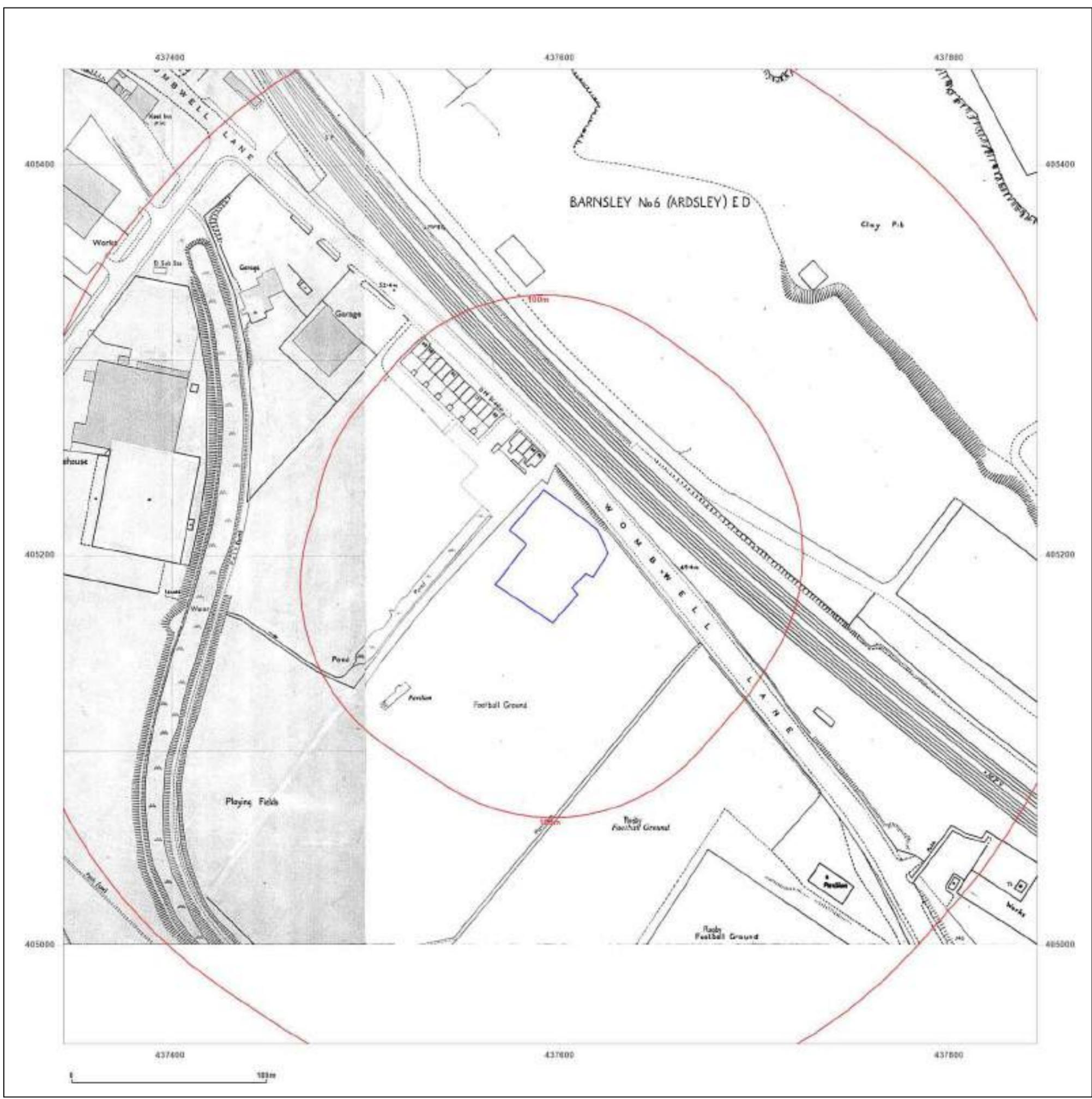


Produced by Groundsure Insights  
 T: 08444 159000  
 E: [info@groundsure.com](mailto:info@groundsure.com)  
 W: [www.groundsure.com](http://www.groundsure.com)

© Crown copyright and database rights 2024 Ordnance Survey 100035207

Production date: 10 June 2024

Map legend available at:  
[www.groundsure.com/sites/default/files/groundsure\\_legend.pdf](http://www.groundsure.com/sites/default/files/groundsure_legend.pdf)



**Site Details:**

TESCO STORES LTD, TESCO SUPERMARKET, WOMBWELL LANE, STAIRFOOT, BARNSELY, S70 3NS

**Client Ref:** GO3181  
**Report Ref:** GS-5XP-XNA-ZIR-K1H  
**Grid Ref:** 437595, 405199

**Map Name:** National Grid  
**Map date:** 1983  
**Scale:** 1:1,250  
**Printed at:** 1:2,000



Surveyed 1964  
 Revised 1983  
 Edition N/A  
 Copyright 1983  
 Levelled 1964

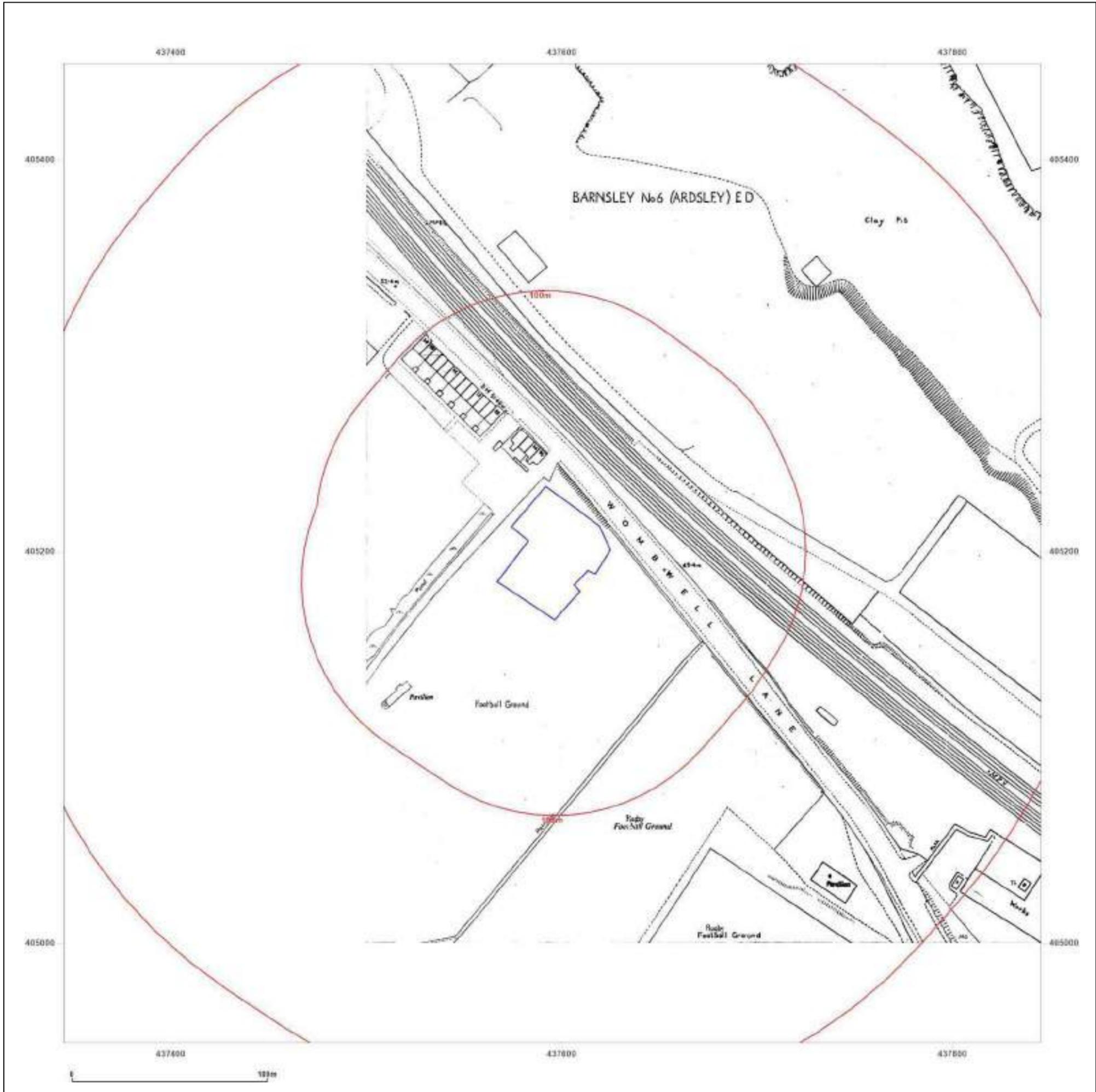


Produced by  
 Groundsure Insights  
 T: 08444 159000  
 E: [info@groundsure.com](mailto:info@groundsure.com)  
 W: [www.groundsure.com](http://www.groundsure.com)

© Crown copyright and database rights 2024 Ordnance Survey 100035207

Production date: 10 June 2024

Map legend available at:  
[www.groundsure.com/sites/default/files/groundsure\\_legend.pdf](http://www.groundsure.com/sites/default/files/groundsure_legend.pdf)



**Site Details:**

TESCO STORES LTD, TESCO SUPERMARKET, WOMBWELL LANE, STAIRFOOT, BARNSELY, S70 3NS

**Client Ref:** GO3181  
**Report Ref:** GS-5XP-XNA-ZIR-K1H  
**Grid Ref:** 437595, 405199

**Map Name:** National Grid  
**Map date:** 1990  
**Scale:** 1:1,250  
**Printed at:** 1:2,000



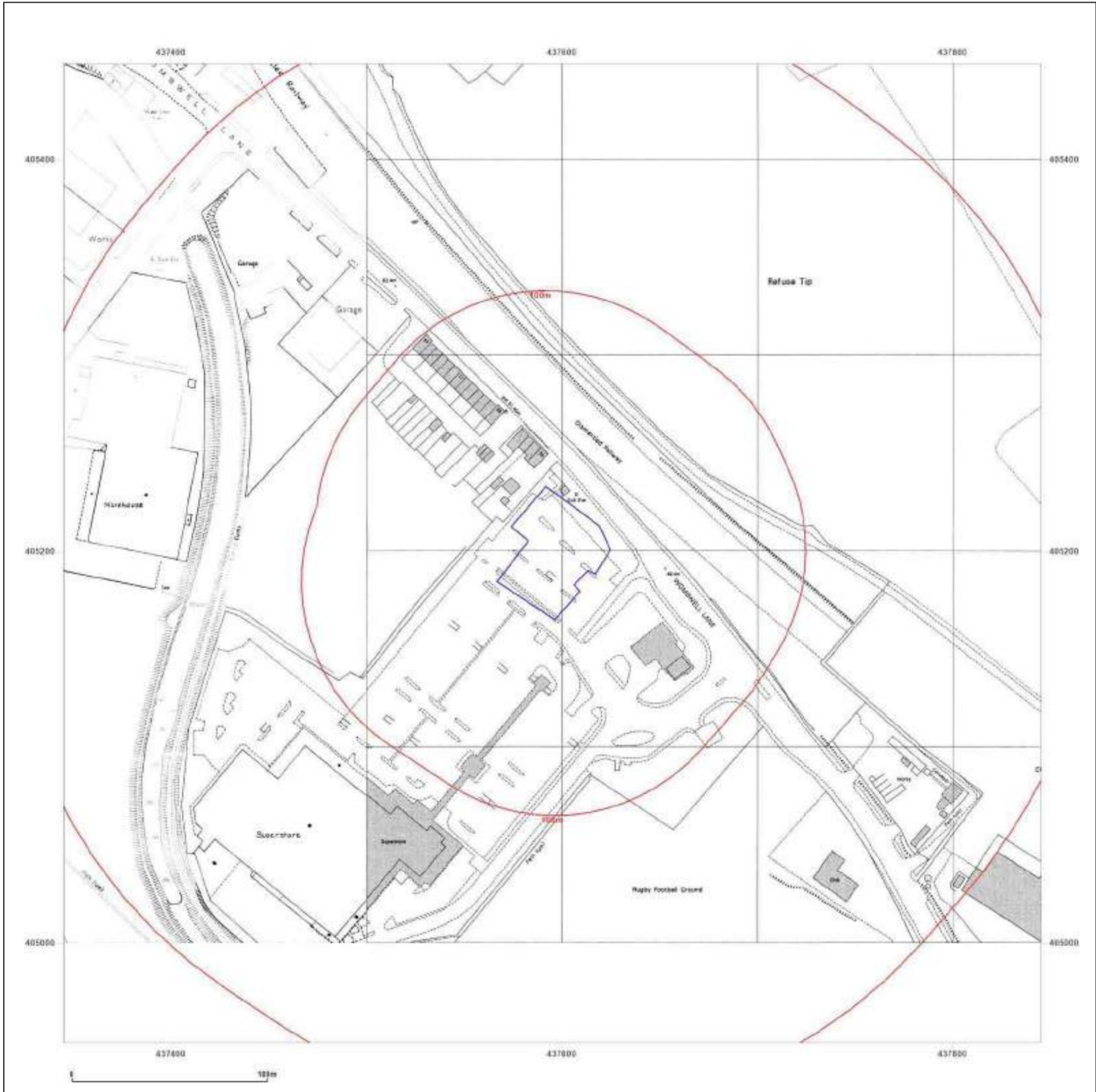
Surveyed 1964 Revised 1990 Edition N/A Copyright 1990 Levelled 1964	Surveyed 1990 Revised 1990 Edition N/A Copyright 1990 Levelled N/A
---	--

**Powered by**  Produced by Groundsure Insights  
 T: 08444 159000  
 E: [info@groundsure.com](mailto:info@groundsure.com)  
 W: [www.groundsure.com](http://www.groundsure.com)

© Crown copyright and database rights 2024 Ordnance Survey 100035207

Production date: 10 June 2024

Map legend available at: [www.groundsure.com/sites/default/files/groundsure\\_legend.pdf](http://www.groundsure.com/sites/default/files/groundsure_legend.pdf)



**Site Details:**

TESCO STORES LTD, TESCO SUPERMARKET, WOMBWELL LANE, STAIRFOOT, BARNSELY, S70 3NS

**Client Ref:** GO3181  
**Report Ref:** GS-5XP-XNA-ZIR-K1H  
**Grid Ref:** 437595, 405199

**Map Name:** National Grid

**Map date:** 1993

**Scale:** 1:1,250

**Printed at:** 1:2,000



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

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

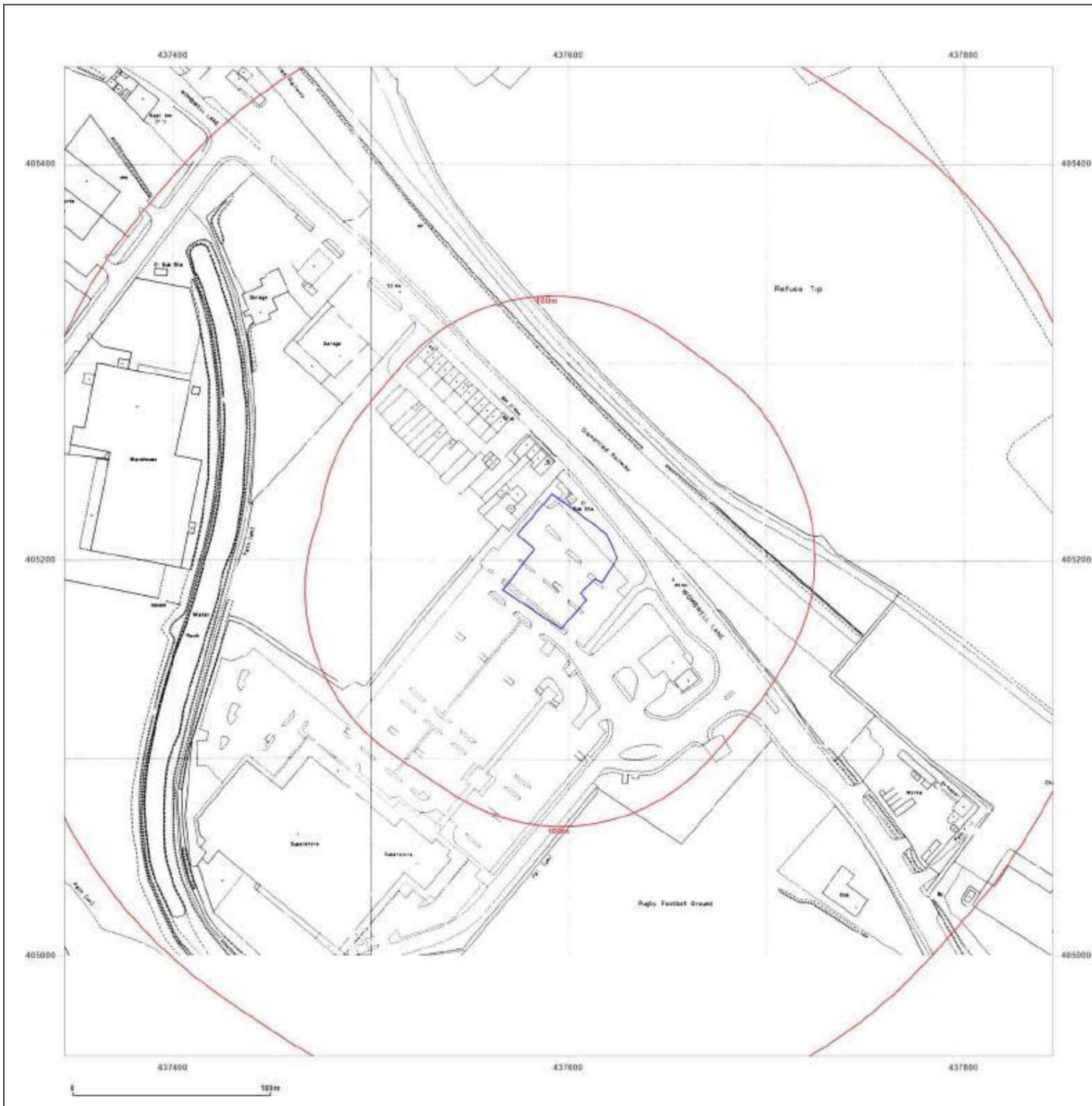


Produced by  
 Groundsure Insights  
 T: 08444 159000  
 E: [info@groundsure.com](mailto:info@groundsure.com)  
 W: [www.groundsure.com](http://www.groundsure.com)

© Crown copyright and database rights 2024 Ordnance Survey 100035207

Production date: 10 June 2024

Map legend available at:  
[www.groundsure.com/sites/default/files/groundsure\\_legend.pdf](http://www.groundsure.com/sites/default/files/groundsure_legend.pdf)



**Site Details:**

TESCO STORES LTD, TESCO  
 SUPERMARKET, WOMBWELL  
 LANE, STAIRFOOT, BARNSELY,  
 S70 3NS

**Client Ref:** GO3181  
**Report Ref:** GS-5XP-XNA-ZIR-K1H  
**Grid Ref:** 437595, 405199

**Map Name:** National Grid

**Map date:** 1995

**Scale:** 1:1,250

**Printed at:** 1:2,000



Surveyed 1995  
 Revised 1995  
 Edition N/A  
 Copyright 1995  
 Levelled N/A



Produced by  
 Groundsure Insights  
 T: 08444 159000  
 E: [info@groundsure.com](mailto:info@groundsure.com)  
 W: [www.groundsure.com](http://www.groundsure.com)

© Crown copyright and database rights 2024 Ordnance Survey 100035207

Production date: 10 June 2024

Map legend available at:  
[www.groundsure.com/sites/default/files/groundsure\\_legend.pdf](http://www.groundsure.com/sites/default/files/groundsure_legend.pdf)



**Site Details:**

TESCO STORES LTD, TESCO  
 SUPERMARKET, WOMBWELL  
 LANE, STAIRFOOT, BARNSELY,  
 S70 3NS

**Client Ref:** GO3181  
**Report Ref:** GS-5XP-XNA-ZIR-K1H  
**Grid Ref:** 437595, 405199

**Map Name:** National Grid

**Map date:** 1995

**Scale:** 1:1,250

**Printed at:** 1:2,000



Surveyed 1995  
 Revised 1995  
 Edition N/A  
 Copyright 1995  
 Levelled N/A

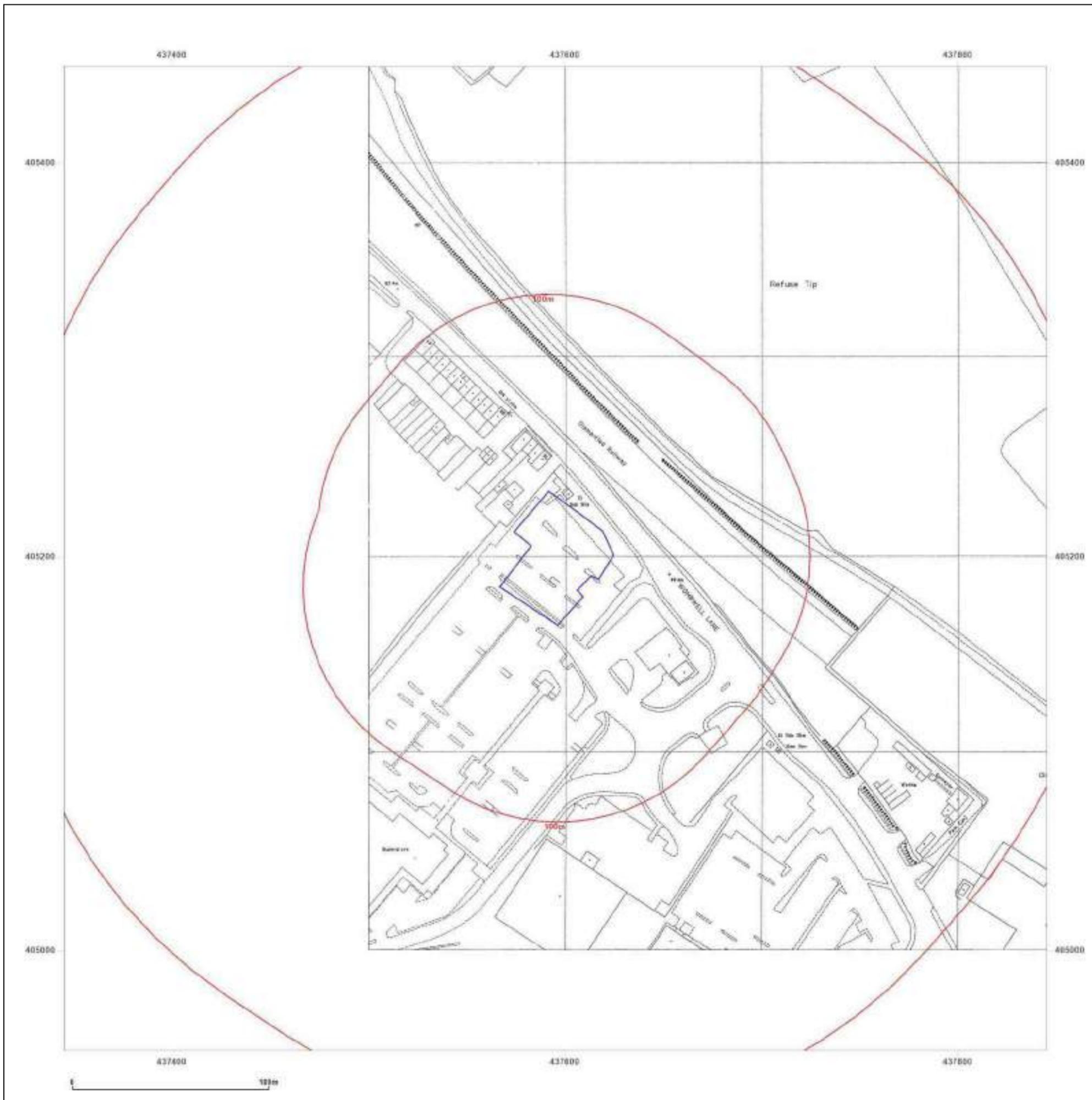


Produced by  
 Groundsure Insights  
 T: 08444 159000  
 E: [info@groundsure.com](mailto:info@groundsure.com)  
 W: [www.groundsure.com](http://www.groundsure.com)

© Crown copyright and database rights 2024 Ordnance Survey 100035207

Production date: 10 June 2024

Map legend available at:  
[www.groundsure.com/sites/default/files/groundsure\\_legend.pdf](http://www.groundsure.com/sites/default/files/groundsure_legend.pdf)



**Site Details:**

TESCO STORES LTD, TESCO SUPERMARKET, WOMBWELL LANE, STAIRFOOT, BARNSELEY, S70 3NS

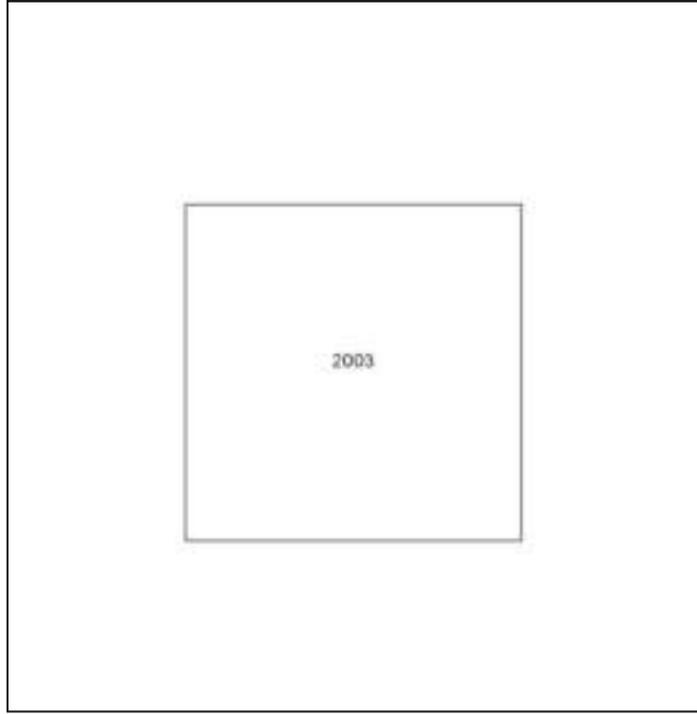
**Client Ref:** GO3181  
**Report Ref:** GS-5XP-XNA-ZIR-K1H  
**Grid Ref:** 437595, 405199

**Map Name:** LandLine

**Map date:** 2003

**Scale:** 1:1,250

**Printed at:** 1:1,250



Produced by  
 Groundsure Insights  
 T: 08444 159000  
 E: [info@groundsure.com](mailto:info@groundsure.com)  
 W: [www.groundsure.com](http://www.groundsure.com)

© Crown copyright and database rights 2024 Ordnance Survey 100035207

Production date: 10 June 2024

Map legend available at:  
[www.groundsure.com/sites/default/files/groundsure\\_legend.pdf](http://www.groundsure.com/sites/default/files/groundsure_legend.pdf)



**Site Details:**

TESCO STORES LTD, TESCO SUPERMARKET, WOMBWELL LANE, STAIRFOOT, BARNSELY, S70 3NS

**Client Ref:** GO3181  
**Report Ref:** GS-5XP-XNA-ZIR-K1H  
**Grid Ref:** 437595, 405199

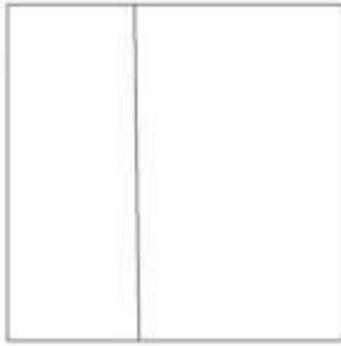
**Map Name:** County Series

**Map date:** 1850-1854

**Scale:** 1:10,560

**Printed at:** 1:10,560



<p>Surveyed 1851                  Revised N/A                  Edition 1850                  Copyright N/A                  Levelled N/A</p>		<p>Surveyed 1850                  Revised N/A                  Edition 1854                  Copyright N/A                  Levelled N/A</p>
--	---	--

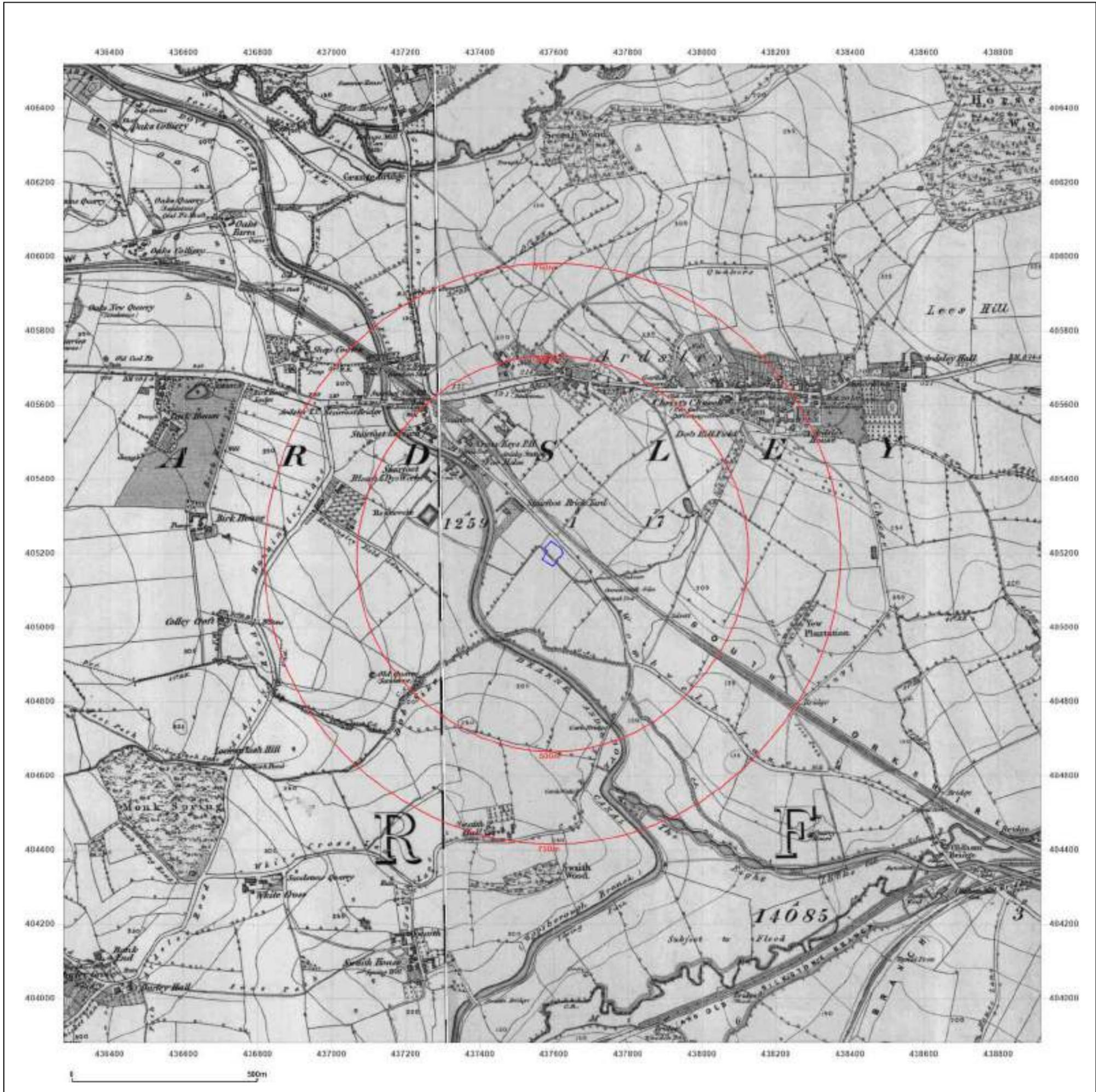


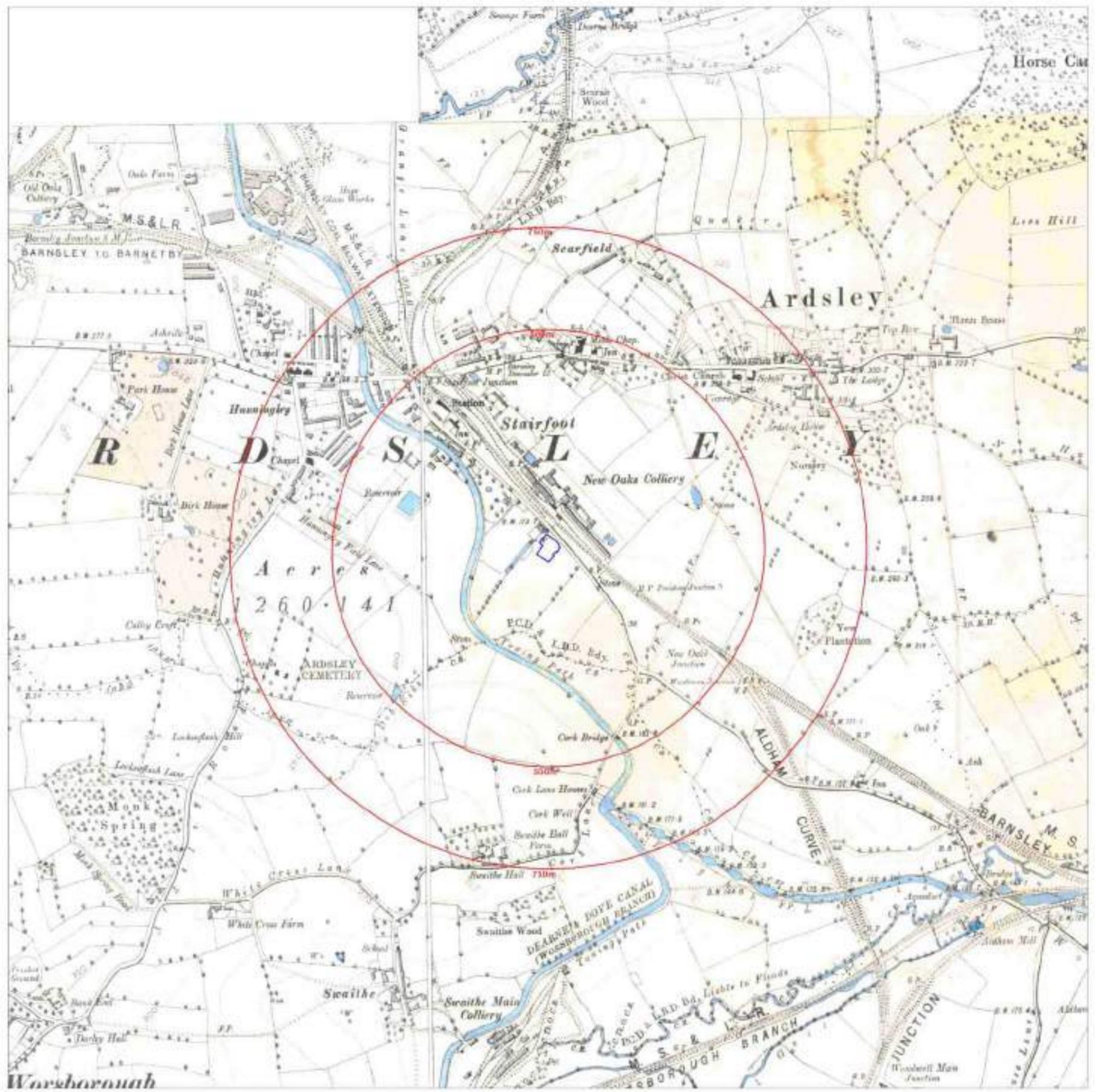
Produced by  
 Groundsure Insights  
 T: 08444 159000  
 E: [info@groundsure.com](mailto:info@groundsure.com)  
 W: [www.groundsure.com](http://www.groundsure.com)

© Crown copyright and database rights 2024 Ordnance Survey 100035207

Production date: 10 June 2024

Map legend available at:  
[www.groundsure.com/sites/default/files/groundsure\\_legend.pdf](http://www.groundsure.com/sites/default/files/groundsure_legend.pdf)





**Site Details:**

TESCO STORES LTD, TESCO SUPERMARKET, WOMBWELL LANE, STAIRFOOT, BARNSELY, S70 3NS

Client Ref: GO3181  
 Report Ref: GS-5XP-XNA-ZIR-K1H  
 Grid Ref: 437595, 405199

Map Name: County Series  
 Map date: 1890-1894  
 Scale: 1:10,560  
 Printed at: 1:10,560



Surveyed 1890 Revised N/A Edition 1894 Copyright N/A Levelled N/A		Surveyed 1890 Revised 1890 Edition 1890 Copyright N/A Levelled N/A
---	--	--



Produced by Groundsure Insights  
 T: 08444 159000  
 E: [info@groundsure.com](mailto:info@groundsure.com)  
 W: [www.groundsure.com](http://www.groundsure.com)

© Crown copyright and database rights 2024 Ordnance Survey 100035207

Production date: 10 June 2024

Map legend available at:  
[www.groundsure.com/sites/default/files/groundsure\\_legend.pdf](http://www.groundsure.com/sites/default/files/groundsure_legend.pdf)

**Site Details:**

TESCO STORES LTD, TESCO SUPERMARKET, WOMBWELL LANE, STAIRFOOT, BARNSELY, S70 3NS

**Client Ref:** GO3181  
**Report Ref:** GS-5XP-XNA-ZIR-K1H  
**Grid Ref:** 437595, 405199

**Map Name:** County Series

**Map date:** 1904

**Scale:** 1:10,560

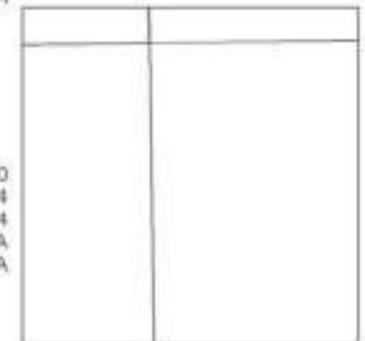
**Printed at:** 1:10,560



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

Surveyed 1890  
 Revised 1904  
 Edition 1904  
 Copyright N/A  
 Levelled N/A

Surveyed 1890  
 Revised 1904  
 Edition 1904  
 Copyright N/A  
 Levelled N/A

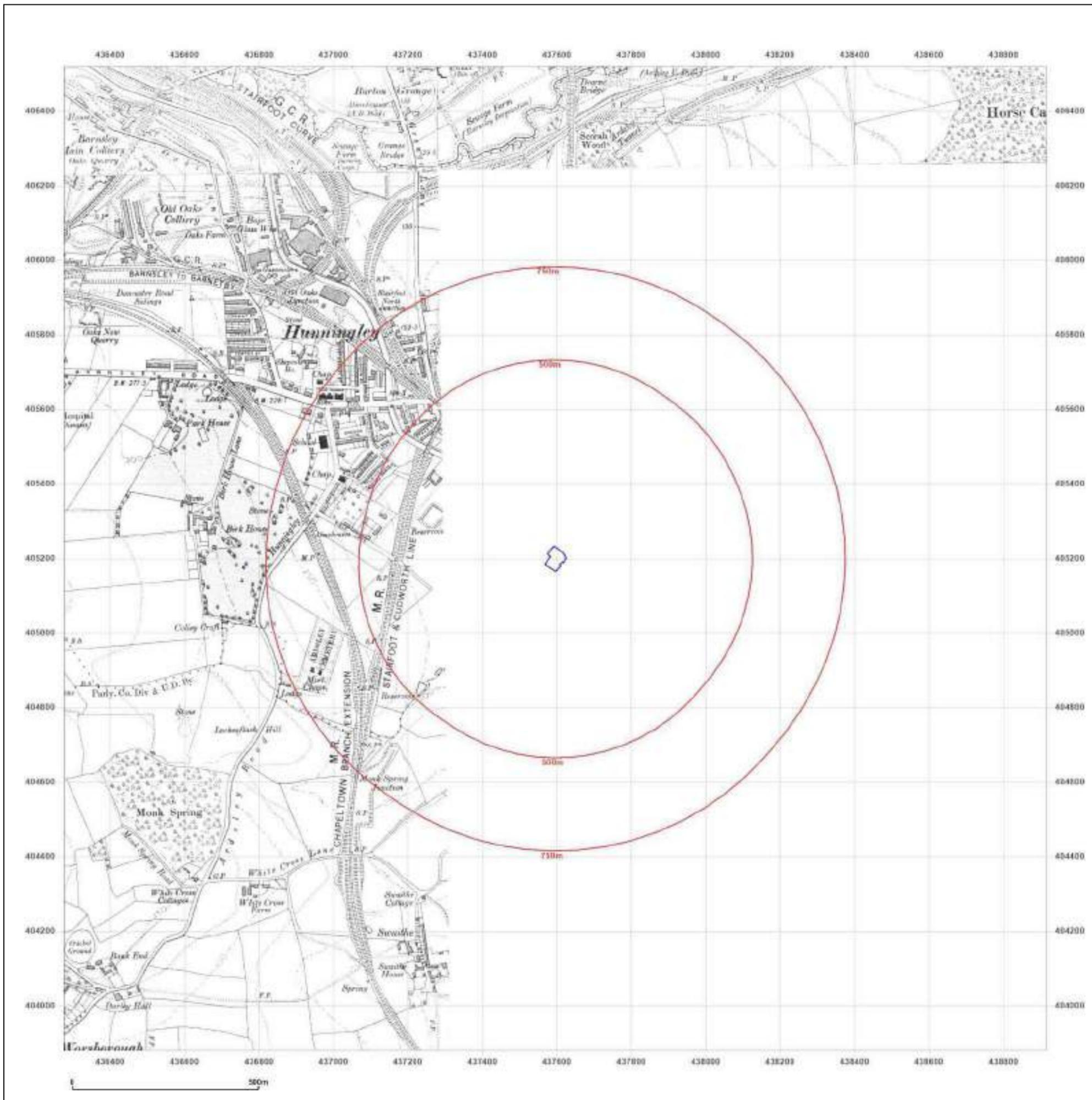


Produced by  
 Groundsure Insights  
 T: 08444 159000  
 E: [info@groundsure.com](mailto:info@groundsure.com)  
 W: [www.groundsure.com](http://www.groundsure.com)

© Crown copyright and database rights 2024 Ordnance Survey 100035207

Production date: 10 June 2024

Map legend available at:  
[www.groundsure.com/sites/default/files/groundsure\\_legend.pdf](http://www.groundsure.com/sites/default/files/groundsure_legend.pdf)



**Site Details:**

TESCO STORES LTD, TESCO SUPERMARKET, WOMBWELL LANE, STAIRFOOT, BARNSELY, S70 3NS

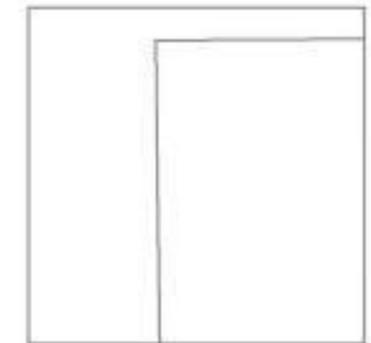
**Client Ref:** GO3181  
**Report Ref:** GS-5XP-XNA-ZIR-K1H  
**Grid Ref:** 437595, 405199

**Map Name:** County Series

**Map date:** 1904

**Scale:** 1:10,560

**Printed at:** 1:10,560



Surveyed 1890  
 Revised 1904  
 Edition 1904  
 Copyright N/A  
 Levelled N/A

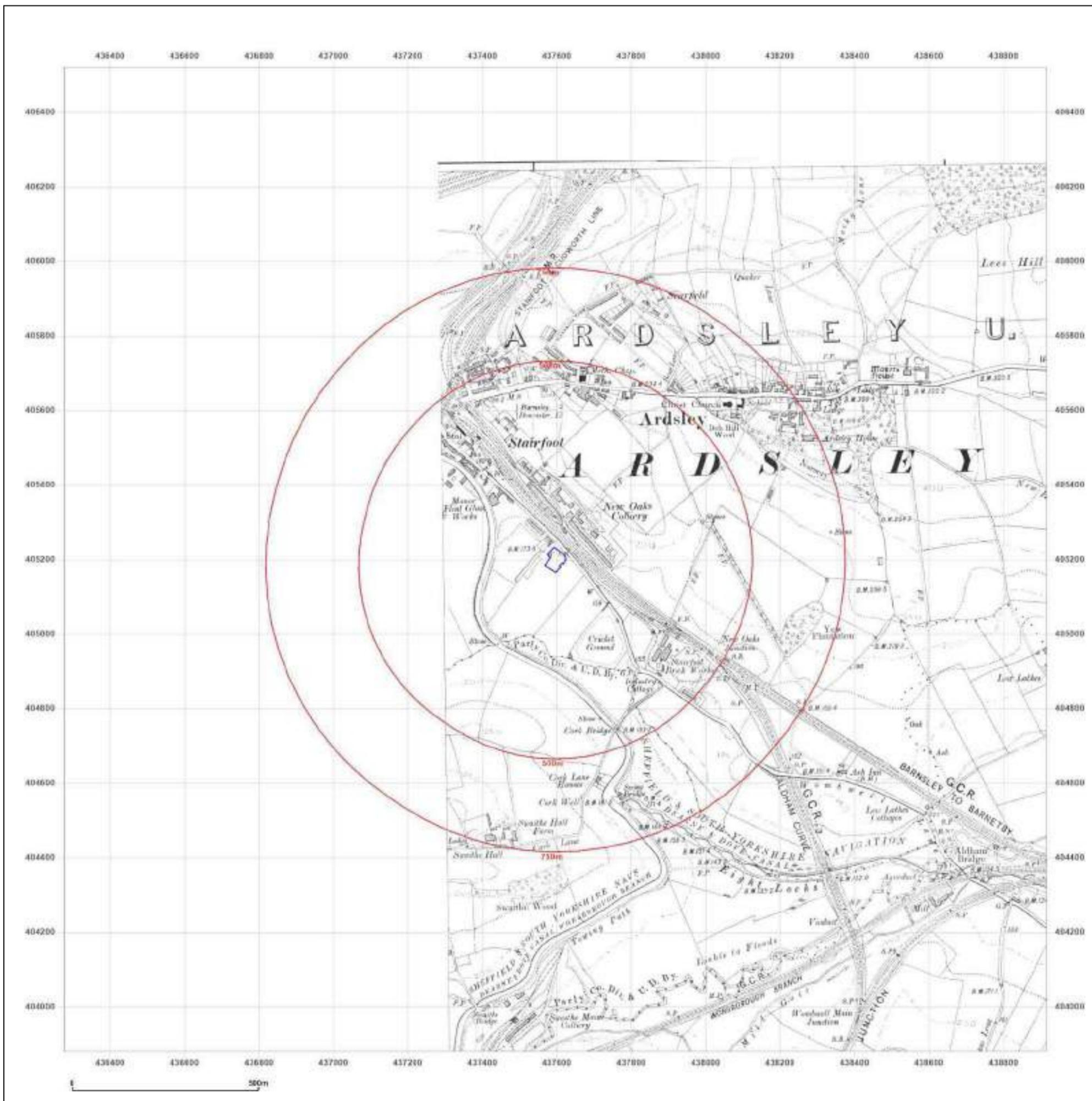


Produced by  
 Groundsure Insights  
 T: 08444 159000  
 E: [info@groundsure.com](mailto:info@groundsure.com)  
 W: [www.groundsure.com](http://www.groundsure.com)

© Crown copyright and database rights 2024 Ordnance Survey 100035207

Production date: 10 June 2024

Map legend available at:  
[www.groundsure.com/sites/default/files/groundsure\\_legend.pdf](http://www.groundsure.com/sites/default/files/groundsure_legend.pdf)



**Site Details:**

TESCO STORES LTD, TESCO SUPERMARKET, WOMBWELL LANE, STAIRFOOT, BARNSELY, S70 3NS

**Client Ref:** GO3181  
**Report Ref:** GS-5XP-XNA-ZIR-K1H  
**Grid Ref:** 437595, 405199

**Map Name:** County Series

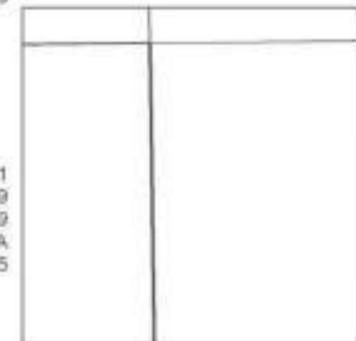
**Map date:** 1929-1931

**Scale:** 1:10,560

**Printed at:** 1:10,560



Surveyed 1851  
 Revised 1929  
 Edition 1929  
 Copyright N/A  
 Levelled 1915



Surveyed 1851  
 Revised 1929  
 Edition 1929  
 Copyright N/A  
 Levelled 1915

Surveyed 1851  
 Revised 1929  
 Edition 1931  
 Copyright N/A  
 Levelled N/A

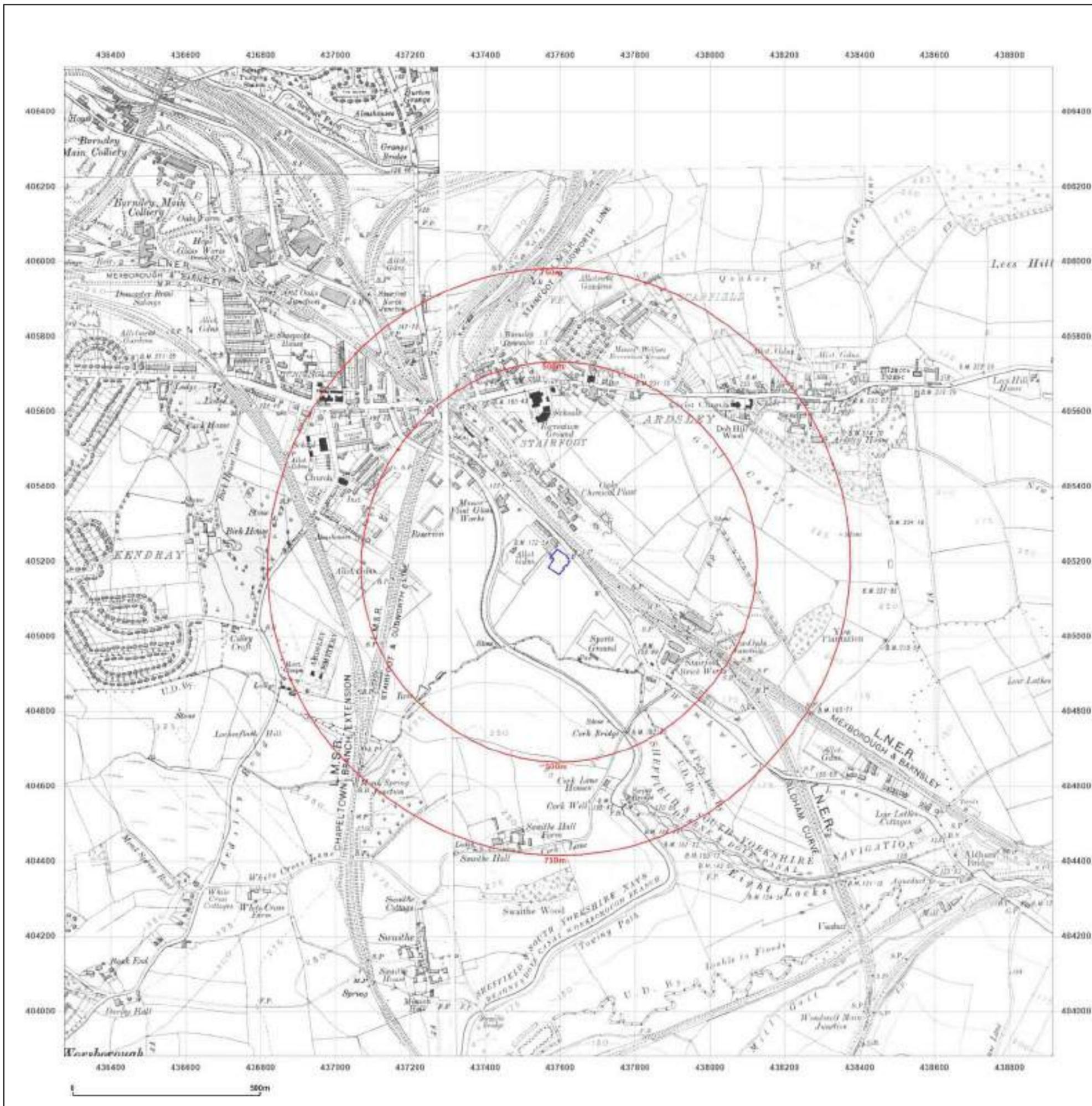


Produced by  
 Groundsure Insights  
 T: 08444 159000  
 E: [info@groundsure.com](mailto:info@groundsure.com)  
 W: [www.groundsure.com](http://www.groundsure.com)

© Crown copyright and database rights 2024 Ordnance Survey 100035207

Production date: 10 June 2024

Map legend available at:  
[www.groundsure.com/sites/default/files/groundsure\\_legend.pdf](http://www.groundsure.com/sites/default/files/groundsure_legend.pdf)



**Site Details:**

TESCO STORES LTD, TESCO SUPERMARKET, WOMBWELL LANE, STAIRFOOT, BARNSELY, S70 3NS

**Client Ref:** GO3181  
**Report Ref:** GS-5XP-XNA-ZIR-K1H  
**Grid Ref:** 437595, 405199

**Map Name:** County Series

**Map date:** 1938

**Scale:** 1:10,560

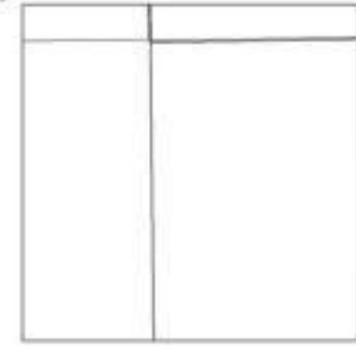
**Printed at:** 1:10,560



Surveyed 1851  
 Revised 1938  
 Edition 1938  
 Copyright N/A  
 Levelled 1929

Surveyed 1851  
 Revised 1938  
 Edition 1938  
 Copyright N/A  
 Levelled N/A

Surveyed 1851  
 Revised 1938  
 Edition 1938  
 Copyright N/A  
 Levelled N/A

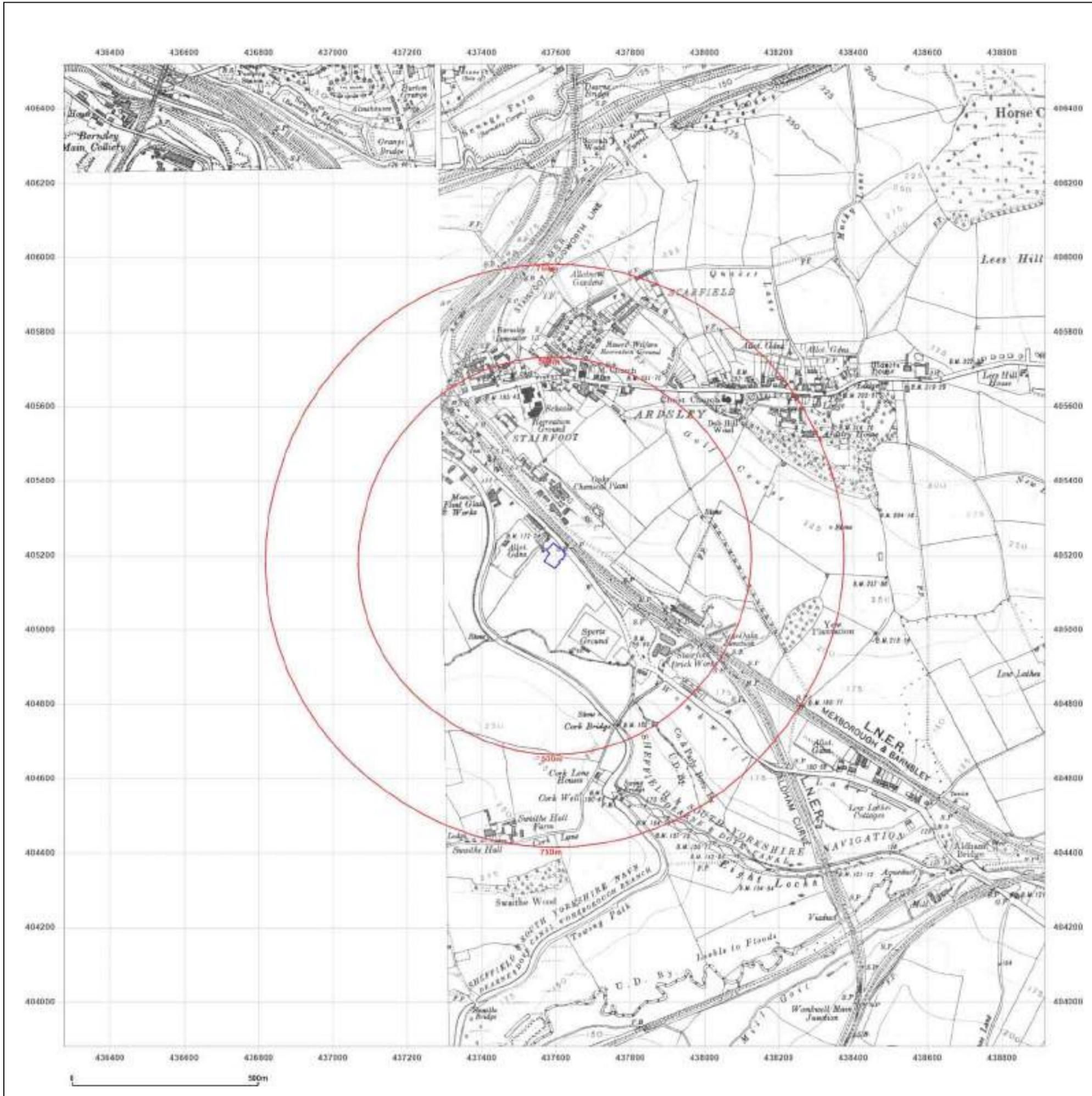


Produced by  
 Groundsure Insights  
 T: 08444 159000  
 E: [info@groundsure.com](mailto:info@groundsure.com)  
 W: [www.groundsure.com](http://www.groundsure.com)

© Crown copyright and database rights 2024 Ordnance Survey 100035207

Production date: 10 June 2024

Map legend available at:  
[www.groundsure.com/sites/default/files/groundsure\\_legend.pdf](http://www.groundsure.com/sites/default/files/groundsure_legend.pdf)



**Site Details:**

TESCO STORES LTD, TESCO SUPERMARKET, WOMBWELL LANE, STAIRFOOT, BARNSELY, S70 3NS

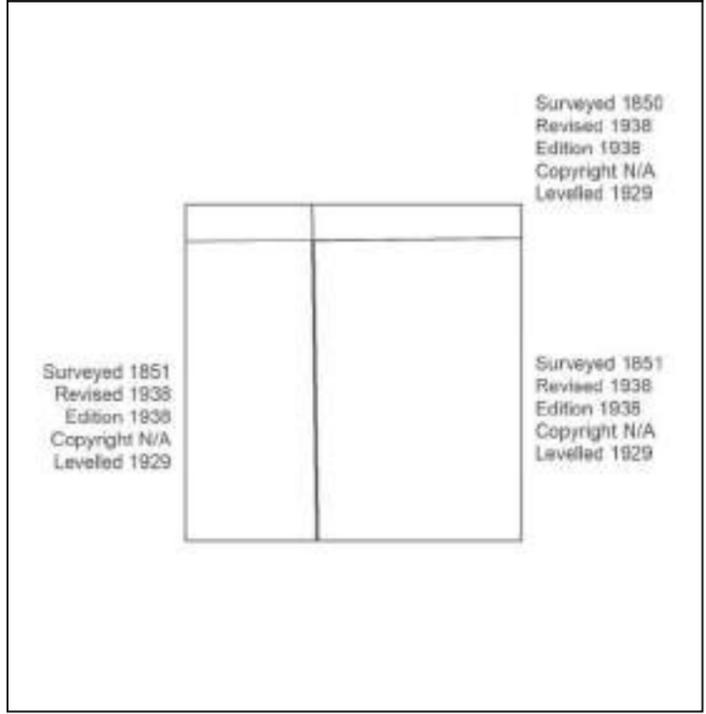
**Client Ref:** GO3181  
**Report Ref:** GS-5XP-XNA-ZIR-K1H  
**Grid Ref:** 437595, 405199

**Map Name:** County Series

**Map date:** 1938

**Scale:** 1:10,560

**Printed at:** 1:10,560

Surveyed 1850  
Revised 1938  
Edition 1938  
Copyright N/A  
Levelled 1929

Surveyed 1851  
Revised 1938  
Edition 1938  
Copyright N/A  
Levelled 1929

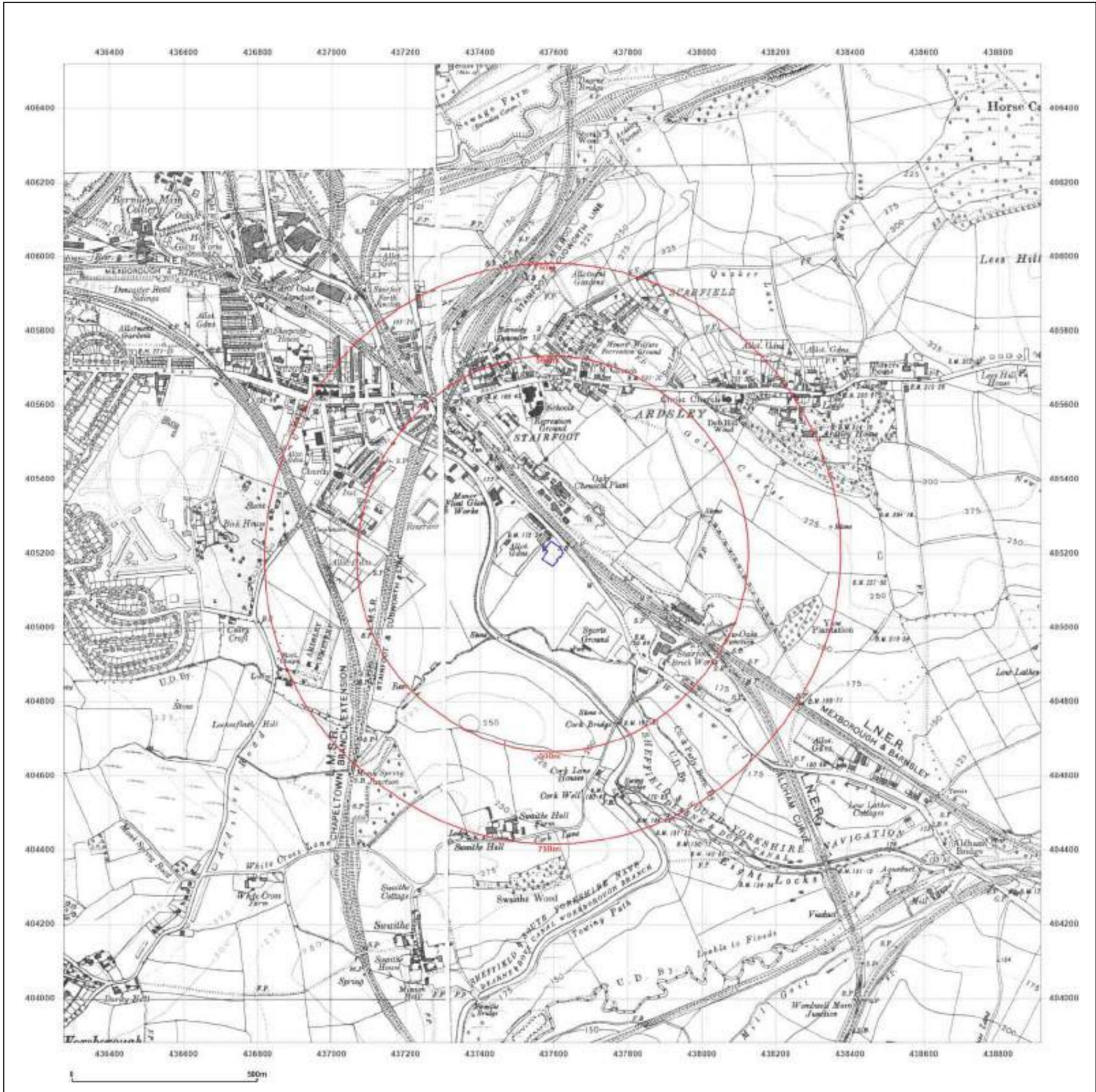


Produced by  
Groundsure Insights  
T: 08444 159000  
E: [info@groundsure.com](mailto:info@groundsure.com)  
W: [www.groundsure.com](http://www.groundsure.com)

© Crown copyright and database rights 2024 Ordnance Survey 100035207

Production date: 10 June 2024

Map legend available at:  
[www.groundsure.com/sites/default/files/groundsure\\_legend.pdf](http://www.groundsure.com/sites/default/files/groundsure_legend.pdf)



**Site Details:**

TESCO STORES LTD, TESCO SUPERMARKET, WOMBWELL LANE, STAIRFOOT, BARNSELY, S70 3NS

**Client Ref:** GO3181  
**Report Ref:** GS-5XP-XNA-ZIR-K1H  
**Grid Ref:** 437595, 405199

**Map Name:** County Series

**Map date:** 1948

**Scale:** 1:10,560

**Printed at:** 1:10,560



Surveyed 1851  
 Revised 1948  
 Edition 1948  
 Copyright N/A  
 Levelled 1929

Surveyed 1851  
 Revised 1948  
 Edition 1948  
 Copyright N/A  
 Levelled 1929

Surveyed 1851  
 Revised 1948  
 Edition 1948  
 Copyright N/A  
 Levelled 1929

Surveyed 1851  
 Revised 1948  
 Edition 1948  
 Copyright N/A  
 Levelled 1929



Produced by  
 Groundsure Insights  
 T: 08444 159000  
 E: [info@groundsure.com](mailto:info@groundsure.com)  
 W: [www.groundsure.com](http://www.groundsure.com)

© Crown copyright and database rights 2024 Ordnance Survey 100035207

Production date: 10 June 2024

Map legend available at:  
[www.groundsure.com/sites/default/files/groundsure\\_legend.pdf](http://www.groundsure.com/sites/default/files/groundsure_legend.pdf)



**Site Details:**

TESCO STORES LTD, TESCO SUPERMARKET, WOMBWELL LANE, STAIRFOOT, BARNSELY, S70 3NS

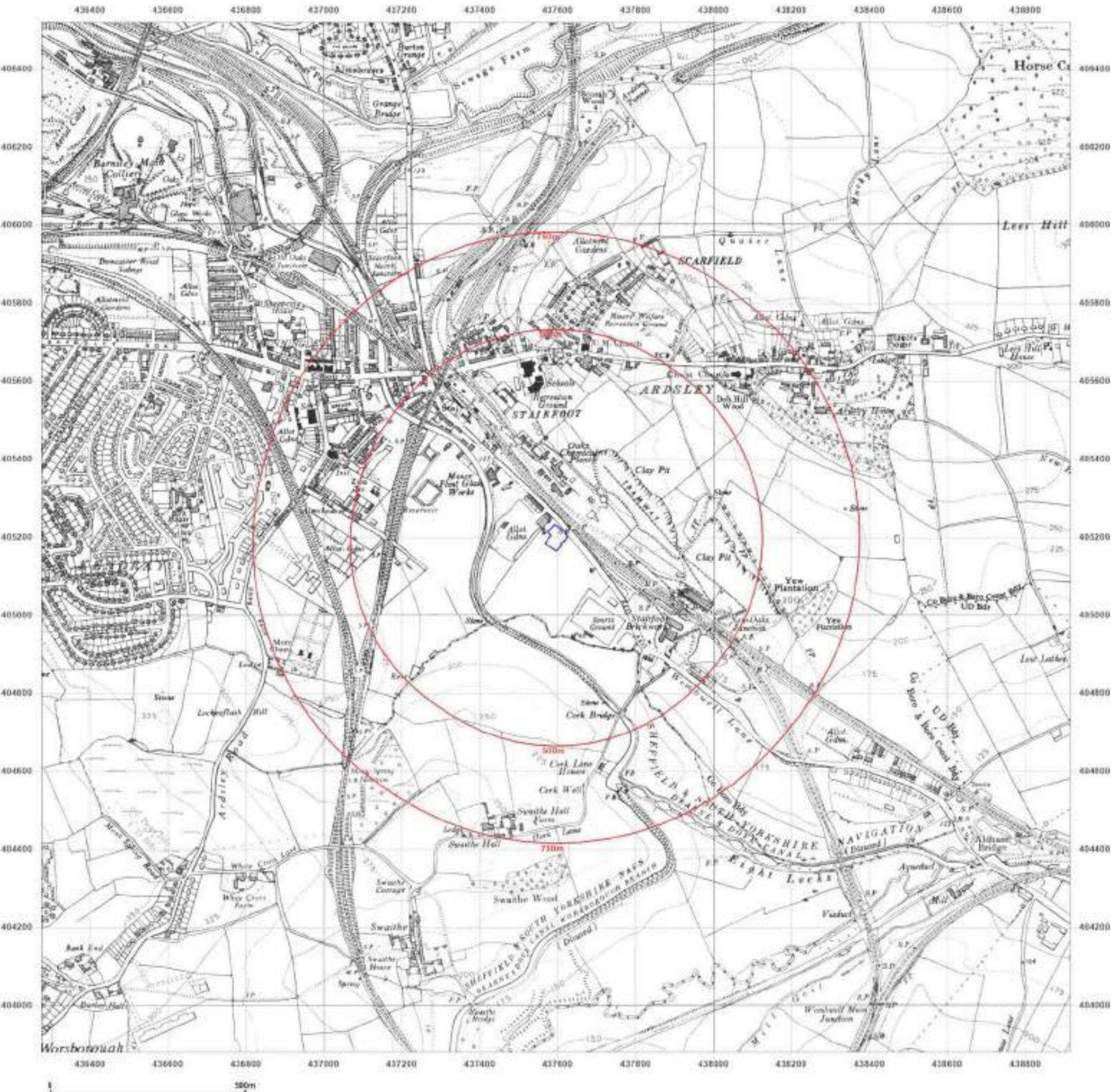
**Client Ref:** GO3181  
**Report Ref:** GS-5XP-XNA-ZIR-K1H  
**Grid Ref:** 437595, 405199

**Map Name:** Provisional

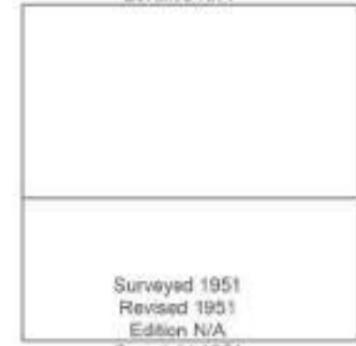
**Map date:** 1951-1955

**Scale:** 1:10,560

**Printed at:** 1:10,560



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



Surveyed 1951  
 Revised 1951  
 Edition N/A  
 Copyright 1951  
 Levelled N/A



Produced by Groundsure Insights  
 T: 08444 159000  
 E: [info@groundsure.com](mailto:info@groundsure.com)  
 W: [www.groundsure.com](http://www.groundsure.com)

© Crown copyright and database rights 2024 Ordnance Survey 100035207

Production date: 10 June 2024

Map legend available at: [www.groundsure.com/sites/default/files/groundsure\\_legend.pdf](http://www.groundsure.com/sites/default/files/groundsure_legend.pdf)

**Site Details:**

TESCO STORES LTD, TESCO  
 SUPERMARKET, WOMBWELL  
 LANE, STAIRFOOT, BARNSELY,  
 S70 3NS

**Client Ref:** GO3181  
**Report Ref:** GS-5XP-XNA-ZIR-K1H  
**Grid Ref:** 437595, 405199

**Map Name:** Provisional

**Map date:** 1966

**Scale:** 1:10,560

**Printed at:** 1:10,560



Surveyed 1966  
 Revised 1966  
 Edition N/A  
 Copyright 1966  
 Levelled N/A

Surveyed 1966  
 Revised 1966  
 Edition N/A  
 Copyright 1966  
 Levelled N/A

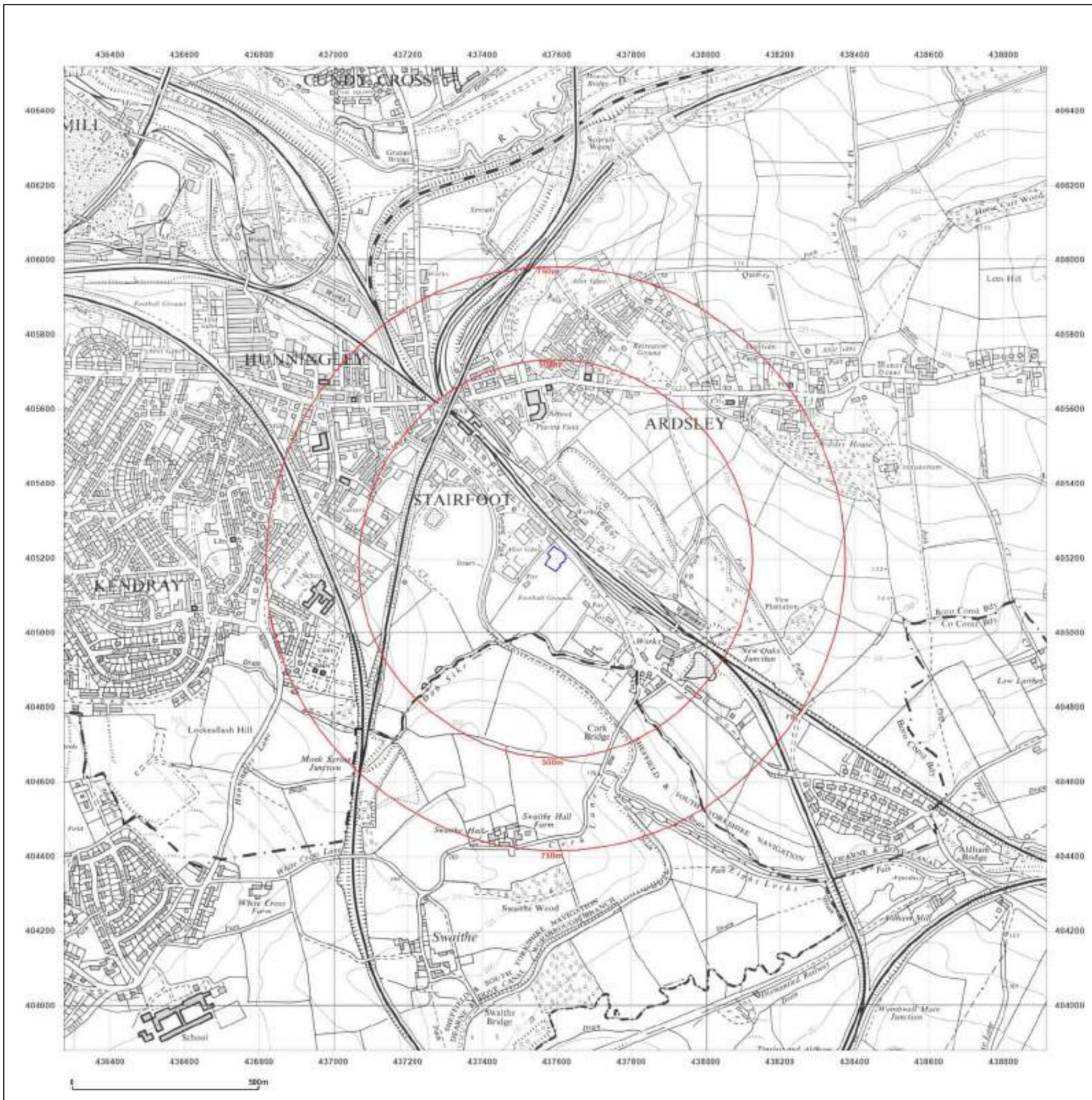


Produced by  
 Groundsure Insights  
 T: 08444 159000  
 E: [info@groundsure.com](mailto:info@groundsure.com)  
 W: [www.groundsure.com](http://www.groundsure.com)

© Crown copyright and database rights 2024 Ordnance Survey 100035207

Production date: 10 June 2024

Map legend available at:  
[www.groundsure.com/sites/default/files/groundsure\\_legend.pdf](http://www.groundsure.com/sites/default/files/groundsure_legend.pdf)



**Site Details:**

TESCO STORES LTD, TESCO  
 SUPERMARKET, WOMBWELL  
 LANE, STAIRFOOT, BARNSELY,  
 S70 3NS

**Client Ref:** GO3181  
**Report Ref:** GS-5XP-XNA-ZIR-K1H  
**Grid Ref:** 437595, 405199

**Map Name:** National Grid

**Map date:** 1974-1977

**Scale:** 1:10,000

**Printed at:** 1:10,000



Surveyed 1974  
 Revised 1974  
 Edition N/A  
 Copyright 1975  
 Levelled 1978

Surveyed 1976  
 Revised 1977  
 Edition N/A  
 Copyright 1978  
 Levelled 1978

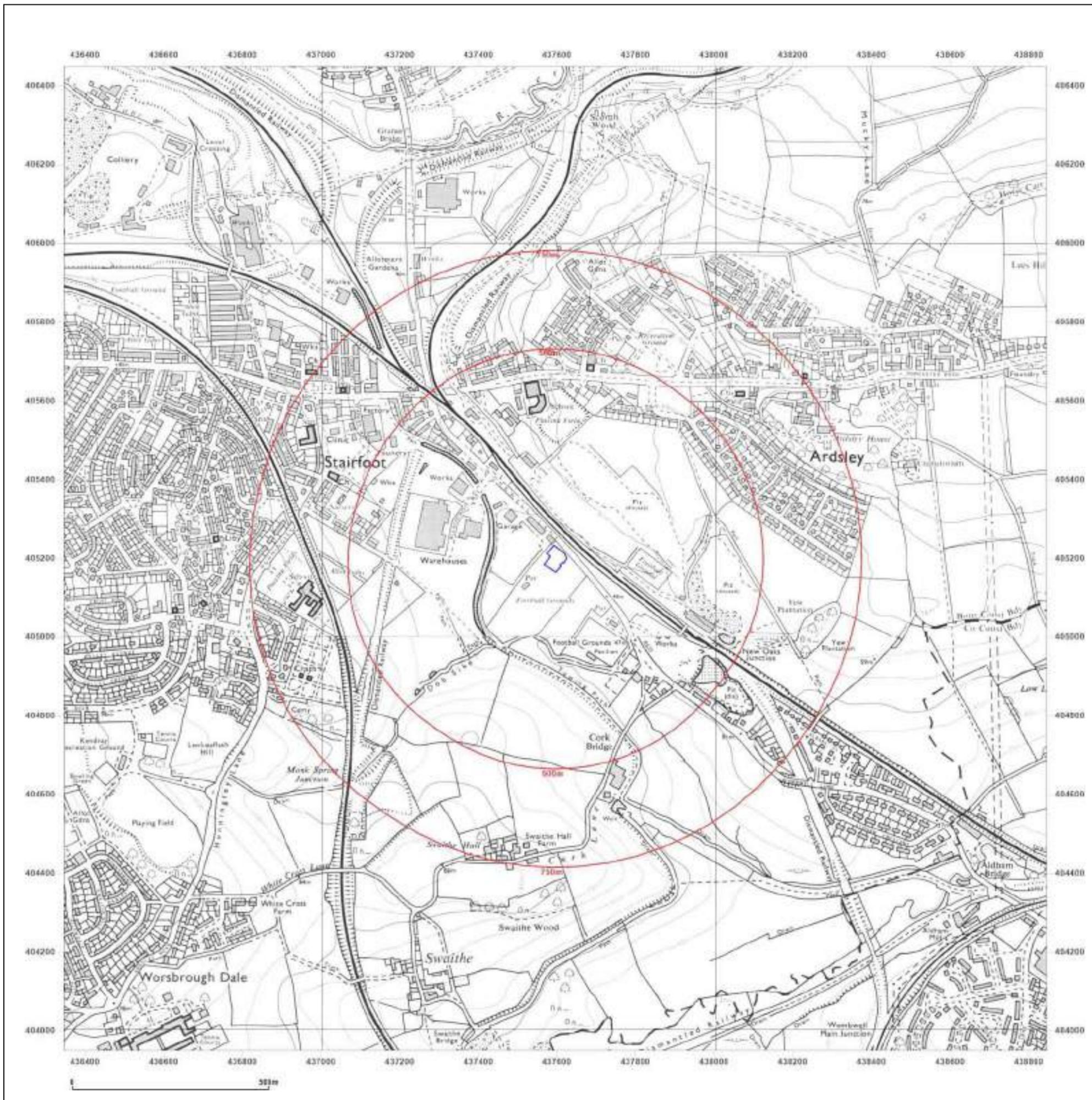


Produced by  
 Groundsure Insights  
 T: 08444 159000  
 E: [info@groundsure.com](mailto:info@groundsure.com)  
 W: [www.groundsure.com](http://www.groundsure.com)

© Crown copyright and database rights 2024 Ordnance Survey 100035207

Production date: 10 June 2024

Map legend available at:  
[www.groundsure.com/sites/default/files/groundsure\\_legend.pdf](http://www.groundsure.com/sites/default/files/groundsure_legend.pdf)



**Site Details:**  
 TESCO STORES LTD, TESCO SUPERMARKET, WOMBWELL LANE, STAIRFOOT, BARNSELY, S70 3NS

**Client Ref:** GO3181  
**Report Ref:** GS-5XP-XNA-ZIR-K1H  
**Grid Ref:** 437595, 405199

**Map Name:** National Grid  
**Map date:** 1982-1987  
**Scale:** 1:10,000  
**Printed at:** 1:10,000



Surveyed 1981  
 Revised 1982  
 Edition N/A  
 Copyright 1983  
 Levelled 1978

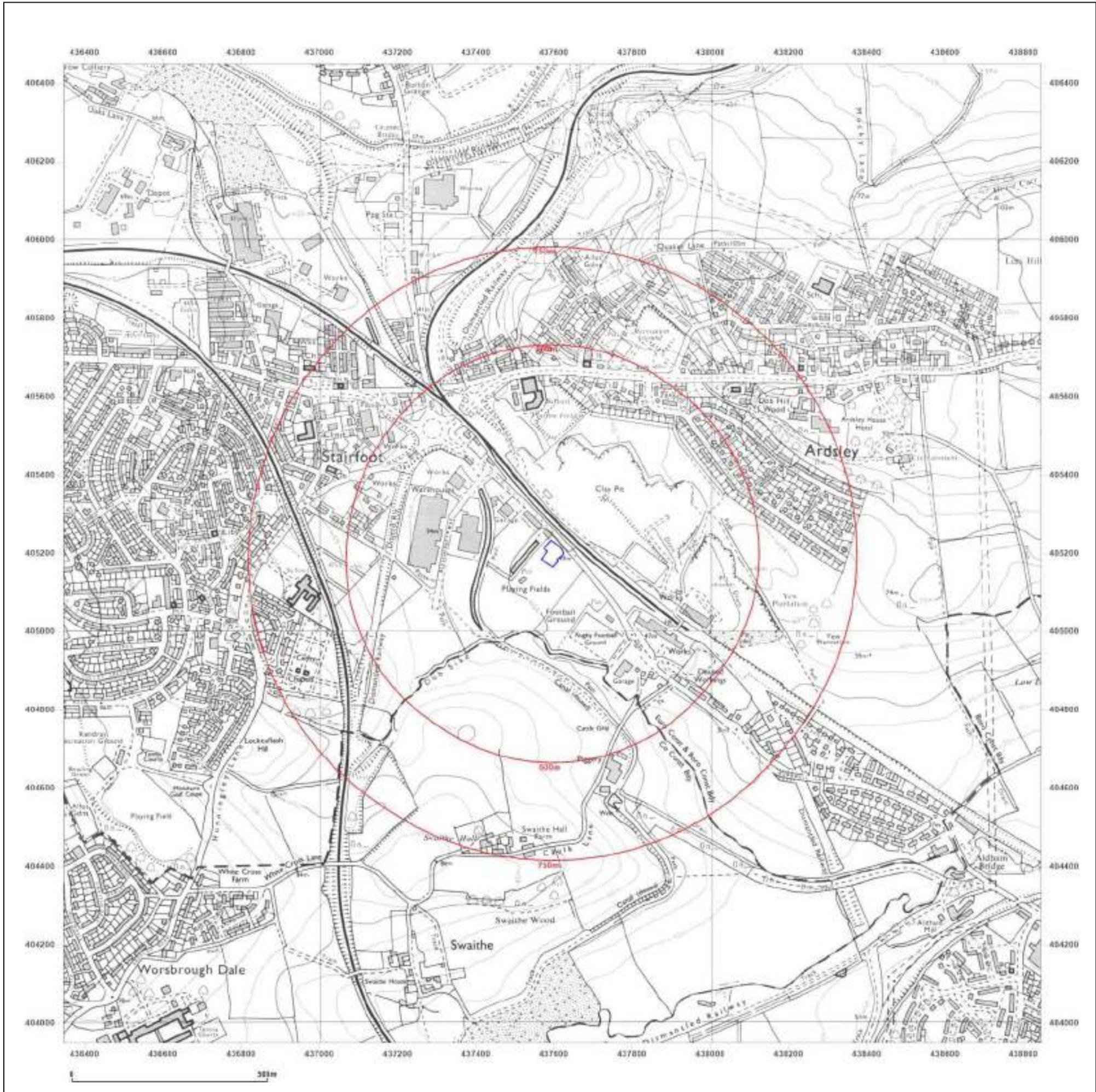
Surveyed 1988  
 Revised 1987  
 Edition N/A  
 Copyright 1988  
 Levelled 1978

**Powered by**  Produced by Groundsure Insights  
 T: 08444 159000  
 E: [info@groundsure.com](mailto:info@groundsure.com)  
 W: [www.groundsure.com](http://www.groundsure.com)

© Crown copyright and database rights 2024 Ordnance Survey 100035207

Production date: 10 June 2024

Map legend available at:  
[www.groundsure.com/sites/default/files/groundsure\\_legend.pdf](http://www.groundsure.com/sites/default/files/groundsure_legend.pdf)



**Site Details:**

TESCO STORES LTD, TESCO SUPERMARKET, WOMBWELL LANE, STAIRFOOT, BARNSELY, S70 3NS

**Client Ref:** GO3181  
**Report Ref:** GS-5XP-XNA-ZIR-K1H  
**Grid Ref:** 437595, 405199

**Map Name:** National Grid

**Map date:** 1987-1992

**Scale:** 1:10,000

**Printed at:** 1:10,000



Surveyed 1981  
 Revised 1992  
 Edition N/A  
 Copyright 1993  
 Levelled 1978

Surveyed 1988  
 Revised 1987  
 Edition N/A  
 Copyright 1988  
 Levelled 1978

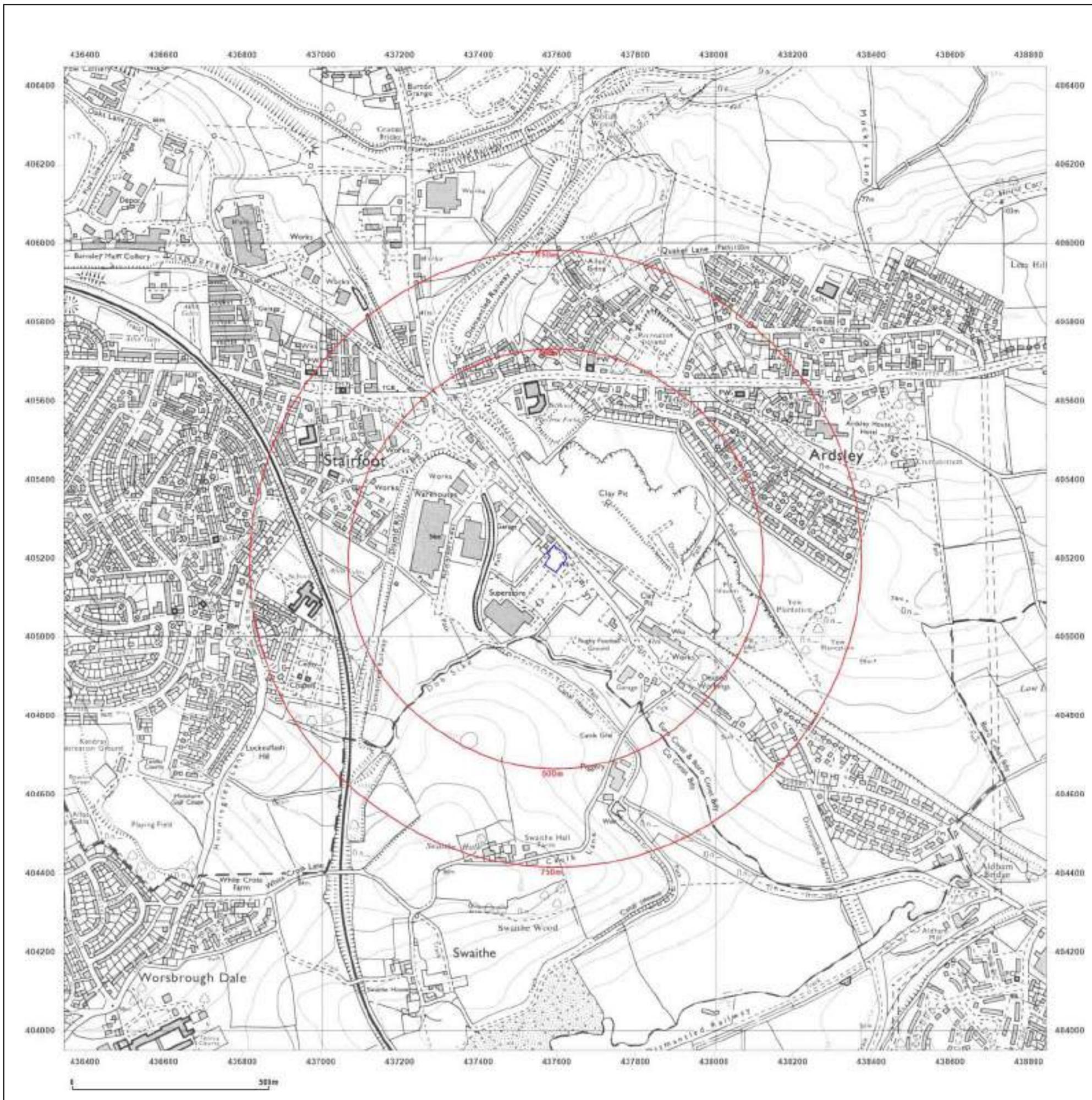


Produced by  
 Groundsure Insights  
 T: 08444 159000  
 E: [info@groundsure.com](mailto:info@groundsure.com)  
 W: [www.groundsure.com](http://www.groundsure.com)

© Crown copyright and database rights 2024 Ordnance Survey 100035207

Production date: 10 June 2024

Map legend available at:  
[www.groundsure.com/sites/default/files/groundsure\\_legend.pdf](http://www.groundsure.com/sites/default/files/groundsure_legend.pdf)

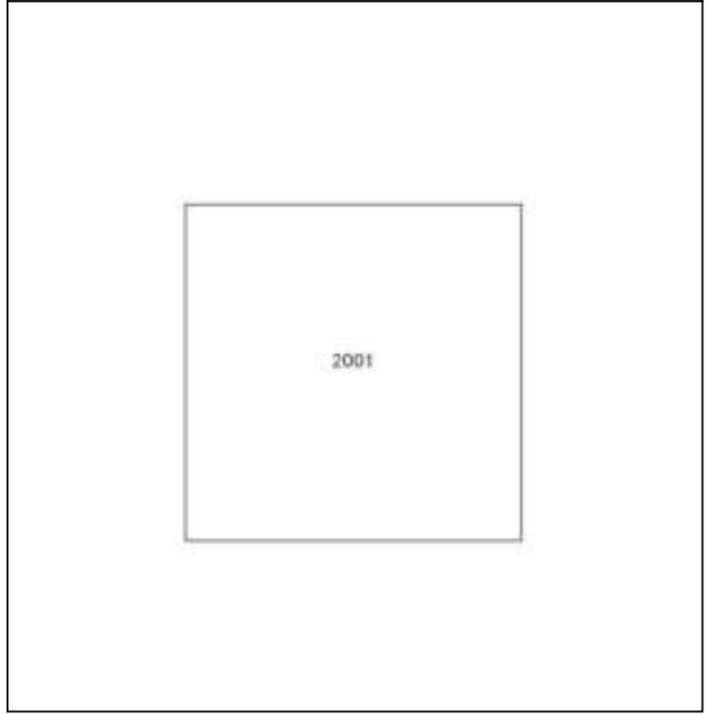


**Site Details:**

TESCO STORES LTD, TESCO SUPERMARKET, WOMBWELL LANE, STAIRFOOT, BARNSELY, S70 3NS

**Client Ref:** GO3181  
**Report Ref:** GS-5XP-XNA-ZIR-K1H  
**Grid Ref:** 437595, 405199

**Map Name:** National Grid  
**Map date:** 2001  
**Scale:** 1:10,000  
**Printed at:** 1:10,000



**Powered by**

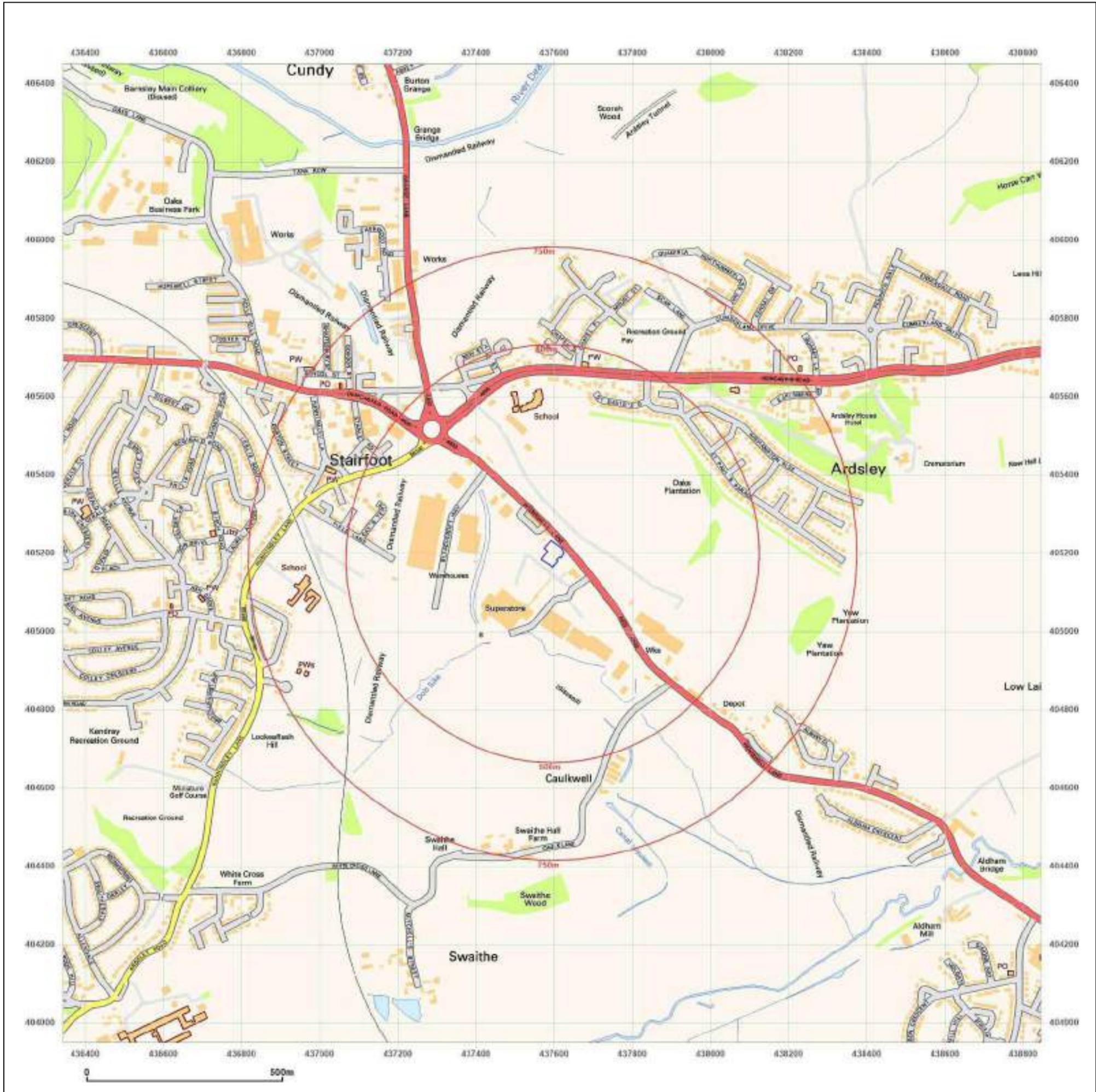


Produced by  
 Groundsure Insights  
 T: 08444 159000  
 E: [info@groundsure.com](mailto:info@groundsure.com)  
 W: [www.groundsure.com](http://www.groundsure.com)

© Crown copyright and database rights 2024 Ordnance Survey 100035207

Production date: 10 June 2024

Map legend available at:  
[www.groundsure.com/sites/default/files/groundsure\\_legend.pdf](http://www.groundsure.com/sites/default/files/groundsure_legend.pdf)



**Site Details:**

TESCO STORES LTD, TESCO SUPERMARKET, WOMBWELL LANE, STAIRFOOT, BARNSELY, S70 3NS

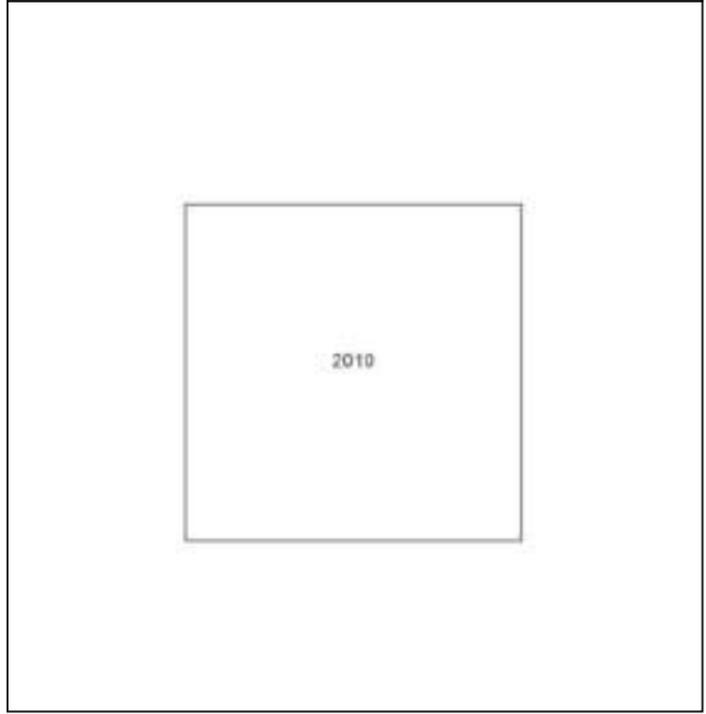
**Client Ref:** GO3181  
**Report Ref:** GS-5XP-XNA-ZIR-K1H  
**Grid Ref:** 437595, 405199

**Map Name:** National Grid

**Map date:** 2010

**Scale:** 1:10,000

**Printed at:** 1:10,000

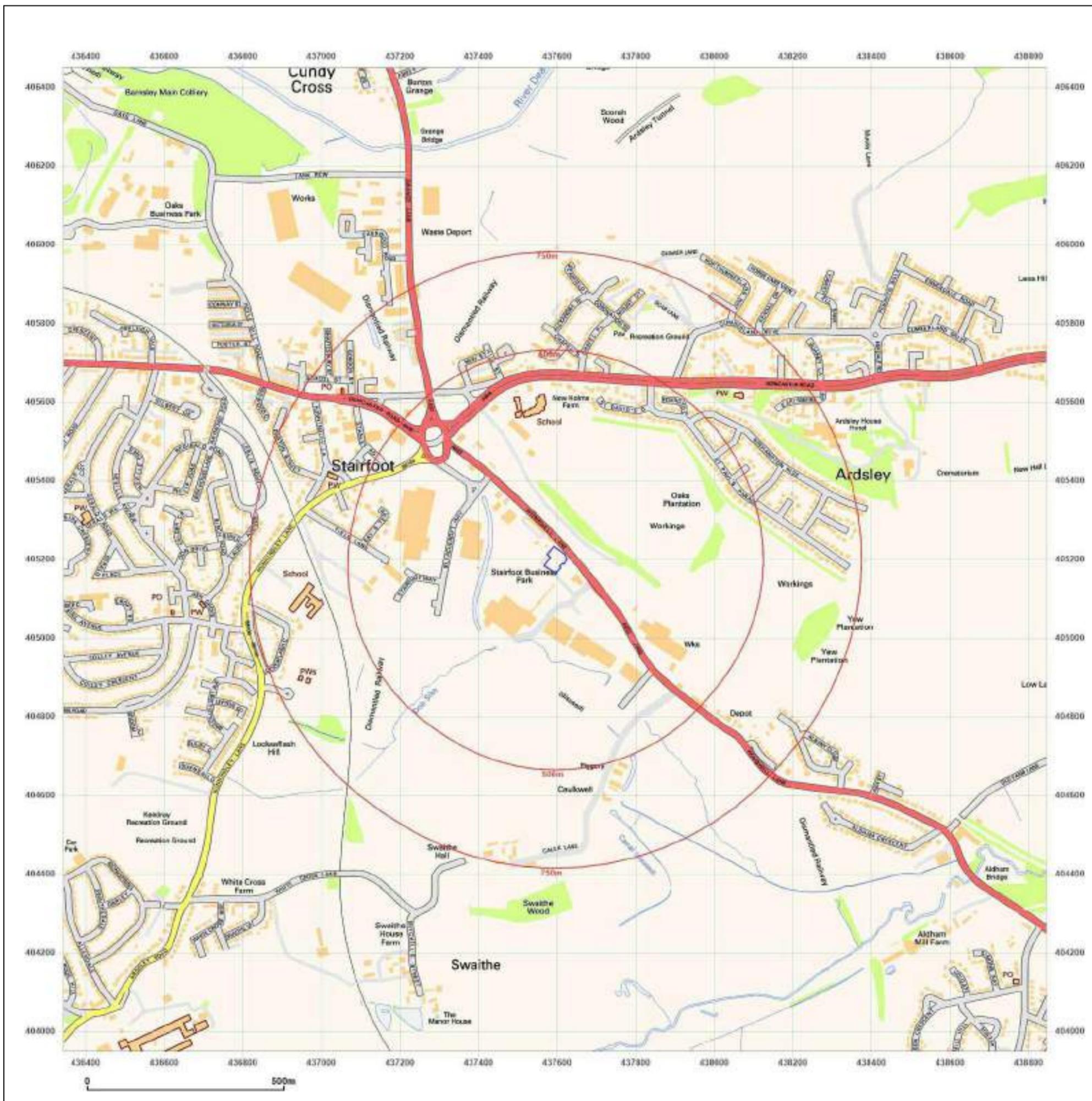


Produced by Groundsure Insights  
 T: 08444 159000  
 E: [info@groundsure.com](mailto:info@groundsure.com)  
 W: [www.groundsure.com](http://www.groundsure.com)

© Crown copyright and database rights 2024 Ordnance Survey 100035207

Production date: 10 June 2024

Map legend available at: [www.groundsure.com/sites/default/files/groundsure\\_legend.pdf](http://www.groundsure.com/sites/default/files/groundsure_legend.pdf)







# JNP GROUP

CONSULTING ENGINEERS

## **Amersham (HQ)**

Sycamore House  
1 Woodside Road  
Amersham  
Buckinghamshire  
HP6 6AA

### **telephone**

01494 771221

### **more info**

[www.jnpgroup.co.uk/contact](http://www.jnpgroup.co.uk/contact)

## **Hartlepool**

The Innovation Centre  
Venture Court  
Queens Meadow Business Park  
Hartlepool  
TS25 5TG

### **telephone**

01479 830711

### **more info**

[www.jnpgroup.co.uk/contact](http://www.jnpgroup.co.uk/contact)

## **Brighouse**

Woodvale House  
Woodvale Road  
Brighouse  
West Yorkshire  
HD6 4AB

### **telephone**

01484 406691

### **more info**

[www.jnpgroup.co.uk/contact](http://www.jnpgroup.co.uk/contact)

## **Sheffield**

MBP2 Meadowhall Business Park  
Carbrook Hall Road  
Sheffield  
South Yorkshire  
S9 2EQ

### **telephone**

0114 244 3500

### **more info**

[www.jnpgroup.co.uk/contact](http://www.jnpgroup.co.uk/contact)

## **Bristol**

Whitefriars,  
Lewins Mead,  
Bristol

BS1 2NT

### **telephone**

01174 721205

### **more info**

[www.jnpgroup.co.uk/contact](http://www.jnpgroup.co.uk/contact)

## **Warwick**

Portobello House  
Portobello Way  
Warwick  
Warwickshire  
CV34 5GJ

### **telephone**

01926 889955

### **more info**

[www.jnpgroup.co.uk/contact](http://www.jnpgroup.co.uk/contact)

## **Glasgow**

Clydesdale House  
300 Springhill Parkway  
Glasgow Business Park  
Barrieston, Glasgow  
G67 6GA

### **telephone**

0141 378 0808

### **more info**

[www.jnpgroup.co.uk/contact](http://www.jnpgroup.co.uk/contact)