



INVESTIGATE



REMEDiate



REGENERATE



DESK STUDY WITH WALKOVER SURVEY

**AT
BROOKES STREET,
MIDDLETON,
ROCHDALE,
MANCHESTER,
M24 2WL**

**PREPARED FOR
KWICK BUILD (SEDBERGH) LIMITED**

**REPORT NO. 7763
JULY 2023**

SUB SURFACE NORTH WEST LIMITED

3 Peel Street
Preston
Lancashire
PR2 2QS

Tel: (01772) 561135 Fax: (01772) 204907

Email: preston@subsurface.co.uk

Website: www.subsurface.co.uk



CONTENTS

EXECUTIVE SUMMARY

1. INTRODUCTION

- 1.1 Site Location and Description
- 1.2 Proposed Development and Purpose of the Desk Study
- 1.3 Walkover Survey

2. DESK STUDY

- 2.1 Historical Appraisal
- 2.2 Geological Appraisal
- 2.3 Mining, Radon, Soil Chemistry and Railway Infrastructure Appraisal
- 2.4 Environmental Appraisal
- 2.5 Conceptual Ground Model
- 2.6 General

APPENDICES

Preliminary Risk Rating Guidance
Photographs
Enviro+Geo Insight Report
LKC Coal Mining Risk Assessment Report
Small Scale Survey Plans
Large Scale Survey Plans
Figures

EXECUTIVE SUMMARY

This executive summary is a brief summary only and should be read in conjunction with the full report.

Section	Subject	Summary	
Site Details	Site Address	Brookes Street, Middleton, Rochdale, Manchester, M24 2WL	
	Grid Reference	E387719m, N406598m	
	Current Land Use	Dilapidated flag works building.	
	Proposed Development	Eighteen semi-detached two-storey houses, and four apartments with associated parking and garden areas, and an access road.	
Site History	On Site	In the earliest survey (1848) the site was undeveloped fields. By 1890 Brookes Street has been developed in the north west of the site, a large reservoir has been excavated in the centre of the site (infilled by 1954) and two buildings have been constructed in the west of the site which are subsequently partially demolished/ ruined by 1954 and completely demolished by 1990. By 1915 Pheonix Works has been constructed in the north east which is initially a bleach works and changes to a soap and chemical mills by 1954, with the footprint of the building expanding by 1990, then becoming dilapidated between 2020 and 2021. Tanks are added in the south west by 1915. A chimney is added in the west by 1928 and removed by 1954. An electricity substation is added adjacent to the main works building on site by 2001.	
	Beyond Site Boundary	In the earliest survey (1848) the site is bounded to the north by Boarshaw Lane and on all other sides by undeveloped fields. By 1890 Boarshaw cotton mill and a row of residential houses No.'s 2-12 Brookes Street have been constructed bounding the site to the west. By 1928 residential properties even No.'s 118-132 Boarshaw Road, and even No.'s 8-24 Grove Road have been constructed bounding to the north and east of the site boundary respectively. By 1954 No.'s 23 and 25 Jubilee Terrace have been constructed bounding the site to the south. By 1990 the residential properties bounding the site to the west on Brookes Street have been demolished and replaced with the Cotton Tree Inn public house and a depot. Over the course of the survey there are mills, works, spoil heaps, an old shaft, chimneys, reservoirs, a sand pit, tanks allotment gardens, and electricity substations within 250m of the site.	
Geological and Mining Appraisal	Made Ground	Infilled Ground present on site to an unknown depth.	
	Superficial Geology	Glaciofluvial Sheet Deposits - sand and gravel.	
	Bedrock Geology	Pennine Lower Coal Measures Formation - mudstone, siltstone & sandstone.	
	Radon	No Radon protection measures are required.	
	Mining	Possible unrecorded shallow coal mineworkings beneath site. See appended LKC desk based coal mining risk assessment report Ref. LKC 22 1410.	
	Subsidence Hazards	Negligible to very low risk.	
Environmental Appraisal	Landfill Sites	There are five unregistered landfills within 250m of the site including four reservoirs and a sand pit infilled with unknown material. That which poses the highest risk to site is a reservoir on site infilled by 1954. Ground gas monitoring would be required and remedial measures may be needed.	
	Hydrogeology	Superficial – Secondary A aquifer	Medium Vulnerability
		Bedrock – Secondary A aquifer	
	Hydrology	The site is within the catchment of the Irk (Source to Wince Brook), situated 70m north west. The nearest watercourse is the Whit Brook 65m north west.	
	Flood Risk	Flood Zone 1 – Negligible risk: consequently a Flood Risk Assessment is unlikely to be required.	
Industrial Land Uses	The potentially contaminative industrial land uses within 250m of the site boundary which pose the most significant risk are a bleach works, an unspecified pit, an unspecified mill, an unspecified works, unspecified tanks, an electricity substation, a chimney, allotment gardens, unspecified ground works, dye works, an unspecified heap, an industrial estate, cotton spinning mills, a sand pit, and a refuse heap.		

7763 – Brookes Street, Middleton

EXECUTIVE SUMMARY (Cont'd)

Section	Subject	Summary
Environmental Appraisal	Other Relevant Details	Walkover survey identified poorly stored/ littered drums and containers of leachable contaminants on site.
Recommendations		An intrusive ground investigation is required to assess the ground conditions and to obtain soil and water samples for contamination analysis. In addition the conceptual ground model indicates that ground and mine gases might be present as a result of deep Made Ground on site in the position of the infilled reservoir and the potential for shallow mine workings hence gas standpipes should be installed and monitored over an extended period of time to allow for an assessment to be made. As recommended in the desk based coal mining risk assessment Ref. LKC 22 1410 conducted by LKC in July 2022, a rotary borehole investigation with mine gas monitoring will be required followed by a ground stability assessment in order to determine whether remedial measures are required for the proposed development.
Other Considerations (for Warranty Providers, Building Control, Structural Engineers, Developers, etc.)		Listed below are various items that are likely to be required at some point during the development and it would be cost effective to have them carried out simultaneously. This is not an exhaustive list. • Boreholes and laboratory testing to assess the ground conditions for foundation design. • BRE Digest 365 Soakaway Tests. • Waste Classification and WAC testing for removal of waste to landfill. • CBR Testing for road design and construction. • Water Pipeline Risk Assessment.

**DESK STUDY WITH WALKOVER SURVEY FOR BROOKES STREET,
MIDDLETON, ROCHDALE, MANCHESTER, M24 2WL**

CLIENT: KWICK BUILD (SEDBERGH) LIMITED

1. INTRODUCTION

This report has been prepared in accordance with an email, dated 27th June 2023, from the Client.

The brief was set out in our estimate, ref. E6458 dated 26th May 2023, and comprises a walkover survey and a desk study report including a historical, geological, mining and environmental appraisal together with a conceptual ground model.

LKC have previously undertaken a coal mining risk assessment for this site ref. LKC 22 1410 and dated July 2022, a copy of which is appended to the report.

1.1 Site Location and Description

The site is located on Brookes Street, Middleton, Rochdale, Manchester, M24 2WL, as indicated on Figure 1. The approximate National Grid Reference of the centre of the site is E387719m, N406598m.

As shown on Figure 2, the about 0.54 hectare almost square shaped site is bounded to the north by Boarshaw Road and even No's 118-132 Boarshaw Road, to the east by even No's 8-24 Grove Road, to the south by No.'s 23 and 25 Jubilee Terrace and an area of landscaped ground off Lynway Grove, and to the west by the Cotton Tree Inn public house and a carwash within Boarshaw Trading Estate. The site is currently occupied by a derelict works building in the north east.

1.2 Proposed Development and Purpose of the Desk Study

We understand that it is proposed to demolish the existing building on site and to construct eighteen semi-detached two-storey houses, and four apartments with associated parking and garden areas, and an access road, as shown on Figure 3.

The purpose of the desk study is to obtain information regarding the sites historical, geological and environmental setting in order to produce a conceptual ground model, to assess the ground conditions, to undertake a preliminary assessment of contamination sources, pathways and receptors relating to potential hazards that exist or will potentially exist on the site and to assess the need for ground investigation.

1.3 Walkover Survey

The walkover survey was undertaken on 29th June 2023. Surface features observed were recorded on a plan of the site together with the positions and directions of photographs taken. The resulting Walkover Survey Plan and site photographs are appended.

On the day of the walkover survey the site could be accessed from Boarshaw Road to the north (see Figure 2).

The site appears generally flat with a slight slope upwards from north west to south east. The site boundaries are marked to the north and west by a metal fence and row of trees and bushes (photographs 1,2,4), to the south by a row of large coniferous trees and a wire mesh fence (photograph 24), and to the east by a metal fence (photograph 25).

The entrance to the site along Brookes Street is concrete surfaced, overgrown and littered (photograph 1). Beyond the end of Brookes Street the concrete surfacing widens into an area of hardstanding containing flag poles and mounted cameras (photographs 2,3,4,5,7,8,20,22). This area contains piles of waste material including gas canisters and a rusted drum of surfactant (photographs 3,4,5,6,21). There is an area of raised concrete adjacent to the works building (photographs 8,20,28) and a manhole cover was observed within this area (photograph 20).

No other hard surfacing was observed within the site however many areas were too overgrown with weeds, brambles, bushes and trees to observe the ground surface. (photographs 5,22,23,24,25,26,27).

In the north east corner of the site is situated a large dilapidated concrete breeze-block construction building, previously a flag works (photographs 3,7,22,25,28). Portions of the roof, doors and windows are missing in several places. Pieces of furniture, building materials, and general waste litter the inside of the building and in many places vegetation was observed to be growing (photographs 9,10,11,12,13,14,15,16,17). A rusted drum of resin and bottles of integral liquid waterproofer, sealants and adhesive as well as other unidentified liquids (photographs 18,19). Evidence of staining from resin was noted in the eastern area of the building.

There is a small overgrown breezeblock out-building probably an old tank in the south west of the site (photograph 24).

There is a telegraph pole with overhead cables at the edge of the access road (Brookes Street) in the north of the site (photograph 1).

Potential sources of contamination were noted during the walkover survey. These include the general littered waste material across the surface of the site and inside the building (photographs 1,3, 15), and poorly stored/ littered bottles and drums containing resins, surfactants, adhesives, waterproofer and sealants (photographs 6,18,19,21). Other sources of contamination may be present which were not observed due to the site being heavily littered and overgrown.

Due to the site being overgrown we recommend that close attention is paid to the possible presence of Japanese Knotweed.

2. DESK STUDY

2.1 Historical Appraisal

The past history of the site has been interpreted from the study of old Ordnance Survey plans supplied by GroundSure, as follows:

TABLE 1 SMALL SCALE SURVEYS TABLE 2 LARGE SCALE SURVEYS

Date	Survey	Scale	Date	Survey	Scale
1848	CS	1:10,560	1851	CS	1:1,056
1890-1891	CS	1:10,560	1893	CS	1:2,500
1907-1909	CS	1:10,560	1909	CS	1:2,500
1915	CS	1:10,560	1922	CS	1:2,500
1923	CS	1:10,560	1932	CS	1:2,500
1928-1932	CS	1:10,560	1954	OS	1:1,250
1938	CS	1:10,560	1955	OS	1:1,250
1955	OS	1:10,560	1955	OS	1:2,500
1965	OS	1:10,560	1960	OS	1:1,250
1975	OS	1:10,000	1967-1970*	OS	1:1,250
1982	OS	1:10,000	1975*	OS	1:1,250
2001	OS	1:10,000	1978-1982*	OS	1:1,250
2010	OS	1:10,000	1990-1992	OS	1:1,250
2023	OS	1:10,000	1992	OS	1:1,250
			1992-1993	OS	1:1,250
			1993	OS	1:1,250
			1993*	OS	1:1,250
			1994*	OS	1:1,250
			1994*	OS	1:1,250
			1995*	OS	1:1,250
			1995*	OS	1:1,250
			2003	OS	1:1,250

CS = County Survey, OS = Ordnance Survey, * Site not covered by the survey.
Extracts of the above surveys are appended.

TABLE 3 HISTORICAL APPRAISAL

Date	On site	Beyond site boundary
1848-1851	The site is undeveloped fields.	The site is bounded to the north by Boarshaw Lane (possibly a tram road), and on all other sides by undeveloped fields. Boarshaw Clough Dye Works are situated around 30m north west of the site. Two reservoirs are present 130m and 160m north of the site. The Whit Brook trends north to south around 65m west of the site.

TABLE 3 (Cont'd) HISTORICAL APPRAISAL

Date	On site	Beyond site boundary
1890-1893	A large reservoir has been excavated in the centre of the site. Two buildings have been constructed on site, possibly associated with Boarshaw cotton mill to the west.	Boarshaw cotton mill and a row of residential houses No.'s 2-12 Brookes Street have been constructed bounding the site to the west. Boarshaw Clough Dye Works 30m north west of site is now Boarshaw Bleach Works. Three reservoirs have been added 195m north, 215m north east, and 250m south east of the site boundary respectively. A small river trends north east to south west leading from the reservoir around 250m south east of the site boundary. An old shaft is indicated to be present 200m south of the site. Two spoil heaps have been added 175m south east and 215m north east of the site boundary respectively.
1907-1909	The access road in the north west of the site has been named Brookes Street.	Four chimneys have been added 65m west, 125m north, 185m north east, and 200m south east of the site respectively. The old shaft 200m south of the site has been lost from the survey and Cromer Mill has been constructed 165m south of the site boundary.
1915-1923	Pheonix Bleach Works has been constructed in the north east of the site. Tanks have been added in the south west of the site.	A tank has been added 125m north west of the site boundary. A sand pit has been excavated 215m north east of the site boundary. The reservoir 215m north east has been infilled/ lost from the survey.

TABLE 3 (Cont'd) HISTORICAL APPRAISAL

Date	On site	Beyond site boundary
1928-1932	A chimney has been added in the west of the site.	Residential properties even No.'s 118-132 Boarshaw Road, and even No.'s 8-24 Grove Road have been constructed north and east of the site boundary respectively. Tanks have been added 75m west, 130m north, and 160m north of the site boundary respectively. The spoil heaps 175m south east and 215m north east of the site boundary have been lost from the survey. The sand pit 215m north east of the site has been infilled. The river from the reservoir 250m south east of the site has been diverted and is no longer within 250m of the site.
1938	No significant changes to site.	No significant changes to 250m.
1954-1955	Pheonix Bleach Works is now a soap and chemicals mill for a building in the west of the site has been partially demolished and part left in ruin with an adjacent spoil heap. The chimney on site is no longer shown. The reservoir in the centre of the site has been infilled/ lost from the survey.	No.'s 23 and 25 Jubilee Terrace have been constructed bounding the site to the south. Three spoil heaps have been added 80m west, 60m north and 145m north of the site boundary. Three electricity substations have been constructed 80m east, 100m north east and 100m north of the site respectively. Cromer Mill has been expanded and is now Cromer cotton spinning ring mill situated 120m south of the site. Allotment gardens have been added 80m north west of the site.
1960-1965	No significant changes to site.	The reservoir 160m north of the site has been infilled/ lost from the survey.
1975	No significant changes to site.	No significant changes to 250m.
1982	No significant changes to site.	Cromer Ring Mill has been replaced by Cromer Industrial Estate.

Date	On site	Beyond site boundary
1990-1992	The works building in the north east of the site has been expanded. Most buildings in the west of the site have been demolished with one small building (possibly relating to the tanks on site) left in the south west. The spoil heap in the west of the site has been lost from the survey.	The residential properties bounding the site to the west have been demolished and replaced with the Cotton Tree Inn public house and a depot. An electricity substation has been constructed 50m west of the site. The works 30m north of the site is now an industrial estate.
2001-2003	An electricity substation has been added on site adjacent to the works building.	The reservoir 130m north of the site has been infilled/ lost from the survey.
2010	No significant changes to site.	The industrial estate 30m north of the site has been removed and replaced with residential properties on Boarshaw Clough.
2023	No significant changes to site.	No significant changes to 250m.

The small scale plans from 2010-2023 contain insufficient detail for review. However, aerial photographs indicate the works on site becomes dilapidated between 2020 and 2021. We are not aware of any other significant changes within the site and its immediate surrounding area.

2.2 Geological Appraisal

This following appraisal is based upon the appended Groundsure Enviro+Geo Insight Report (Sections 14 to 17).

2.2.1 Artificial Ground (Made Ground)

Made Ground, described as Infilled Ground, is indicated to be present within the site, the depth of which is unknown.

2.2.2 Superficial Geology (Drift Deposits)

Drift deposits, described as Glaciofluvial Sheet Deposits and composed of sand and gravel, are indicated to be present within the site, the depth of which is unknown. The maximum permeability of these deposits is indicated to be very high and the minimum permeability as high.

In addition, drift deposits, described as Alluvium and composed of clay silt, sand and gravel, are indicated to be about 61 metres to the north west of the site boundary, the depth of which is unknown.

2.2.3 Bedrock Geology

Within the site the bedrock underlying the site is indicated to be the Carboniferous Pennine Lower Coal Measures Formation composed of mudstone, siltstone and sandstone with an outcropping of sandstone indicated in the south east. The maximum permeability of the bedrock is indicated to be high and the minimum permeability as low.

A coal seam is inferred to be present about 27 metres to the south west. The dip and direction of dip of the rock strata, including the coal seam, is unknown. Given the location of the coal seam in relation to the site boundary there is a possibility that it underlies the site at relatively shallow depth

The rock strata within the site are indicated to be displaced by a geological fault.

Rock strata are also indicated to be displaced by geological faults about 92 metres and 124 metres to the north east.

2.2.4 Potential Hazards in Natural Ground

The hazard rating for shrinking/ swelling clays is negligible to very low, running sands is very low, compressible deposits/ strata is negligible, collapsible deposits/ strata is very low, landslides is very low and dissolution of soluble rocks is negligible.

2.3 **Mining, Radon, Soil Chemistry and Railway Infrastructure Appraisal**

This following appraisal is based upon the appended Groundsure Enviro+Geo Insight Report (Sections 18 to 21).

2.3.1 Mining and Ground Workings

The British Geological Surveys "BritPits" database contains details of currently active and closed surface and underground mineral workings. There are two records of BritPits within 500 metres of the site boundary, the nearest being Brook Hill Sand Pit about 377 metres to the south west of the site boundary.

Ordnance Survey mapping identifies surface excavations which may, or may not, have been subsequently backfilled with unknown material. The Ordnance Survey indicates that there are sixty historical surface excavations within 250 metres of the site boundary, the nearest being an unspecified pit and a reservoir on site.

The boundaries of permitted, withdrawn and refused mineral planning permissions for England and Wales, from the 1930 to the mid 1980s, are maintained by the British Geological Survey. There are two historical mineral planning areas within 500 metres of the site boundary, the nearest being Stanycliffe surface mineral working of sand and gravel about 205 metres to the north east.

The British Geological Survey maintain records of mining of minerals other than coal including vein minerals, chalk, oil shale, building stone, bedded ores, evaporites and other commodities, including ball clay, jet, black marble, graphite and chert. The British Geological Survey indicates that there is no potential for non-coal mining beneath the site or within 1,000 metres of the site boundary.

The Coal Authority, and others, indicate that there is a potential for coal mining beneath the site.

LKC have previously undertaken a desk based coal mining risk assessment for this site Ref. LKC 22 1410 and dated July 2022 which includes a Coal Authority Mining Report, ref. 51003183684001 and dated June 2022, and this is appended at the end of this report. We cannot accept any liability for the accuracy of this report and have not checked or assessed it.

The Coal Authority Mining Report only refers to records in the possession of the Coal Authority. It should be noted that it did not become a statutory requirement to maintain and preserve plans of abandoned mines until the Mines (Coal) Regulations Act of 1872, by which date much unrecorded mining had taken place and of those plans which were made it is likely that not all will have survived.

The report indicates that the site may be underlain by unrecorded shallow coal seams, which may have been mined in the past, and therefore recommends that rotary investigation and mine gas monitoring is undertaken within the site prior to development.

According to the report the site is not in an area affected by significant mining cavities, brine extraction, gypsum extraction, tin mining or clay mining.

2.3.2 Radon

The British Geological Survey and Public Health England have estimated the percentage of dwellings exceeding the “Radon Action Level” of 200 Becquerels/ m³ for the UK based on geological assessments and long term measurements of radon in more than 479,000 households.

The site is in a Radon Affected Area where between 1% and 3% of surrounding properties are above the Radon Action Level. Radon protection measures are not required.

2.3.3 Soil Chemistry

The British Geological Survey have estimated likely background concentrations of potentially harmful arsenic, cadmium, chromium, lead and nickel in the topsoil. Data for on-site topsoil is given. Data for the land within 50 metres of the site boundary is not given.

2.3.4 Railway Infrastructure

There are no active, inactive or historic underground or overground railways and no railway tunnels or tunnel features within 250 metres of the site boundary.

The site is not within 500 metres of Crossrail 1, Crossrail 2 or the High Speed 2 (HS2) rail project.

2.4 Environmental Appraisal

This following appraisal is based upon the appended Groundsure Enviro+Geo Insight Report (Sections 1 to 13).

2.4.1 Historical Industrial Land Use

Historical potentially contaminative industrial land uses are recorded by the Ordnance Survey. Within the site there are nine potentially contaminative industrial land uses identified including a bleach works, an unspecified pit, an unspecified mill, an unspecified works, unspecified tanks, and an electricity substation. In addition, within 250 metres of the site boundary, there are numerous potentially contaminative industrial land uses identified. Those that represent the most significant risk to the site are unspecified ground works, dye works, an unspecified heap, an industrial estate, cotton spinning mills, a sand pit, and a refuse heap and are indicated to be about 6 metres to the west, 37 metres to the north, 54 metres to the west, 119 metres to the south, 128 metres to the south east, 180 metres to the south east, and 1880 metres to the south east of the site boundary respectively.

2.4.2 Potentially Contaminated Land Associated with Historical Land Use

Our historical appraisal indicates potentially contaminative land uses which are not included in the above section. The identified potentially contaminative land uses are related to a chimney on site and allotments gardens 80 metres north west of the site.

2.4.3 Landfill

According to the Environment Agency there are no active or recently closed landfill sites within 250 metres of the site boundary.

The British Geological Survey undertook a survey for the Department of the Environment (DoE) of operational and closed landfill sites in 1973. The survey indicated that there were no landfill sites within 250 metres of the site boundary.

Local Authority records and detailed Ordnance Surveys indicate no landfill sites within 250 metres of the site boundary.

The Environment Agency has no records of known historical (closed) landfill sites, where there is no PPC permit or current waste management licence, within 250 metres of the site boundary.

Our historical appraisal has identified five potential unregistered landfills in the form of a sand pit and reservoirs infilled with unknown material, which may be a source of ground gas, within 250 metres of the site boundary. There is a reservoir shown on site between 1890 and 1954 and there is likely to be deep Made Ground on site. Despite the age of the landfill, its size and situation within the site presents a low to moderate risk of ground gas. In addition three reservoirs situated 130 metres north, 160 metres north and 215 metres north east of the site are infilled by 2001, 1960 and 1915 respectively and a sandpit situated 215 metres north east of the site is infilled by 1932. The infilled reservoir situated 130 metres north infilled by 2001 can be considered to present a low risk of ground gas to the site, however due to the small size and distance of the other infilled reservoirs and the sand pit we consider them to pose a negligible risk.

2.4.4 Waste

Local Authority records and detailed Ordnance Surveys indicate no waste sites within 250 metres of the site.

According to the Environment Agency there are no active or recently closed waste sites within 250 metres of the site boundary.

The Environment Agency has one record of an activity involving the storage, treatment, use or disposal of wastes that is exempt from needing a permit (within specific limits and conditions) within 250 metres of the site boundary, being a treating waste exemption for the sorting and de-naturing of controlled drugs for disposal at 221 Boarshaw Road about 43 metres to the north.

2.4.5 Current Industrial Land Use

Current potentially contaminative industrial land uses are recorded by the Ordnance Survey and Experian. Within the site there are two potentially contaminative industrial land uses being an electricity substation and a works. In addition, within 250 metres of the site boundary, there are eight potentially contaminative industrial land uses. Those that represent the most significant risk to the site are a telecommunications mast, Cromer Industrial Estate and Brulimar Optical Group photographic equipment and are indicated to be about 18 metres to the west, 191 metres to the south and 229 metres to the south of the site boundary respectively.

2.4.6 Sites Determined as Contaminated Land

There are no sites determined as contaminated under Section 78R of the Environmental Protection Act (1990) within 250 metres of the site boundary.

2.4.7 Control of Major Accident Hazards (COMAH)

Records of Control of Major Accident Hazards (COMAH), including Notification of Installations Handling Hazardous Substances (NIHHS) and other historical data, indicate that there are no dangerous or hazardous sites within 250 metres of the site boundary.

2.4.8 Regulated Explosives Sites

Up to April 2011 there were no sites within 250 metres of the site boundary registered and licensed by the Health and Safety Executive under the 2005 Manufacture and Storage of Explosives Regulations.

2.4.9 Hazardous Substance Storage and Usage

There are no Local Authority records of consents granted for sites to hold certain quantities of hazardous substances at or above defined limits in accordance with the 2015 Planning (Hazardous Substances) Regulations within 250 metres of the site boundary.

2.4.10 Historical Licenced Industrial Activities (IPC)

There are no historical Integrated Pollution Control (IPC) records of substances released to the air, land and water according to the Environment Agency within 250 metres of the site boundary.

2.4.11 Licenced Industrial Activities (Part 1(A))

The Environment Agency indicates that there are no records of Part 1(A) installations regulated under the 2016 Environmental Permitting (England and Wales) Regulations for release to the environment within 250 metres of the site boundary.

2.4.12 Part A(2) and Part B Authorisations

Local Authority records indicate there is one Part A(2) and Part B installation regulated under the 2016 Environmental Permitting (England and Wales) Regulations for the release of substances to the environment within 250 metres of the site boundary, being for rubber at Milliken Chemical Elastomers about 174 metres to the south.

2.4.13 Radioactive Substance Authorisations

The Environment Agency indicates that there are no records of storage, use, accumulation and disposal of radioactive substances regulated under the 1993 Radioactive Substances Act within 250 metres of the site boundary.

2.4.14 Licensed Discharges to Controlled Waters

According to Environment Agency records there have been five discharges of treated or untreated effluent to controlled water under the 1991 Water Resources Act within 250 metres of the site boundary, the nearest being sewer storm overflow of sewage at Boarshaw Road CSO about 69 metres to the north west in 2019.

2.4.15 Pollutant Release to Surface Waters (Red List)

The Environment Agency records indicate that there have been no discharges of specified substances under the 1991 Environmental Protection (Prescribed Processes and Substances) Regulations within 250 metres of the site boundary.

2.4.16 Pollutant Release to Public Sewers

According to Environment Agency records there have been no discharges of special category effluents to public sewers within 250 metres of the site boundary.

2.4.17 List I and List II Dangerous Substances

The Environment Agency records indicate that there have been no discharges of substances on List I and List II of the European Directive E2006/11/EC, regulated under the 2015 Environmental Damage (Prevention and Remediation) Regulations, within 250 metres of the site boundary.

2.4.18 Pollution Incidents

According to the Environment Agency there are fourteen records of substantiated pollution incidents within 250 metres of the site boundary, the nearest being smoke, construction and demolition materials and wastes and household wastes on site in 2001 and 2002 with Category 3 (minor) land and air impact. We consider this to pose a low to moderate risk to the site.

2.4.19 Pollution Inventory Substances

The Environment Agency indicates that there have been no reports on annual emissions of certain regulated substances to air, controlled waters and land within 250 metres of the site boundary.

2.4.20 Pollution Inventory Waste Transfers

According to the Environment Agency there have been no reports on annual transfers and recovery/ disposal of controlled wastes within 250 metres of the site boundary.

2.4.21 Pollution Inventory Radioactive Waste

The Environment Agency indicates that there have been no reports on annual releases of radioactive substances within 250 metres of the site boundary.

2.4.22 Hydrogeology

The following designation of aquifers is in accordance with the Environment Agency's April 2010 Groundwater Protection Policy.

Superficial/ drift deposits are anticipated to be present and comprise sand and gravel which are indicated to be a Secondary A aquifer comprising permeable layers capable of supporting water supplies at a local scale and in some cases forming an important source of base flow to rivers.

The bedrock is anticipated to be mudstone, siltstone and sandstone which is indicated to be a Secondary A aquifer comprising permeable layers capable of supporting water supplies at a local scale and in some cases forming an important source of base flow to rivers.

The vulnerability of groundwater to a pollutant found within the site and its immediate surrounding area has been assessed as "Medium", indicating an area which may transmit pollution and/or protect from pollution.

British Geological Survey and Environment Agency data indicates that the site is not within a 1km grid where solution features are present that will enable rapid movement of a pollutant to groundwater.

Environment Agency data indicates that the site is not in an area where additional local information indicates that groundwater is vulnerable to pollution.

According to data provided by the Environment Agency there are four groundwater abstraction licences, seven surface water abstraction licences, and no potable water abstraction licences within 2000 metres of the site boundary. The nearest being 636 metres to the south east and 767 metres to the south east respectively.

There are no Source Protection Zones, set up to protect a water source within 500 metres of the site of boundary, present according to the environmental data report.

2.4.23 Hydrology

The Ordnance Survey indicate that there are ten watercourses (river, stream or canal) within 250 metres of the site boundary, the nearest watercourse being the Whit Brook, an inland river about 65 metres to the north west.

There are five surface water features (ponds or lakes) within 250 metres of the site boundary according to the Ordnance Survey.

The Water Framework Directive (WFD) indicates that the site is within the catchment of the Irk (Source to Wince Brook), this watercourse being about 70 metres to the north west of the site boundary and the groundwater body is known as the Northern Manchester Carboniferous Aquifers.

2.4.24 Flooding

Flooding data is maintained by the Environment Agency. The Risk of Flooding from Rivers and Sea (RoFRaS) database indicates that on site the risk of flooding is non-applicable and within 50 metres of the site boundary the highest risk of flooding is "Medium".

In the period since records began in 1946, there is one records of an historical flood within 250 metres of the site boundary being 55 metres to the west in 2015.

There are no flood defences, no areas benefitting from flood defences and no flood storage areas present within 250 metres of the site boundary.

The site boundary is within 50 metres of a Flood Zone 2 (43 metres to the west), however is not within 50 metres of Flood Zone 3.

According to Ambiantal Risk Analytics surface water "FloodMap" there is a negligible risk of surface water flooding on the site and a 1 in 30 year, 0.3m-1.0m risk of surface water flooding within 50 metres of the site boundary.

Groundwater flooding is caused when the water table rises in areas where this is usually at shallow depth. Ambiantal Risk Analytics indicate that there is a moderate risk of groundwater flooding on the site and a moderate risk of groundwater flooding within 50 metres of the site boundary.

Given the above we anticipate that a Flood Risk Assessment is unlikely to be required.

2.4.25 Environmental Designations

Natural England indicates that there are environmental sensitive sites within 2000 metres of the site boundary.

Sites of Special Scientific Interest (SSSI), Special Areas of Conservation (SAC), Local Nature Reserves (LNR), Designated Ancient Woodland, Green Belt Land, Nitrate Vulnerable Zones and Sites of Special Scientific Interest (SSSI) Impact Risk Zones are present.

2.4.26 Visual and Cultural Designations

Historic England indicates that within 250 metres of the site boundary there are no World Heritage Sites, Areas of Outstanding Natural Beauty, National Parks, Listed Buildings, Conservation Areas, Scheduled Ancient Monuments or Registered Parks and Gardens.

2.4.27 Agricultural Designations

Natural England indicate that the Agricultural Land (quality) Classification for the site is Urban and the land within 250 metres of the site is also Urban.

Natural England indicates that there is no open access land within 250 metres of the site boundary.

The Forestry Commission indicate that there are no tree felling licences within 250 metres of the site boundary.

Natural England indicate that there are no environmental stewardship schemes within 250 metres of the site boundary.

Natural England indicate that there are no countryside stewardship schemes within 250 metres of the site boundary.

2.4.28 Habitat Designations

Natural England indicate that there are four priority habitats, no habitat networks, no open mosaic habitats and no limestone pavement orders within 250 metres of the site boundary.

2.5 **Conceptual Ground Model**

A conceptual ground model of a site and its environs uses available information to form a preliminary assessment of contamination sources, pathways and receptors, and the significance of hazards that exist or will potentially exist on the site. Its purpose is to identify the relationships between sources of contamination, pathways and receptors to allow exposure scenarios to be determined and thereby aid in the design of any intrusive investigation. It also forms the basis of the risk assessment.

2.5.1 Sources

Potential sources of contamination identified in the desk study are:

- General contaminants associated with Made Ground (if present) and past and present contaminative processes undertaken on and adjacent to the site including construction and demolition of buildings on site.
- On-site spillage and leakage of hydrocarbons (oils and fuels) from cars parked on site, tanks in the south of the site, the car wash to the west of the site and machinery used in the works buildings on site.
- Migrating leachate (contaminated surface and/ or groundwater) from materials used in the works on site and then improperly stored. Drums and containers of resins, surfactants, adhesives, waterproofers and sealants were noted in the walkover survey. In addition, detergents used in the car wash adjacent to the site.
- Migrating ground gases from unregistered landfills including reservoirs and a sand pit within 250 metres of the site. That which poses the highest risk to site is a reservoir on site infilled by 1954. Ground gas measures will need to be considered.
- Migrating mine gases from potential shallow coal workings.

2.5.2 Pathways

Potential pathways from source and receptor for the proposed development are:

- Direct skin contact with and/ or ingestion of contaminated soils and/ or water.
- Inhalation of dust, vapours and/ or gases.
- Dissolved contaminants via infiltrating surface water/ migrating groundwater.
- Dissolved ground gases via infiltrating surface water/ migrating groundwater.
- Volatile contaminants via permeable soils and rocks.
- Ground gases via permeable soils and rocks.
- Consumption of contaminated fruit and/ or vegetables.

2.5.3 Receptors

Potential receptors for the proposed development are:

- Site operatives during demolition, earthworks and/ or construction.
- The end users of the development (young children are the most sensitive).
- Fruit and vegetables grown in gardens for consumption.
- Vegetation, bushes and trees planted as part of the development of the site.
- Controlled waters including surface water and groundwater, including aquifers.
- Maintenance operatives entering on-site confined spaces after development.

2.5.4 Conclusions

An appraisal of the sources, pathways and receptors has been considered and we have produced a conceptual ground model based upon the available information, as follows:

TABLE 4 CONCEPTUAL GROUND MODEL

Potential Source	Nature of Hazard	Contaminants Associated with the Source	Pathway	Receptor	Preliminary Risk Rating
Made Ground	Contaminants in Made Ground	<u>Gen. Contaminants</u> Arsenic Cadmium Chromium Lead Mercury Molybdenum Nickel Selenium Boron Copper Zinc Cyanide Sulphide Sulphate pH Phenols Polynuclear Aromatic Hydrocarbons (PAH) Total Petroleum Hydrocarbons (TPH)	Ingestion of soil	Site Operatives	Moderate
			Ingestion of dust	End Users	
			Ingestion of contaminated vegetable produce		
			Dermal contact		
			Inhalation of dust		
			Inhalation of vapours		Moderate
			Uptake via contaminated groundwater	Vegetation	
			Vertical and lateral movement of mobile contaminants to surface water and groundwater	Controlled Waters	
			Direct contact	Structures and Services	Moderate
Asbestos on/ in ground	Asbestos fibres	Asbestos fibres	Inhalation of fibres	Site Operatives End Users	Moderate

TABLE 4 (Cont'd) CONCEPTUAL GROUND MODEL

Potential Source	Nature of Hazard	Contaminants Associated with the Source	Pathway	Receptor	Preliminary Risk Rating
Tanks/ Machinery/ Vehicles	Fuel/ oil spillage and/or leakage from machinery, fuel/oil tanks and/or vehicles	Total Petroleum Hydrocarbons (TPH) and/ or Benzene/ Toluene/ Ethylbenzene/ Xylene (BTEX)	Ingestion of soil Ingestion of dust Ingestion of contaminated vegetable produce Dermal contact Inhalation of dust Inhalation of vapours	Site Operatives End Users	Moderate
Machinery	Grease spillage and/or leakage from machinery	Solvents			
Improper storage / littering of drums and containers.	Leakage of resins, surfactants, adhesives, waterproofers and sealants.	Solvents VOC's SVOC's	Uptake via contaminated groundwater	Vegetation	Moderate
			Vertical and lateral movement of mobile contaminants to surface water and groundwater	Controlled Waters	Moderate
			Direct contact	Structures and Services	Moderate
Radioactive minerals	Ground Gas (Carcinogen)	Radon Gas	Inhalation of gas	End Users	No Radon protection measures are required.
Landfill (unregistered)	Ground Gas (Asphyxiation, fire and explosion)	Methane Carbon Dioxide	Inhalation of gas Ignition of gas	Site Operatives End Users	Moderate
Mining (1)	Ground Gas (Asphyxiation, fire and explosion)	Methane Carbon Dioxide	Inhalation of gas Ignition of gas	Site Operatives End Users	Rotary Investigation is required
Mining (2)	Subsidence	-	-	Structures and services	Rotary Investigation is required
Mine Entry	Settlement and/or Collapse			Structures and services	Watching brief

TABLE 4 (Cont'd) CONCEPTUAL GROUND MODEL

Potential Source	Nature of Hazard	Contaminants Associated with the Source	Pathway	Receptor	Preliminary Risk Rating
Electricity Sub Station on site.	Spillage/ leakage of transformer coolants	Poly Chlorinated Biphenyls (PCB)	Ingestion of soil	Site Operatives	Very Low
			Ingestion of dust	End Users	
			Ingestion of contaminated vegetable produce		
			Dermal contact		
			Inhalation of dust		
			Inhalation of vapours		
			Uptake via contaminated groundwater	Vegetation	Very Low
			Vertical and lateral movement of mobile contaminants to surface water and groundwater	Controlled Waters	Very Low
			Direct contact	Structures and Services	Very Low

The conceptual ground model indicates that an intrusive ground investigation is required to assess the ground conditions. The ground investigation should obtain soil samples for contamination analysis and asbestos detection and, where possible, groundwater and surface water samples for contamination analysis.

In addition the conceptual ground model indicates that ground and mine gases might be present and hence gas standpipes should be installed and monitored over an extended period of time to allow for an assessment to be made.

Given the findings of the desk based coal mining risk assessment Ref. LKC 22 1410 conducted by LKC in July 2022, a rotary borehole investigation is recommended followed by a ground stability assessment in order to determine whether remedial measures are required for the proposed development.

2.6 General

No consideration has been given to flora and fauna as this was outside our brief.

This Phase I walkover survey and desk study should be followed by a Phase II ground investigation. It should be noted that dependent upon the findings of the ground investigation a Phase III remediation statement and Phase IV validation with report may be required.

We recommend that consultation should be undertaken with and written approval obtained from the Local Authority Environmental Health Officer, the Local Authority Building Control Officer and the Coal Authority prior to commencing development.

We trust that this report fulfils your present requirements but if you have any queries or we can be of further assistance please contact the undersigned or Ms Anna Marsden at our Preston office.

SUB SURFACE CONSULTANTS LIMITED
REPORT No. 7763
JULY 2023

L. A. W. McCall - Bhakta B.Sc.(Hons.)
Geotechnical Engineer
For and on behalf of
Sub Surface Consultants Limited

C. A. Marsden B.Sc.(Hons.), C.Eng., M.I.C.E.
Director
For and on behalf of
Sub Surface Consultants Limited.

PRELIMINARY RISK RATING GUIDANCE

PRELIMINARY RISK RATING GUIDANCE

The following table based on CIRIA C552 'Contaminated Land Risk Assessment. A Guide to Good Practice' has been used when developing the Conceptual Ground Model and the preliminary risk ratings. The method requires an assessment of the magnitude of the probability or likelihood of the risk occurring and the magnitude of the potential consequence or severity of the risk occurring to formulate a preliminary risk rating (Table A).

Table A DESCRIPTION OF RISK AND LIKELY ACTION REQUIRED

Preliminary Risk Rating	Action Required
Very High Risk	Extensive Ground Investigation Required. There is a high probability that severe harm could arise to a designated receptor from an identified hazard, or there is evidence that severe harm to a designated receptor is currently happening. This risk, if realised, is likely to result in a substantial liability. Urgent investigation (if not undertaken already) and remediation are likely to be required.
High Risk	Extensive Ground Investigation Required. Harm is likely to arise to a designated receptor from an identified hazard. Realisation of the risk is likely to present a substantial liability. Urgent investigation (if not undertaken already) is required and remedial works may be necessary in the short-term and are likely over the longer-term.
Moderate	Ground Investigation Required. It is possible that harm could arise to a designated receptor from an identified hazard. However, it is either relatively unlikely that any such harm would be severe, or if any harm were to occur it is more likely that the harm would be relatively mild. Investigation (if not already undertaken) is normally required to clarify the risk and to determine the potential liability. Some remedial works may be required in the long-term.
Low Risk	Nominal Ground Investigation Required. It is possible that harm could arise to a designated receptor from an identified hazard, but it is likely that this harm, if realised, would at worst normally be mild.
Very Low Risk	No Ground Investigation Required.* There is a low possibility that harm could arise to a receptor. In the event of such harm being realised it is not likely to be severe.
Negligible Risk	No Ground Investigation Required.* There is a very low possibility that harm could arise to a receptor. In the event of such harm being realised it is not likely to be severe.

* No further action is required unless unforeseen contaminated ground conditions are encountered.

PHOTOGRAPHS



SUB SURFACE

SITE INVESTIGATION SPECIALISTS, GEOTECHNICAL & ENVIRONMENTAL CONSULTANTS

3 Peel Street, Preston, Lancashire, PR2 2QS. Tel: (01772) 561135 Fax: (01772) 204907

Photographs

Site: BROOKES STREET, MIDDLETON, ROCHDALE, MANCHESTER, M24 2WL

Client: KWICK BUILD (SEDBERGH) LIMITED

Engineer:

Job Number:

7763

Sheet:

1 / 5

Survey Date:

29/06/23

WALKOVER PHOTOGRAPHS

1



2



3



4



5



6





SUB SURFACE

SITE INVESTIGATION SPECIALISTS, GEOTECHNICAL & ENVIRONMENTAL CONSULTANTS

3 Peel Street, Preston, Lancashire, PR2 2QS. Tel: (01772) 561135 Fax: (01772) 204907

Photographs

Site: BROOKES STREET, MIDDLETON, ROCHDALE, MANCHESTER, M24 2WL

Client: KWICK BUILD (SEDBERGH) LIMITED

Engineer:

Job Number:

7763

Sheet:

2 / 5

Survey Date:

29/06/23

WALKOVER PHOTOGRAPHS

7



8



9



10



11



12



Site:

BROOKES STREET, MIDDLETON, ROCHDALE, MANCHESTER, M24 2WL

Client:

KWICK BUILD (SEDBERGH) LIMITED

Engineer:

Job Number:

7763

Sheet:

3 / 5

Survey Date:

29/06/23

WALKOVER PHOTOGRAPHS

13



14



15



16



17



18





SUB SURFACE

SITE INVESTIGATION SPECIALISTS, GEOTECHNICAL & ENVIRONMENTAL CONSULTANTS

3 Peel Street, Preston, Lancashire, PR2 2QS. Tel: (01772) 561135 Fax: (01772) 204907

Photographs

Site: BROOKES STREET, MIDDLETON, ROCHDALE, MANCHESTER, M24 2WL

Client: KWICK BUILD (SEDBERGH) LIMITED

Engineer:

Job Number:

7763

Sheet:

4 / 5

Survey Date:

29/06/23

WALKOVER PHOTOGRAPHS

19



20



21



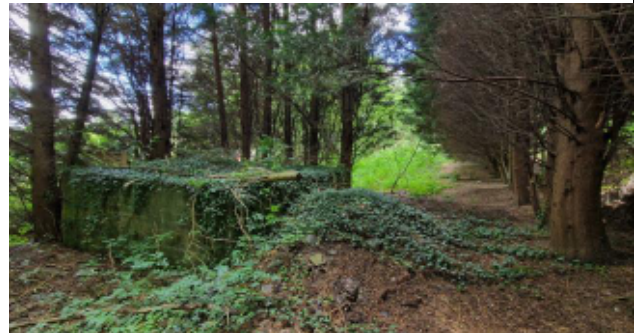
22



23



24



SS SUB SURFACE SITE INVESTIGATION SPECIALISTS, GEOTECHNICAL & ENVIRONMENTAL CONSULTANTS 3 Peel Street, Preston, Lancashire, PR2 2QS. Tel: (01772) 561135 Fax: (01772) 204907		Photographs	
Site: BROOKES STREET, MIDDLETON, ROCHDALE, MANCHESTER, M24 2WL		Job Number: 7763	
Client: KWICK BUILD (SEDBERGH) LIMITED		Sheet: 5 / 5	
Engineer:		Survey Date: 29/06/23	

WALKOVER PHOTOGRAPHS

25



26



27



28



Bookes Street, Middleton

Order Details

Date: 27/06/2023
Your ref: CMAPS-CM-1111708-4199-270623
Our Ref: CMAPS-CM-1111708-4199-270623EDRGeo

Site Details

Location: 387719 406598
Area: 0.54 ha
Authority: [Rochdale Metropolitan Borough Council](#) ↗



[Summary of findings](#)

[p. 2 > Aerial image](#)

[p. 9 >](#)

[OS MasterMap site plan](#)

[p.13 > \[groundsure.com/insightuserguide\]\(https://groundsure.com/insightuserguide\) ↗](#)

Contact us with any questions at:

info@groundsure.com ↗

01273 257 755

Summary of findings

Page	Section	Past land use >	On site	0-50m	50-250m	250-500m	500-2000m
14 >	1.1 >	Historical industrial land uses >	5	11	29	64	-
19 >	1.2 >	Historical tanks >	3	2	12	13	-
20 >	1.3 >	Historical energy features >	1	1	4	10	-
21	1.4	Historical petrol stations	0	0	0	0	-
21 >	1.5 >	Historical garages >	0	0	0	6	-
22	1.6	Historical military land	0	0	0	0	-
Page	Section	Past land use - un-grouped >	On site	0-50m	50-250m	250-500m	500-2000m
23 >	2.1 >	Historical industrial land uses >	11	14	44	90	-
29 >	2.2 >	Historical tanks >	6	2	17	16	-
31 >	2.3 >	Historical energy features >	1	2	7	18	-
32	2.4	Historical petrol stations	0	0	0	0	-
33 >	2.5 >	Historical garages >	0	0	0	9	-
Page	Section	Waste and landfill >	On site	0-50m	50-250m	250-500m	500-2000m
34	3.1	Active or recent landfill	0	0	0	0	-
34	3.2	Historical landfill (BGS records)	0	0	0	0	-
35 >	3.3 >	Historical landfill (LA/mapping records) >	0	0	0	3	-
35 >	3.4 >	Historical landfill (EA/NRW records) >	0	0	0	1	-
35	3.5	Historical waste sites	0	0	0	0	-
36	3.6	Licensed waste sites	0	0	0	0	-
36 >	3.7 >	Waste exemptions >	0	1	0	1	-
Page	Section	Current industrial land use >	On site	0-50m	50-250m	250-500m	500-2000m
37 >	4.1 >	Recent industrial land uses >	2	1	7	-	-
38 >	4.2 >	Current or recent petrol stations >	0	0	0	1	-
39	4.3	Electricity cables	0	0	0	0	-
39	4.4	Gas pipelines	0	0	0	0	-
39	4.5	Sites determined as Contaminated Land	0	0	0	0	-



39 >	4.6 >	<u>Control of Major Accident Hazards (COMAH) ></u>	0	0	0	1	-
40	4.7	Regulated explosive sites	0	0	0	0	-
40	4.8	Hazardous substance storage/usage	0	0	0	0	-
40	4.9	Historical licensed industrial activities (IPC)	0	0	0	0	-
40	4.10	Licensed industrial activities (Part A(1))	0	0	0	0	-
40 >	4.11 >	<u>Licensed pollutant release (Part A(2)/B) ></u>	0	0	1	0	-
41	4.12	Radioactive Substance Authorisations	0	0	0	0	-
41 >	4.13 >	<u>Licensed Discharges to controlled waters ></u>	0	0	5	12	-
44	4.14	Pollutant release to surface waters (Red List)	0	0	0	0	-
44	4.15	Pollutant release to public sewer	0	0	0	0	-
44	4.16	List 1 Dangerous Substances	0	0	0	0	-
44	4.17	List 2 Dangerous Substances	0	0	0	0	-
44 >	4.18 >	<u>Pollution Incidents (EA/NRW) ></u>	6	6	2	1	-
46	4.19	Pollution inventory substances	0	0	0	0	-
47	4.20	Pollution inventory waste transfers	0	0	0	0	-
47	4.21	Pollution inventory radioactive waste	0	0	0	0	-
Page	Section	<u>Hydrogeology ></u>	On site	0-50m	50-250m	250-500m	500-2000m
48 >	5.1 >	<u>Superficial aquifer ></u>	Identified (within 500m)				
49 >	5.2 >	<u>Bedrock aquifer ></u>	Identified (within 500m)				
50 >	5.3 >	<u>Groundwater vulnerability ></u>	Identified (within 50m)				
51	5.4	Groundwater vulnerability- soluble rock risk	None (within 0m)				
51	5.5	Groundwater vulnerability- local information	None (within 0m)				
52 >	5.6 >	<u>Groundwater abstractions ></u>	0	0	0	0	4
54 >	5.7 >	<u>Surface water abstractions ></u>	0	0	0	0	7
56	5.8	Potable abstractions	0	0	0	0	0
56	5.9	Source Protection Zones	0	0	0	0	-
56	5.10	Source Protection Zones (confined aquifer)	0	0	0	0	-
Page	Section	<u>Hydrology ></u>	On site	0-50m	50-250m	250-500m	500-2000m
57 >	6.1 >	<u>Water Network (OS MasterMap) ></u>	0	0	10	-	-

58 >	6.2 >	Surface water features >	0	0	5	-	-
59 >	6.3 >	WFD Surface water body catchments >	1	-	-	-	-
59 >	6.4 >	WFD Surface water bodies >	0	0	1	-	-
59 >	6.5 >	WFD Groundwater bodies >	1	-	-	-	-
Page	Section	River and coastal flooding >	On site	0-50m	50-250m	250-500m	500-2000m
61 >	7.1 >	Risk of flooding from rivers and the sea >	Medium (within 50m)				
62 >	7.2 >	Historical Flood Events >	0	0	1	-	-
62	7.3	Flood Defences	0	0	0	-	-
62	7.4	Areas Benefiting from Flood Defences	0	0	0	-	-
63	7.5	Flood Storage Areas	0	0	0	-	-
64 >	7.6 >	Flood Zone 2 >	Identified (within 50m)				
65	7.7	Flood Zone 3	None (within 50m)				
Page	Section	Surface water flooding >					
66 >	8.1 >	Surface water flooding >	1 in 30 year, 0.3m - 1.0m (within 50m)				
Page	Section	Groundwater flooding >					
68 >	9.1 >	Groundwater flooding >	Moderate (within 50m)				
Page	Section	Environmental designations >	On site	0-50m	50-250m	250-500m	500-2000m
69 >	10.1 >	Sites of Special Scientific Interest (SSSI) >	0	0	0	0	1
70	10.2	Conserved wetland sites (Ramsar sites)	0	0	0	0	0
70 >	10.3 >	Special Areas of Conservation (SAC) >	0	0	0	0	1
70	10.4	Special Protection Areas (SPA)	0	0	0	0	0
71	10.5	National Nature Reserves (NNR)	0	0	0	0	0
71 >	10.6 >	Local Nature Reserves (LNR) >	0	0	0	0	5
71 >	10.7 >	Designated Ancient Woodland >	0	0	0	0	7
72	10.8	Biosphere Reserves	0	0	0	0	0
72	10.9	Forest Parks	0	0	0	0	0
72	10.10	Marine Conservation Zones	0	0	0	0	0
73 >	10.11 >	Green Belt >	0	0	0	0	2
73	10.12	Proposed Ramsar sites	0	0	0	0	0

73	10.13	Possible Special Areas of Conservation (pSAC)	0	0	0	0	0
73	10.14	Potential Special Protection Areas (pSPA)	0	0	0	0	0
74	10.15	Nitrate Sensitive Areas	0	0	0	0	0
74 >	10.16 >	Nitrate Vulnerable Zones >	1	0	0	0	1
75 >	10.17 >	SSSI Impact Risk Zones >	1	-	-	-	-
76 >	10.18 >	SSSI Units >	0	0	0	0	1
Page	Section	Visual and cultural designations	On site	0-50m	50-250m	250-500m	500-2000m
77	11.1	World Heritage Sites	0	0	0	-	-
77	11.2	Area of Outstanding Natural Beauty	0	0	0	-	-
77	11.3	National Parks	0	0	0	-	-
77	11.4	Listed Buildings	0	0	0	-	-
78	11.5	Conservation Areas	0	0	0	-	-
78	11.6	Scheduled Ancient Monuments	0	0	0	-	-
78	11.7	Registered Parks and Gardens	0	0	0	-	-
Page	Section	Agricultural designations >	On site	0-50m	50-250m	250-500m	500-2000m
79 >	12.1 >	Agricultural Land Classification >	Urban (within 250m)				
80	12.2	Open Access Land	0	0	0	-	-
80	12.3	Tree Felling Licences	0	0	0	-	-
80	12.4	Environmental Stewardship Schemes	0	0	0	-	-
80	12.5	Countryside Stewardship Schemes	0	0	0	-	-
Page	Section	Habitat designations >	On site	0-50m	50-250m	250-500m	500-2000m
81 >	13.1 >	Priority Habitat Inventory >	0	0	4	-	-
82	13.2	Habitat Networks	0	0	0	-	-
82	13.3	Open Mosaic Habitat	0	0	0	-	-
82	13.4	Limestone Pavement Orders	0	0	0	-	-
Page	Section	Geology 1:10,000 scale >	On site	0-50m	50-250m	250-500m	500-2000m
83 >	14.1 >	10k Availability >	Identified (within 500m)				
84 >	14.2 >	Artificial and made ground (10k) >	1	1	4	8	-
86 >	14.3 >	Superficial geology (10k) >	1	0	3	2	-

87	14.4	Landslip (10k)	0	0	0	0	-
88 >	14.5 >	Bedrock geology (10k) >	3	0	2	6	-
89 >	14.6 >	Bedrock faults and other linear features (10k) >	1	1	5	3	-
Page	Section	Geology 1:50,000 scale >	On site	0-50m	50-250m	250-500m	500-2000m
90 >	15.1 >	50k Availability >	Identified (within 500m)				
91	15.2	Artificial and made ground (50k)	0	0	0	0	-
91	15.3	Artificial ground permeability (50k)	0	0	-	-	-
92 >	15.4 >	Superficial geology (50k) >	1	0	3	2	-
93 >	15.5 >	Superficial permeability (50k) >	Identified (within 50m)				
93	15.6	Landslip (50k)	0	0	0	0	-
93	15.7	Landslip permeability (50k)	None (within 50m)				
94 >	15.8 >	Bedrock geology (50k) >	3	0	1	3	-
95 >	15.9 >	Bedrock permeability (50k) >	Identified (within 50m)				
95 >	15.10 >	Bedrock faults and other linear features (50k) >	1	1	5	2	-
Page	Section	Boreholes >	On site	0-50m	50-250m	250-500m	500-2000m
97 >	16.1 >	BGS Boreholes >	1	0	3	-	-
Page	Section	Natural ground subsidence >					
99 >	17.1 >	Shrink swell clays >	Very low (within 50m)				
100 >	17.2 >	Running sands >	Very low (within 50m)				
101 >	17.3 >	Compressible deposits >	Negligible (within 50m)				
102 >	17.4 >	Collapsible deposits >	Very low (within 50m)				
103 >	17.5 >	Landslides >	Very low (within 50m)				
104 >	17.6 >	Ground dissolution of soluble rocks >	Negligible (within 50m)				
Page	Section	Mining and ground workings >	On site	0-50m	50-250m	250-500m	500-2000m
106 >	18.1 >	BritPits >	0	0	0	2	-
107 >	18.2 >	Surface ground workings >	7	9	44	-	-
109	18.3	Underground workings	0	0	0	0	0
110	18.4	Underground mining extents	0	0	0	0	-
110 >	18.5 >	Historical Mineral Planning Areas >	0	0	2	0	-



110	18.6	Non-coal mining	0	0	0	0	0
111	18.7	JPB mining areas	None (within 0m)				
111	18.8	The Coal Authority non-coal mining	0	0	0	0	-
111	18.9	Researched mining	0	0	0	0	-
111	18.10	Mining record office plans	0	0	0	0	-
112	18.11	BGS mine plans	0	0	0	0	-
112 >	18.12 >	Coal mining >	Identified (within 0m)				
112	18.13	Brine areas	None (within 0m)				
112	18.14	Gypsum areas	None (within 0m)				
112	18.15	Tin mining	None (within 0m)				
113	18.16	Clay mining	None (within 0m)				
Page	Section	Ground cavities and sinkholes	On site	0-50m	50-250m	250-500m	500-2000m
114	19.1	Natural cavities	0	0	0	0	-
114	19.2	Mining cavities	0	0	0	0	0
114	19.3	Reported recent incidents	0	0	0	0	-
114	19.4	Historical incidents	0	0	0	0	-
115	19.5	National karst database	0	0	0	0	-
Page	Section	Radon >					
116 >	20.1 >	Radon >	Between 1% and 3% (within 0m)				
Page	Section	Soil chemistry >	On site	0-50m	50-250m	250-500m	500-2000m
118 >	21.1 >	BGS Estimated Background Soil Chemistry >	2	0	-	-	-
118	21.2	BGS Estimated Urban Soil Chemistry	0	0	-	-	-
118	21.3	BGS Measured Urban Soil Chemistry	0	0	-	-	-
Page	Section	Railway infrastructure and projects	On site	0-50m	50-250m	250-500m	500-2000m
119	22.1	Underground railways (London)	0	0	0	-	-
119	22.2	Underground railways (Non-London)	0	0	0	-	-
119	22.3	Railway tunnels	0	0	0	-	-
119	22.4	Historical railway and tunnel features	0	0	0	-	-
119	22.5	Royal Mail tunnels	0	0	0	-	-

120	22.6	Historical railways	0	0	0	-	-
120	22.7	Railways	0	0	0	-	-
120	22.8	Crossrail 1	0	0	0	0	-
120	22.9	Crossrail 2	0	0	0	0	-
120	22.10	HS2	0	0	0	0	-

Recent aerial photograph



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

Capture Date: 22/05/2019

Site Area: 0.54ha



Recent site history - 2015 aerial photograph



Capture Date: 11/06/2015

Site Area: 0.54ha



Recent site history - 2011 aerial photograph



Capture Date: 01/05/2011

Site Area: 0.54ha



Recent site history - 2000 aerial photograph



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

Capture Date: 19/06/2000

Site Area: 0.54ha



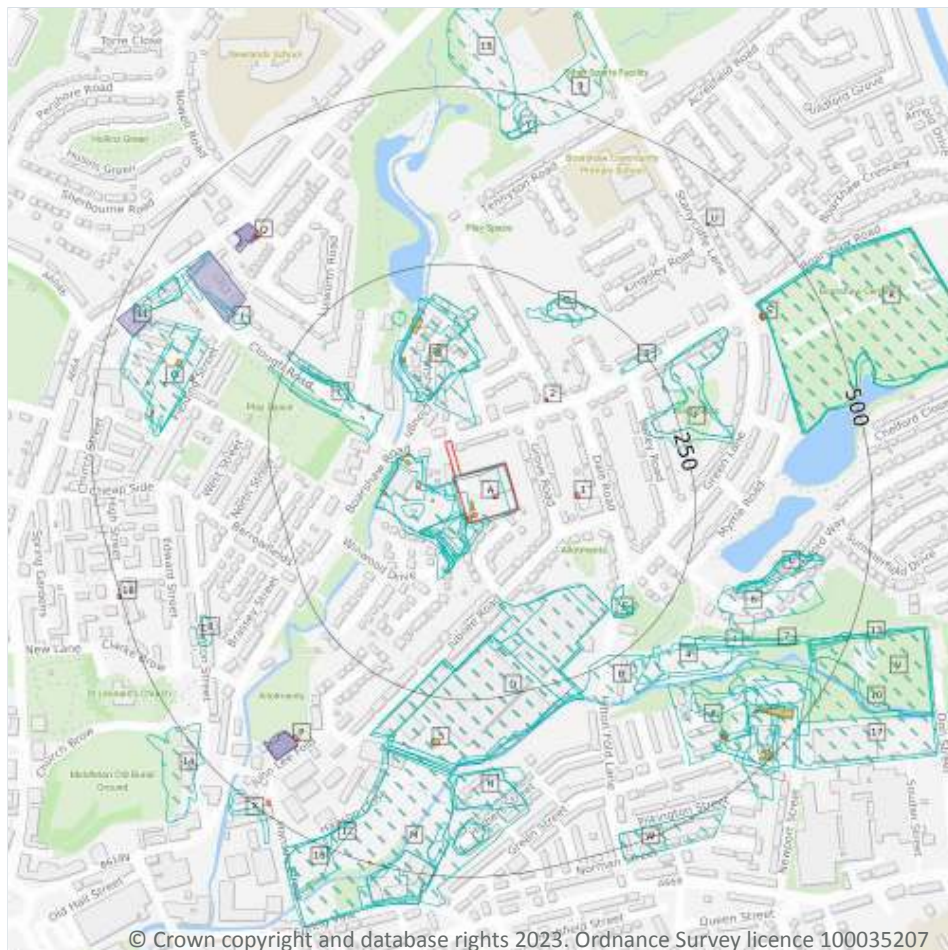
OS MasterMap site plan



Site Area: 0.54ha



1 Past land use



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

1.1 Historical industrial land uses

Records within 500m

109

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

Features are displayed on the Past land use map on [page 14](#) >

ID	Location	Land use	Dates present	Group ID
A	On site	Bleach Works	1915 - 1923	787817



ID	Location	Land use	Dates present	Group ID
A	On site	Unspecified Pit	1938	712691
A	On site	Unspecified Mill	1891	733397
A	On site	Unspecified Works	1965 - 1982	775228
A	On site	Unspecified Mill	1907 - 1932	777120
A	0m SW	Unspecified Pit	1915	754958
A	2m SW	Unspecified Pit	1907	704574
A	2m SW	Unspecified Pit	1923 - 1932	728844
A	6m W	Unspecified Ground Workings	1907	648225
A	7m W	Unspecified Mill	1938	744116
A	7m SW	Unspecified Pit	1891	699485
A	29m NW	Unspecified Mill	1965 - 1982	762459
B	37m N	Dye Works	1851	681900
A	48m SW	Unspecified Ground Workings	1915	738968
A	48m SW	Unspecified Pit	1891 - 1907	771995
A	49m SW	Unspecified Ground Workings	1932	789038
A	54m W	Unspecified Heap	1907	650942
B	60m NW	Bleach Works	1891	771014
B	63m NW	Bleach, Dye and Print Works	1932	668328
B	63m NW	Bleach Works	1907 - 1923	743583
B	68m NW	Unspecified Works	1965 - 1982	769609
C	95m NW	Unspecified Pit	1923	690958
C	95m NW	Unspecified Ground Workings	1907 - 1915	706752
D	119m S	Industrial Estate	1982	652323
D	119m S	Unspecified Mill	1975	780776
D	128m SE	Cotton Spinning Mills	1955 - 1965	730574
C	141m NW	Unspecified Ground Workings	1932	758100
D	163m S	Unspecified Mill	1932 - 1938	725038
D	163m S	Unspecified Mill	1915	728279



ID	Location	Land use	Dates present	Group ID
D	163m S	Unspecified Mill	1907	740866
D	163m S	Unspecified Mill	1923	787776
B	178m NW	Unspecified Tank	1965 - 1982	712647
E	180m SE	Sand Pit	1907	643933
E	180m SE	Unspecified Heap	1923	650943
E	180m SE	Refuse Heap	1915	678063
C	181m NW	Unspecified Ground Workings	1965	705314
E	198m SE	Unspecified Ground Workings	1932	648224
F	202m E	Refuse Heap	1891	737743
3	206m NE	Sand Pit	1915 - 1923	738740
G	207m N	Unspecified Pit	1955 - 1982	723905
F	213m E	Sand Pit	1907	643932
F	213m E	Refuse Heap	1915 - 1923	731708
G	215m NE	Unspecified Pit	1938	780015
G	216m NE	Unspecified Pit	1932	713526
H	242m SE	Unspecified Mill	1891	747984
4	269m SE	Mills	1851	655367
H	274m SE	Unspecified Disused Mill	1907	675754
I	292m SE	Unspecified Ground Workings	1915	694895
I	292m SE	Unspecified Ground Workings	1932	724588
6	309m SE	Clay Pit	1907	676033
7	310m SE	Unspecified Ground Workings	1965	764289
J	325m NW	Unspecified Pit	1907 - 1923	748864
K	325m SE	Brick Works	1907	668968
L	326m E	Unspecified Pit	1938	718200
L	328m E	Unspecified Pit	1923	725182
L	329m E	Unspecified Ground Workings	1915	754527
L	329m E	Unspecified Ground Workings	1932	775962



ID	Location	Land use	Dates present	Group ID
M	338m S	Unspecified Mill	1891	731726
M	339m S	Dye Works	1907 - 1915	725132
M	339m S	Dye Works	1923	728542
M	339m S	Dye Works	1932	751038
K	344m SE	Refuse Heap	1891 - 1975	745517
N	349m S	Unspecified Mill	1938	703837
N	350m S	Unspecified Mill	1907 - 1915	766528
N	350m S	Unspecified Mill	1923 - 1932	775358
K	358m SE	Unspecified Pits	1938	659182
O	361m NW	Unspecified Mill	1891	657168
O	373m W	Unspecified Commercial/Industrial	1938	643321
O	374m W	Unspecified Mills	1982	653269
K	386m SE	Unspecified Ground Workings	1955 - 1965	728739
8	390m SW	Sand Pit	1851	643936
J	398m NW	Unspecified Ground Workings	1923	648226
K	407m SE	Unspecified Mill	1891	771543
R	414m E	Cemetery	1938	698419
R	414m E	Cemetery	1923	722200
R	415m E	Cemetery	1932	728819
R	415m E	Cemetery	1915	735425
R	416m NE	Cemetery	1955 - 1982	698144
M	418m S	Refuse Heap	1915	711068
M	418m S	Refuse Heap	1932	752241
M	423m S	Refuse Heap	1923	735963
K	424m SE	Unspecified Disused Mill	1932	675755
M	425m S	Refuse Heap	1975 - 1982	733131
J	426m NW	Unspecified Pit	1891	771983
J	426m NW	Unspecified Pit	1915 - 1923	740835



ID	Location	Land use	Dates present	Group ID
J	426m NW	Cuttings	1907	642587
K	427m SE	Colliery	1851	645241
9	434m N	Unspecified Ground Workings	1932 - 1938	706911
T	435m N	Unspecified Ground Workings	1955 - 1975	724150
T	436m N	Unspecified Ground Workings	1982	697043
K	436m SE	Unspecified Mill	1907 - 1923	784513
K	437m SE	Unspecified Tanks	1932 - 1938	764392
10	448m SE	Unspecified Mill	1938	722171
V	449m SE	Unspecified Mill	1923 - 1932	738501
M	450m S	Unspecified Heap	1955 - 1965	747583
V	452m SE	Unspecified Mill	1907	704509
12	455m S	Unspecified Pit	1938	690960
13	455m SE	Unspecified Ground Workings	1932	737779
V	461m SE	Unspecified Mill	1975 - 1982	744997
M	470m S	Unspecified Works	1965	728388
M	470m S	Unspecified Works	1975 - 1982	700527
14	473m SW	Sand Pit	1851	643937
15	475m N	Refuse Heap	1975 - 1982	702378
W	481m S	Railway Sidings	1915 - 1923	731445
W	481m S	Tram Depot	1907 - 1923	749621
16	490m SW	Unspecified Pit	1891	690962
M	492m S	Print Works	1851	680240
X	493m SW	Unspecified Ground Workings	1907	719567
17	499m SE	Unspecified Mills	1975	768583

This data is sourced from Ordnance Survey / Groundsure.



1.2 Historical tanks

Records within 500m
30

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 14 >](#)

ID	Location	Land use	Dates present	Group ID
A	On site	Tanks	1922 - 1932	91815
A	On site	Unspecified Tank	1954	96354
A	On site	Unspecified Tank	1922 - 1932	102662
A	38m W	Unspecified Tank	1954	95389
A	38m W	Unspecified Tank	1954	101355
A	53m NW	Unspecified Tank	1954	97355
A	55m W	Unspecified Tank	1932	84642
A	62m W	Unspecified Tank	1954	96047
A	74m W	Unspecified Tank	1893	84643
A	98m W	Tanks	1932	87863
B	124m N	Tanks	1954	102895
B	127m NW	Unspecified Tank	1954	95225
B	131m N	Unspecified Tank	1932	84647
B	132m NW	Unspecified Tank	1909	91276
B	132m NW	Unspecified Tank	1922	93096
B	132m NW	Unspecified Tank	1932	94124
B	160m NW	Tanks	1909 - 1932	92218
5	307m S	Unspecified Tank	1995 - 1996	98436
O	389m NW	Unspecified Tank	1922	84646
O	403m W	Unspecified Tank	1922	84644
O	414m W	Unspecified Tank	1954	101692



ID	Location	Land use	Dates present	Group ID
O	426m W	Unspecified Tank	1954	84637
K	438m SE	Tanks	1909	103692
U	442m NE	Unspecified Tank	1985	90519
U	442m NE	Unspecified Tank	1977	100673
K	450m SE	Tanks	1922 - 1932	100405
K	484m SE	Tanks	1909	87836
K	488m SE	Tanks	1909	87835
K	489m SE	Tanks	1909	87834
M	498m S	Unspecified Tank	1922	84640

This data is sourced from Ordnance Survey / Groundsure.

1.3 Historical energy features

Records within 500m

16

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 14 >](#)

ID	Location	Land use	Dates present	Group ID
A	On site	Electricity Substation	1996	45610
A	49m W	Electricity Substation	1992 - 1996	55032
1	82m E	Electricity Substation	1954	58358
B	100m N	Electricity Substation	1954	48001
2	106m NE	Electricity Substation	1954	54870
C	115m NW	Electricity Substation	1996	45613
O	366m W	Electricity Substation	1970	45612
P	386m SW	Electricity Substation	1970 - 1990	48539
Q	391m NW	Electricity Substation	1954 - 1970	57486



ID	Location	Land use	Dates present	Group ID
Q	393m NW	Electricity Substation	1954	48191
S	415m NE	Electricity Substation	1977 - 1992	58403
S	415m NE	Electricity Substation	1985	57938
K	428m SE	Electricity Substation	1970 - 1990	50179
K	429m SE	Electricity Substation	1984	52259
X	482m SW	Electricity Substation	1970 - 1990	59249
18	499m W	Electricity Substation	1978 - 1990	57862

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

6

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 14 >](#)

ID	Location	Land use	Dates present	Group ID
J	347m NW	Garage	1960 - 1970	17280
P	390m SW	Garage	1970	15929
P	392m SW	Garage	1978 - 1990	18281
Q	393m NW	Garage	1954 - 1960	17884



ID	Location	Land use	Dates present	Group ID
Q	397m NW	Garage	1954	15678
11	452m NW	Garage	1970	14697

This data is sourced from Ordnance Survey / Groundsure.

1.6 Historical military land

Records within 500m

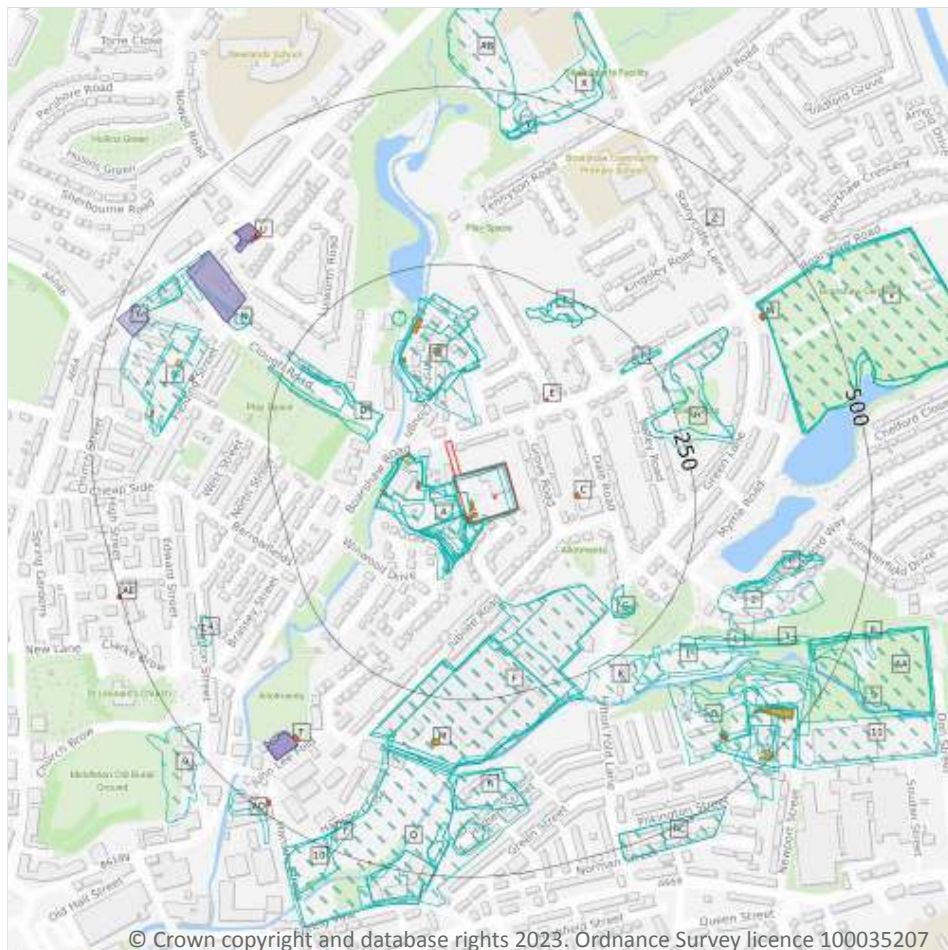
0

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

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



2 Past land use - un-grouped



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

2.1 Historical industrial land uses

Records within 500m

159

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

Features are displayed on the Past land use - un-grouped map on [page 23](#) >

ID	Location	Land Use	Date	Group ID
A	On site	Unspecified Mill	1932	777120
A	On site	Unspecified Mill	1915	777120
A	On site	Bleach Works	1915	787817

ID	Location	Land Use	Date	Group ID
A	On site	Unspecified Mill	1907	777120
A	On site	Unspecified Works	1975	775228
A	On site	Unspecified Works	1965	775228
A	On site	Unspecified Mill	1891	733397
A	On site	Unspecified Works	1982	775228
A	On site	Unspecified Pit	1938	712691
A	On site	Unspecified Mill	1923	777120
A	On site	Bleach Works	1923	787817
A	0m SW	Unspecified Pit	1915	754958
A	2m SW	Unspecified Pit	1932	728844
A	2m SW	Unspecified Pit	1907	704574
A	3m SW	Unspecified Pit	1923	728844
A	6m W	Unspecified Ground Workings	1907	648225
A	7m W	Unspecified Mill	1938	744116
A	7m SW	Unspecified Pit	1891	699485
A	29m NW	Unspecified Mill	1975	762459
A	29m NW	Unspecified Mill	1965	762459
A	29m NW	Unspecified Mill	1982	762459
B	37m N	Dye Works	1851	681900
A	48m SW	Unspecified Ground Workings	1915	738968
A	48m SW	Unspecified Pit	1907	771995
A	49m SW	Unspecified Ground Workings	1932	789038
A	54m W	Unspecified Heap	1907	650942
A	55m SW	Unspecified Pit	1891	771995
B	60m NW	Bleach Works	1891	771014
B	63m NW	Bleach, Dye and Print Works	1932	668328
B	63m NW	Bleach Works	1915	743583
B	63m NW	Bleach Works	1907	743583



ID	Location	Land Use	Date	Group ID
B	63m NW	Bleach Works	1923	743583
B	68m NW	Unspecified Works	1975	769609
B	68m NW	Unspecified Works	1965	769609
B	68m NW	Unspecified Works	1982	769609
D	95m NW	Unspecified Ground Workings	1915	706752
D	95m NW	Unspecified Ground Workings	1907	706752
D	95m NW	Unspecified Pit	1923	690958
F	119m S	Unspecified Mill	1975	780776
F	119m S	Industrial Estate	1982	652323
F	128m SE	Cotton Spinning Mills	1965	730574
F	128m SE	Cotton Spinning Mills	1955	730574
D	141m NW	Unspecified Ground Workings	1932	758100
F	163m S	Unspecified Mill	1938	725038
F	163m S	Unspecified Mill	1932	725038
F	163m S	Unspecified Mill	1915	728279
F	163m S	Unspecified Mill	1907	740866
F	163m S	Unspecified Mill	1923	787776
B	178m NW	Unspecified Tank	1975	712647
B	178m NW	Unspecified Tank	1965	712647
B	178m NW	Unspecified Tank	1982	712647
G	180m SE	Refuse Heap	1915	678063
G	180m SE	Unspecified Heap	1923	650943
G	180m SE	Sand Pit	1907	643933
D	181m NW	Unspecified Ground Workings	1965	705314
G	198m SE	Unspecified Ground Workings	1932	648224
H	202m E	Refuse Heap	1891	737743
I	206m NE	Sand Pit	1923	738740
J	207m N	Unspecified Pit	1975	723905



ID	Location	Land Use	Date	Group ID
J	207m N	Unspecified Pit	1965	723905
J	207m N	Unspecified Pit	1955	723905
J	207m N	Unspecified Pit	1982	723905
I	209m NE	Sand Pit	1915	738740
H	213m E	Refuse Heap	1915	731708
H	213m E	Refuse Heap	1923	731708
H	213m E	Sand Pit	1907	643932
J	215m NE	Unspecified Pit	1938	780015
J	216m NE	Unspecified Pit	1932	713526
K	242m SE	Unspecified Mill	1891	747984
1	269m SE	Mills	1851	655367
K	274m SE	Unspecified Disused Mill	1907	675754
L	292m SE	Unspecified Ground Workings	1932	724588
L	292m SE	Unspecified Ground Workings	1915	694895
2	309m SE	Clay Pit	1907	676033
3	310m SE	Unspecified Ground Workings	1965	764289
N	325m NW	Unspecified Pit	1915	748864
N	325m NW	Unspecified Pit	1907	748864
N	325m NW	Unspecified Pit	1923	748864
O	325m SE	Brick Works	1907	668968
P	326m E	Unspecified Pit	1938	718200
P	328m E	Unspecified Pit	1923	725182
P	329m E	Unspecified Ground Workings	1932	775962
P	329m E	Unspecified Ground Workings	1915	754527
Q	338m S	Unspecified Mill	1891	731726
Q	339m S	Dye Works	1932	751038
Q	339m S	Dye Works	1915	725132
Q	339m S	Dye Works	1907	725132



ID	Location	Land Use	Date	Group ID
Q	339m S	Dye Works	1923	728542
O	344m SE	Refuse Heap	1975	745517
R	349m S	Unspecified Mill	1938	703837
R	350m S	Unspecified Mill	1932	775358
R	350m S	Unspecified Mill	1915	766528
R	350m S	Unspecified Mill	1907	766528
R	350m S	Unspecified Mill	1923	775358
O	358m SE	Unspecified Pits	1938	659182
S	361m NW	Unspecified Mill	1891	657168
S	373m W	Unspecified Commercial/Industrial	1938	643321
S	374m W	Unspecified Mills	1982	653269
O	386m SE	Unspecified Ground Workings	1965	728739
O	388m SE	Unspecified Ground Workings	1955	728739
4	390m SW	Sand Pit	1851	643936
N	398m NW	Unspecified Ground Workings	1923	648226
O	407m SE	Unspecified Mill	1891	771543
O	407m SE	Refuse Heap	1891	745517
V	414m E	Cemetery	1938	698419
V	414m E	Cemetery	1923	722200
V	415m E	Cemetery	1932	728819
V	415m E	Cemetery	1915	735425
V	416m NE	Cemetery	1975	698144
V	416m NE	Cemetery	1965	698144
V	416m NE	Cemetery	1955	698144
V	416m NE	Cemetery	1982	698144
Q	418m S	Refuse Heap	1932	752241
Q	418m S	Refuse Heap	1915	711068
Q	423m S	Refuse Heap	1923	735963



ID	Location	Land Use	Date	Group ID
O	424m SE	Unspecified Disused Mill	1932	675755
Q	425m S	Refuse Heap	1975	733131
Q	425m S	Refuse Heap	1982	733131
N	426m NW	Unspecified Pit	1891	771983
N	426m NW	Unspecified Pit	1923	740835
N	426m NW	Unspecified Pit	1915	740835
N	426m NW	Cuttings	1907	642587
O	427m SE	Colliery	1851	645241
X	434m N	Unspecified Ground Workings	1938	706911
Y	435m N	Unspecified Ground Workings	1975	724150
Y	435m N	Unspecified Ground Workings	1965	724150
Y	435m N	Unspecified Ground Workings	1955	724150
Y	436m N	Unspecified Ground Workings	1982	697043
O	436m SE	Unspecified Mill	1915	784513
O	436m SE	Unspecified Mill	1907	784513
O	436m SE	Unspecified Mill	1923	784513
O	437m SE	Unspecified Tanks	1932	764392
X	437m N	Unspecified Ground Workings	1932	706911
O	442m SE	Unspecified Tanks	1938	764392
5	448m SE	Unspecified Mill	1938	722171
AA	449m SE	Unspecified Mill	1932	738501
Q	450m S	Unspecified Heap	1965	747583
Q	450m S	Unspecified Heap	1955	747583
AA	452m SE	Unspecified Mill	1907	704509
AA	452m SE	Unspecified Mill	1923	738501
7	455m S	Unspecified Pit	1938	690960
8	455m SE	Unspecified Ground Workings	1932	737779
AA	461m SE	Unspecified Mill	1975	744997



ID	Location	Land Use	Date	Group ID
AA	461m SE	Unspecified Mill	1982	744997
Q	470m S	Unspecified Works	1965	728388
Q	470m S	Unspecified Works	1975	700527
Q	470m S	Unspecified Works	1982	700527
9	473m SW	Sand Pit	1851	643937
AB	475m N	Refuse Heap	1975	702378
AB	475m N	Refuse Heap	1982	702378
AC	481m S	Tram Depot	1915	749621
AC	481m S	Railway Sidings	1915	731445
AC	481m S	Tram Depot	1907	749621
AC	481m S	Tram Depot	1923	749621
AC	481m S	Railway Sidings	1923	731445
10	490m SW	Unspecified Pit	1891	690962
Q	492m S	Print Works	1851	680240
AD	493m SW	Unspecified Ground Workings	1907	719567
11	499m SE	Unspecified Mills	1975	768583

This data is sourced from Ordnance Survey / Groundsure.

2.2 Historical tanks

Records within 500m

41

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

Features are displayed on the Past land use - un-grouped map on [page 23 >](#)

ID	Location	Land Use	Date	Group ID
A	On site	Unspecified Tank	1922	102662
A	On site	Tanks	1922	91815
A	On site	Tanks	1932	91815
A	On site	Unspecified Tank	1932	102662



ID	Location	Land Use	Date	Group ID
A	On site	Unspecified Tank	1954	96354
A	On site	Unspecified Tank	1954	96354
A	38m W	Unspecified Tank	1954	95389
A	38m W	Unspecified Tank	1954	101355
A	53m NW	Unspecified Tank	1954	97355
A	53m NW	Unspecified Tank	1954	97355
A	55m W	Unspecified Tank	1932	84642
A	62m W	Unspecified Tank	1954	96047
A	63m W	Unspecified Tank	1954	96047
A	74m W	Unspecified Tank	1893	84643
A	98m W	Tanks	1932	87863
B	124m N	Tanks	1954	102895
B	126m N	Tanks	1954	102895
B	127m NW	Unspecified Tank	1954	95225
B	127m NW	Unspecified Tank	1954	95225
B	131m N	Unspecified Tank	1932	84647
B	132m NW	Unspecified Tank	1909	91276
B	132m NW	Unspecified Tank	1922	93096
B	132m NW	Unspecified Tank	1932	94124
B	160m NW	Tanks	1909	92218
B	160m NW	Tanks	1932	92218
M	307m S	Unspecified Tank	1995	98436
M	308m S	Unspecified Tank	1996	98436
S	389m NW	Unspecified Tank	1922	84646
S	403m W	Unspecified Tank	1922	84644
S	414m W	Unspecified Tank	1954	101692
S	414m W	Unspecified Tank	1954	101692
S	426m W	Unspecified Tank	1954	84637



ID	Location	Land Use	Date	Group ID
O	438m SE	Tanks	1909	103692
Z	442m NE	Unspecified Tank	1985	90519
Z	442m NE	Unspecified Tank	1977	100673
O	450m SE	Tanks	1922	100405
O	450m SE	Tanks	1932	100405
O	484m SE	Tanks	1909	87836
O	488m SE	Tanks	1909	87835
O	489m SE	Tanks	1909	87834
Q	498m S	Unspecified Tank	1922	84640

This data is sourced from Ordnance Survey / Groundsure.

2.3 Historical energy features

Records within 500m

28

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

Features are displayed on the Past land use - un-grouped map on [page 23 >](#)

ID	Location	Land Use	Date	Group ID
A	On site	Electricity Substation	1996	45610
A	49m W	Electricity Substation	1996	55032
A	50m W	Electricity Substation	1992	55032
C	82m E	Electricity Substation	1954	58358
C	82m E	Electricity Substation	1954	58358
B	100m N	Electricity Substation	1954	48001
B	100m N	Electricity Substation	1954	48001
E	106m NE	Electricity Substation	1954	54870
E	106m NE	Electricity Substation	1954	54870
D	115m NW	Electricity Substation	1996	45613
S	366m W	Electricity Substation	1970	45612



ID	Location	Land Use	Date	Group ID
T	386m SW	Electricity Substation	1978	48539
T	386m SW	Electricity Substation	1990	48539
T	386m SW	Electricity Substation	1970	48539
U	391m NW	Electricity Substation	1954	57486
U	391m NW	Electricity Substation	1970	57486
U	393m NW	Electricity Substation	1954	48191
W	415m NE	Electricity Substation	1977	58403
W	415m NE	Electricity Substation	1985	57938
W	415m NE	Electricity Substation	1992	58403
O	428m SE	Electricity Substation	1970	50179
O	428m SE	Electricity Substation	1990	50179
O	429m SE	Electricity Substation	1984	52259
AD	482m SW	Electricity Substation	1978	59249
AD	482m SW	Electricity Substation	1990	59249
AD	482m SW	Electricity Substation	1970	59249
AE	499m W	Electricity Substation	1978	57862
AE	499m W	Electricity Substation	1990	57862

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

9

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'.

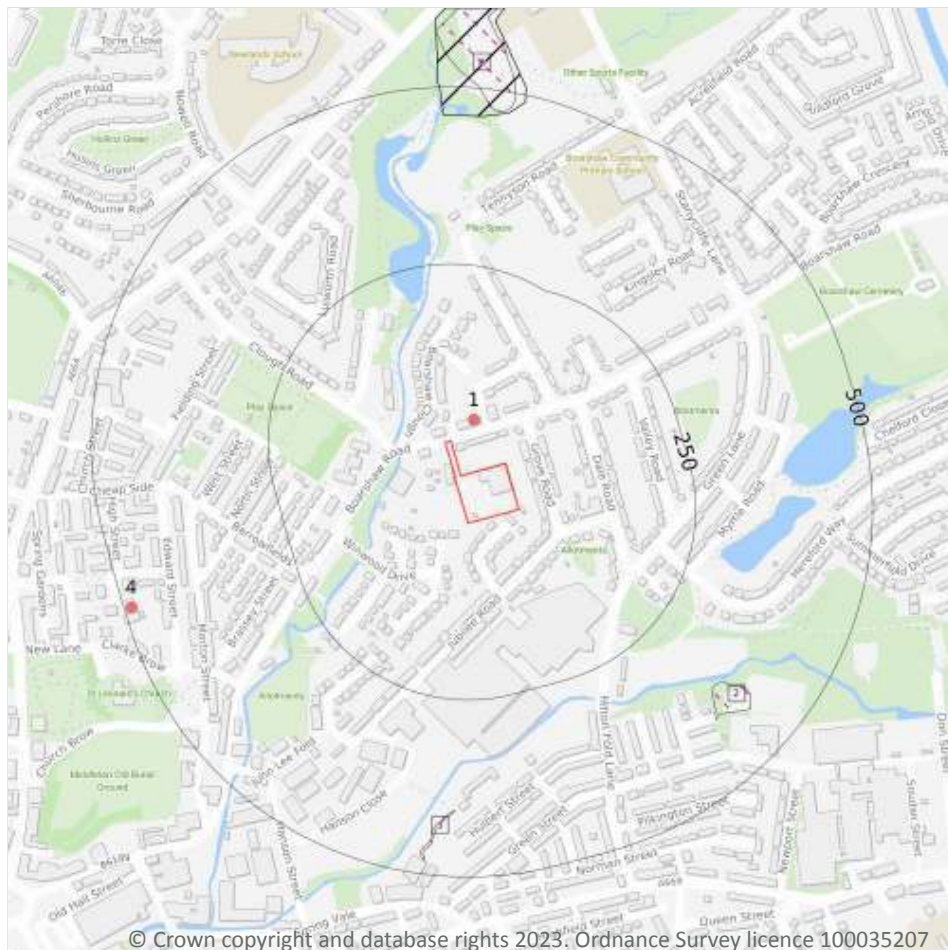
Features are displayed on the Past land use - un-grouped map on [page 23 >](#)

ID	Location	Land Use	Date	Group ID
N	347m NW	Garage	1960	17280
N	347m NW	Garage	1970	17280
T	390m SW	Garage	1970	15929
T	392m SW	Garage	1978	18281
T	392m SW	Garage	1990	18281
U	393m NW	Garage	1954	17884
U	393m NW	Garage	1960	17884
U	397m NW	Garage	1954	15678
6	452m NW	Garage	1970	14697

This data is sourced from Ordnance Survey / Groundsure.



3 Waste and landfill



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

3.1 Active or recent landfill

Records within 500m

0

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

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

3.2 Historical landfill (BGS records)

Records within 500m

0

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

This data is sourced from the British Geological Survey.



3.3 Historical landfill (LA/mapping records)

Records within 500m

3

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

Features are displayed on the Waste and landfill map on [page 34 >](#)

ID	Location	Site address	Source	Data type
2	373m SE	Refuse Tip	1970 mapping	Polygon
3	406m S	Refuse Tip	1967 mapping	Polygon
A	471m N	Refuse Tip	1954 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

1

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

Features are displayed on the Waste and landfill map on [page 34 >](#)

ID	Location	Details		
A	459m N	Site Address: Land at Stancliffe Bridge, Rochdale Road, Middleton, Manchester, Greater Manchester Licence Holder Address: -	Waste Licence: - Site Reference: D067 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

0

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

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



3.6 Licensed waste sites

Records within 500m**0**

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

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

3.7 Waste exemptions

Records within 500m**2**

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.

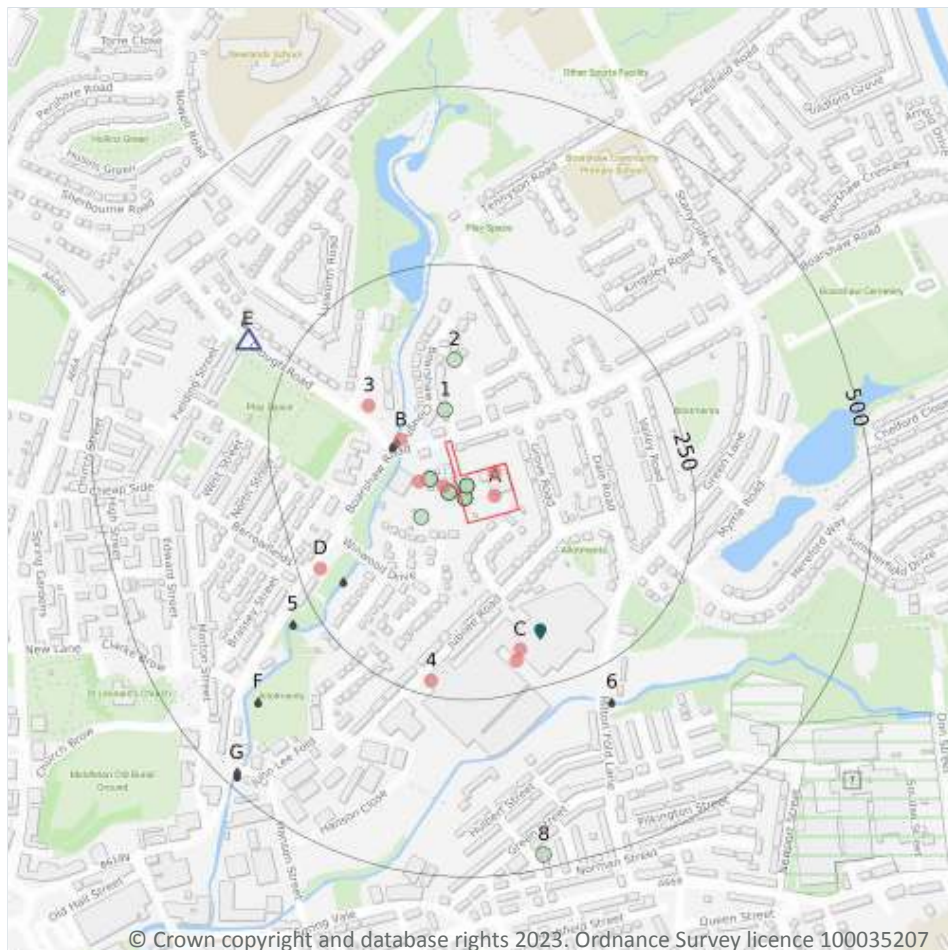
Features are displayed on the Waste and landfill map on [page 34](#) >

ID	Location	Site	Reference	Category	Sub-Category	Description
1	43m N	221 Boarshaw Road MANCHESTER M24 2WQ	EPR/RF0735P W/A001	Treating waste exemption	Non- Agricultural Waste Only	Sorting and de-naturing of controlled drugs for disposal
4	491m W	CLARKE BROW, MIDDLETON, MANCHESTER, M24 6BW	WEX246285	Treating waste exemption	Not on a farm	Sorting and de-naturing of controlled drugs for disposal

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



4 Current industrial land use



- Site Outline
- Search buffers in metres (m)
- Recent industrial land uses
- ▲ Current or recent petrol stations
- Control of Major Accident Hazards
- Licensed pollutant release (Part A(2)/B)
- Licensed Discharges to controlled waters
- Pollution Incidents (EA/NRW)

4.1 Recent industrial land uses

Records within 250m

10

Current potentially contaminative industrial sites.

Features are displayed on the Current industrial land use map on [page 37](#) >

ID	Location	Company	Address	Activity	Category
A	On site	Electricity Sub Station	Greater Manchester, M24	Electrical Features	Infrastructure and Facilities
A	On site	Works	Greater Manchester, M24	Unspecified Works Or Factories	Industrial Features



ID	Location	Company	Address	Activity	Category
A	18m W	Mast (Telecommu nication)	Greater Manchester, M24	Telecommunications Features	Infrastructure and Facilities
A	50m W	Electricity Sub Station	Greater Manchester, M24	Electrical Features	Infrastructure and Facilities
B	63m NW	Electricity Sub Station	Greater Manchester, M24	Electrical Features	Infrastructure and Facilities
3	120m NW	Electricity Sub Station	Greater Manchester, M24	Electrical Features	Infrastructure and Facilities
C	191m S	Cromer Industrial Estate	Greater Manchester, M24	Business Parks and Industrial Estates	Industrial Features
C	205m S	Electricity Sub Station	Greater Manchester, M24	Electrical Features	Infrastructure and Facilities
D	219m SW	Electricity Sub Station	Greater Manchester, M24	Electrical Features	Infrastructure and Facilities
4	229m S	Brulimar Optical Group	Unit C-D Jubilee Park, Hanson Close, Middleton, Manchester, Greater Manchester, M24 2UH	Photographic and Optical Equipment	Household, Office, Leisure and Garden

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 37 >](#)

ID	Location	Company	Address	LPG	Status
E	315m NW	OBSOLETE	96, Rochdale Road, Middleton, Manchester, Greater Manchester, M24 2QA	Not Applicable	Obsolete

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**1**

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.

Features are displayed on the Current industrial land use map on [page 37 >](#)

ID	Location	Company	Address	Operational status	Tier
7	392m SE	Vita Cellular Foams (UK) Limited	Vita Cellular Foams (UK) Limited, Manchester, Oldham Road/Soudan Street, Middleton, Manchester, Greater Manchester, M24 2DB	Current COMAH Site	COMAH Upper Tier Operator

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**1**

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

Features are displayed on the Current industrial land use map on [page 37](#) >

ID	Location	Address	Details	
C	174m S	Milliken Chemical Elastomers, Hilton Fold Lane, Middleton, Manchester, M24 2HZ	Process: Rubber Status: Current 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	17
----------------------------	-----------

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 37 >](#)

ID	Location	Address	Details	
B	69m NW	BOARSHAW ROAD CSO, 203 BOARSHAW ROAD, MIDDLETON, MANCHESTER, GREATER MANCHESTER, M24 2WQ	Effluent Type: SEWAGE DISCHARGES - SEWER STORM OVERFLOW - WATER COMPANY Permit Number: 01ROC0013 Permit Version: 4 Receiving Water: WHIT BROOK	Status: VARIED UNDER EPR 2010 Issue date: 14/10/2019 Effective Date: 14/10/2019 Revocation Date: -
B	69m NW	BOARSHAW ROAD CSO, 203 BOARSHAW ROAD, MIDDLETON, MANCHESTER, GREATER MANCHESTER, M24 2WQ	Effluent Type: SEWAGE DISCHARGES - SEWER STORM OVERFLOW - WATER COMPANY Permit Number: 01ROC0013 Permit Version: 3 Receiving Water: WHIT BROOK	Status: VARIED UNDER EPR 2010 Issue date: 05/02/2016 Effective Date: 05/02/2016 Revocation Date: 13/10/2019
B	75m NW	BOARSHAW ROAD CSO, 203 BOARSHAW ROAD, MIDDLETON, MANCHESTER, GREATER MANCHESTER, M24 2WQ	Effluent Type: SEWAGE DISCHARGES - SEWER STORM OVERFLOW - WATER COMPANY Permit Number: 01ROC0013 Permit Version: 2 Receiving Water: WHIT BROOK RIVER IRK	Status: VARIED UNDER EPR 2010 Issue date: 14/04/2009 Effective Date: 14/04/2009 Revocation Date: 04/02/2016

ID	Location	Address	Details	
B	75m NW	BOARSHAW ROAD CSO, 203 BOARSHAW ROAD, MIDDLETON, MANCHESTER, GREATER MANCHESTER, M24 2WQ	Effluent Type: SEWAGE DISCHARGES - SEWER STORM OVERFLOW - WATER COMPANY Permit Number: 01ROC0013 Permit Version: 1 Receiving Water: WHIT BROOK RIVER IRK	Status: POST NRA LEGISLATION WHERE ISSUE DATE > 31-AUG-89 (HISTORIC ONLY) Issue date: - Effective Date: 01/01/1995 Revocation Date: 13/04/2009
D	195m SW	BOARDSHAW ROAD CSO, 125 BOARSHAW ROAD, MIDDLETON, MANCHESTER, GREATER MANCHESTER, M24 6AR	Effluent Type: SEWAGE DISCHARGES - SEWER STORM OVERFLOW - WATER COMPANY Permit Number: 016950217 Permit Version: 1 Receiving Water: WHIT BROOK	Status: PRE NRA LEGISLATION WHERE ISSUE DATE 01-SEP-89 (HISTORIC ONLY) Issue date: - Effective Date: 31/07/1981 Revocation Date: 10/12/2019
5	286m SW	BOARDSHAW ROAD CSO, 125 BOARSHAW ROAD, MIDDLETON, MANCHESTER, GREATER MANCHESTER, M24 6AR	Effluent Type: SEWAGE DISCHARGES - SEWER STORM OVERFLOW - WATER COMPANY Permit Number: 016950217 Permit Version: 3 Receiving Water: WHIT BROOK, TRIB OF RIVER IRK	Status: VARIED UNDER EPR 2010 Issue date: 11/12/2019 Effective Date: 11/12/2019 Revocation Date: -
6	302m SE	BILLINGTON BROS SWO, HILTON FOLD LANE, MIDDLETON, GREATER MANCHESTER	Effluent Type: MISCELLANEOUS DISCHARGES - SURFACE WATER Permit Number: 016991152 Permit Version: 1 Receiving Water: RIVER IRK	Status: REVOKED - UNSPECIFIED Issue date: - Effective Date: 01/10/1994 Revocation Date: 30/11/1994
E	330m NW	FIELDING STREET CSO (ROC0193), 90 FIELDING STREET, MIDDLETON, MANCHESTER, M24 6BG	Effluent Type: SEWAGE DISCHARGES - SEWER STORM OVERFLOW - WATER COMPANY Permit Number: EPRJB3892VC Permit Version: 2 Receiving Water: CLV TRIB OF WHIT BROOK	Status: NEW ISSUED UNDER EPR 2010 Issue date: 14/05/2021 Effective Date: 14/05/2022 Revocation Date: -
E	330m NW	FIELDING STREET CSO (ROC0193), 90 FIELDING STREET, MIDDLETON, MANCHESTER, M24 6BG	Effluent Type: SEWAGE DISCHARGES - SEWER STORM OVERFLOW - WATER COMPANY Permit Number: EPRJB3892VC Permit Version: 1 Receiving Water: CLV TRIB OF WHIT BROOK	Status: NEW ISSUED UNDER EPR 2010 Issue date: 14/05/2021 Effective Date: 14/05/2021 Revocation Date: 13/05/2022
F	390m SW	H PICKUP AND SONS SWO, 6 BOARSHAW ROAD, MIDDLETON, GREATER MANCHESTER	Effluent Type: MISCELLANEOUS DISCHARGES - SURFACE WATER Permit Number: 016991160 Permit Version: 1 Receiving Water: WHITBROOK	Status: REVOKED - UNSPECIFIED Issue date: - Effective Date: 01/11/1994 Revocation Date: 01/11/1994



ID	Location	Address	Details	
F	390m SW	MIDDLETON TRANSPORT LTD SWO, JOHN LEE ROAD, MIDDLETON, GREATER MANCHESTER	Effluent Type: MISCELLANEOUS DISCHARGES - SURFACE WATER Permit Number: 016991252 Permit Version: 1 Receiving Water: TRUB (WHIT) BROOK	Status: REVOKED - UNSPECIFIED Issue date: - Effective Date: 01/11/1994 Revocation Date: 01/11/1994
G	481m SW	JOHN LEE FOLD CSO, 2 JOHN LEE FOLD, MIDDLETON, MANCHESTER, GREATER MANCHESTER, M24 2LR	Effluent Type: SEWAGE DISCHARGES - SEWER STORM OVERFLOW - WATER COMPANY Permit Number: 016982900 Permit Version: 5 Receiving Water: WHIT BROOK	Status: MODIFIED - (WRA 91 SCHD 10 - AS AMENDED BY ENV ACT 1995) Issue date: 20/05/2005 Effective Date: 20/05/2005 Revocation Date: 29/10/2019
G	481m SW	JOHN LEE FOLD CSO, 2 JOHN LEE FOLD, MIDDLETON, MANCHESTER, GREATER MANCHESTER, M24 2LR	Effluent Type: SEWAGE DISCHARGES - SEWER STORM OVERFLOW - WATER COMPANY Permit Number: 016982900 Permit Version: 1 Receiving Water: WHIT BROOK TRIB RIVER IRK	Status: REVOKED - UNSPECIFIED Issue date: - Effective Date: 01/04/1991 Revocation Date: 31/12/1994
G	481m SW	JOHN LEE FOLD CSO, 2 JOHN LEE FOLD, MIDDLETON, MANCHESTER, GREATER MANCHESTER, M24 2LR	Effluent Type: SEWAGE DISCHARGES - SEWER STORM OVERFLOW - WATER COMPANY Permit Number: 016982900 Permit Version: 3 Receiving Water: WHIT BROOK TRIB RIVER IRK	Status: CONSENT REVOKED OR REVISED - NEW CONSENT ISSUED (37(1)) Issue date: - Effective Date: 11/05/1995 Revocation Date: 08/03/2005
G	481m SW	JOHN LEE FOLD CSO, 2 JOHN LEE FOLD, MIDDLETON, MANCHESTER, GREATER MANCHESTER, M24 2LR	Effluent Type: SEWAGE DISCHARGES - SEWER STORM OVERFLOW - WATER COMPANY Permit Number: 016982900 Permit Version: 4 Receiving Water: WHIT BROOK	Status: CONSENT REVOKED OR REVISED - NEW CONSENT ISSUED (37(1)) Issue date: 09/03/2005 Effective Date: 09/03/2005 Revocation Date: 19/05/2005
G	481m SW	JOHN LEE FOLD CSO, 2 JOHN LEE FOLD, MIDDLETON, MANCHESTER, GREATER MANCHESTER, M24 2LR	Effluent Type: SEWAGE DISCHARGES - SEWER STORM OVERFLOW - WATER COMPANY Permit Number: 016982900 Permit Version: 2 Receiving Water: WHIT BROOK TRIB RIVER IRK	Status: REVOKED - UNSPECIFIED Issue date: - Effective Date: 01/01/1995 Revocation Date: 10/05/1995
G	484m SW	JOHN LEE FOLD CSO, 2 JOHN LEE FOLD, MIDDLETON, MANCHESTER, GREATER MANCHESTER, M24 2LR	Effluent Type: SEWAGE DISCHARGES - SEWER STORM OVERFLOW - WATER COMPANY Permit Number: 016982900 Permit Version: 6 Receiving Water: WHIT BROOK	Status: VARIED UNDER EPR 2010 Issue date: 30/10/2019 Effective Date: 30/10/2019 Revocation Date: -

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



4.14 Pollutant release to surface waters (Red List)

Records within 500m**0**

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

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

4.15 Pollutant release to public sewer

Records within 500m**0**

Discharges of Special Category Effluents to the public sewer.

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

4.16 List 1 Dangerous Substances

Records within 500m**0**

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

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

4.17 List 2 Dangerous Substances

Records within 500m**0**

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

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

4.18 Pollution Incidents (EA/NRW)

Records within 500m**15**

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 37 >](#)

ID	Location	Details	
A	On site	Incident Date: 24/08/2001 Incident Identification: 26661 Pollutant: Specific Waste Materials Pollutant Description: Household Waste	Water Impact: Category 4 (No Impact) Land Impact: Category 3 (Minor) Air Impact: Category 4 (No Impact)
A	On site	Incident Date: 15/05/2002 Incident Identification: 78870 Pollutant: Inert Materials and Wastes Pollutant Description: Construction and Demolition Materials and Wastes	Water Impact: Category 4 (No Impact) Land Impact: Category 3 (Minor) Air Impact: Category 3 (Minor)
A	On site	Incident Date: 24/08/2001 Incident Identification: 26661 Pollutant: Inert Materials and Wastes Pollutant Description: Soils and Clay	Water Impact: Category 4 (No Impact) Land Impact: Category 3 (Minor) Air Impact: Category 4 (No Impact)
A	On site	Incident Date: 24/08/2001 Incident Identification: 26661 Pollutant: Inert Materials and Wastes:Specific Waste Materials Pollutant Description: Soils and Clay:Household Waste	Water Impact: Category 4 (No Impact) Land Impact: Category 3 (Minor) Air Impact: Category 4 (No Impact)
A	On site	Incident Date: 15/05/2002 Incident Identification: 78870 Pollutant: Atmospheric Pollutants and Effects:Inert Materials and Wastes Pollutant Description: Smoke:Construction and Demolition Materials and Wastes	Water Impact: Category 4 (No Impact) Land Impact: Category 3 (Minor) Air Impact: Category 3 (Minor)
A	On site	Incident Date: 15/05/2002 Incident Identification: 78870 Pollutant: Atmospheric Pollutants and Effects Pollutant Description: Smoke	Water Impact: Category 4 (No Impact) Land Impact: Category 3 (Minor) Air Impact: Category 3 (Minor)
A	13m W	Incident Date: 29/04/2002 Incident Identification: 75487 Pollutant: Atmospheric Pollutants and Effects:Inert Materials and Wastes Pollutant Description: Fumes:Construction and Demolition Materials and Wastes	Water Impact: Category 4 (No Impact) Land Impact: Category 3 (Minor) Air Impact: Category 3 (Minor)
A	13m W	Incident Date: 29/04/2002 Incident Identification: 75487 Pollutant: Atmospheric Pollutants and Effects Pollutant Description: Fumes	Water Impact: Category 4 (No Impact) Land Impact: Category 3 (Minor) Air Impact: Category 3 (Minor)
A	13m W	Incident Date: 29/04/2002 Incident Identification: 75487 Pollutant: Inert Materials and Wastes Pollutant Description: Construction and Demolition Materials and Wastes	Water Impact: Category 4 (No Impact) Land Impact: Category 3 (Minor) Air Impact: Category 3 (Minor)



ID	Location	Details	
A	35m W	Incident Date: 24/04/2001 Incident Identification: 3264 Pollutant: Specific Waste Materials Pollutant Description: Commercial Waste	Water Impact: Category 4 (No Impact) Land Impact: Category 3 (Minor) Air Impact: Category 3 (Minor)
A	35m W	Incident Date: 24/04/2001 Incident Identification: 3264 Pollutant: Specific Waste Materials Pollutant Description: Commercial Waste	Water Impact: Category 4 (No Impact) Land Impact: Category 3 (Minor) Air Impact: Category 3 (Minor)
1	44m NW	Incident Date: 05/06/2002 Incident Identification: 82905 Pollutant: Pollutant Not Identified Pollutant Description: Not Identified	Water Impact: Category 4 (No Impact) Land Impact: Category 3 (Minor) Air Impact: Category 4 (No Impact)
A	60m W	Incident Date: 20/08/2002 Incident Identification: 101838 Pollutant: Specific Waste Materials Pollutant Description: Other Specific Waste Material	Water Impact: Category 4 (No Impact) Land Impact: Category 3 (Minor) Air Impact: Category 4 (No Impact)
2	115m N	Incident Date: 06/03/2001 Incident Identification: 44 Pollutant: General Biodegradable Materials and Wastes Pollutant Description: Other General Biodegradable Material or Waste	Water Impact: Category 4 (No Impact) Land Impact: Category 3 (Minor) Air Impact: Category 3 (Minor)
8	480m S	Incident Date: 23/03/2001 Incident Identification: 830 Pollutant: Inert Materials and Wastes Pollutant Description: Construction and Demolition Materials and Wastes	Water Impact: Category 4 (No Impact) Land Impact: Category 3 (Minor) Air Impact: Category 4 (No Impact)

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

4.19 Pollution inventory substances

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

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

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

4.20 Pollution inventory waste transfers

Records within 500m

0

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

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

4.21 Pollution inventory radioactive waste

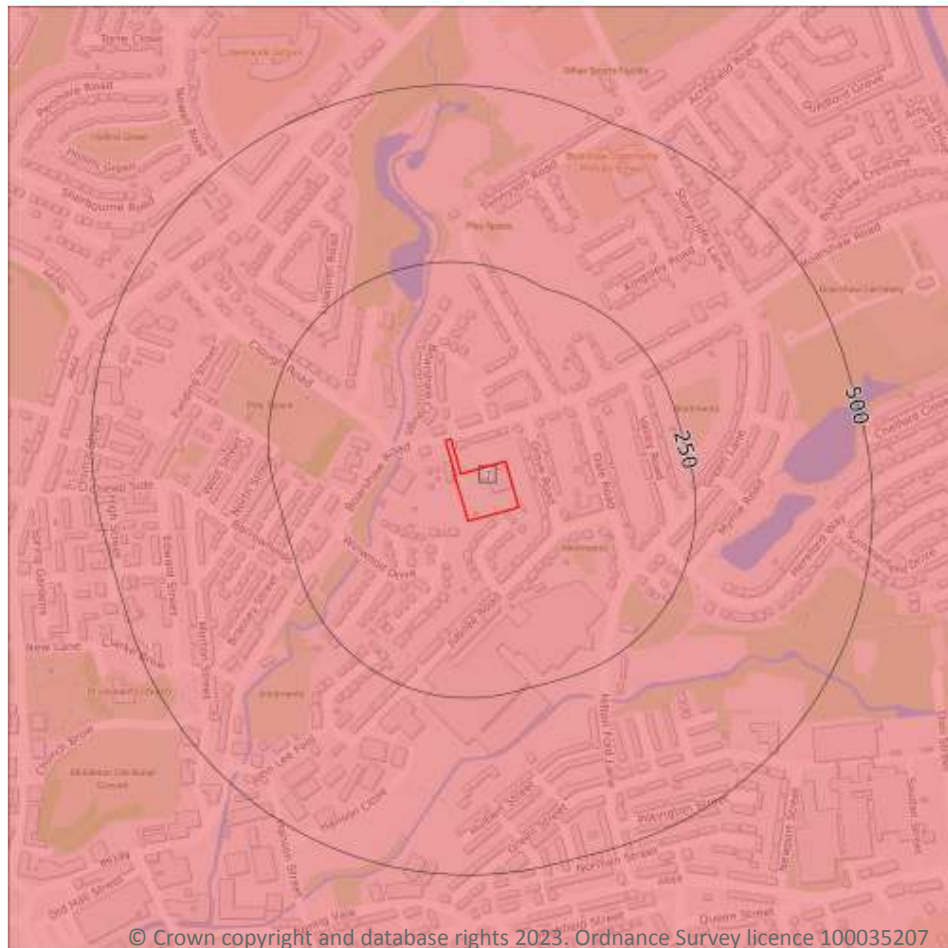
Records within 500m

0

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

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

5 Hydrogeology - Superficial aquifer



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

5.1 Superficial aquifer

Records within 500m

1

Aquifer status of groundwater held within superficial geology.

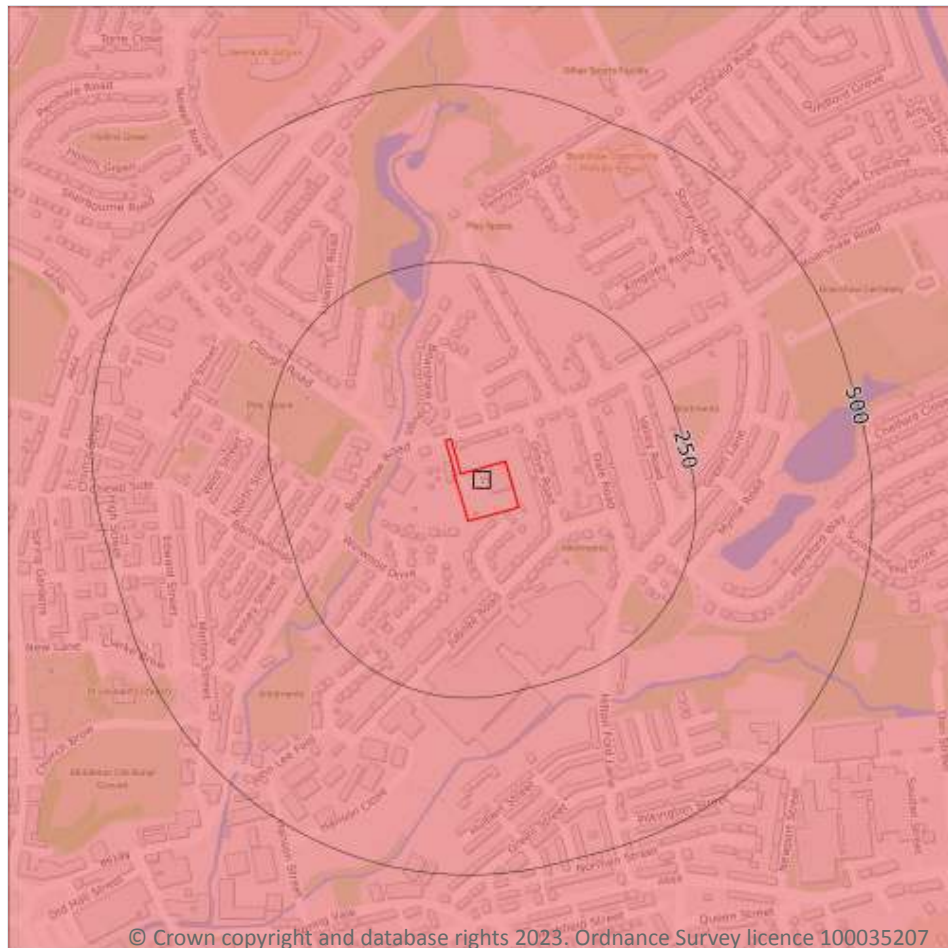
Features are displayed on the Hydrogeology map on [page 48 >](#)

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

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



Bedrock aquifer



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

5.2 Bedrock aquifer

Records within 500m

1

Aquifer status of groundwater held within bedrock geology.

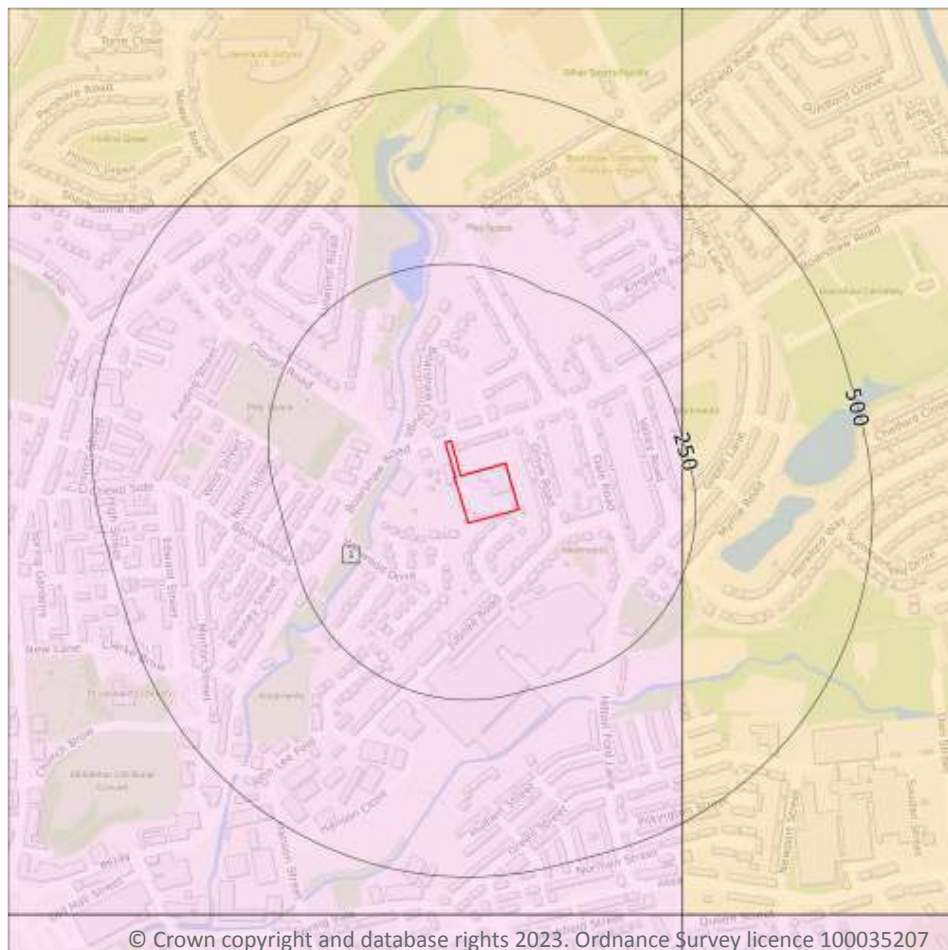
Features are displayed on the Bedrock aquifer map on [page 49](#) >

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

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



Groundwater vulnerability



— Site Outline

Search buffers in metres (m)

Superficial vulnerability

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

Bedrock vulnerability

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

Other information

- Unproductive aquifer
- Soluble rock risk
- Local information

5.3 Groundwater vulnerability

Records within 50m

1

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

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

Features are displayed on the Groundwater vulnerability map on [page 50](#) >



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

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

5.4 Groundwater vulnerability- soluble rock risk

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

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

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

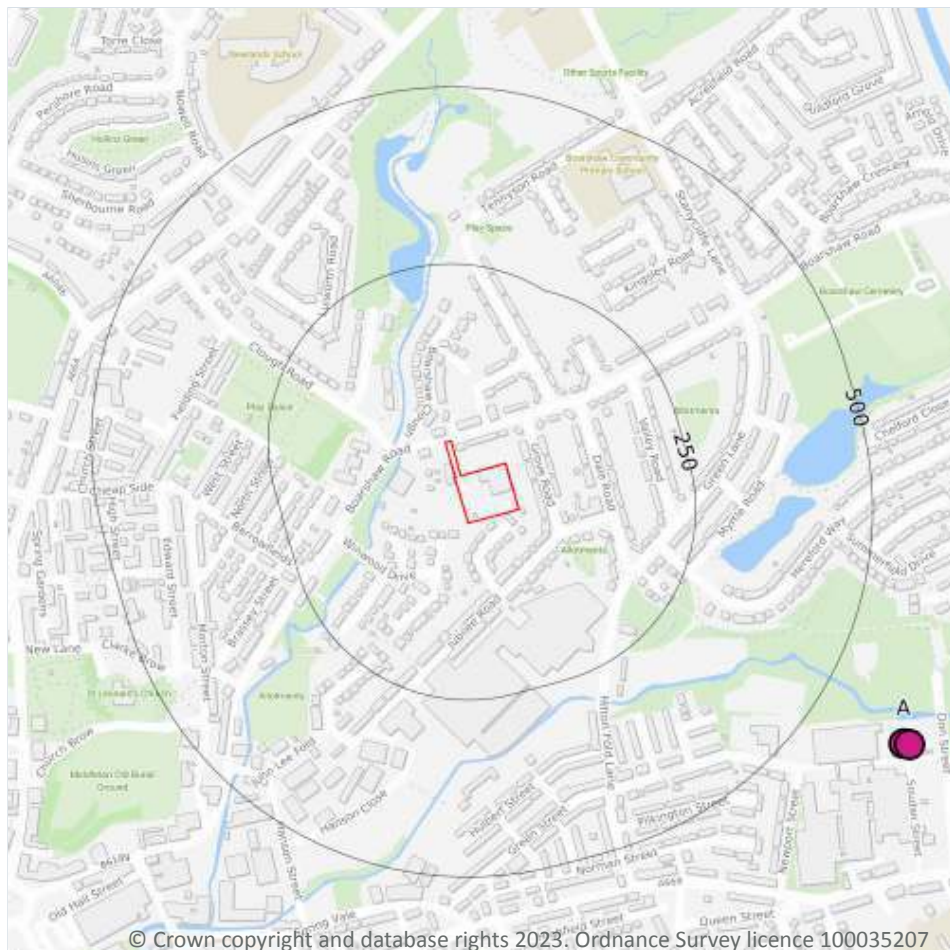
5.5 Groundwater vulnerability- local information

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

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

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

Abstractions and Source Protection Zones



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

5.6 Groundwater abstractions

Records within 2000m

4

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 52 >](#)



ID	Location	Details	
A	636m SE	Status: Historical Licence No: 2569005001 Details: Non-Evaporative Cooling Direct Source: Ground Water - North West Region Point: BOREHOLE AT PREMISES DON MILL, DON STREET, MIDDLETON Data Type: Point Name: Vita Cellular Foams (UK) Limited trading as Vitafoam Limited Easting: 388312 Northing: 406242	Annual Volume (m ³): 545520 Max Daily Volume (m ³): 2182.08 Original Application No: - Original Start Date: 18/01/1966 Expiry Date: - Issue No: 103 Version Start Date: 29/04/2010 Version End Date: -
A	643m SE	Status: Historical Licence No: 2569005001 Details: General Cooling (Existing Licences Only) (Low Loss) Direct Source: Ground Water - North West Region Point: "BOREHOLE AT PREMISES, DON MILL, DON STREET, MIDDLETON" Data Type: Point Name: VITACOM LTD Easting: 388320 Northing: 406240	Annual Volume (m ³): - Max Daily Volume (m ³): - Original Application No: - Original Start Date: 18/01/1966 Expiry Date: - Issue No: 100 Version Start Date: 18/01/1966 Version End Date: -
A	643m SE	Status: Historical Licence No: 2569005001 Details: General Cooling (Existing Licences Only) (Low Loss) Direct Source: Ground Water - North West Region Point: BOREHOLE AT PREMISES, DON MILL, DON STREET, MIDDLETON Data Type: Point Name: EASTLAND COMPOUNDING LTD Easting: 388320 Northing: 406240	Annual Volume (m ³): - Max Daily Volume (m ³): - Original Application No: - Original Start Date: 18/01/1966 Expiry Date: - Issue No: 101 Version Start Date: 31/03/2004 Version End Date: -
A	643m SE	Status: Historical Licence No: 2569005001 Details: General Cooling (Existing Licences Only) (Low Loss) Direct Source: Ground Water - North West Region Point: BOREHOLE AT PREMISES DON MILL DON STREET MIDDLETON Data Type: Point Name: VITAFOAM LTD Easting: 388320 Northing: 406240	Annual Volume (m ³): 545520 Max Daily Volume (m ³): 2182.08 Original Application No: - Original Start Date: 18/01/1966 Expiry Date: - Issue No: 102 Version Start Date: 01/01/2007 Version End Date: -

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



5.7 Surface water abstractions

Records within 2000m

7

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 52 >](#)

ID	Location	Details	
-	767m SE	Status: Historical Licence No: 2569005006 Details: General Cooling (Existing Licences Only) (Low Loss) Direct Source: "Surface, Non-Tidal - North West Region" Point: "R IRK AT PREMISES, DON MILL, DON STREET, MIDDLETON" Data Type: Point Name: VITACOM LTD Easting: 388460 Northing: 406240	Annual Volume (m ³): - Max Daily Volume (m ³): - Original Application No: - Original Start Date: 18/01/1966 Expiry Date: - Issue No: 100 Version Start Date: 23/11/1998 Version End Date: -
-	767m SE	Status: Historical Licence No: 2569005006 Details: General Cooling (Existing Licences Only) (Low Loss) Direct Source: Surface, Non-Tidal - North West Region Point: R IRK AT PREMISES, DON MILL, DON STREET, MIDDLETON Data Type: Point Name: EASTLAND COMPOUNDING LTD Easting: 388460 Northing: 406240	Annual Volume (m ³): - Max Daily Volume (m ³): - Original Application No: - Original Start Date: 18/01/1966 Expiry Date: - Issue No: 101 Version Start Date: 31/03/2004 Version End Date: -
-	1453m SW	Status: Historical Licence No: 2569005035 Details: Boiler Feed Direct Source: "Surface, Non-Tidal - North West Region" Point: "RESERVOIR FED BY SURFACE DRAINAGE AT MIDDLETON, MANCHESTER(T)" Data Type: Point Name: ROBERT McBRIDE LTD Easting: 386600 Northing: 405600	Annual Volume (m ³): - Max Daily Volume (m ³): - Original Application No: - Original Start Date: 20/01/1966 Expiry Date: - Issue No: 100 Version Start Date: 18/01/1995 Version End Date: -



ID	Location	Details	
-	1453m SW	Status: Historical Licence No: 2569005035 Details: General Cooling (Existing Licences Only) (Low Loss) Direct Source: "Surface, Non-Tidal - North West Region" Point: "RESERVOIR FED BY SURFACE DRAINAGE AT MIDDLETON, MANCHESTER(T" Data Type: Point Name: ROBERT McBRIDE LTD Easting: 386600 Northing: 405600	Annual Volume (m ³): - Max Daily Volume (m ³): - Original Application No: - Original Start Date: 20/01/1966 Expiry Date: - Issue No: 100 Version Start Date: 18/01/1995 Version End Date: -
-	1453m SW	Status: Historical Licence No: 2569005035 Details: General Cooling (Existing Licences Only) (Low Loss) Direct Source: Surface, Non-Tidal - North West Region Point: RESERVOIR FED BY SURFACE DRAINAGE AT MIDDLETON, MANCHESTER(T Data Type: Point Name: ROBERT McBRIDE LTD Easting: 386600 Northing: 405600	Annual Volume (m ³): 28867 Max Daily Volume (m ³): 2182.08 Original Application No: 1898 Original Start Date: 20/01/1966 Expiry Date: - Issue No: 100 Version Start Date: 01/04/2007 Version End Date: -
-	1453m SW	Status: Historical Licence No: 2569005035 Details: Boiler Feed Direct Source: Surface, Non-Tidal - North West Region Point: RESERVOIR FED BY SURFACE DRAINAGE AT MIDDLETON, MANCHESTER(T Data Type: Point Name: ROBERT McBRIDE LTD Easting: 386600 Northing: 405600	Annual Volume (m ³): 28867 Max Daily Volume (m ³): 2182.08 Original Application No: 1898 Original Start Date: 20/01/1966 Expiry Date: - Issue No: 100 Version Start Date: 01/04/2007 Version End Date: -
-	1989m SW	Status: Historical Licence No: 2569005055 Details: Spray Irrigation - Direct Direct Source: Surface, Non-Tidal - North West Region Point: RESERVOIR FED BY SURFACE DRAINAGE AT NORTH MANCHESTER GOLF C Data Type: Point Name: THE NEW NORTH MANCHESTER GOLF CLUB LTD Easting: 385900 Northing: 405700	Annual Volume (m ³): 2273 Max Daily Volume (m ³): 45.46 Original Application No: 2477 Original Start Date: 21/02/1977 Expiry Date: - Issue No: 101 Version Start Date: 01/04/2008 Version End Date: -

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



5.8 Potable abstractions

Records within 2000m

0

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

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

5.9 Source Protection Zones

Records within 500m

0

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

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

5.10 Source Protection Zones (confined aquifer)

Records within 500m

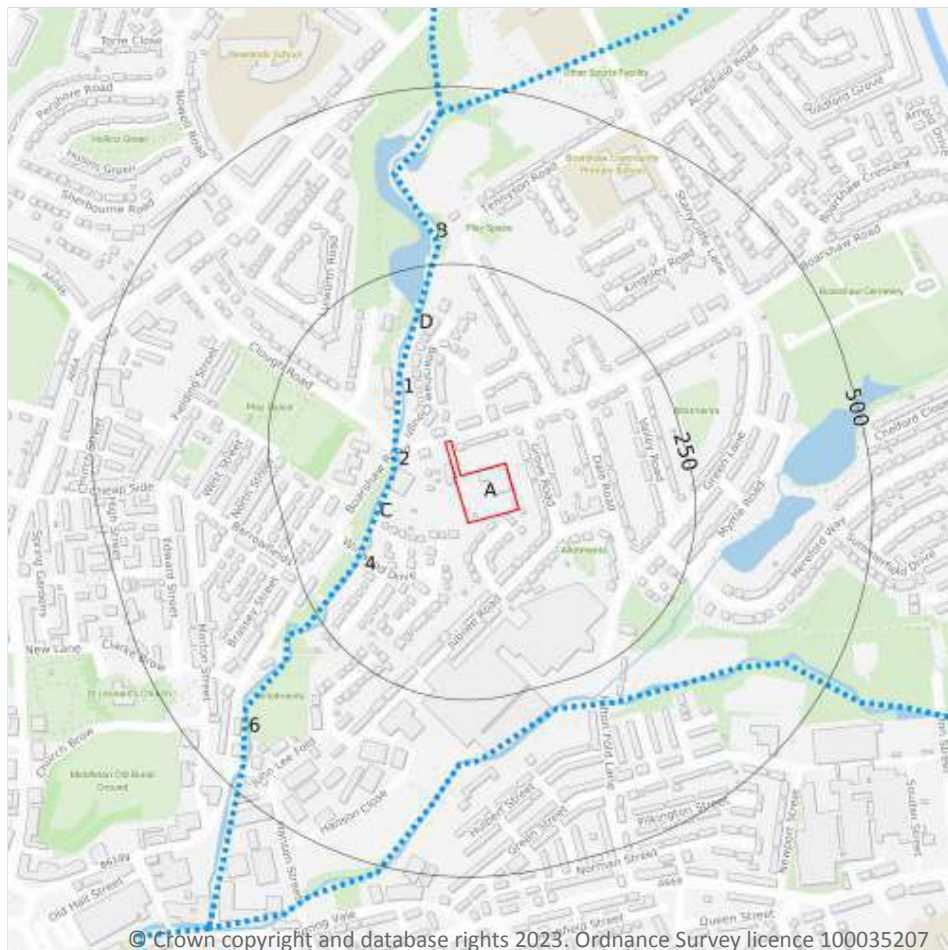
0

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

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



6 Hydrology



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

6.1 Water Network (OS MasterMap)

Records within 250m

10

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

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

ID	Location	Type of water feature	Ground level	Permanence	Name
1	65m NW	Inland river not influenced by normal tidal action.	On ground surface	Watercourse contains water year round (in normal circumstances)	Whit Brook

ID	Location	Type of water feature	Ground level	Permanence	Name
C	68m W	Inland river not influenced by normal tidal action.	On ground surface	Watercourse contains water year round (in normal circumstances)	Whit Brook
2	69m W	Inland river not influenced by normal tidal action.	Underground	Watercourse contains water year round (in normal circumstances)	Whit Brook
4	146m SW	Inland river not influenced by normal tidal action.	Underground	Watercourse contains water year round (in normal circumstances)	Whit Brook
6	165m SW	Inland river not influenced by normal tidal action.	On ground surface	Watercourse contains water year round (in normal circumstances)	Whit Brook
B	184m N	Inland river not influenced by normal tidal action.	On ground surface	Watercourse contains water year round (in normal circumstances)	Whit Brook
D	184m N	Inland river not influenced by normal tidal action.	On ground surface	Watercourse contains water year round (in normal circumstances)	-
D	189m N	Inland river not influenced by normal tidal action.	On ground surface	Watercourse contains water year round (in normal circumstances)	-
D	189m N	Inland river not influenced by normal tidal action.	On ground surface	Watercourse contains water year round (in normal circumstances)	-
B	200m N	Reservoir. An area of non-tidal water used for storing water.	On ground surface	Watercourse contains water year round (in normal circumstances)	-

This data is sourced from the Ordnance Survey.

6.2 Surface water features

Records within 250m

5

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

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

This data is sourced from the Ordnance Survey.



6.3 WFD Surface water body catchments

Records on site

1

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

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

ID	Location	Type	Water body catchment	Water body ID	Operational catchment	Management catchment
A	On site	River	Irk (Source to Wince Brook)	GB112069061161	Roch Irk Medlock	Irwell

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

6.4 WFD Surface water bodies

Records identified

1

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

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

ID	Location	Type	Name	Water body ID	Overall rating	Chemical rating	Ecological rating	Year
3	70m NW	River	Irk (Source to Wince Brook)	GB112069061161 ↗	Moderate	Fail	Moderate	2019

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

6.5 WFD Groundwater bodies

Records on site

1

Groundwater bodies are also covered by the Directive and the same regime of objectives and reporting detailed in the previous section is in place. Click on the water body ID in the table to visit the EA Catchment Explorer to find out more about each groundwater body listed.

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



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

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



7 River and coastal flooding



- Site Outline
- Search buffers in metres (m)
- River and coastal flooding:
- High
- Medium
- Low
- Very Low
- Historical Flood Events
- Areas Used for Flood Storage
- Areas Benefiting from Flood Defences
- Flood Defences

7.1 Risk of flooding from rivers and the sea

Records within 50m

1

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).

Features are displayed on the River and coastal flooding map on [page 61](#) >

Distance	Flood risk category
On site	N/A
0 - 50m	Medium

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 61](#) >

ID	Location	Event name	Date of flood	Flood source	Flood cause	Type of flood
A	55m W	Middleton (Boarshaw Trading Estate)	2015-12-26 2015-12-26	Main river	Channel capacity exceeded (no raised defences)	Fluvial

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



- Site Outline
- Search buffers in metres (m)
- Flood zone 2
- Flood zone 3

7.6 Flood Zone 2

Records within 50m

1

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.

Features are displayed on the River and coastal flooding map on [page 61](#) >

Location	Type
43m W	Zone 2 - (Fluvial /Tidal Models)

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



— Site Outline

Search buffers in metres (m)

1 in 1000 return period

- Depth between 0.1m - 0.3m
- Depth between 0.3m - 1.0m
- Depth greater than 1.0m

1 in 250 return period

- Depth between 0.1m - 0.3m
- Depth between 0.3m - 1.0m
- Depth greater than 1.0m

1 in 100 return period

- Depth between 0.1m - 0.3m
- Depth between 0.3m - 1.0m
- Depth greater than 1.0m

1 in 30 return period

- Depth between 0.1m - 0.3m
- Depth between 0.3m - 1.0m
- Depth greater than 1.0m

8.1 Surface water flooding

Highest risk on site

Negligible

Highest risk within 50m

1 in 30 year, 0.3m - 1.0m

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

Features are displayed on the Surface water flooding map on [page 66](#) >

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

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

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

This data is sourced from Ambiantal Risk Analytics.



9 Groundwater flooding



— Site Outline
Search buffers in metres (m)

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

9.1 Groundwater flooding

Highest risk on site

Moderate

Highest risk within 50m

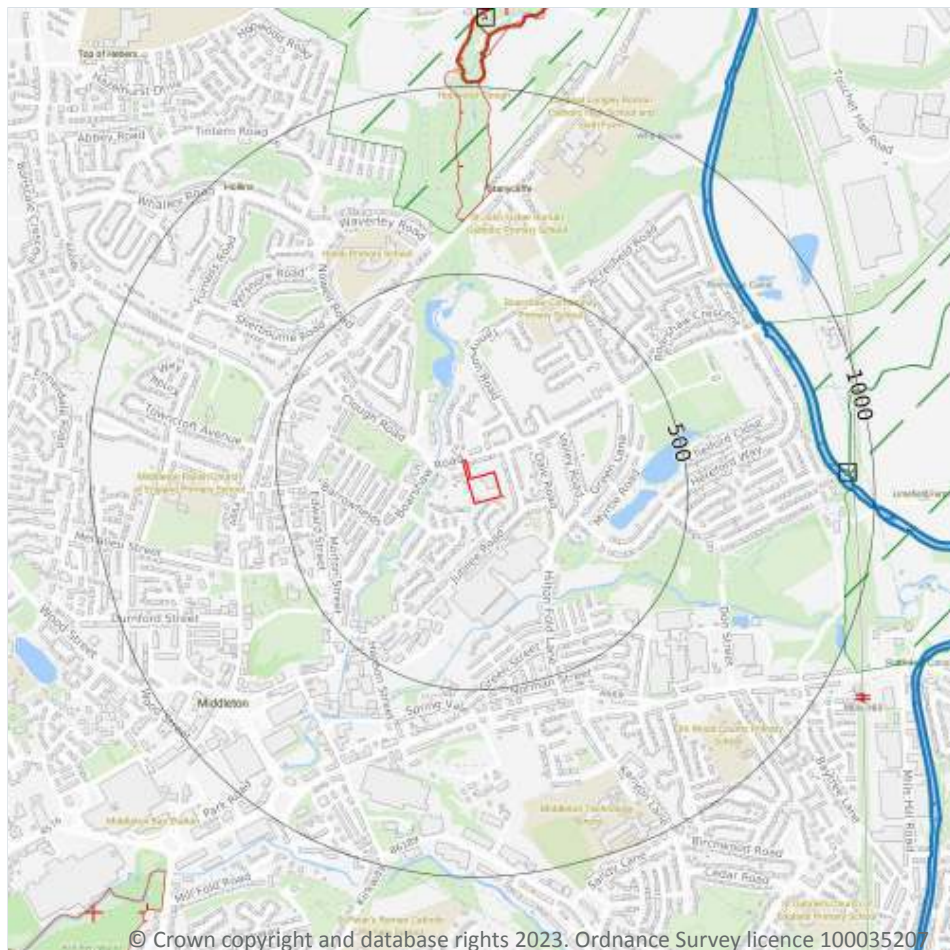
Moderate

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 68](#) >

This data is sourced from Ambient Risk Analytics.

10 Environmental designations



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

10.1 Sites of Special Scientific Interest (SSSI)

Records within 2000m

1

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 69](#) >

ID	Location	Name	Data source
B	809m NE	Rochdale Canal	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

1

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.

Features are displayed on the Environmental designations map on [page 69 >](#)

ID	Location	Name	Features of interest	Habitat description	Data source
B	809m NE	Rochdale Canal	Floating water-plantain.	Other land (including Towns, Villages, Roads, Waste places, Mines, Industrial sites); Inland water bodies (Standing water, Running water)	Natural England

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

5

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 69 >](#)

ID	Location	Name	Data source
A	639m N	Hopwood Woodlands	Natural England
3	1286m SW	Alkington Woods	Natural England
-	1307m N	Hopwood Woodlands	Natural England
-	1503m N	Hopwood Woodlands	Natural England
-	1917m N	Hopwood Woodlands	Natural England

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

10.7 Designated Ancient Woodland

Records within 2000m

7

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 69 >](#)

ID	Location	Name	Woodland Type
A	1013m N	Hopwood Clough	Ancient & Semi-Natural Woodland
-	1297m N	Hopwood Clough	Ancient & Semi-Natural Woodland



ID	Location	Name	Woodland Type
-	1503m N	Unknown	Ancient & Semi-Natural Woodland
-	1546m N	Unknown	Ancient & Semi-Natural Woodland
-	1638m N	Oaken Bank Wood	Ancient & Semi-Natural Woodland
-	1723m N	Unknown	Ancient & Semi-Natural Woodland
-	1953m N	Oaken Bank Wood	Ancient & Semi-Natural Woodland

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

10.8 Biosphere Reserves

Records within 2000m

0

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

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

10.9 Forest Parks

Records within 2000m

0

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

This data is sourced from the Forestry Commission.

10.10 Marine Conservation Zones

Records within 2000m

0

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

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

10.11 Green Belt

Records within 2000m

2

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

Features are displayed on the Environmental designations map on [page 69 >](#)

ID	Location	Name	Local Authority name
1	610m N	Merseyside and Greater Manchester	Rochdale
2	918m E	Merseyside and Greater Manchester	Oldham

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**

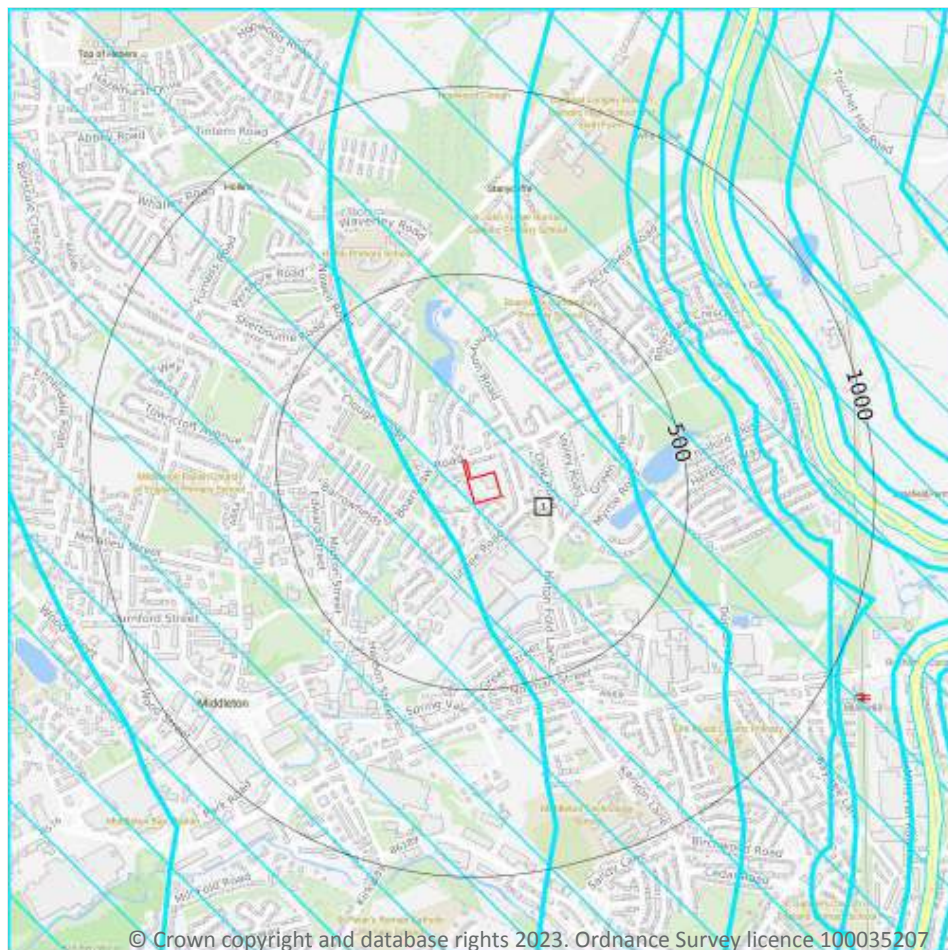
Areas at risk from agricultural nitrate pollution designated under the EC Nitrate Directive (91/676/EEC). These are areas of land that drain into waters polluted by nitrates. Farmers operating within these areas have to follow mandatory rules to tackle nitrate loss from agriculture.

Location	Name	Type	NVZ ID	Status
On site	River Irk (Moston Brook to River Irwell) NVZ	Surface Water	638	Existing
571m S	River Irk (Moston Brook to River Irwell) NVZ	Surface Water	638	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 75 >](#)

ID	Location	Type of developments requiring consultation
1	On site	Infrastructure - Pipelines and underground cables, pylons and overhead cables. Any transport proposal including road, rail and by water (excluding routine maintenance). Airports, helipads and other aviation proposals. Minerals, Oil and Gas - Planning applications for quarries, including: new proposals, Review of Minerals Permissions (ROMP), extensions, variations to conditions etc. Oil & gas exploration/extraction. Residential - Residential development of 100 units or more. Rural residential - Any residential development of 50 or more houses outside existing settlements/urban areas. Air pollution - Any industrial/agricultural development that could cause AIR POLLUTION (incl: industrial processes, livestock & poultry units with floorspace > 500m², slurry lagoons & digestate stores > 200m², manure stores > 250t). Combustion - General combustion processes >20MW energy input. Incl: energy from waste incineration, other incineration, landfill gas generation plant, pyrolysis/gasification, anaerobic digestion, sewage treatment works, other incineration/ combustion. Waste - Landfill. Incl: inert landfill, non-hazardous landfill, hazardous landfill. Composting - Any composting proposal with more than 500 tonnes maximum annual operational throughput. Incl: open windrow composting, in-vessel composting, anaerobic digestion, other waste management. Water supply - Large infrastructure such as warehousing / industry where net additional gross internal floorspace is > 1,000m² or any development needing its own water supply .

This data is sourced from Natural England.

10.18 SSSI Units

Records within 2000m	1
-----------------------------	----------

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 75 >](#)

ID: A
 Location: 809m NE
 SSSI name: Rochdale Canal
 Unit name: Failsworth
 Broad habitat: Standing Open Water And Canals
 Condition: Unfavourable - Recovering
 Reportable features:

Feature name	Feature condition	Date of assessment
Population of Schedule 8 plant - Luronium natans, Floating Water-plantain	Unfavourable - Recovering	25/11/2010

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



11 Visual and cultural designations

11.1 World Heritage Sites

Records within 250m

0

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

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

11.2 Area of Outstanding Natural Beauty

Records within 250m

0

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

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

11.3 National Parks

Records within 250m

0

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

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

11.4 Listed Buildings

Records within 250m

0

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



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

11.5 Conservation Areas

Records within 250m

0

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

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

11.6 Scheduled Ancient Monuments

Records within 250m

0

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

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

11.7 Registered Parks and Gardens

Records within 250m

0

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

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

12 Agricultural designations



- Site Outline
- Search buffers in metres (m)
- Grade 1 - excellent quality
- Grade 2 - very good quality
- Grade 3 - good to moderate quality
- Grade 3a - good quality
- Grade 3b - moderate quality
- Grade 4 - poor quality
- Grade 5 - very poor quality
- Non-agricultural land
- Urban land
- Exclusion land
- Tree felling licences
- Open Access land

12.1 Agricultural Land Classification

Records within 250m

1

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

Features are displayed on the Agricultural designations map on [page 79](#) >

ID	Location	Classification	Description
1	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

0

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

This data is sourced from the Forestry Commission.

12.4 Environmental Stewardship Schemes

Records within 250m

0

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

This data is sourced from Natural England.

12.5 Countryside Stewardship Schemes

Records within 250m

0

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

This data is sourced from Natural England.

13 Habitat designations



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

13.1 Priority Habitat Inventory

Records within 250m

4

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 81](#) >

ID	Location	Main Habitat	Other habitats
1	186m N	Deciduous woodland	Main habitat: DWOOD (INV > 50%)
2	191m SE	Deciduous woodland	Main habitat: DWOOD (INV > 50%)
3	209m NW	Deciduous woodland	Main habitat: DWOOD (INV > 50%)
4	219m SE	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

0

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

This data is sourced from Natural England.

13.4 Limestone Pavement Orders

Records within 250m

0

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

This data is sourced from Natural England.



14 Geology 1:10,000 scale - Availability



— Site Outline
Search buffers in metres (m)

- Full coverage
- Partial coverage
- No coverage

14.1 10k Availability

Records within 500m

1

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

Features are displayed on the Geology 1:10,000 scale - Availability map on [page 83](#) >

ID	Location	Artificial	Superficial	Bedrock	Mass movement	Sheet No.
1	On site	Full	Full	Full	Full	SD80NE

This data is sourced from the British Geological Survey.

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



— Site Outline
Search buffers in metres (m)

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

14.2 Artificial and made ground (10k)

Records within 500m

14

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 84](#) >

ID	Location	LEX Code	Description	Rock description
A	On site	WMGR-ARTDP	Infilled Ground	Artificial Deposit
A	23m NW	MGR-ARTDP	Made Ground (Undivided)	Artificial Deposit
B	71m NW	MGR-ARTDP	Made Ground (Undivided)	Artificial Deposit
B	116m NW	MGR-ARTDP	Made Ground (Undivided)	Artificial Deposit

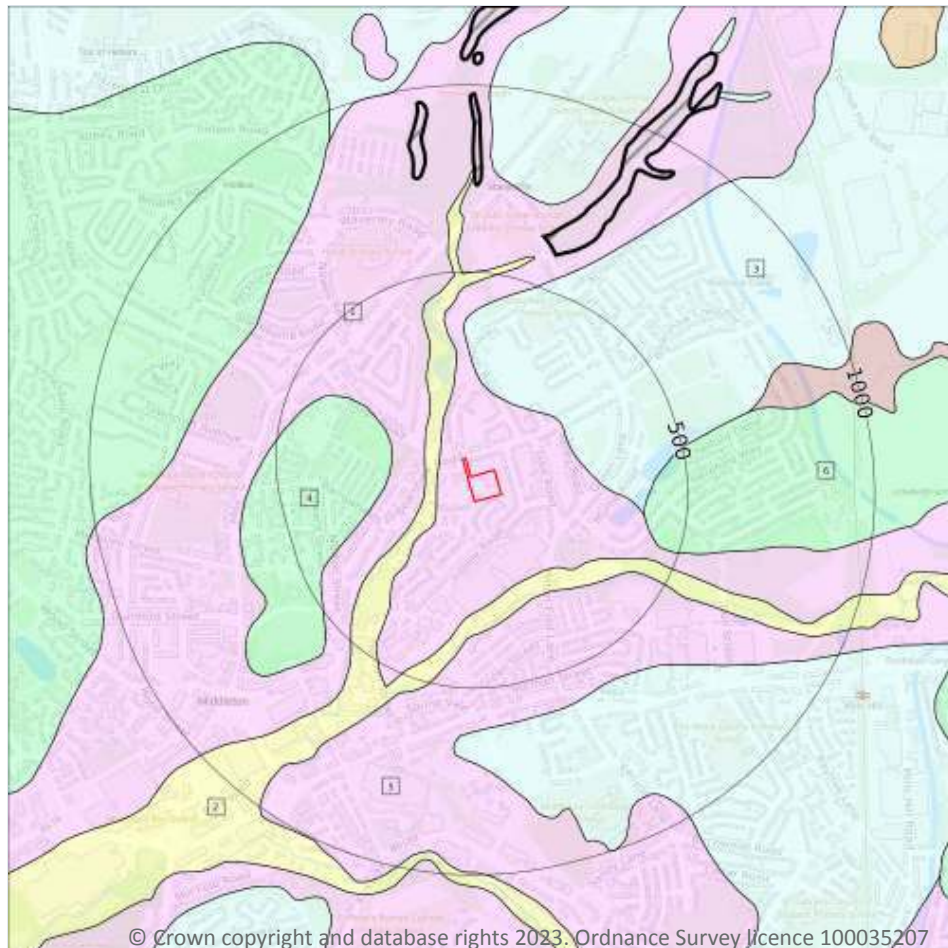


ID	Location	LEX Code	Description	Rock description
1	234m SE	MGR-ARTDP	Made Ground (Undivided)	Artificial Deposit
2	245m E	WMGR-ARTDP	Infilled Ground	Artificial Deposit
3	259m SE	MGR-ARTDP	Made Ground (Undivided)	Artificial Deposit
4	344m S	MGR-ARTDP	Made Ground (Undivided)	Artificial Deposit
5	350m NW	MGR-ARTDP	Made Ground (Undivided)	Artificial Deposit
6	363m E	MGR-ARTDP	Made Ground (Undivided)	Artificial Deposit
7	381m SE	MGR-ARTDP	Made Ground (Undivided)	Artificial Deposit
8	388m NW	WMGR-ARTDP	Infilled Ground	Artificial Deposit
C	439m N	MGR-ARTDP	Made Ground (Undivided)	Artificial Deposit
9	462m SE	MGR-ARTDP	Made Ground (Undivided)	Artificial Deposit

This data is sourced from the British Geological Survey.



Geology 1:10,000 scale - Superficial



Site Outline

Search buffers in metres (m)

Landslip (10k)

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

14.3 Superficial geology (10k)

Records within 500m

6

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 86](#) >

ID	Location	LEX Code	Description	Rock description
1	On site	GFSDD-XSV	Glaciofluvial Sheet Deposits, Devensian - Sand And Gravel	Sand And Gravel
2	61m NW	ALV-XCZSV	Alluvium - Clay, Silt, Sand And Gravel	Clay, Silt, Sand And Gravel
3	183m N	TILLD-DMTN	Till, Devensian - Diamicton	Diamicton

ID	Location	LEX Code	Description	Rock description
4	188m W	HMGDD-DMTN	Hummocky (moundy) Glacial Deposits, Devensian - Diamicton	Diamicton
5	290m SE	GFSDDD-XSV	Glaciofluvial Sheet Deposits, Devensian - Sand And Gravel	Sand And Gravel
6	385m E	HMGDD-DMTN	Hummocky (moundy) Glacial Deposits, Devensian - Diamicton	Diamicton

This data is sourced from the British Geological Survey.

14.4 Landslip (10k)

Records within 500m

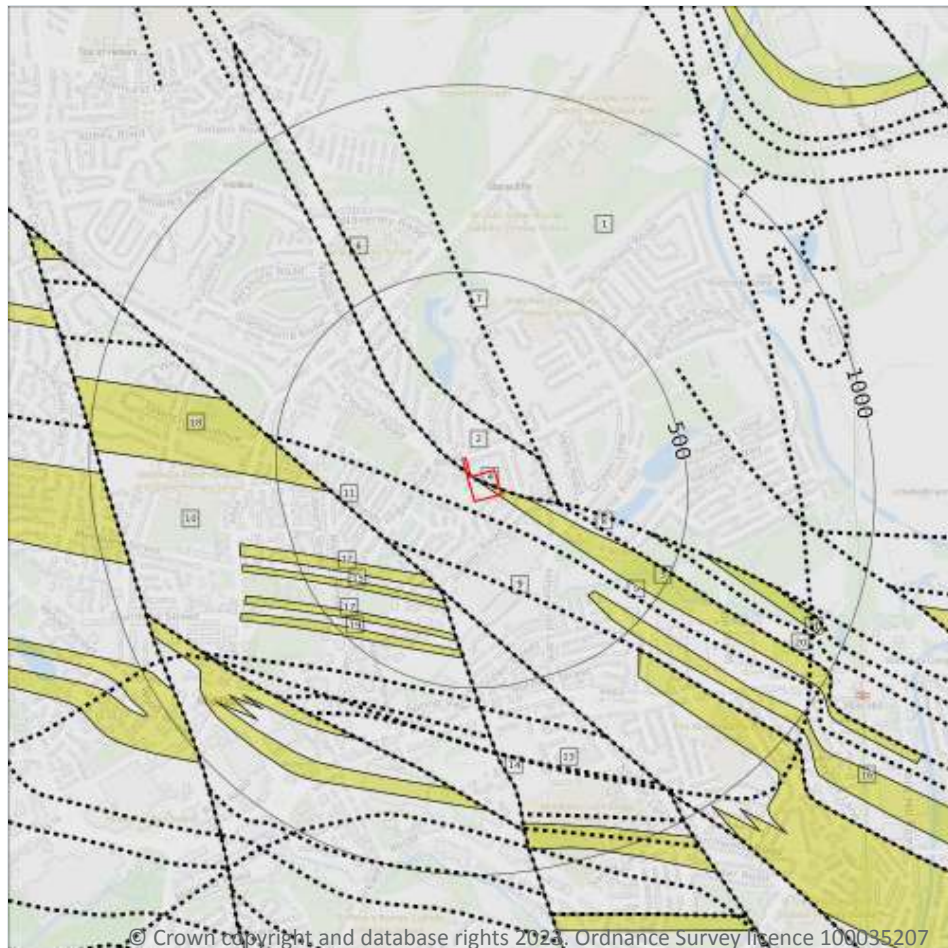
0

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

This data is sourced from the British Geological Survey.



Geology 1:10,000 scale - Bedrock



— Site Outline

Search buffers in metres (m)

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

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

14.5 Bedrock geology (10k)

Records within 500m

11

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 88](#) >

ID	Location	LEX Code	Description	Rock age
1	On site	PLCM-MDSS	Pennine Lower Coal Measures Formation - Mudstone, Siltstone And Sandstone	Langsettian Sub-age
2	On site	PLCM-MDSS	Pennine Lower Coal Measures Formation - Mudstone, Siltstone And Sandstone	Langsettian Sub-age
3	On site	PLCM-SDST	Pennine Lower Coal Measures Formation - Sandstone	Langsettian Sub-age



ID	Location	LEX Code	Description	Rock age
10	234m SW	PLCM-MDSS	Pennine Lower Coal Measures Formation - Mudstone, Siltstone And Sandstone	Langsettian Sub-age
12	237m SW	PLCM-SDST	Pennine Lower Coal Measures Formation - Sandstone	Langsettian Sub-age
13	252m S	PLCM-MDSS	Pennine Lower Coal Measures Formation - Mudstone, Siltstone And Sandstone	Langsettian Sub-age
15	278m S	PLCM-SDST	Pennine Lower Coal Measures Formation - Sandstone	Langsettian Sub-age
16	357m SE	PLCM-SDST	Pennine Lower Coal Measures Formation - Sandstone	Langsettian Sub-age
17	358m S	PLCM-SDST	Pennine Lower Coal Measures Formation - Sandstone	Langsettian Sub-age
18	362m W	RYSA-SDST	Royley Sandstone - Sandstone	Langsettian Sub-age
19	399m S	PLCM-SDST	Pennine Lower Coal Measures Formation - Sandstone	Langsettian Sub-age

This data is sourced from the British Geological Survey.

14.6 Bedrock faults and other linear features (10k)

Records within 500m	10
----------------------------	-----------

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 88](#) >

ID	Location	Category	Description
4	On site	FAULT	Normal fault, inferred; crossmarks on downthrow side
5	27m SW	ROCK	Coal seam, inferred
6	92m NE	FAULT	Normal fault, inferred; crossmarks on downthrow side
7	124m NE	FAULT	Normal fault, inferred; crossmarks on downthrow side
8	156m E	ROCK	Coal seam, inferred
9	180m S	ROCK	Coal seam, inferred
11	234m SW	FAULT	Normal fault, inferred; crossmarks on downthrow side
14	252m S	FAULT	Normal fault, inferred; crossmarks on downthrow side
20	399m SE	ROCK	Coal seam, inferred coincident with bedrock geology boundary
21	415m E	ROCK	Coal seam, 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 90](#) >

ID	Location	Artificial	Superficial	Bedrock	Mass movement	Sheet No.
1	On site	No coverage	Full	Full	No coverage	EW085_manchester_v4

This data is sourced from the British Geological Survey.

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

15.2 Artificial and made ground (50k)

Records within 500m

0

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

This data is sourced from the British Geological Survey.

15.3 Artificial ground permeability (50k)

Records within 50m

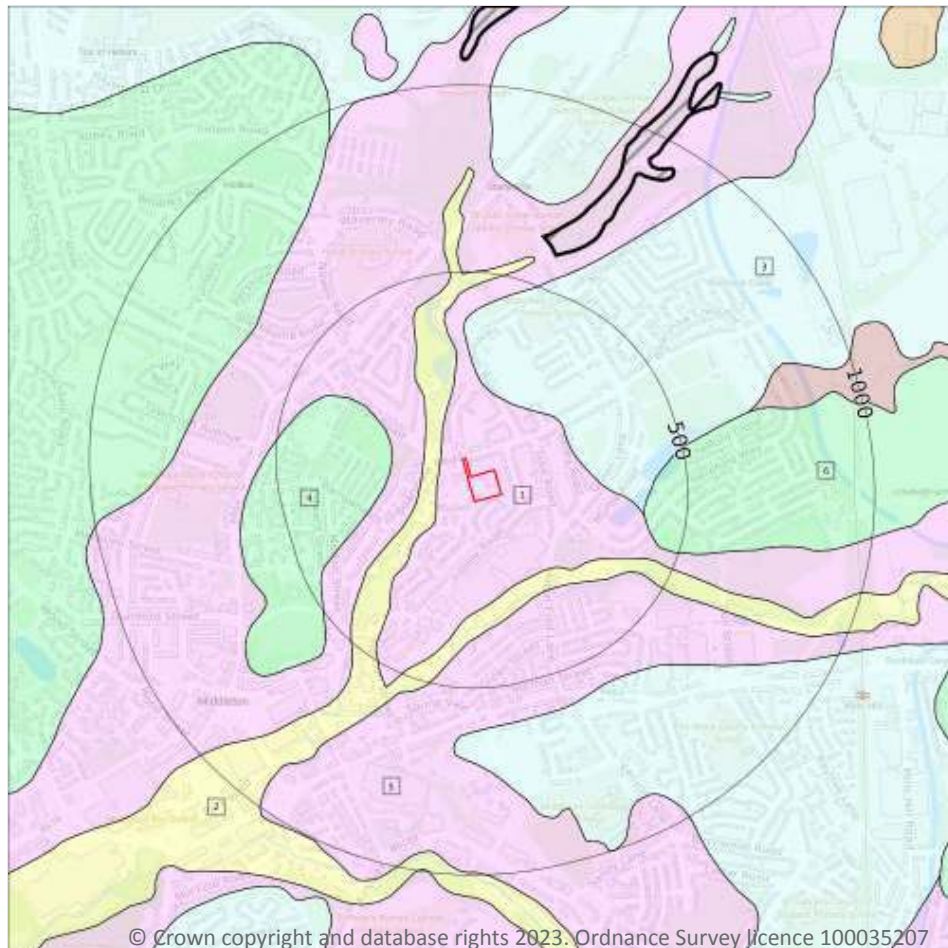
0

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

This data is sourced from the British Geological Survey.



Geology 1:50,000 scale - Superficial



Site Outline

Search buffers in metres (m)

Landslip (50k)

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

15.4 Superficial geology (50k)

Records within 500m

6

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 92](#) >

ID	Location	LEX Code	Description	Rock description
1	On site	GFSDD-XSV	GLACIOFLUVIAL SHEET DEPOSITS, DEVENSIAN	SAND AND GRAVEL
2	59m NW	ALV-XCZSV	ALLUVIUM	CLAY, SILT, SAND AND GRAVEL
3	183m N	TILLD-DMTN	TILL, DEVENSIAN	DIAMICTON

ID	Location	LEX Code	Description	Rock description
4	188m W	HMGDD-DMTN	HUMMOCKY (MOUNDY) GLACIAL DEPOSITS, DEVENSIAN	DIAMICTON
5	284m SE	GFSD-DSV	GLACIOFLUVIAL SHEET DEPOSITS, DEVENSIAN	SAND AND GRAVEL
6	385m E	HMGDD-DMTN	HUMMOCKY (MOUNDY) GLACIAL DEPOSITS, DEVENSIAN	DIAMICTON

This data is sourced from the British Geological Survey.

15.5 Superficial permeability (50k)

Records within 50m **1**

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

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

This data is sourced from the British Geological Survey.

15.6 Landslip (50k)

Records within 500m **0**

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

This data is sourced from the British Geological Survey.

15.7 Landslip permeability (50k)

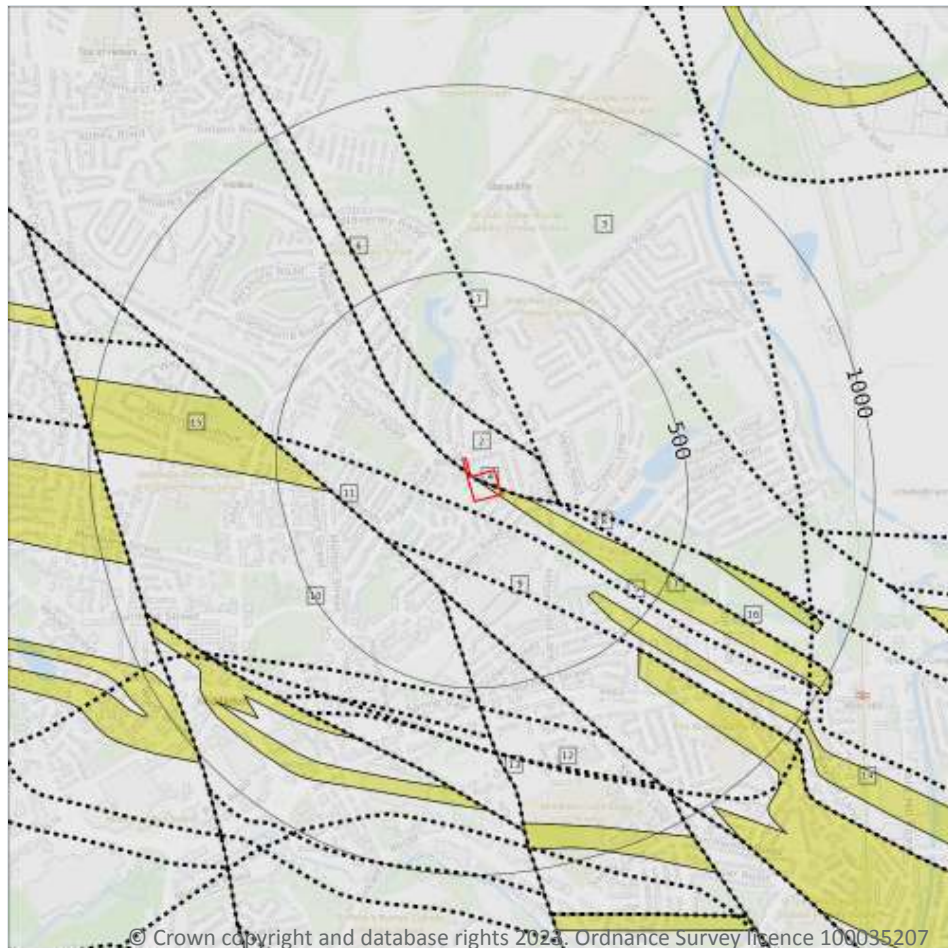
Records within 50m **0**

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

This data is sourced from the British Geological Survey.



Geology 1:50,000 scale - Bedrock



— Site Outline

Search buffers in metres (m)

.... Bedrock faults and other linear features (50k)

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

15.8 Bedrock geology (50k)

Records within 500m

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 94](#) >

ID	Location	LEX Code	Description	Rock age
1	On site	PLCM-SDST	PENNINE LOWER COAL MEASURES FORMATION - SANDSTONE	WESTPHALIAN
2	On site	PLCM-MDSS	PENNINE LOWER COAL MEASURES FORMATION - MUDSTONE, SILTSTONE AND SANDSTONE	WESTPHALIAN

ID	Location	LEX Code	Description	Rock age
3	On site	PLCM-MDSS	PENNINE LOWER COAL MEASURES FORMATION - MUDSTONE, SILTSTONE AND SANDSTONE	WESTPHALIAN
10	234m SW	PLCM-MDSS	PENNINE LOWER COAL MEASURES FORMATION - MUDSTONE, SILTSTONE AND SANDSTONE	WESTPHALIAN
12	252m S	PLCM-MDSS	PENNINE LOWER COAL MEASURES FORMATION - MUDSTONE, SILTSTONE AND SANDSTONE	WESTPHALIAN
14	357m SE	PLCM-SDST	PENNINE LOWER COAL MEASURES FORMATION - SANDSTONE	WESTPHALIAN
15	362m W	RYSA-SDST	ROYLEY SANDSTONE - SANDSTONE	WESTPHALIAN

This data is sourced from the British Geological Survey.

15.9 Bedrock permeability (50k)

Records within 50m	2
---------------------------	----------

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

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

This data is sourced from the British Geological Survey.

15.10 Bedrock faults and other linear features (50k)

Records within 500m	9
----------------------------	----------

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 94](#) >

ID	Location	Category	Description
4	On site	FAULT	Fault, inferred
5	27m SW	ROCK	Coal seam, inferred
6	92m NE	FAULT	Fault, inferred



ID	Location	Category	Description
7	124m NE	FAULT	Fault, inferred
8	155m E	ROCK	Coal seam, inferred
9	180m S	ROCK	Coal seam, inferred
11	234m SW	FAULT	Fault, inferred
13	252m S	FAULT	Fault, inferred
16	399m SE	ROCK	Coal seam, inferred

This data is sourced from the British Geological Survey.



16 Boreholes



© Crown copyright and database rights 2023. Ordnance Survey licence 100035207

— Site Outline
Search buffers in metres (m)

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

16.1 BGS Boreholes

Records within 250m

4

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

Features are displayed on the Boreholes map on [page 97](#) >

ID	Location	Grid reference	Name	Length	Confidential	Web link
1	On site	387700 406559	RIBBLE MANUFACTURING CO BOARSHAW LANE	78.03	N	26961 ↗
2	237m SE	387850 406350	IRK VALLEY, MIDDLETON 16	4.5	N	27038 ↗
3	240m SE	387880 406360	IRK VALLEY, MIDDLETON 17	8.5	N	27039 ↗

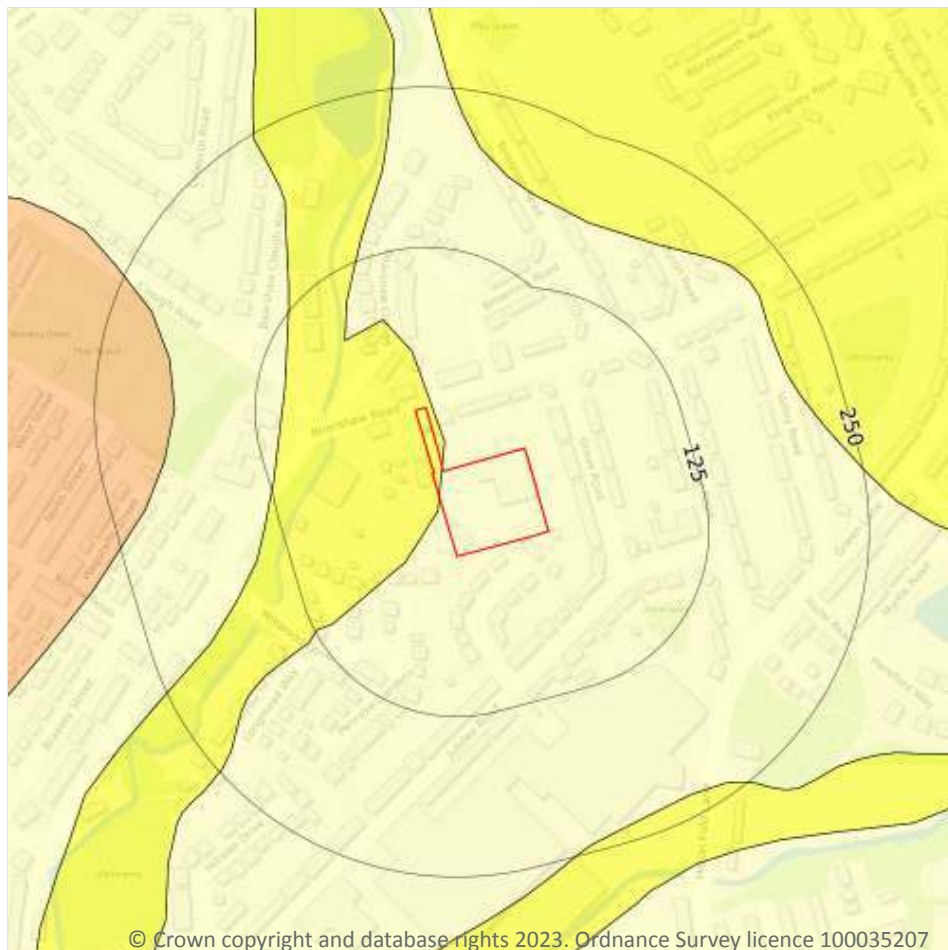


ID	Location	Grid reference	Name	Length	Confidential	Web link
4	244m S	387770 406320	IRK VALLEY, MIDDLETON 15	6.0	N	27037 ↗

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).

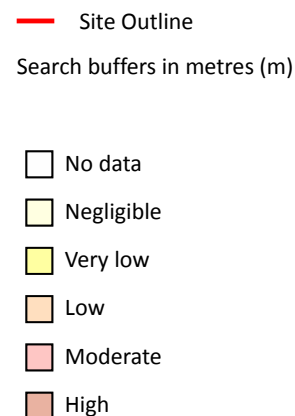
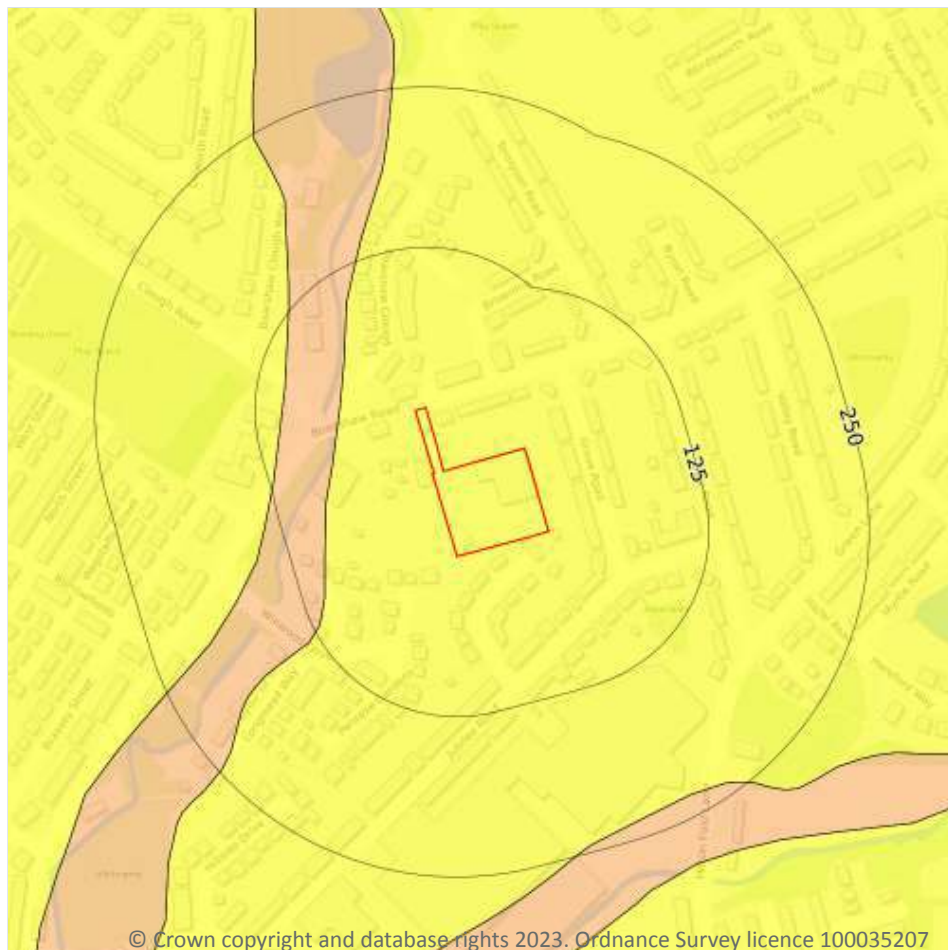
Features are displayed on the Natural ground subsidence - Shrink swell clays map on [page 99](#) >

Location	Hazard rating	Details
On site	Negligible	Ground conditions predominantly non-plastic.
On site	Very low	Ground conditions predominantly low plasticity.

This data is sourced from the British Geological Survey.



Natural ground subsidence - Running sands



17.2 Running sands

Records within 50m

1

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

Features are displayed on the Natural ground subsidence - Running sands map on [page 100](#) >

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

This data is sourced from the British Geological Survey.



Natural ground subsidence - Compressible deposits



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

17.3 Compressible deposits

Records within 50m

1

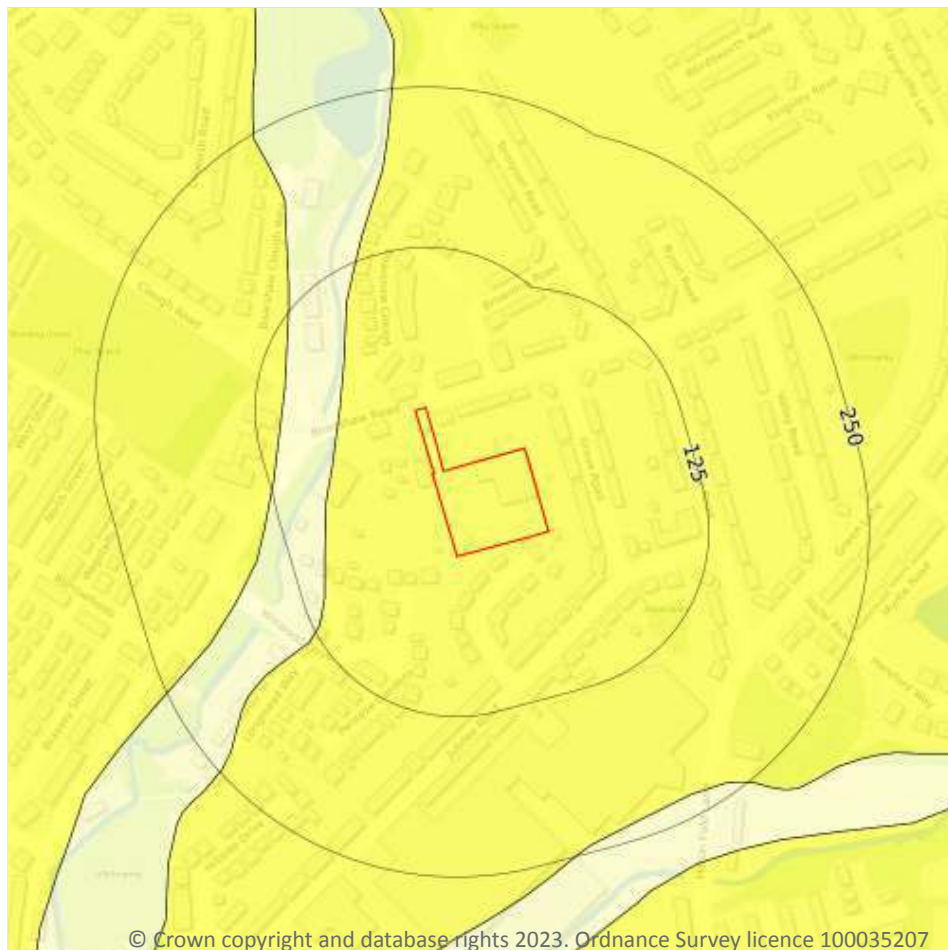
The potential hazard presented by types of ground that may contain layers of very soft materials like clay or peat and may compress if loaded by overlying structures, or if the groundwater level changes, potentially resulting in depression of the ground and disturbance of foundations.

Features are displayed on the Natural ground subsidence - Compressible deposits map on [page 101](#) >

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

This data is sourced from the British Geological Survey.

Natural ground subsidence - Collapsible deposits



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

17.4 Collapsible deposits

Records within 50m

1

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

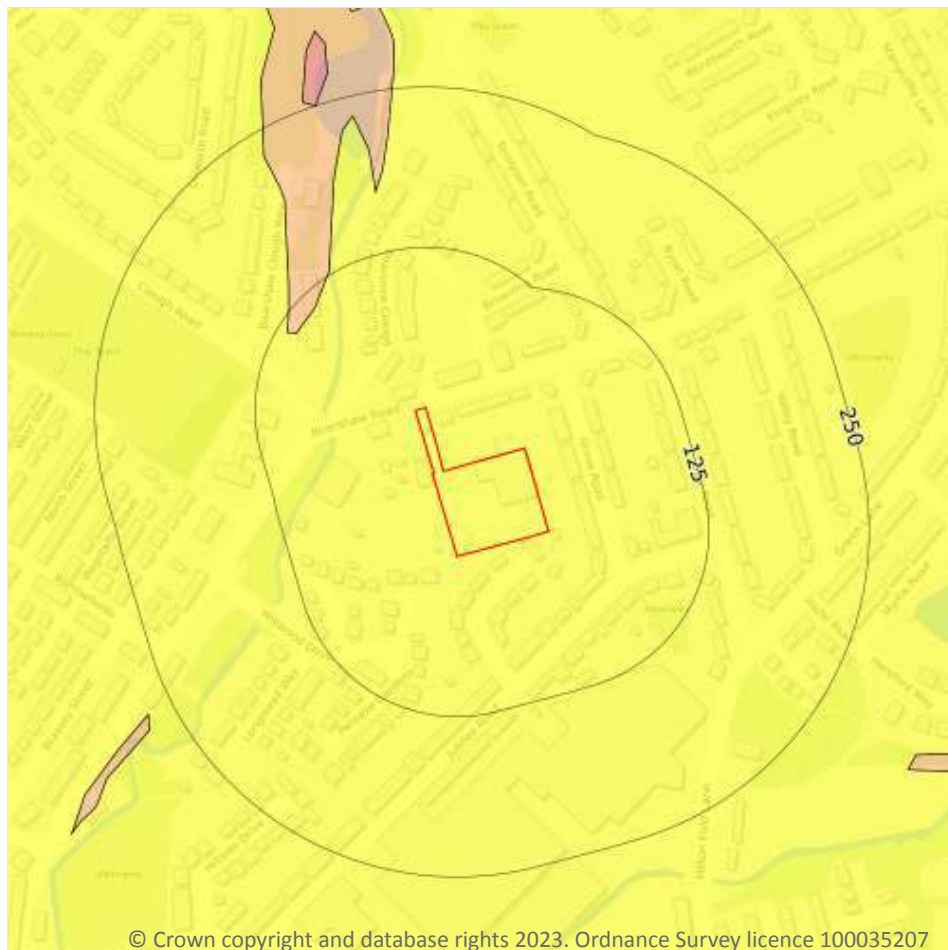
Features are displayed on the Natural ground subsidence - Collapsible deposits map on [page 102 >](#)

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

This data is sourced from the British Geological Survey.



Natural ground subsidence - Landslides



© Crown copyright and database rights 2023. Ordnance Survey licence 100035207

— Site Outline
Search buffers in metres (m)

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

17.5 Landslides

Records within 50m

1

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

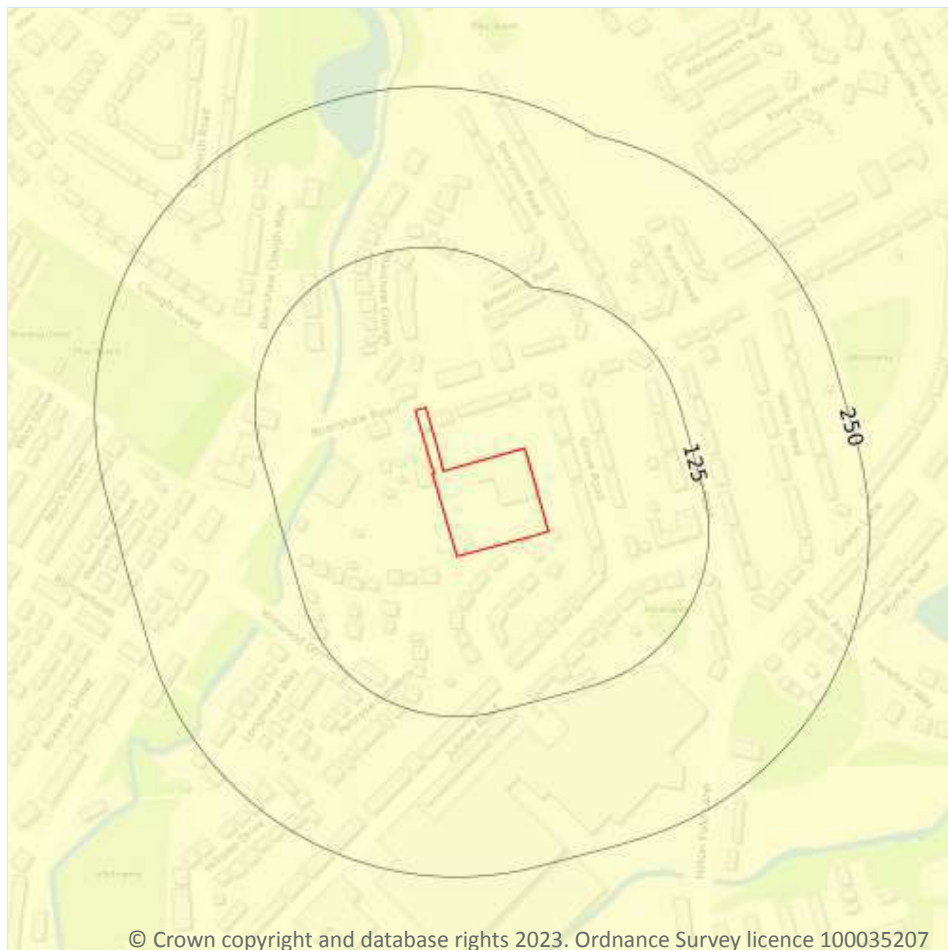
Features are displayed on the Natural ground subsidence - Landslides map on [page 103](#) >

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

This data is sourced from the British Geological Survey.



Natural ground subsidence - Ground dissolution of soluble rocks



— Site Outline
Search buffers in metres (m)

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

17.6 Ground dissolution of soluble rocks

Records within 50m

1

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

Features are displayed on the Natural ground subsidence - Ground dissolution of soluble rocks map on [page 104](#) >

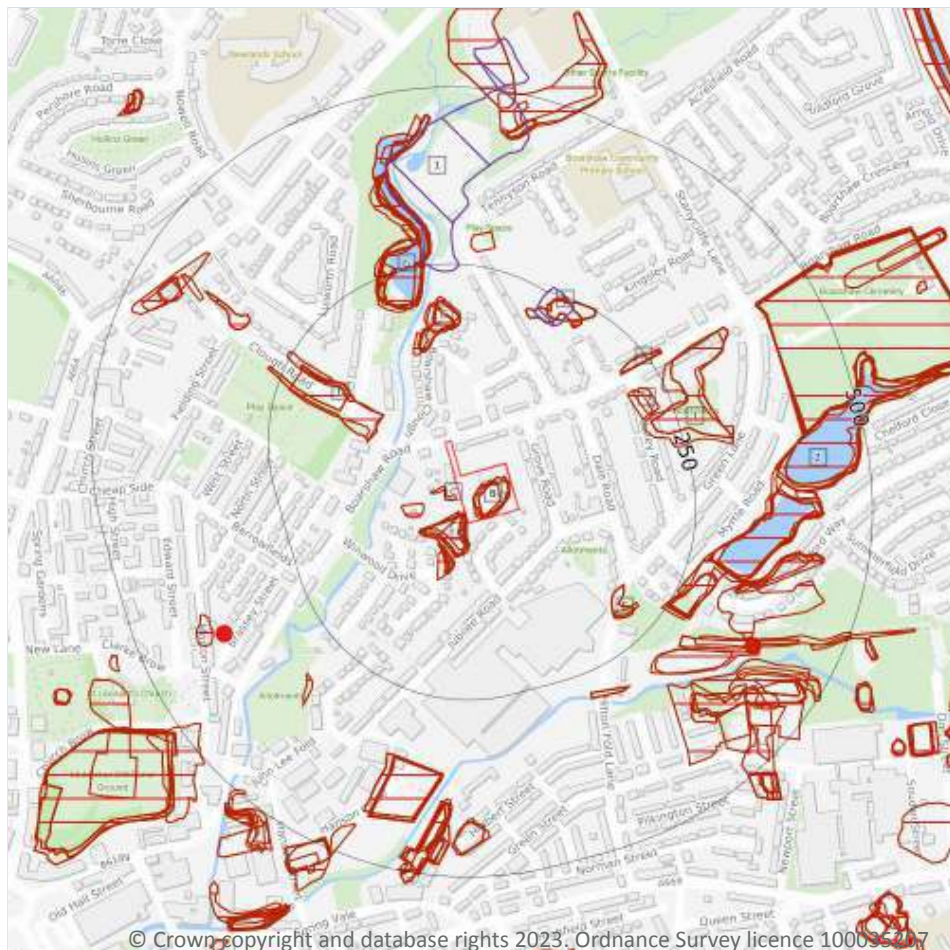
Location	Hazard rating	Details
On site	Negligible	Soluble rocks are either not thought to be present within the ground, or not prone to dissolution. Dissolution features are unlikely to be present.



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

2

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 106](#) >

ID	Location	Details	Description
U	377m SW	Name: Brook Hill Sand Pit Address: MIDDLETON, Lancashire Commodity: Sand 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
P	383m SE	Name: Little Green Brick Works Address: CHADDERTON, Lancashire 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

This data is sourced from the British Geological Survey.

18.2 Surface ground workings

Records within 250m	60
----------------------------	-----------

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 106 >](#)

ID	Location	Land Use	Year of mapping	Mapping scale
A	On site	Unspecified Pit	1938	1:10560
B	On site	Reservoir	1891	1:10560
B	On site	Reservoir	1932	1:10560
B	On site	Reservoir	1915	1:10560
B	On site	Reservoir	1907	1:10560
B	On site	Reservoir	1938	1:10560
B	On site	Reservoir	1923	1:10560
A	0m SW	Unspecified Pit	1915	1:10560
A	2m SW	Unspecified Pit	1932	1:10560
A	2m SW	Unspecified Pit	1907	1:10560
A	3m SW	Unspecified Pit	1923	1:10560
C	6m W	Unspecified Ground Workings	1907	1:10560



ID	Location	Land Use	Year of mapping	Mapping scale
A	7m SW	Unspecified Pit	1891	1:10560
A	48m SW	Unspecified Ground Workings	1915	1:10560
A	48m SW	Unspecified Pit	1907	1:10560
A	49m SW	Unspecified Ground Workings	1932	1:10560
C	54m W	Unspecified Heap	1907	1:10560
A	55m SW	Unspecified Pit	1891	1:10560
D	95m NW	Unspecified Pit	1923	1:10560
D	95m NW	Unspecified Ground Workings	1915	1:10560
D	95m NW	Unspecified Ground Workings	1907	1:10560
E	129m NW	Reservoirs	1891	1:10560
E	131m NW	Reservoirs	1932	1:10560
E	131m NW	Reservoirs	1915	1:10560
E	131m NW	Reservoirs	1907	1:10560
E	131m NW	Reservoirs	1923	1:10560
E	134m NW	Ponds	1938	1:10560
D	141m NW	Unspecified Ground Workings	1932	1:10560
E	154m N	Pond	1851	1:10560
E	163m N	Reservoir	1955	1:10560
F	180m SE	Unspecified Heap	1923	1:10560
F	180m SE	Refuse Heap	1915	1:10560
F	180m SE	Sand Pit	1907	1:10560
D	181m NW	Unspecified Ground Workings	1965	1:10560
G	194m NW	Reservoir	1891	1:10560
G	196m NW	Reservoir	1938	1:10560
G	196m N	Reservoir	1932	1:10560
G	196m N	Reservoir	1915	1:10560
G	196m N	Reservoir	1907	1:10560
G	196m N	Reservoir	1923	1:10560



ID	Location	Land Use	Year of mapping	Mapping scale
H	197m NE	Reservoir	1891	1:10560
F	198m SE	Unspecified Ground Workings	1932	1:10560
G	200m N	Reservoir	1975	1:10000
G	200m N	Reservoir	1982	1:10000
G	201m NW	Pond	1965	1:10560
G	201m NW	Reservoir	1955	1:10560
I	202m E	Refuse Heap	1891	1:10560
H	206m NE	Reservoir	1907	1:10560
K	206m NE	Sand Pit	1923	1:10560
J	207m N	Unspecified Pit	1975	1:10000
J	207m N	Unspecified Pit	1965	1:10560
J	207m N	Unspecified Pit	1955	1:10560
J	207m N	Unspecified Pit	1982	1:10000
K	209m NE	Sand Pit	1915	1:10560
I	213m E	Refuse Heap	1923	1:10560
I	213m E	Refuse Heap	1915	1:10560
I	213m E	Sand Pit	1907	1:10560
J	215m NE	Unspecified Pit	1938	1:10560
J	216m NE	Unspecified Pit	1932	1:10560
2	245m SE	Reservoirs	1891	1:10560

This is data is sourced from Ordnance Survey/Groundsure.

18.3 Underground workings

Records within 1000m

0

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

This 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**2**

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 106 >](#)

ID	Location	Site Name	Mineral	Type	Planning Status	Planning Status Date
J	205m NE	Stanycliffe	Sand and gravel	Surface mineral working	Valid	Not available
1	240m N	Municipal Tip	Sand and gravel	Surface mineral working	Valid	11/63

This data is sourced from the British Geological Survey.

18.6 Non-coal mining

Records within 1000m**0**

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

This data is sourced from the British Geological Survey.



18.7 JPB mining areas

Records on site

0

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

This data is sourced from Johnson Poole and Bloomer.

18.8 The Coal Authority non-coal mining

Records within 500m

0

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

This data is sourced from The Coal Authority.

18.9 Researched mining

Records within 500m

0

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

This data is sourced from Groundsure.

18.10 Mining record office plans

Records within 500m

0

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

This data is sourced from Groundsure.



18.11 BGS mine plans

Records within 500m**0**

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

This data is sourced from Groundsure.

18.12 Coal mining

Records on site**1**

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

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

This data is sourced from the Coal Authority.

18.13 Brine areas

Records on site**0**

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

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

18.14 Gypsum areas

Records on site**0**

Generalised areas that may be affected by gypsum extraction.

This data is sourced from British Gypsum.

18.15 Tin mining

Records on site**0**

Generalised areas that may be affected by historical tin mining.

This data is sourced from Groundsure.



18.16 Clay mining

Records on site

0

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

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



19 Ground cavities and sinkholes

19.1 Natural cavities

Records within 500m**0**

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

This data is sourced from Stantec UK Ltd.

19.2 Mining cavities

Records within 1000m**0**

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

This data is sourced from Stantec UK Ltd.

19.3 Reported recent incidents

Records within 500m**0**

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

This data is sourced from Groundsure.

19.4 Historical incidents

Records within 500m**0**

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

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



This data is sourced from Groundsure.

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.

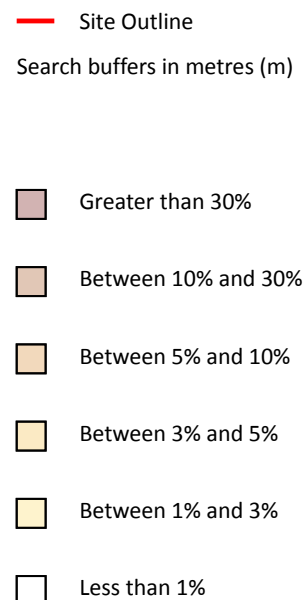
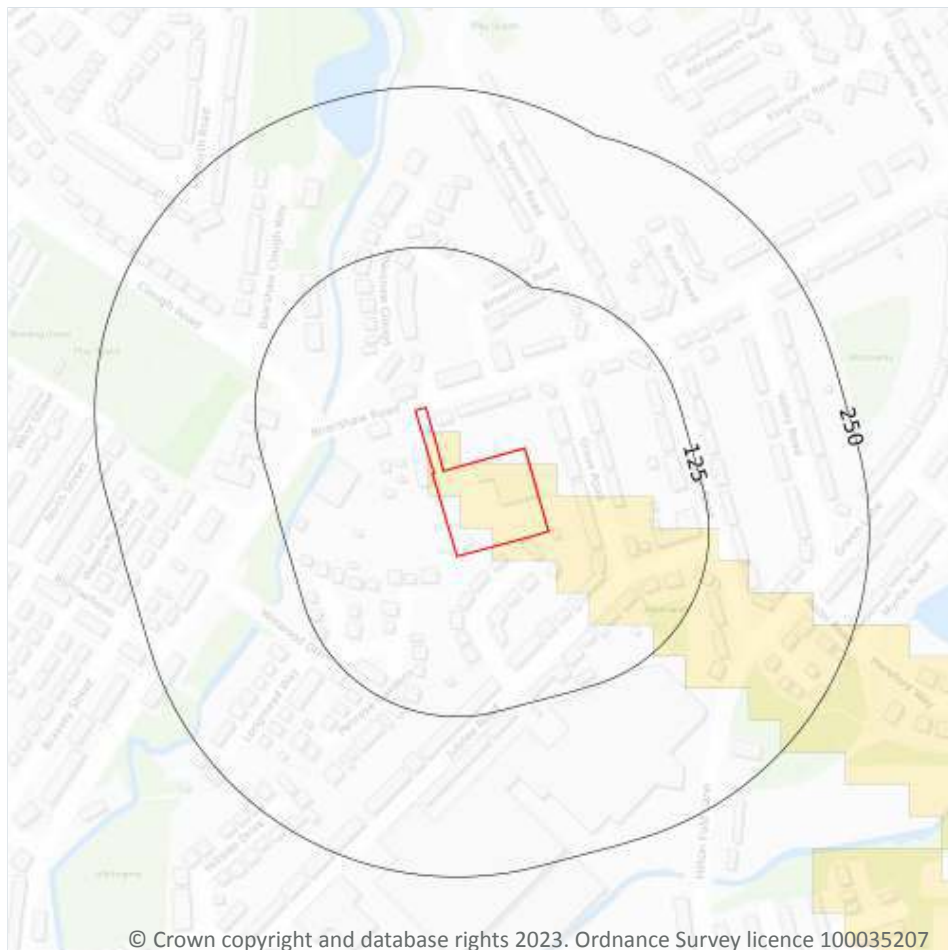
Since the database was set up in 2002 data covering most of the evaporite karst areas of the UK have now been added, along with data covering about 60% of the Chalk, and 35% of the Carboniferous Limestone outcrops. Many of the classic upland karst areas have yet to be included. Recorded so far are: Over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

2

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

Features are displayed on the Radon map on [page 116](#) >

Location	Estimated properties affected	Radon Protection Measures required
On site	Between 1% and 3%	None



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

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



21 Soil chemistry

21.1 BGS Estimated Background Soil Chemistry

Records within 50m

2

The estimated values provide the likely background concentration of the potentially harmful elements Arsenic, Cadmium, Chromium, Lead and Nickel in topsoil. The values are estimated primarily from rural topsoil data collected at a sample density of approximately 1 per 2 km². In areas where rural soil samples are not available, estimation is based on stream sediment data collected from small streams at a sampling density of 1 per 2.5 km²; this is the case for most of Scotland, Wales and southern England. The stream sediment data are converted to soil-equivalent concentrations prior to the estimation.

Location	Arsenic	Bioaccessible Arsenic	Lead	Bioaccessible Lead	Cadmium	Chromium	Nickel
On site	25 - 35 mg/kg	No data	100 - 200 mg/kg	60 - 120 mg/kg	1.8 mg/kg	60 - 90 mg/kg	15 - 30 mg/kg
On site	25 - 35 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 km²).

This data is sourced from the British Geological Survey.

21.3 BGS Measured Urban Soil Chemistry

Records within 50m

0

The locations and measured total concentrations (mg/kg) of Arsenic, Cadmium, Chromium, Copper, Nickel, Lead, Tin and Zinc in urban topsoil samples from 23 urban centres across Great Britain. These are collected at a sample density of 4 per km².

This data is sourced from the British Geological Survey.



22 Railway infrastructure and projects

22.1 Underground railways (London)

Records within 250m**0**

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

This data is sourced from publicly available information by Groundsure.

22.2 Underground railways (Non-London)

Records within 250m**0**

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

This data is sourced from publicly available information by Groundsure.

22.3 Railway tunnels

Records within 250m**0**

Railway tunnels taken from contemporary Ordnance Survey mapping.

This data is sourced from the Ordnance Survey.

22.4 Historical railway and tunnel features

Records within 250m**0**

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

This data is sourced from Ordnance Survey/Groundsure.

22.5 Royal Mail tunnels

Records within 250m**0**

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



This data is sourced from Groundsure/the Postal Museum.

22.6 Historical railways

Records within 250m

0

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

This data is sourced from OpenStreetMap.

22.7 Railways

Records within 250m

0

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

This data is sourced from Ordnance Survey and OpenStreetMap.

22.8 Crossrail 1

Records within 500m

0

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

This data is sourced from publicly available information by Groundsure.

22.9 Crossrail 2

Records within 500m

0

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

This data is sourced from publicly available information by Groundsure.

22.10 HS2

Records within 500m

0

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

This data is sourced from HS2 Ltd.



Data providers

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

Terms and conditions

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



LKC COAL MINING RISK ASSESSMENT REPORT

BROOKES STREET MIDDLETON

DESK BASED COAL MINING RISK ASSESSMENT

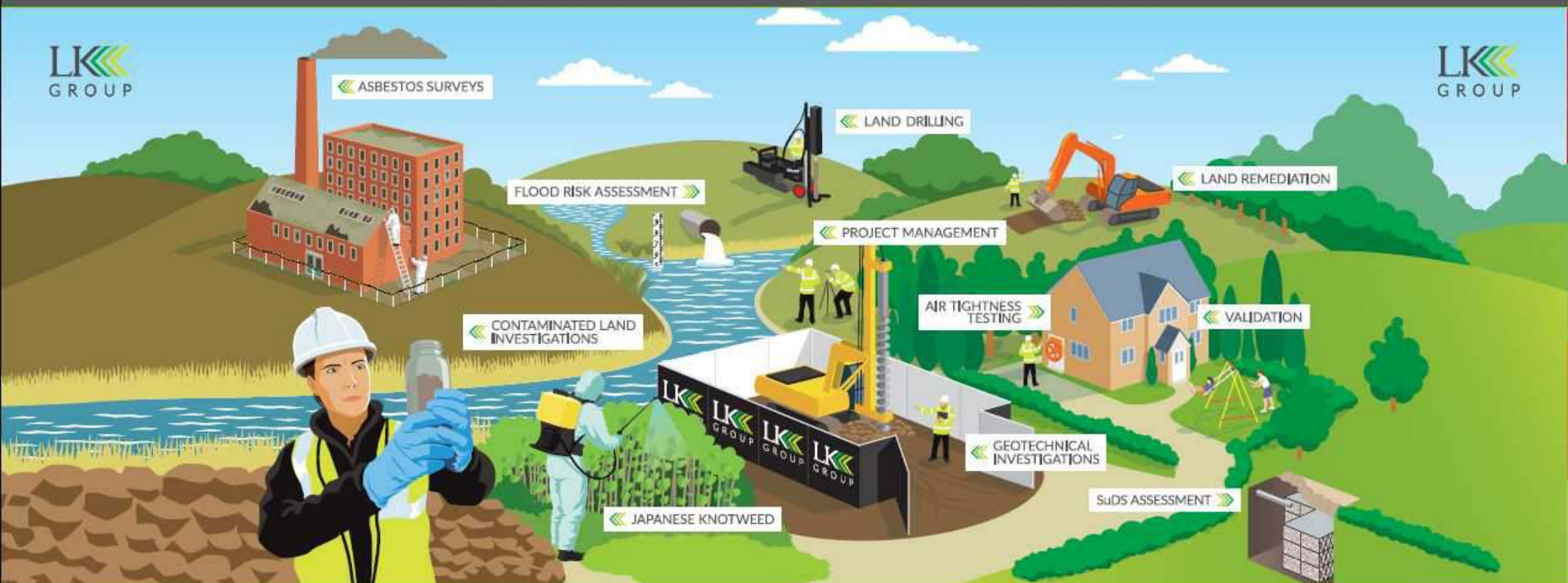
Job Number: LKC 22 1410
Date: 11th July 2022
Client: Tyson Construction



INCREASING LAND VALUE

LK
GROUP

INCREASING LAND VALUE



LK Consult			
Document Verification			
Site Address	Brookes Street, Middleton, Rochdale, M24 2WL		
Report Title	Desk Based Coal Mining Risk Assessment		
Job Number	LKC 22 1410	Document Ref.	CL-602-LKC 22 1410-01
Date Issued	11 th July 2022	Report Version	R0
Prepared By	Matthew Pennington Hannah Moss	Reviewed By	Catherine Baranek

Revision Record			
Revision No.	Date	Nature of Revision	Approved By

DISCLAIMER

This report has been prepared by LKC who have exercised such professional skill, care and diligence as may reasonably be expected of a properly qualified and competent consultant experienced in preparing reports of a similar scope.

However, to the extent that the report is based on or relies upon information contained in records, reports or other materials provided to LKC which have not been independently produced or verified, LKC gives no warranty, representation or assurance as to the accuracy or completeness of such information.

This report is prepared solely for the benefit of Tyson Construction. It may not be relied upon by, or submitted to a third party for their reliance for the purposes of valuation, mortgage, insurance and regulatory approval, until all invoices have been settled in full. Those using this information in subsequent assessments or evaluations do so at their own risk.

It should be noted this report pertains solely to potential ground stability issues relating to potential shallow mining within the proposed planning boundary only.

Contents

1	Introduction.....	1
1.1	Background.....	1
1.2	Site Details.....	1
2	Review of Information.....	2
2.1	Information Sources.....	2
2.2	Geological Mapping	2
2.3	Coal Authority Consultants Coal Mining Report.....	4
2.4	Coal Authority Interactive Mapping.....	6
2.5	Combustible Coal Seams.....	6
2.6	Historical BGS Logs.....	6
2.7	Historical Mapping	7
3	Coal Mining Risk Assessment	8
4	Conclusions and Recommendations.....	9

Figures

Figure 1: Site Location and Boundary Plan

Figure 2: Proposed Site Use

Appendices

Appendix A: BGS Digital Mapping

Appendix B: Coal Authority Consultants Coal Mining Report

Appendix C: BGS Borehole Data

1 Introduction

1.1 Background

LK Consult (LKC) has been commissioned by Tyson Construction to provide a Desk Based Coal Mining Risk Assessment Report for Brookes Street, Middleton. The report is required in support of a planning application to develop the site for residential use.

A Coal Mining Risk Assessment Report is required for a planning application within a designated 'Coal Mining Development High Risk Area'. 'Coal Mining Development High Risk Areas' are areas, based upon Coal Authority records, where the potential land instability and other safety risks associated with former coal mining activities are likely to be greatest. They include, for example, areas of known or suspected shallow coal mining, recorded mine entries and areas of former surface mining.

This assessment is based upon guidance provided by the Coal Authority¹ and comprises a review of available desk based information.

The scope of this Coal Mining Risk Assessment (as per Coal Authority guidance) is to:

- Present a desk-based review of all available information on the coal mining issues which are relevant to the application site.
- Use the above information to identify and assess the risks to the proposed development from coal mining legacy, including the cumulative impact of issues.
- Set out appropriate mitigation measures to address the coal mining legacy issues affecting the site, including any necessary remedial works and/or demonstrate how coal mining issues have influenced the proposed development.
- Demonstrate to the Local Planning Authority that the application site is, or can be made, safe and stable to meet the requirements of national planning policy with regard to development on unstable land.

1.2 Site Details

A summary of the site details is presented in Table 1-1. Figure 1 indicates the site location and boundary. Figure 2 indicates the proposed development.

Location	Located at the southern end of Brookes Street, off Boarshaw Road, Middleton, Greater Manchester. Centred at approximate National Grid Reference 387710E, 406610N.
Approximate Area	5500m ² .
Topography	94 metres Above Ordnance Datum (AOD). Site is approximately level.
Current Land Use	Site currently comprises derelict commercial units.
Proposed Development	Residential housing including soft landscaping and car parking.

Table 1-1: Summary of the site details.

¹Risk Based Approach to Development Management. Guidance for Developers. Version 4 2017.

2 Review of Information

2.1 Information Sources

LKC have obtained and reviewed information from the following sources, which is summarised in Section 2:

- Review of Published BGS Geological Mapping including:
 - Lancashire Sheet 96, Published 1863, Scale 1:10,560.
 - Sheet 85 Manchester Solid, Published 1975, Scale 1:50,000.
 - Sheet 85 Manchester Bedrock, Published 2010, Scale 1:50,000.
 - Digital Geology, dated 2008, Scale 1:10,000 (Appendix A).
- Geology of the Manchester district, a brief explanation of the geological map Sheet 85 Manchester.
- Coal Authority Consultants Coal Mining Report (Appendix B).
- Coal Authority Interactive Map Viewer².
- Coal Authority List of Combustible Coal Seams³.
- Historical BGS boreholes within the site vicinity⁴ (Appendix C).
- Publicly available historical mapping

2.2 Geological Mapping

Artificial

Artificial Ground (Infilled Ground) is recorded across a large area of the site (central, west and southeast).

Superficial

The superficial geology is mapped as Glaciofluvial Sheet Deposits (sand and gravel).

Bedrock

The Pennine Lower Coal Measures (Mudstone, Siltstone and Sandstone) is recorded across the majority of the site. A small area in the southeast of site is recorded as the Pennine Lower Coal Measures (Sandstone).

1975 edition mapping shows the strata in the general area to dip to the southwest. Coal Authority data indicates that workings beneath the site in the Arley seam dip to the southwest at 7.8°.

A fault runs through the centre of the site, orientated northwest-southeast, with a downthrow to the southeast on BGS mapping. It should be noted that The Coal Authority data shows the fault at the northeast edge of site.

A coal seam is shown to subcrop (at rockhead) approximately 155m east of the site. The seam does not subcrop closer to the site due to faulting but is anticipated at shallow depth where the site lies south of the fault located on site. This coal seam is anticipated to be the Ravine (Stone, Plodder) coal seam (based on 1:50,000 sheet mapping). The Coal Authority data also indicates this is the Plodder seam and

² <http://mapapps2.bgs.ac.uk/coalauthority/home.html>

³ <https://www.gov.uk/government/publications/coal-seams-with-a-history-of-spontaneous-combustion>

⁴ <http://mapapps2.bgs.ac.uk/geoindex/home.html>

subcrops (at rockhead) 120m east of site (terminating in the west where it intersects the fault).

Sheet 85 explanatory notes provide additional information on the coal seams within the Manchester Area and this information is summarised in Table 2-1. The table shows the anticipated shallowest coal seam below the site (Ravine, Stone, Plodder) and the coal seams below this in age order. It should be noted that not all coal seams may be present below the site due to geological variation.

Coal Seam (alternative names)	Thickness (m)	Type of Workings
Ravine (Stone, Plodder)	0.9-2.5	Deep mined
Higher Bent	0-0.5	Not worked
Lower Bent	0.3-0.9	Deep mined
Foot	0-0.2	Not worked
Nayley	0-0.8	Not worked
Davis	0-0.5	Not worked
Seddon	0.4	Not worked
Water	0-0.2	Not worked
Olive	0-0.5	Not worked
Yard Tops (Higher Two)	0-0.8	Deep mined and crop working
Yard Bottoms (Old, Lower Two)	0.6-2.5	Deep mined and crop working
Yard	0-0.8	Deep mined
Half Yard (Top Neddy, New)	0.6-1.2	Deep mined
Three Quarters (Cockloft)	0.2-0.9	Deep mined
Smith (Bottom Neddy, Three Quarters)	0-1.7	Deep mined and crop working
Arley	0.9-2.0	Deep mined, crop working and surface mined

Table 2-1. Extract from the Geology of Manchester district explanatory notes.

2.3 Coal Authority Consultants Coal Mining Report

The consultants coal mining report is summarised in Table 2-2.

Mining Activity and Geology	
Past underground mining	Yes: See Plate 2-3.
Probable unrecorded shallow workings	Yes.
Spine roadways at shallow depth	No spine roadway recorded at shallow depth.
Mine entries (within 100m)	None recorded within 100m of the enquiry boundary.
Abandoned mine plan catalogue numbers	NW173, 73, 16820, NW1174, PO0.
Outcrops	Yes: see Plate 2-4.
Geological faults, fissures and breaklines	Fault recorded across the northeast edge of site orientated northwest to southeast.
Opencast mines	None recorded within 500m of the enquiry boundary.
Coal Authority managed tips	None recorded within 500m of the enquiry boundary.
Investigative or Remedial Activity	
Site investigations	None recorded within 50m of the enquiry boundary.
Remediated sites	None recorded within 50m of the enquiry boundary.
Coal mining subsidence	Not received a damage notice or claim for the subject property, or any property within 50m, since 1994. No current Stop Notice delaying remedial works or repairs to property. Not aware of any request made to carry out preventative works before coal is worked.
Mine gas	None recorded within 500m of the enquiry boundary.
Mine water treatment schemes	None recorded within 500m of the enquiry boundary.
Licensing and Future Mining Activity	
Future underground mining	None recorded.
Coal mining licensing	None recorded within 200m of the enquiry boundary.
Court Orders	None recorded.
Section 46 notices	No notices have been given, stating that the land is at risk of subsidence.
Withdrawal of support notices	Not in an area where a notice to withdraw support has been given or where a notice has been given cancelling the entitlement to withdraw support.
Payments to owners of former copyhold land	Not in an area where a relevant notice has been published.
Further Information	
The following potential risks have been identified and as part of your risk assessment should be investigated further. Development advice The site is within an area of historical coal mining activity. Should you require advice and/or support on understanding the mining legacy, its risks to your development or what next steps you need to take, please contact us.	

Table 2-2: Summary of Coal Authority Consultants Coal Mining Report.

Plate 2-3 shows the past underground mining. This is defined by the Coal Authority as *'details of all recorded underground mining relative to the enquiry boundary. Only underground workings where the enquiry boundary is within 0.7 times the depth of the workings (zone of likely physical influence) allowing for seam inclination, will be included'*.

Colliery	Seam	Mineral	Coal Authority reference	Depth (m)	Direction to working	Dipping rate of seam worked (degrees)	Dipped direction of seam worked	Extraction thickness (cm)	Year last mined
unnamed	ARLEY	Coal	3W5I	139	Beneath Property	7.8	South-West	150	1874

Plate 2-3: Extract from Coal Authority Report showing past underground mining.

Probable unrecorded shallow workings are defined as ‘*areas where the Coal Authority believes there to be unrecorded coal workings that exist at or close to the surface (less than 30m deep)*’.

Plate 2-4 shows the coal outcrops. This is defined by the Coal Authority as ‘*details of seam outcrops will be included where the enquiry boundary intersects with a conjectured or actual seam outcrop location (derived by either the British Geological Survey or the Coal Authority) or intersects with a defined 50m buffer on the coal (dip) side of the outcrop. An indication of whether the Coal Authority believes the seam to be of sufficient thickness and /or quality to have been worked will also be included.*’

Seam name	Mineral	Seam workable	Distance to outcrop (m)	Direction to outcrop	Bearing of outcrop
PLODDER	Coal	Yes	120.3	East	124

Plate 2-4: Extract from Coal Authority Report showing outcrops.

Plate 2-5 shows an extract of the plan provided with the Coal Authority Consultants Coal Mining Report.



Plate 2-5: Extract from Coal Authority Consultants Coal Mining Report – Summary of Findings. showing outcrops.

2.4 Coal Authority Interactive Mapping

Plate 2-6 shows the development high risk areas.

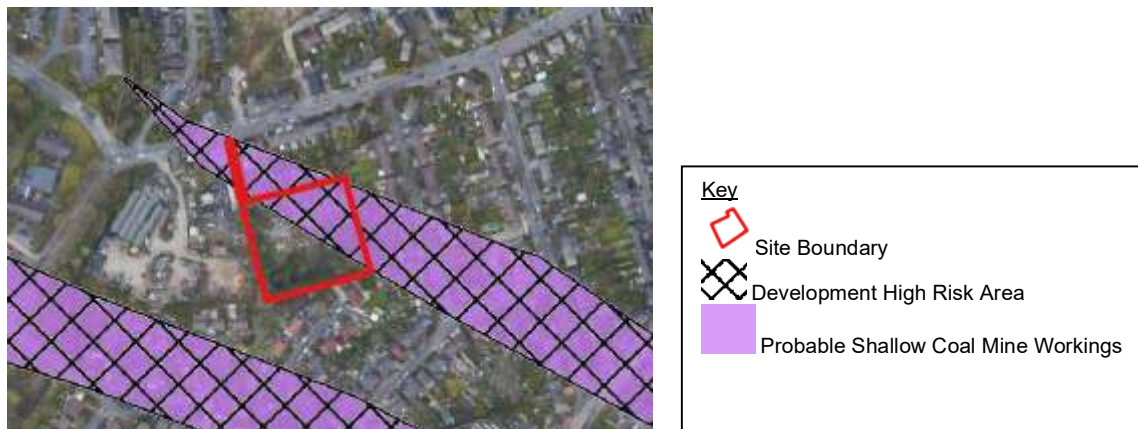


Plate 2-6: Development High Risk Area

The northeastern part of the site lies within a Development High Risk Area, shown as 'Probable Shallow Coal Mine Workings'. The remainder of the site lies outside the Development High Risk Area.

2.5 Combustible Coal Seams

Some coal seams have been known to suffer from occurrences of spontaneous combustion and are consequently regarded as at 'high risk' of succumbing to spontaneous combustion when being entered, worked or disturbed. The Coal Authority have produced a list of seams for different areas of the UK.

None of the coal seams listed are expected at shallow depth below the site. However, if roof coal has been left, this could also pose a risk.

2.6 Historical BGS Logs

One rotary borehole was drilled in 1909 on land to the south of the site, presumed to be associated with the development of the residential housing. The logs are shown below:

Ref: SD80NE6 (BH1) 40m south-southwest of site:

Blue clay to 3.65mbgl
Blue shale to 3.96mbgl
Rock to 4.26mbgl
Grey Shale to 10.97mbgl
Unknown strata (unable to read) 14.32mbgl
Grey shale to 17.67mbgl
Rock to 18.59mbgl
Grey shale to 25.29mbgl
Blue shale to 28.34mbgl
Black bind to 49.07mbgl
Grey rock to 67.97mbgl
Hard grey rock to 68.73mbgl
Brown bind 69.49mbgl
Blue shale to 71.01mbgl

Grey shale to 71.78mbgl
Grey rock to 72.23mbgl
Grey shale to 72.99mbgl
Grey rock to 73.76mbgl
Grey shale to 74.52mbgl
Grey rock to 78.02mbgl.

2.7 Historical Mapping

The following historical features have been identified associated with coal mining:

» Old shaft shown on land 180m to the southeast of site from 1889 mapping.

3 Coal Mining Risk Assessment

Table 3-1 below summarises the potential risks associated with coal mining legacy for the proposed development site.

Coal Mining Issue	Potential Risk	Risk Assessment
Underground coal mining (recorded at shallow depths)	X	No recorded shallow underground workings below the site (shallowest workings recorded 139m beneath site in the Arley seam). No further assessment required.
Underground coal mining (probable at shallow depths)	✓	Probable underground shallow workings recorded by the Coal Authority. Based on information provided by the Coal Authority and geological mapping, the Ravine (Stone, Plodder) is anticipated to be present at shallow depth below the site. The coal seam is only expected to be present to the south of the fault (fault recorded through the centre of the site on BGS data and at the northeast corner of the site on CA data). Further coal seams may also be present. If coal has been worked at shallow depth, there could be a risk of ground instability at the site surface. Investigation work recommended and a watching brief during groundworks.
Mine entries (shafts / adits)	?	No recorded mine entries within influencing distance of the site. However, there is also a risk of unrecorded mine entries as the site is within a coal mining area. No specific investigation work is advised. However, a watching brief should be undertaken during any intrusive investigation work and groundworks to check for any signs of unrecorded mine entries.
Coal mining geology (geological faults, fissures and breaklines)	✓	Fault anticipated to be present on site (discrepancy with location between the BGS and CA data). Faults can contribute to surface subsidence damage as a consequence of underground coal mining. Further assessment on completion of intrusive investigation.
Record of past mine gas emissions	?	Not recorded on Coal Authority data. However, shallow potentially worked coal seams may be present below the site, which have the potential to be a source of ground gas. In additional faulting has the potential to act as a pathway for gas to migrate from deeper workings. Investigation work recommended (gas monitoring).
Recorded coal mining surface hazard	X	No recorded coal mining surface hazard. No further assessment required.
Surface mining (opencast workings)	X	No recorded surface mining (opencast workings). No further assessment required.

Table 3-1: Potential Coal Mining Risks.

Notes:

✓ = Risk identified; X = No risk identified; ? = Possible risk identified

4 Conclusions and Recommendations

Summary

Based upon the available information, LKC have identified potential shallow coal mining risks which are summarised in Table 4-1.

Coal Mining Issue	Potential Risk
Underground coal mining (recorded at shallow depths)	X
Underground coal mining (probable at shallow depths)	✓
Mine entries (shafts / adits)	?
Coal mining geology (fissures)	✓
Record of past mine gas emissions	?
Recorded coal mining surface hazard	X
Surface mining (opencast workings)	X

Table 4-1: Summary of coal mining potential risks.

Site Investigation Recommendations

Considering the available information and guidance given in CIRIA C758⁵, LKC consider that intrusive investigation work should be carried out to confirm the risk associated with coal mining. The intrusive investigation works should be designed by a suitably qualified mining engineer; these works are likely to include the options detailed in Table 4-2.

Coal Mining Issue	Investigation Work
Underground coal mining (recorded at shallow depths)	N/A
Underground coal mining (probable at shallow depths)	Rotary drilling across the site to confirm the depth to coal seam, the thickness of seams and any signs of workings. Watching brief during groundworks to check for any signs of mining related ground instability (see below).
Mine entries (shafts / adits)	No specific investigation work required. However, watching brief during intrusive investigation work and groundworks to check for any signs of mine entries (see below).
Coal mining geology (fissures)	Further assessment on completion of intrusive investigation. Appropriate reinforced foundations recommended in the area of the fault to allow for any potential ground movement.
Record of past mine gas emissions	Gas monitoring during mining investigation (rotary drilling). Depending on findings of mining investigation, possible precautionary gas protection measures or gas monitoring in line with CIRIA 665 ⁶ .
Recorded coal mining surface hazard	N/A
Surface mining (opencast workings)	N/A

Table 4-2: Summary of investigation requirements.

Prior to carrying out investigation work, it would be advisable to consult available abandoned mine plans to aid in the design of any future works.

Investigation work should be carried out in line with CIRIA C758⁷ and Coal Authority guidance.

⁵ CIRIA (2019). "Abandoned Mine Workings Manual". CIRIA C758

⁶ CIRIA (2007). "Assessing Risks Posed by Hazardous Ground Gases to Buildings". CIRIA C665.

⁷ CIRIA (2019). "Abandoned Mine Workings Manual". CIRIA C758

A Coal Authority Permit⁸ is required for intrusive activities which will disturb or enter any coal seams, coal mine workings or coal mine entries (shafts and adits).

Watching Brief

A watching brief is recommended in all coal mining areas. This could be undertaken by experienced site staff on low risk sites or by a suitably qualified coal mining engineer or consultant on high risk sites. This site is considered to be a low risk at this stage as no shallow mining has been recorded on site.

The watching brief should cover the period in which any earthworks, reduce level dig or foundation excavation works are being undertaken. Particular care should be taken to identify any potential features which may indicate the presence of shallow coal mining hazards.

Such hazards may include, but not limited to, features such as unexplained depressions or voids, outcropping coal seams, localised areas of deep made ground (which could represent backfilled areas of coal mining related ground subsidence, crown holes or mine entries), or unexpected man-made items at depth (e.g. brickwork, concrete, timber or steelwork).

Mine entries may manifest during excavation works as circular, square or rectangular areas of deep Made Ground (typically several metres in size) set against the natural strata (e.g. Glacial Till or weathered rock). Mine shafts may also be covered with a large, thick concrete cap.

If any of the above features are identified during the course of the development works then work should be stopped to allow the mining engineer / consultant to assess them and if necessary design further or additional investigation and / or remediation works.

Mitigation Measures

Depending on the findings of the mining investigation, mitigation measures may be required. Table 4-3 provides possible mitigation options.

Coal Mining Issue	Mitigation Measures
Underground coal mining (recorded at shallow depths)	N/A
Underground coal mining (probable at shallow depths)	Move structures to 'safe' areas of the site. Stabilisation of the ground (i.e. grouting) and suitable foundations to be implemented.
Mine entries (shafts / adits)	Move structures to 'safe' areas of the site. Treat mine entry (backfill, cap). Follow The Coal Authority's 'Policy for Building Over or Within The Influencing Distance of A Mine Entry' ⁹
Coal mining geology (fissures)	Appropriate reinforced foundations recommended in the area of the fault to allow for any potential ground movement.
Record of past mine gas emissions	Gas protection measures.
Recorded coal mining surface hazard	N/A
Surface mining (opencast workings)	N/A

Table 4-3: Summary of potential mitigation measures.

⁸ <https://www.gov.uk/get-a-permit-to-deal-with-a-coal-mine-on-your-property>

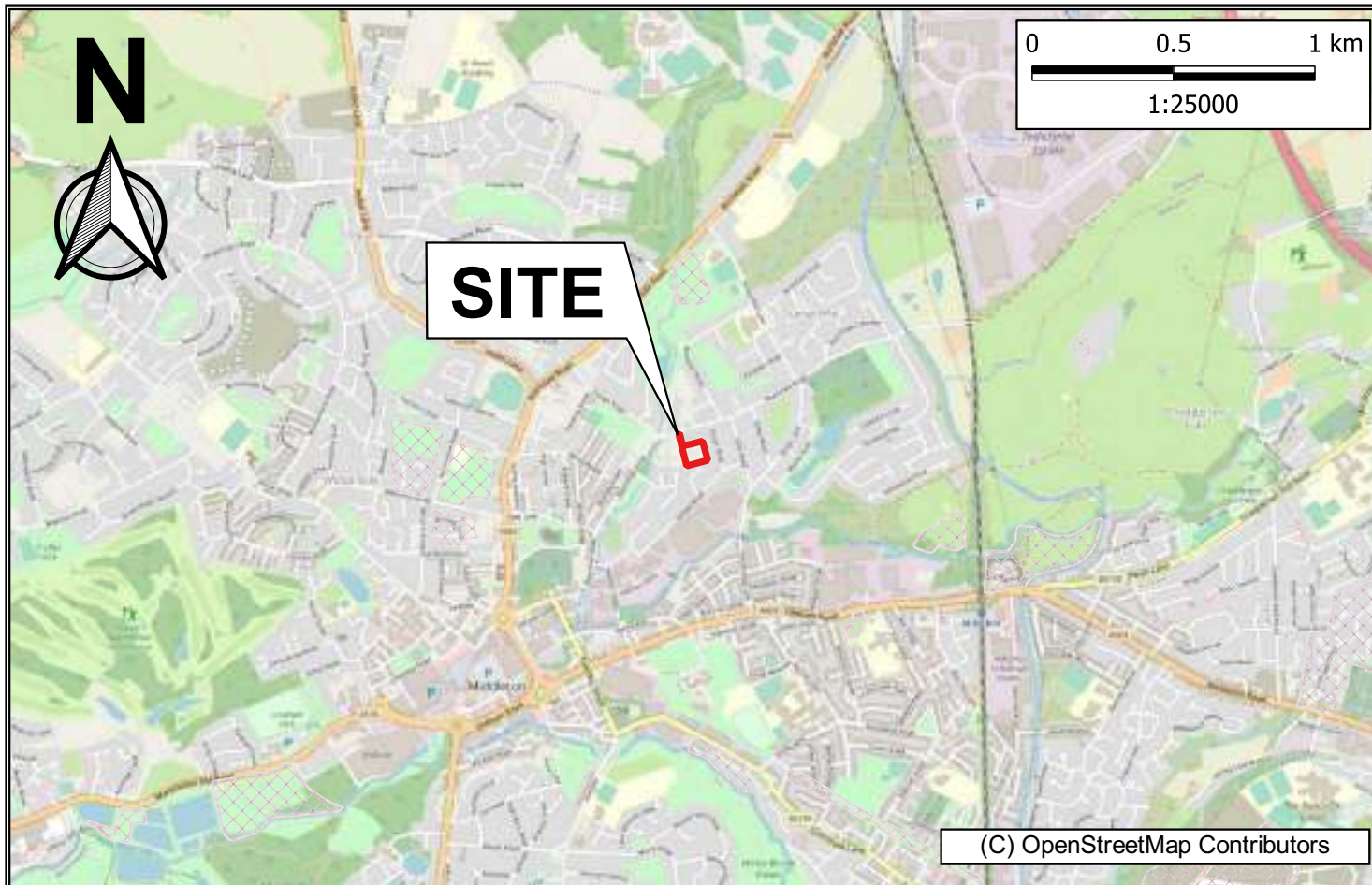
⁹ https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/363064/policy-for-building-over-or-within-the-influencing.pdf

Conclusions and Safe Development

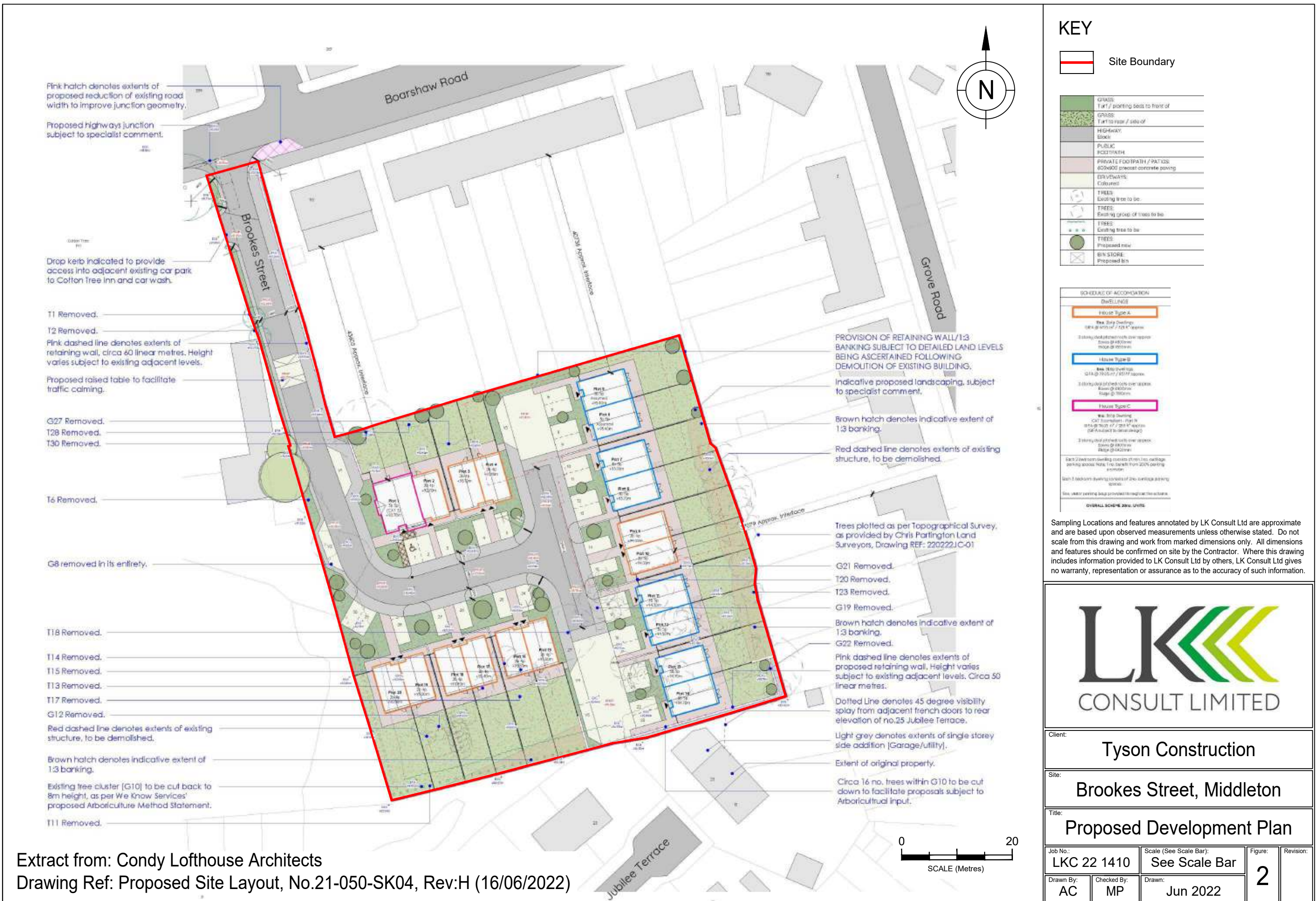
At this stage the possibility for shallow workings can only be ascertained from site investigation; however, LKC consider that the site could be safely developed with regards to shallow mining subject to an appropriate site investigation and, if required, appropriate mitigation measures which may include some of those measures as detailed above.

Therefore, LKC consider the study site should be capable of being made safe and stable to meet the requirements of national planning policy with regard to development on unstable land.

Figures



Client: Tyson Construction				Title: Site Location & Boundary Plan		
Site: Brookes Street, Middleton				Scale (see scale bar): 1:25,000 & 1:1,000 @ A4		
Job No.: LKC 22 1410	Drawn By: MP	Checked By: AC	Drawn: June 2022	Figure: 1	Revision:	



Extract from: Condry Lofthouse Architects
Drawing Ref: Proposed Site Layout, No.21-050-SK04, Rev:H (16/06/2022)

KEY

Site Boundary

GRASS	Turf / planting beds to front of
GRASS	Turf to rear / side of
HIGHWAY	Block
PUBLIC FOOTPATH	
PRIVATE FOOTPATH / PATIOS	600x600 precast concrete paving
DRIVEWAYS	Coloured
TREES	Existing tree to be
TREES	Existing group of trees to be
TREES	Existing tree to be
TREES	Proposed new
BIN STORE	Proposed bin

SCHEDULE OF ACCOMMODATION	
DWELLINGS	
House Type A	
3 storey detached house over approx 1000 sqm	
2 storey detached house over approx 800 sqm	
House Type B	
3 storey detached house over approx 1200 sqm	
2 storey detached house over approx 800 sqm	
House Type C	
3 storey detached house over approx 1000 sqm	
2 storey detached house over approx 800 sqm	
1 storey detached house over approx 400 sqm	
Overall Scheme 2000 sqm	

Sampling Locations and features annotated by LK Consult Ltd are approximate and are based upon observed measurements unless otherwise stated. Do not scale from this drawing and work from marked dimensions only. All dimensions and features should be confirmed on site by the Contractor. Where this drawing includes information provided to LK Consult Ltd by others, LK Consult Ltd gives no warranty, representation or assurance as to the accuracy of such information.



Client:	Tyson Construction			
Site:	Brookes Street, Middleton			
Title:	Proposed Development Plan			
Job No.:	LKC 22 1410	Scale (See Scale Bar):	See Scale Bar	Figure:
Drawn By:	AC	Checked By:	MP	2
		Drawn:	Jun 2022	

Appendix A

BGS Digital Mapping

Geology 1:10,000 Maps Legends

Artificial Ground and Landslip

Map Colour	Lex Code	Rock Name	Rock Type	Min and Max Age
				
				
				
				

Superficial Geology

Map Colour	Lex Code	Rock Name	Rock Type	Min and Max Age
				
				
				
				
				
				
				
				

Bedrock and Faults

Map Colour	Lex Code	Rock Name	Rock Type	Min and Max Age
				
				
				
				
				
				
				
				
				



GROUP

Geology 1:10,000 Maps

This report contains geological map extracts taken from the BGS Digital Geological map of Great Britain at 1:10,000 scale and is designed for users carrying out preliminary site assessments who require geological maps for the area around a site. This mapping may be more up to date than previously published paper maps.

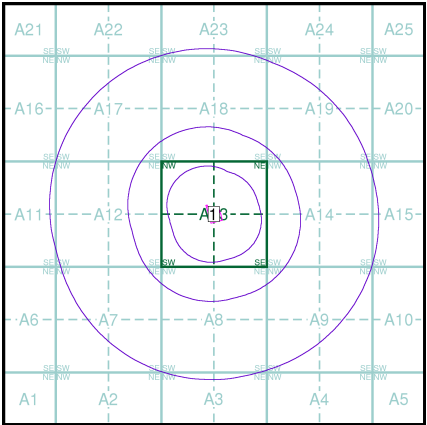
The various geological layers - artificial and landslip deposits, superficial geology and solid (bedrock) geology are displayed in separate maps, but superimposed on the final 'Combined Surface Geology' map. All map legends feature on this page.

Please Note: Not all of the layers have complete nationwide coverage, so availability of data for relevant map sheets is indicated below.

Geology 1:10,000 Maps Coverage

Map ID:	1
Map Name:	SD80NE
Map Date:	2008
Bedrock Geology:	Available
Superficial Geology:	Available
Artificial Geology:	Available
Faults:	Available
Landslip:	Available
Rock Segments:	Available

Geology 1:10,000 Maps - Slice A



Order Details

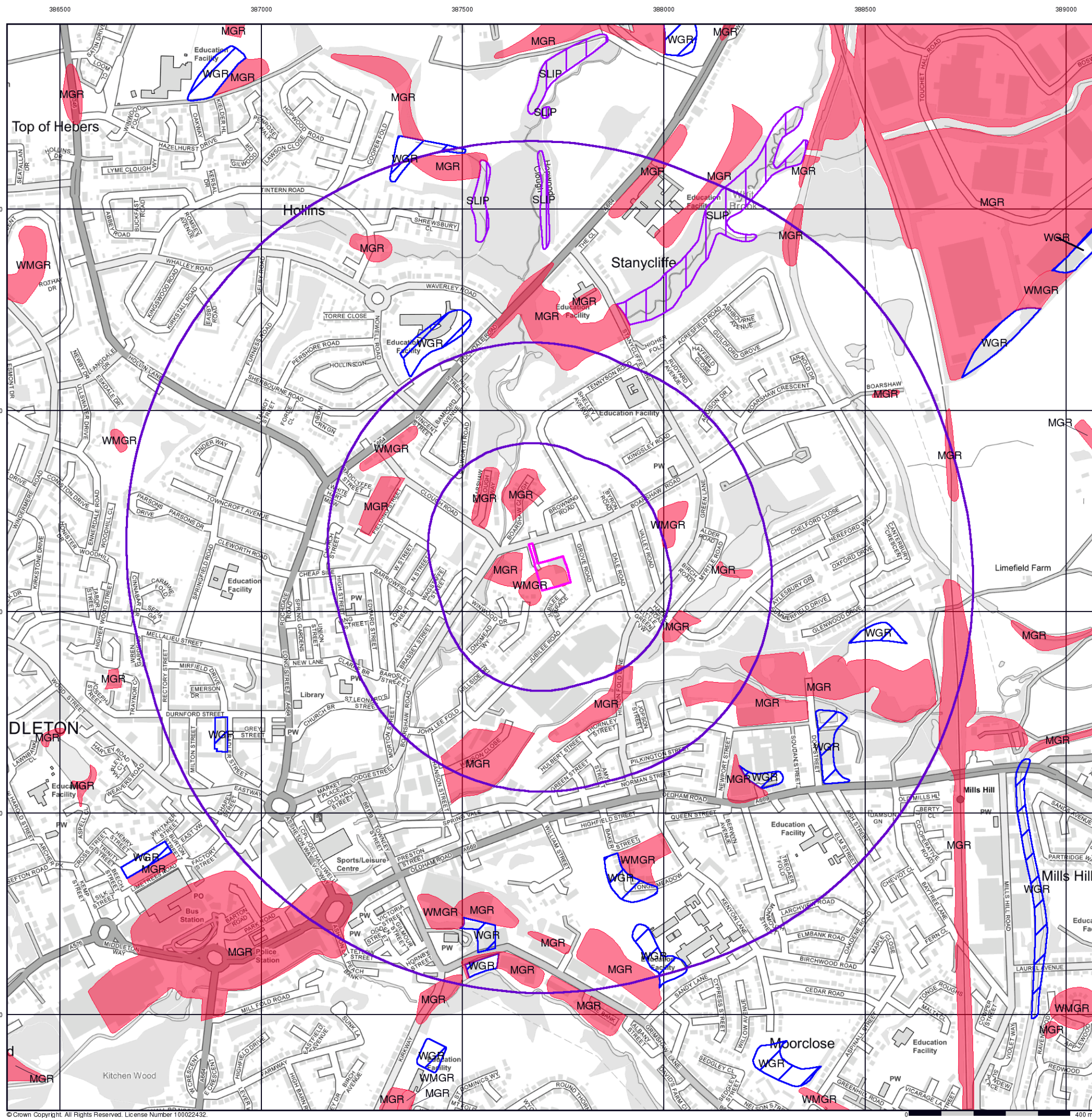
Order Number:	297147979_1_1
Customer Ref:	LKC 22 1410
National Grid Reference:	387710, 406610
Slice:	A
Site Area (Ha):	0.55
Search Buffer (m):	1000

Site Details

Brookes Street, Middleton, Manchester, M24 2WQ



Tel: 0844 844 9952
Fax: 0844 844 9951
Web: www.envirocheck.co.uk



Artificial Ground and Landslip

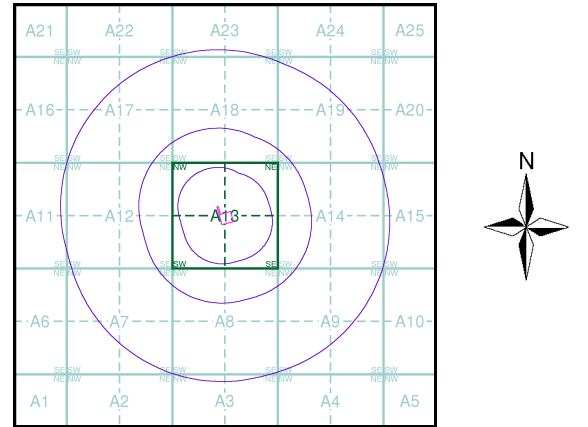
Artificial ground is a term used by BGS for those areas where the ground surface has been significantly modified by human activity. Information about previously developed ground is especially important, as it is often associated with potentially contaminated material, unpredictable engineering conditions and unstable ground.

Artificial ground includes:

- Made ground - man-made deposits such as embankments and spoil heaps on the natural ground surface.
- Worked ground - areas where the ground has been cut away such as quarries and road cuttings.
- Infilled ground - areas where the ground has been cut away then wholly or partially backfilled.
- Landscaped ground - areas where the surface has been reshaped.
- Disturbed ground - areas of ill-defined shallow or near surface mineral workings where it is impracticable to map made and worked ground separately.

Mass movement (landslip) deposits on BGS geological maps are primarily superficial deposits that have moved down slope under gravity to form landslips. These affect bedrock, other superficial deposits and artificial ground. The dataset also includes founded strata, where the ground has collapsed due to subsidence.

Artificial Ground and Landslip Map - Slice A



Order Details

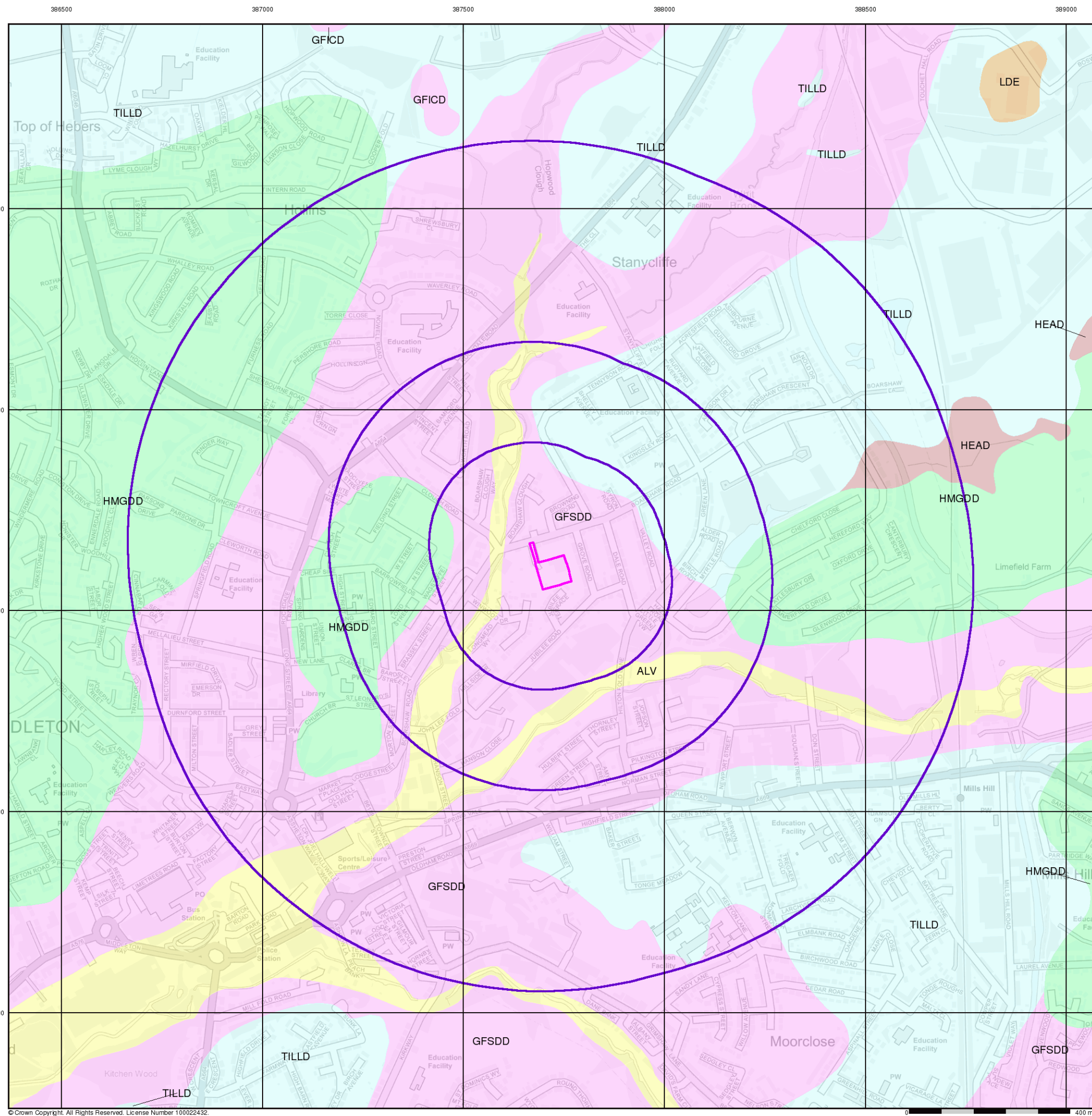
Order Number: 297147979_1_1
Customer Ref: LKC 22 1410
National Grid Reference: 387710, 406610
Slice: A
Site Area (Ha): 0.55
Search Buffer (m): 1000

Site Details

Brookes Street, Middleton, Manchester, M24 2WQ



Tel: 0844 844 9952
Fax: 0844 844 9951
Web: www.envirocheck.co.uk



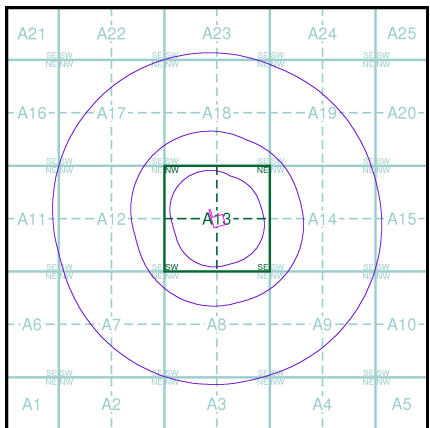
GROUP Superficial Geology

BGS 1:10,000 Superficial Deposits are the youngest geological deposits formed during the most recent period of geological time, which extends back about 1.8 million years from the present.

They rest on older deposits or rocks referred to as Bedrock. This dataset contains Superficial deposits that are of natural origin and 'in place'. Other superficial strata may be held in the Mass Movement dataset where they have been moved, or in the Artificial Ground dataset where they are of man-made origin.

Most of these Superficial deposits are unconsolidated sediments such as gravel, sand, silt and clay, and onshore they form relatively thin, often discontinuous patches or larger spreads.

Superficial Geology Map - Slice A



Order Details

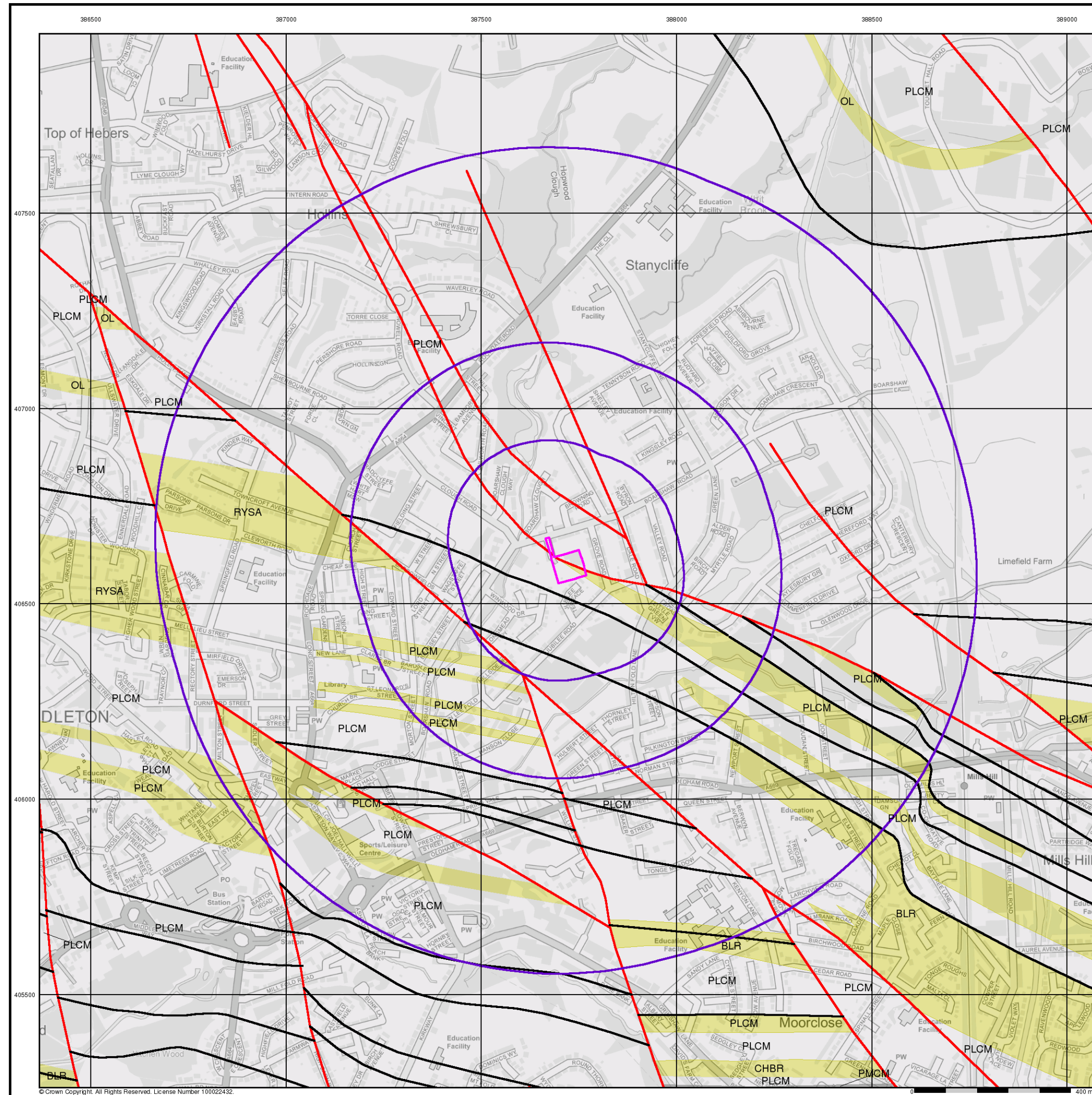
Order Number: 297147979_1_1
Customer Ref: LKC 22 1410
National Grid Reference: 387710, 406610
Slice: A
Site Area (Ha): 0.55
Search Buffer (m): 1000

Site Details

Brookes Street, Middleton, Manchester, M24 2WQ



Tel: 0844 844 9952
Fax: 0844 844 9951
Web: www.envirocheck.co.uk



GROUP
Bedrock and Faults

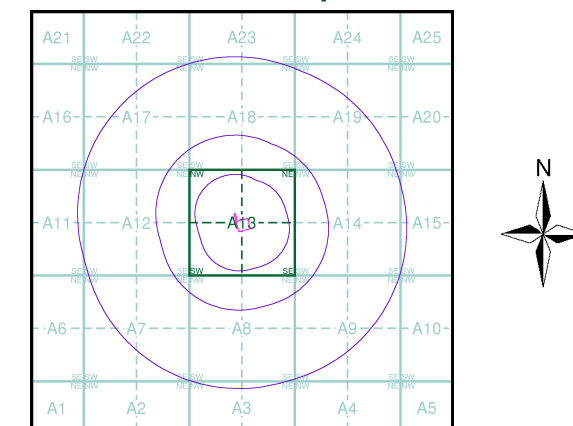
Bedrock geology is a term used for the main mass of rocks forming the Earth and are present everywhere, whether exposed at the surface in outcrops or concealed beneath superficial deposits or water.

The bedrock has formed over vast lengths of geological time ranging from ancient and highly altered rocks of the Proterozoic, some 2500 million years ago, or older, up to the relatively young Pliocene, 1.8 million years ago.

The bedrock geology includes many lithologies, often classified into three types based on origin: igneous, metamorphic and sedimentary.

The BGS Faults and Rock Segments dataset includes geological faults and thin beds mapped as lines such as coal seams and mineral veins. These are not restricted by age and could relate to features of any of the 1:10,000 geology datasets.

Bedrock and Faults Map - Slice A



Order Details

Order Number: 297147979_1_1
Customer Ref: LKC 22 1410
National Grid Reference: 387710, 406610
Slice: A
Site Area (Ha): 0.55
Search Buffer (m): 1000

Site Details

Brookes Street, Middleton, Manchester, M24 2WQ

Landmark®
INFORMATION GROUP

Tel: 0844 844 9952
Fax: 0844 844 9951
Web: www.envirocheck.co.uk

Appendix B

Coal Authority Consultants Coal Mining Report



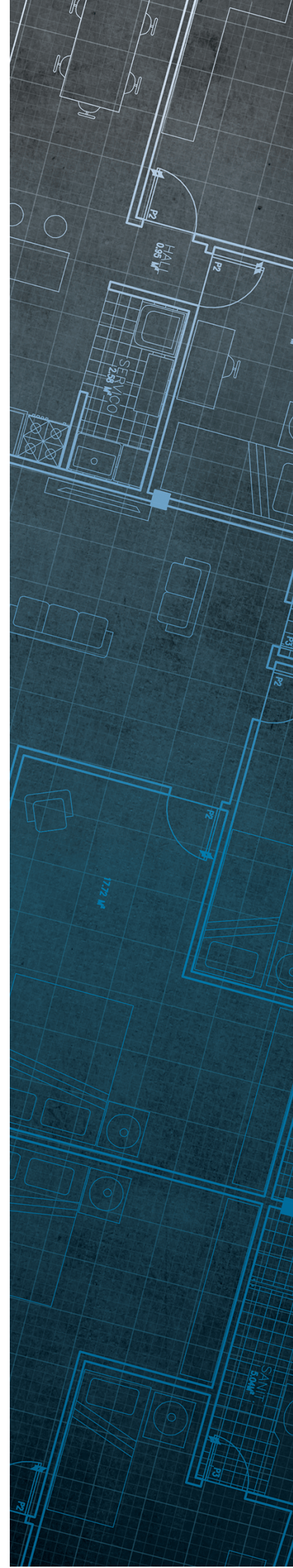
The Coal
Authority

Consultants Coal Mining Report

Brookes Street
Greater Manchester

Date of enquiry:	20 June 2022
Date enquiry received:	20 June 2022
Issue date:	20 June 2022

Our reference:	51003183684001
Your reference:	LKC 22 1410



Consultants

Coal Mining Report

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

Client name

The LK Group

Enquiry address

Brookes Street
Greater Manchester

How to contact us

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

200 Lichfield Lane
Mansfield
Nottinghamshire
NG18 4RG

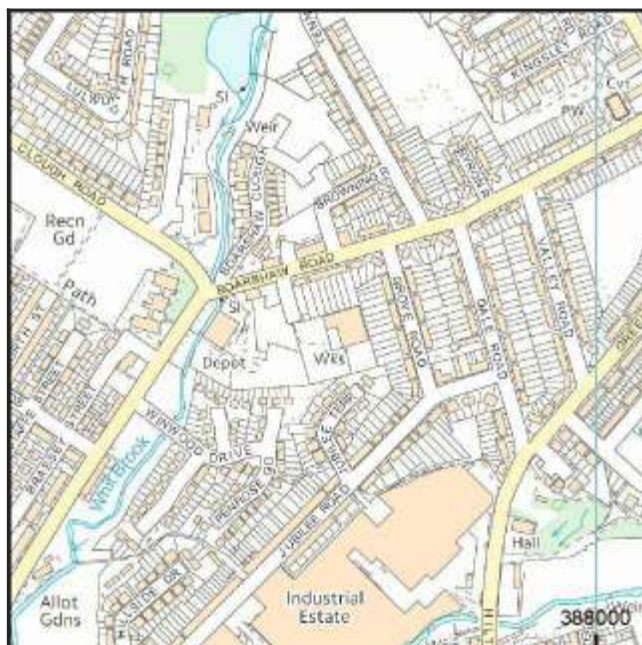
www.groundstability.com

 @coalauthority

 /company/the-coal-authority

 /thecoalauthority

 /thecoalauthority



Approximate position of property



Reproduced by permission of Ordnance Survey on behalf of HMSO. © Crown copyright and database right 2018. All rights reserved.

Ordnance Survey Licence number: 100020315

Section 1 – Mining activity and geology

Past underground mining

Colliery	Seam	Mineral	Coal Authority reference	Depth (m)	Direction to working	Dipping rate of seam worked (degrees)	Dipped direction of seam worked	Extraction thickness (cm)	Year last mined
unnamed	ARLEY	Coal	3W5I	139	Beneath Property	7.8	South-West	150	1874

Probable unrecorded shallow workings

Yes.

Spine roadways at shallow depth

No spine roadway recorded at shallow depth.

Mine entries

None recorded within 100 metres of the enquiry boundary.

Abandoned mine plan catalogue numbers

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

NW173	73	16820
PO0	NW1174	

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

Outcrops

Seam name	Mineral	Seam workable	Distance to outcrop (m)	Direction to outcrop	Bearing of outcrop
PLODDER	Coal	Yes	120.3	East	124

Geological faults, fissures and breaklines

Please refer to the 'Summary of findings' map (on separate sheet) for details of any geological faults, fissures or breaklines either within or intersecting the enquiry boundary.

Fault under or close to the property recorded.

Opencast mines

None recorded within 500 metres of the enquiry boundary.

Coal Authority managed tips

None recorded within 500 metres of the enquiry boundary.

Section 2 – Investigative or remedial activity

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

Site investigations

None recorded within 50 metres of the enquiry boundary.

Remediated sites

None recorded within 50 metres of the enquiry boundary.

Coal mining subsidence

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

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

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

Mine gas

None recorded within 500 metres of the enquiry boundary.

Mine water treatment schemes

None recorded within 500 metres of the enquiry boundary.

Section 3 – Licensing and future mining activity

Future underground mining

None recorded.

Coal mining licensing

None recorded within 200 metres of the enquiry boundary.

Court orders

None recorded.

Section 46 notices

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

Withdrawal of support notices

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

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

Payments to owners of former copyhold land

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

Section 4 – Further information

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

Development advice

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

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

Section 5 – Data definitions

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

Past underground coal mining

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

Probable unrecorded shallow workings

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

Spine roadways at shallow depth

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

Mine entries

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

Abandoned mine plan catalogue numbers

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

Outcrops

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

Geological faults, fissures and breaklines

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

Opencast mines

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

Coal Authority managed tips

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

Site investigations

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

Remediated sites

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

Coal mining subsidence

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

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

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

Mine gas

Reports of alleged mine gas emissions received by the Coal Authority, either within or within 500 metres of the enquiry boundary that subsequently required investigation and action by the Coal Authority to mitigate the effects of the mine gas emission.

Mine water treatment schemes

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

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

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

Future underground mining

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

Coal mining licensing

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

Court orders

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

Section 46 notices

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

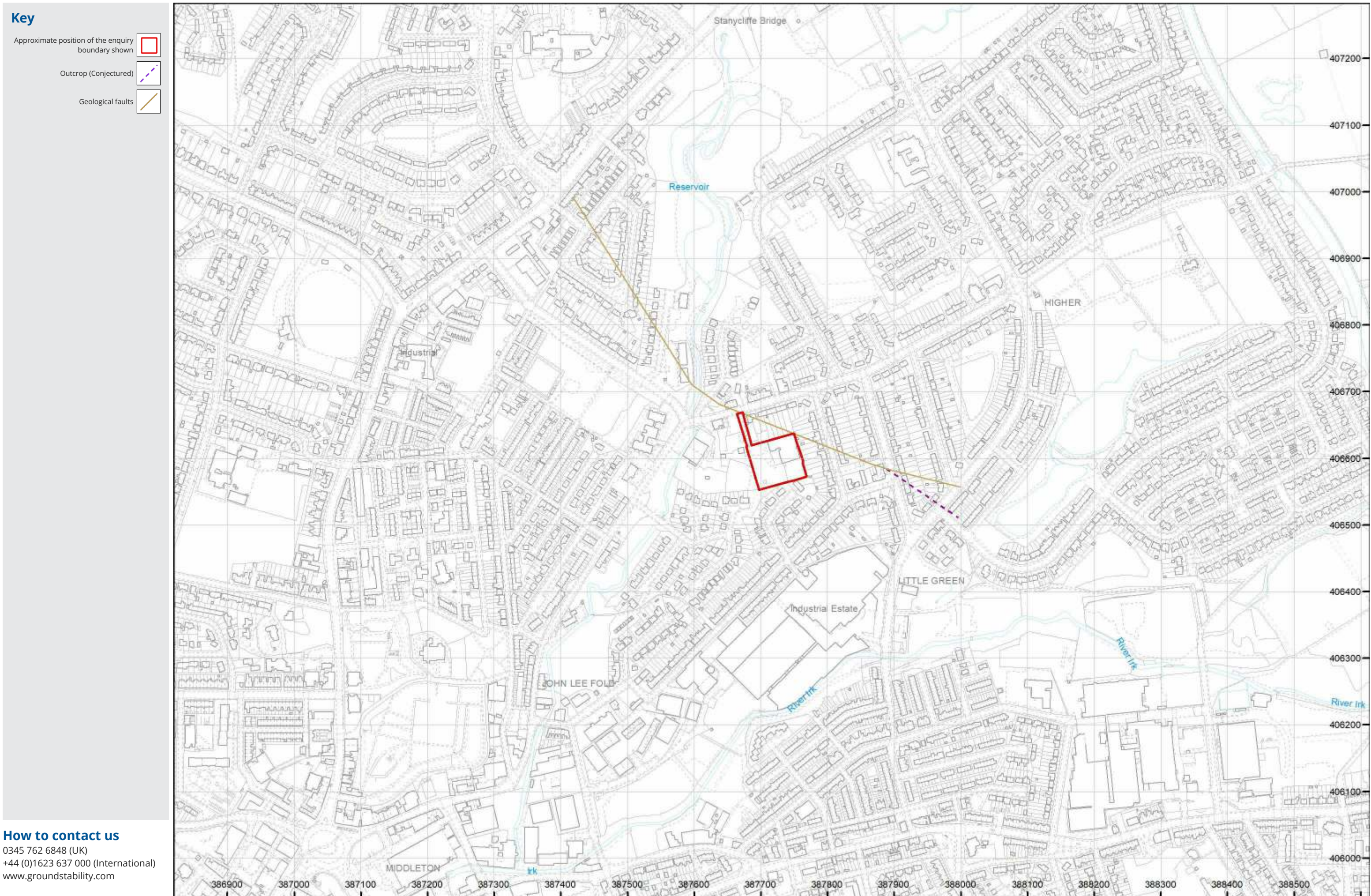
Withdrawal of support notices

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

Payment to owners of former copyhold land

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

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



Appendix C

BGS Borehole Data



British
Geological
Survey

Version 2.0.6.6

BGS ID: 26961 : BGS Reference: SD80NE6

British National Grid (27700) : 387700,406559

[Report an issue with this borehole](#)

<<

< Prev

Page 1 of 3 ▾

Next >

>>

(2025) W.L. 2025-2111-2000 515 Q. 100 O.S.

Late 1900s
 New Boscawen Road
SD ZONE 6

SECTION OF

Boscawen

at Ribbles Manufacturing Co.
 S. of Boscawen, Middleton

Maps: One-inch 95 Six-inch 96NE County Lancashire

Height above O.D. ca 300 Latitude Longitude

Communicated by Messrs Wm. Hutton Ltd. Date of Sinking 1909

Made by Dip of Strata

Blue clay

Blue shale

Rock

Grey shale

Hard brown stone

Grey shale

Rock

Grey shale

Blue shale

Black hind ? LI Red sand

Grey rock

Hard grey rock

Brown hind

Blue shale

Grey shale

Grey rock

Grey shale

Grey rock

Grey shale

Grey rock

Thickness

Depth from Surface

T/m

D/m

12 -

12 -

3.65

1 -

13 -

3.96

1 -

14 -

4.26

22 -

36 -

10.97

11 -

47 -

14.32

11 -

58 -

17.67

3 -

61 -

18.59

22 -

83 -

25.29

10 -

93 -

28.34

68 -

161 -

49.07

62 -

223 -

67.97

2 6

225 6

68.73

2 6

228 -

69.49

5 -

233 -

71.01

2 6

235 6

71.78

2 6

237 -

72.23

2 6

239 6

72.99

2 6

242 -

73.74

2 6

244 6

74.52

11 6

256 -

78.02

Based across the UK with offices in
Manchester, London,
Liverpool, Swindon and Glasgow.

Manchester (Head Office)

Unit 29
Eton Business Park
Eton Hill Rd, Radcliffe
M26 2ZS

t: 0161 763 7200
e: info@thelkgroup.com

Swindon

39 Bowman House Business Centre
Bowman Court
Whitehill Lane
Royal Wootton Bassett
Swindon
SN4 7DB

t: 01793 987 390
e: info@thelkgroup.com

London

Brooklands Business Park
Wellington Way
Weybridge
KT13 0TT

t: 01932 871872
e: info@thelkgroup.com

Glasgow

Wright Business Centre
1 Lonmay Road
Glasgow
G33 4EL

t: 0141 773 6269
e: info@thelkgroup.com

Liverpool

The Corn Exchange
Fenwick Street
Liverpool
L2 7QL

t: 0151 235 8716
e: info@thelkgroup.com



- » Geotechnical
- » Contaminated Land
- » Flood Risk and Drainage
- » Asbestos
- » Invasive Species
- » Land Remediation
- » Project Management
- » Land Drilling

SMALL SCALE SURVEY PLANS



Site Details:

Bookes Street, Middleton

Client Ref: CMAPS-CM-1111708-4199-270623
Report Ref: CMAPS-CM-1111708-4199-270623HIS
Grid Ref: 387716, 406610

Map Name: County Series

Map date: 1848

Scale: 1:10,560

Printed at: 1:10,560



Surveyed 1845
Revised N/A
Edition 1848
Copyright N/A
Levelled N/A



Produced by
Groundsure Insights
www.groundsure.com

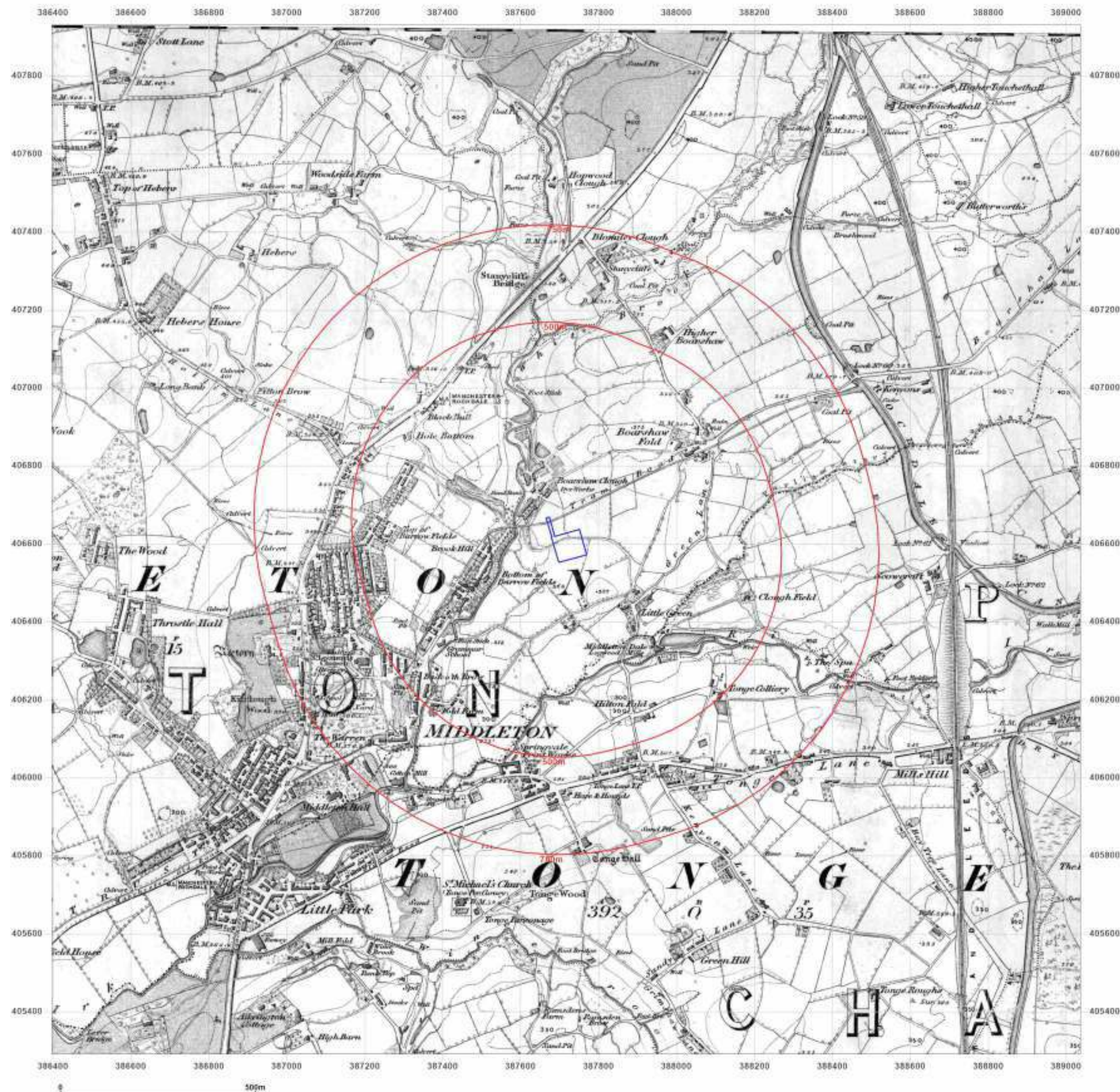


Supplied by:
www.centremapslive.com
groundsure@centremaps.com

© Crown copyright and database rights 2018 Ordnance Survey 100035207

Production date: 27 June 2023

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





Site Details:

Bookes Street, Middleton

Client Ref: CMAPS-CM-1111708-4199-270623
Report Ref: CMAPS-CM-1111708-4199-270623HIS
Grid Ref: 387716, 406610

Map Name: County Series

Map date: 1890-1891

Scale: 1:10,560

Printed at: 1:10,560



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

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



Produced by
Groundsure Insights
www.groundsure.com

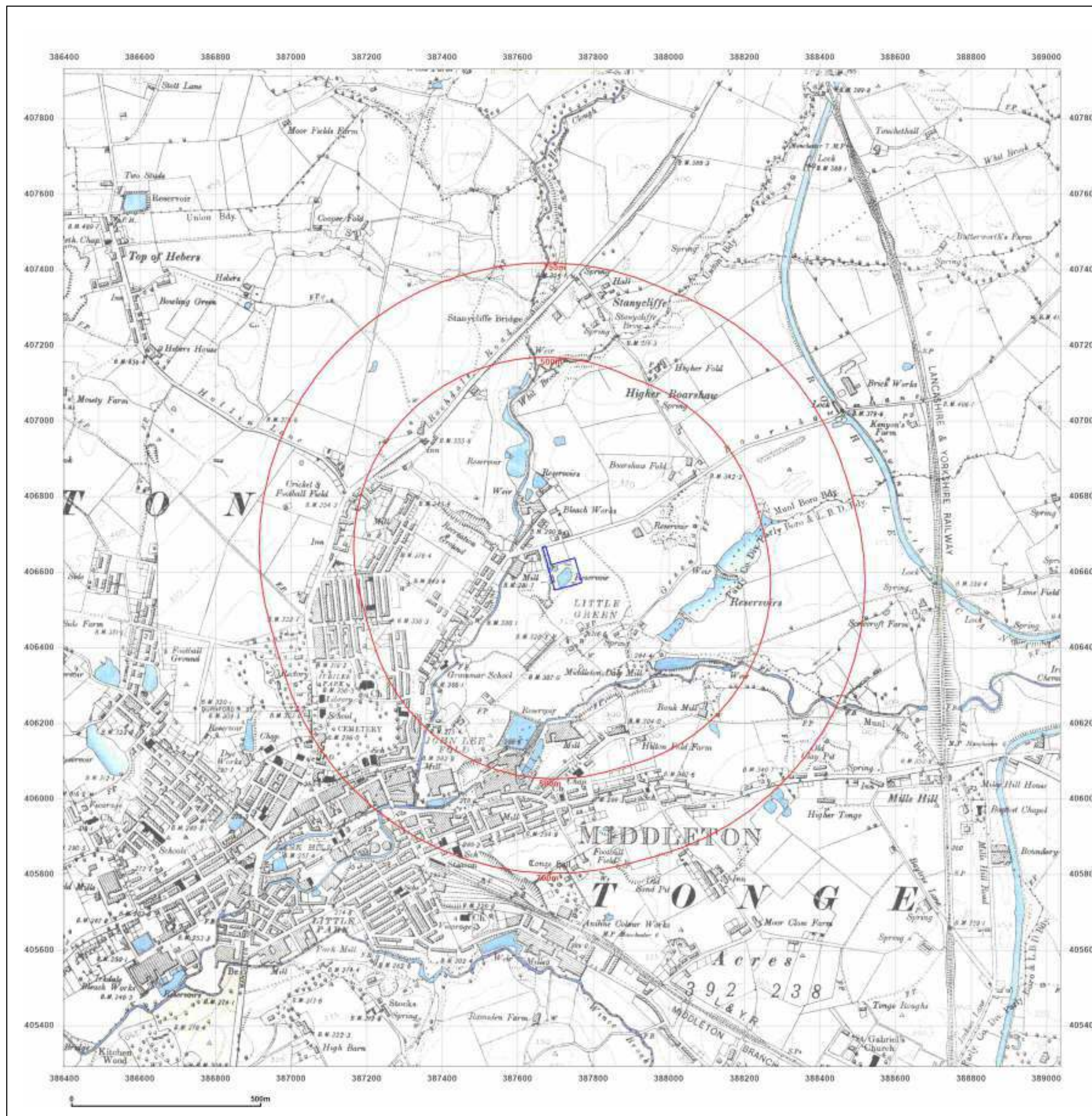


Supplied by:
www.centremapslive.com
groundsure@centremaps.com

© Crown copyright and database rights 2018 Ordnance Survey 100035207

Production date: 27 June 2023

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





Site Details:

Boookes Street, Middleton

Client Ref: CMAPS-CM-1111708-4199-270623
Report Ref: CMAPS-CM-1111708-4199-270623HIS
Grid Ref: 387716, 406610

Map Name: County Series

Map date: 1907-1909

Scale: 1:10,560

Printed at: 1:10,560



Surveyed 1848
Revised 1909
Edition N/A
Copyright N/A
Levelled N/A

Surveyed 1844
Revised 1907
Edition N/A
Copyright N/A
Levelled N/A



Produced by
Groundsure Insights
www.groundsure.com

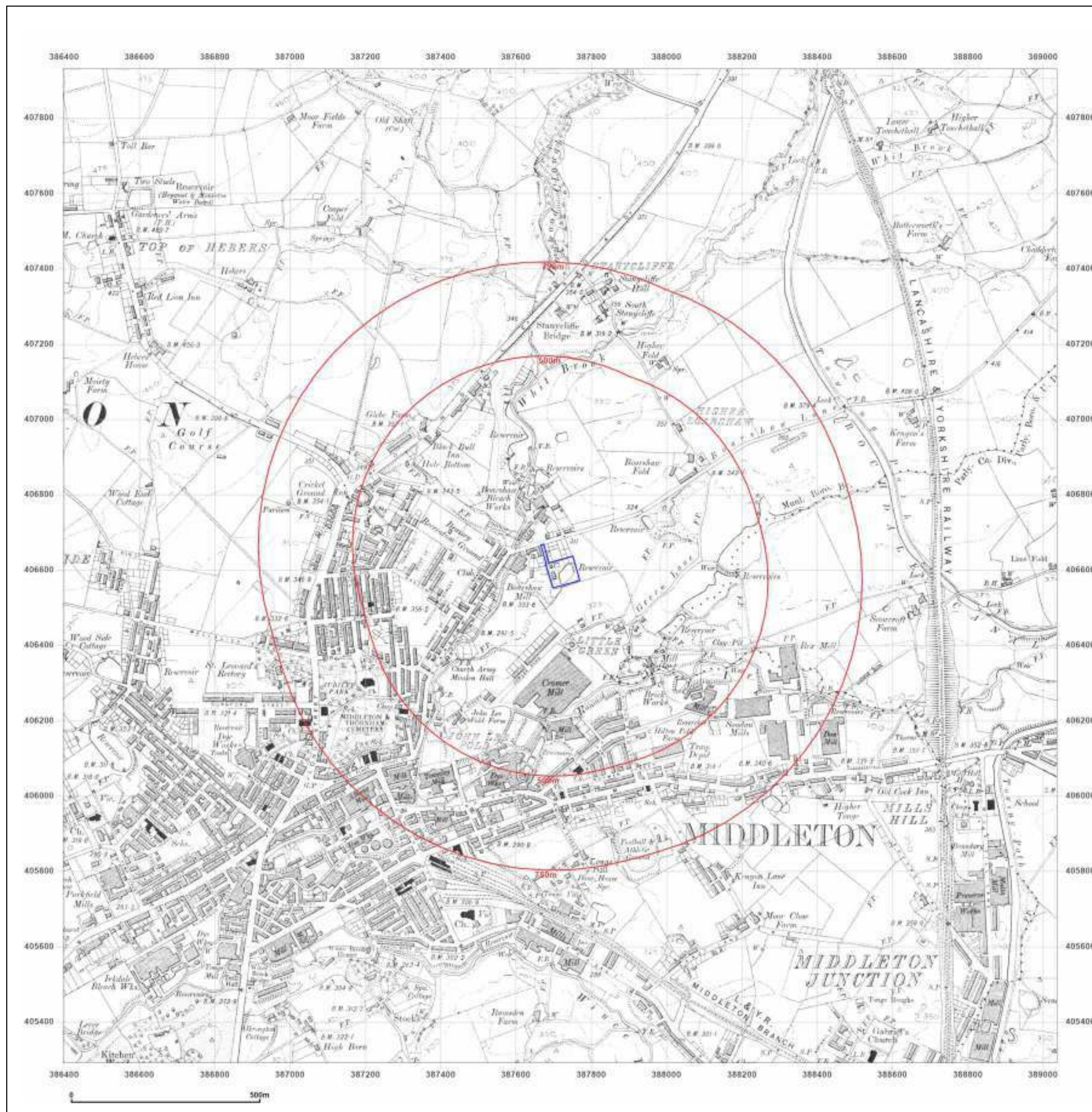


Supplied by:
www.centremapslive.com
groundsure@centremaps.com

© Crown copyright and database rights 2018 Ordnance Survey 100035207

Production date: 27 June 2023

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





Site Details:

Bookes Street, Middleton

Client Ref: CMAPS-CM-1111708-4199-270623
Report Ref: CMAPS-CM-1111708-4199-270623HIS
Grid Ref: 387716, 406610

Map Name: County Series

Map date: 1915

Scale: 1:10,560

Printed at: 1:10,560



Surveyed 1844
Revised 1915
Edition N/A
Copyright N/A
Levelled N/A



Produced by
Groundsure Insights
www.groundsure.com

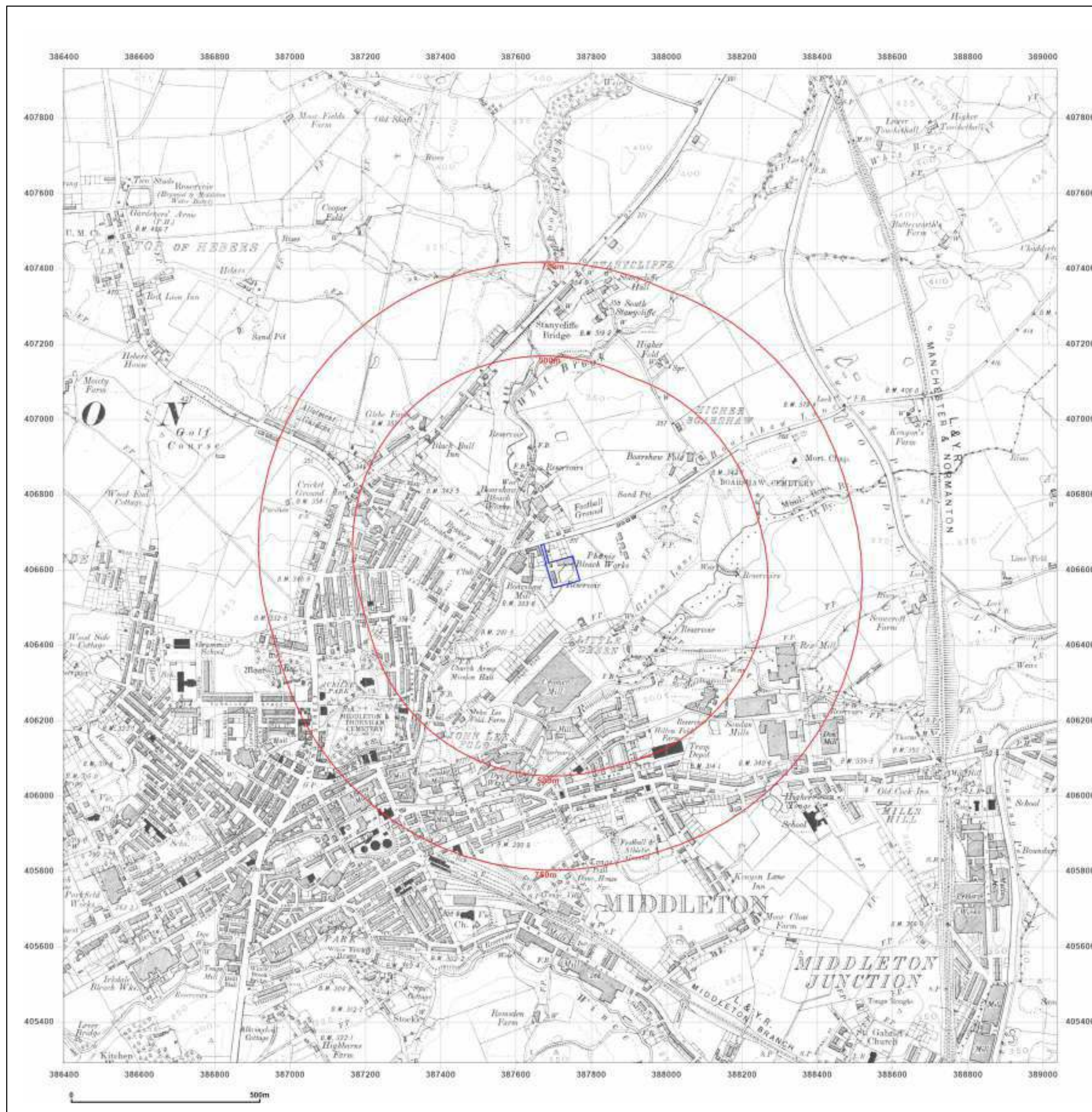


Supplied by:
www.centremapslive.com
groundsure@centremaps.com

© Crown copyright and database rights 2018 Ordnance Survey 100035207

Production date: 27 June 2023

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





Site Details:

Boookes Street, Middleton

Client Ref: CMAPS-CM-1111708-4199-270623
Report Ref: CMAPS-CM-1111708-4199-270623HIS
Grid Ref: 387716, 406610

Map Name: County Series

Map date: 1923

Scale: 1:10,560

Printed at: 1:10,560



Surveyed 1844
Revised 1923
Edition N/A
Copyright N/A
Levelled N/A



Produced by
Groundsure Insights
www.groundsure.com

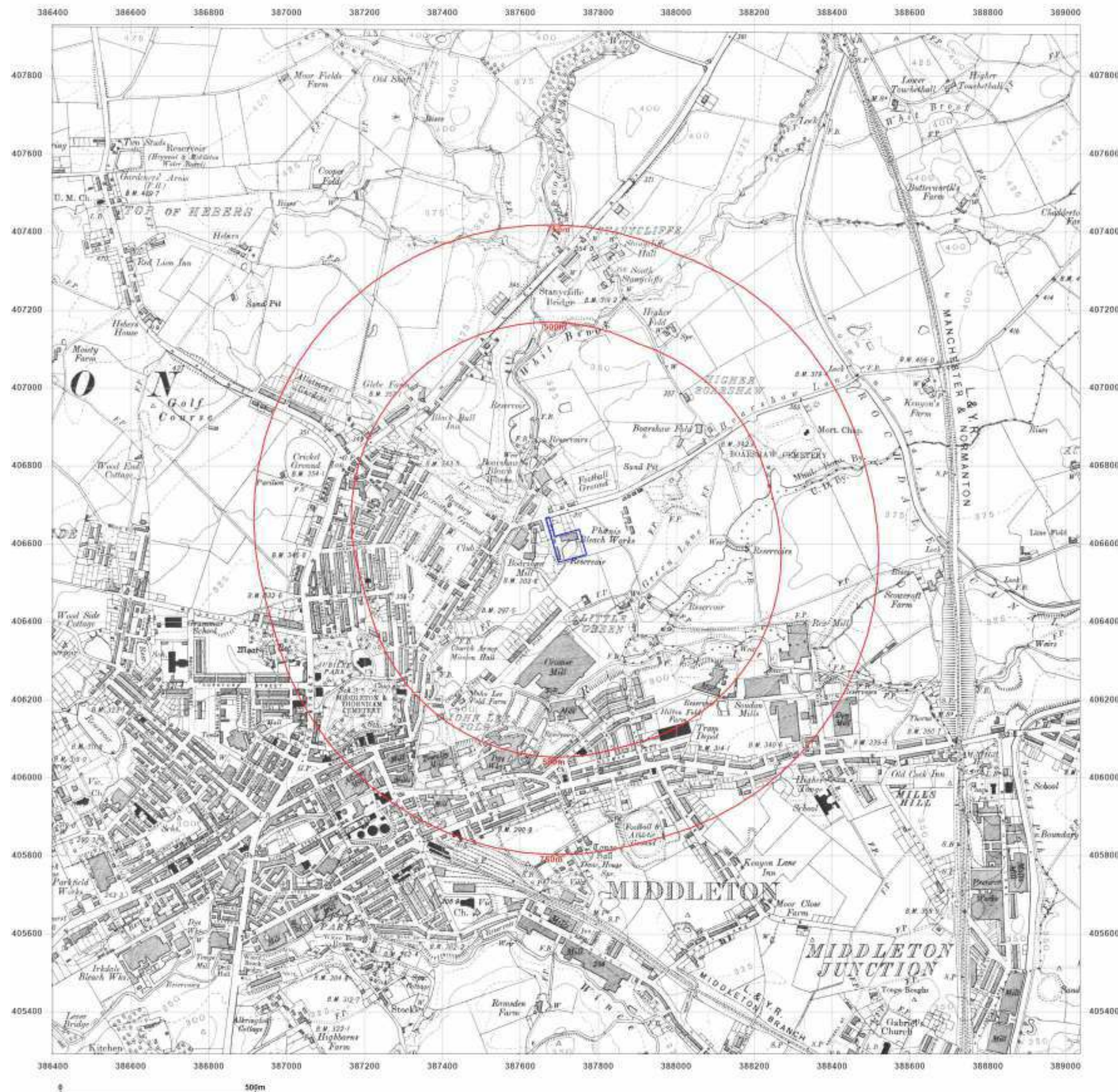


Supplied by:
www.centremapslive.com
groundsure@centremaps.com

© Crown copyright and database rights 2018 Ordnance Survey 100035207

Production date: 27 June 2023

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





Site Details:

Bookes Street, Middleton

Client Ref: CMAPS-CM-1111708-4199-270623
Report Ref: CMAPS-CM-1111708-4199-270623HIS
Grid Ref: 387716, 406610

Map Name: County Series

Map date: 1928-1932

Scale: 1:10,560

Printed at: 1:10,560



Surveyed 1848
Revised 1928
Edition N/A
Copyright N/A
Levelled N/A

Surveyed 1844
Revised 1932
Edition N/A
Copyright N/A
Levelled N/A



Produced by
Groundsure Insights
www.groundsure.com

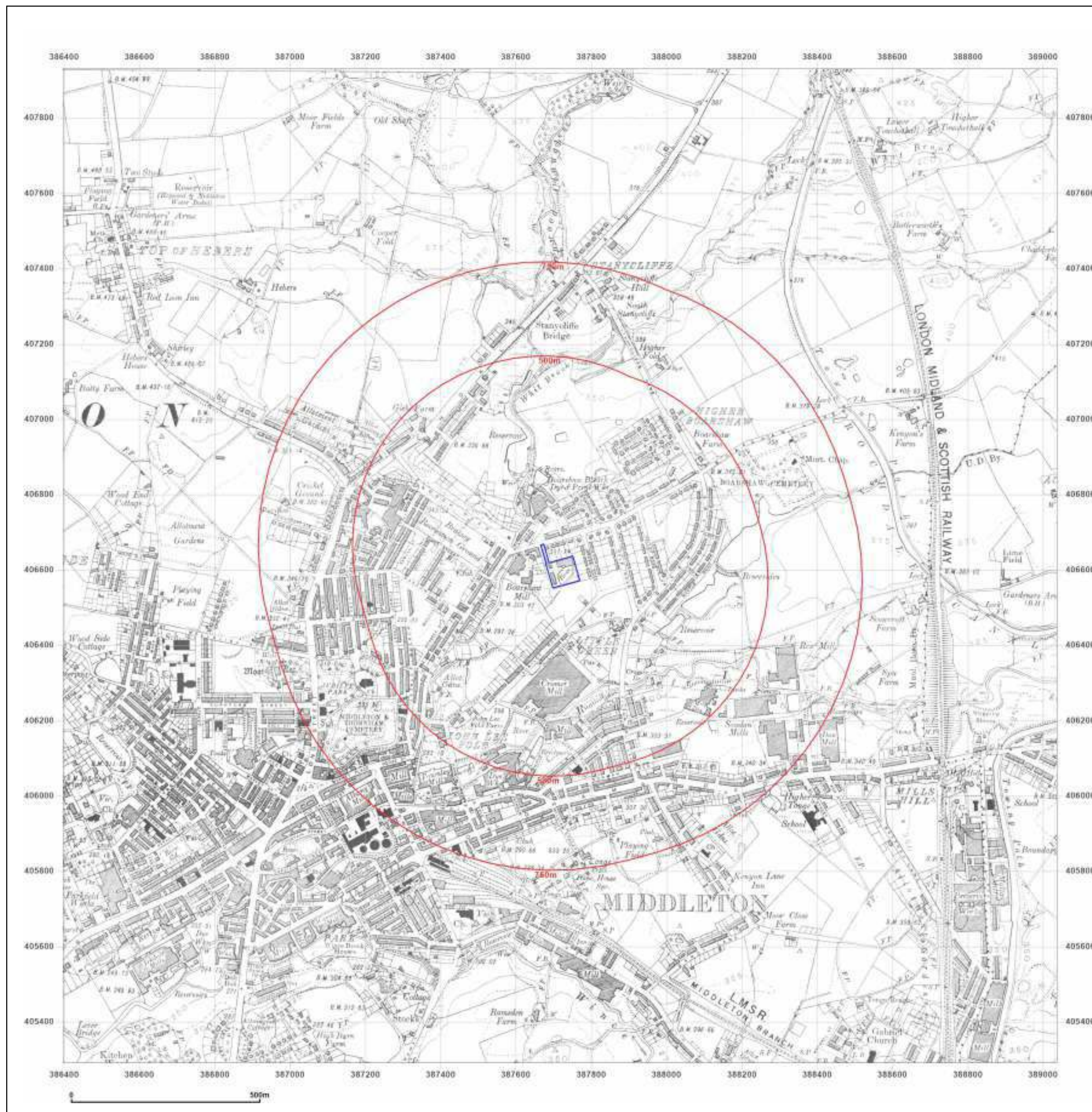


Supplied by:
www.centremapslive.com
groundsure@centremaps.com

© Crown copyright and database rights 2018 Ordnance Survey 100035207

Production date: 27 June 2023

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





Site Details:

Bookes Street, Middleton

Client Ref: CMAPS-CM-1111708-4199-270623
Report Ref: CMAPS-CM-1111708-4199-270623HIS
Grid Ref: 387716, 406610

Map Name: County Series

Map date: 1938

Scale: 1:10,560

Printed at: 1:10,560



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

Surveyed 1844
Revised 1938
Edition N/A
Copyright N/A
Levelled N/A



Produced by
Groundsure Insights
www.groundsure.com

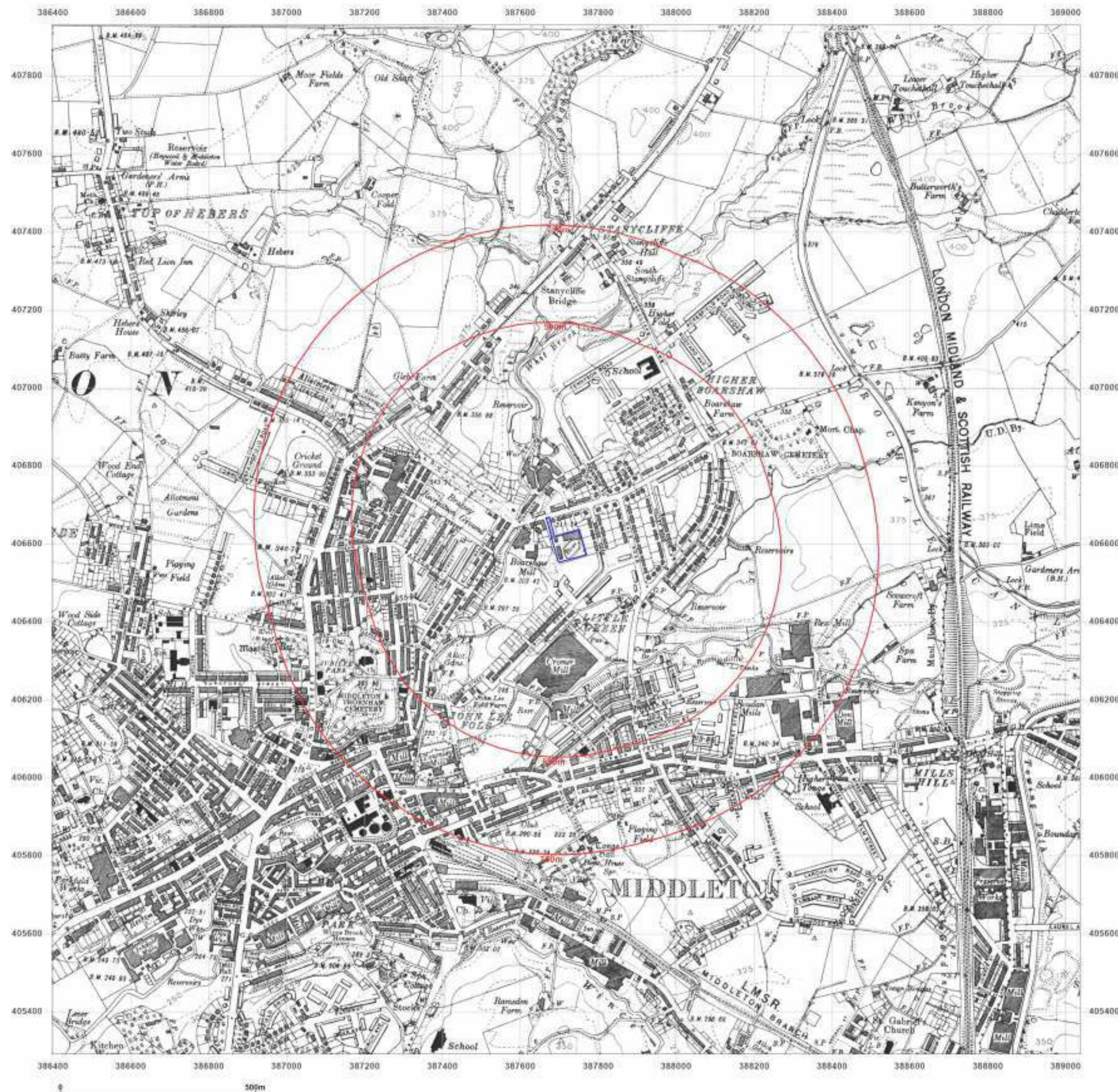


Supplied by:
www.centremapslive.com
groundsure@centremaps.com

© Crown copyright and database rights 2018 Ordnance Survey 100035207

Production date: 27 June 2023

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





Site Details:

Bookes Street, Middleton

Client Ref: CMAPS-CM-1111708-4199-270623
Report Ref: CMAPS-CM-1111708-4199-270623HIS
Grid Ref: 387716, 406610

Map Name: Provisional

Map date: 1955

Scale: 1:10,560

Printed at: 1:10,560



Surveyed N/A
Revised 4066
Edition N/A
Copyright N/A
Levelled N/A



Produced by
Groundsure Insights
www.groundsure.com

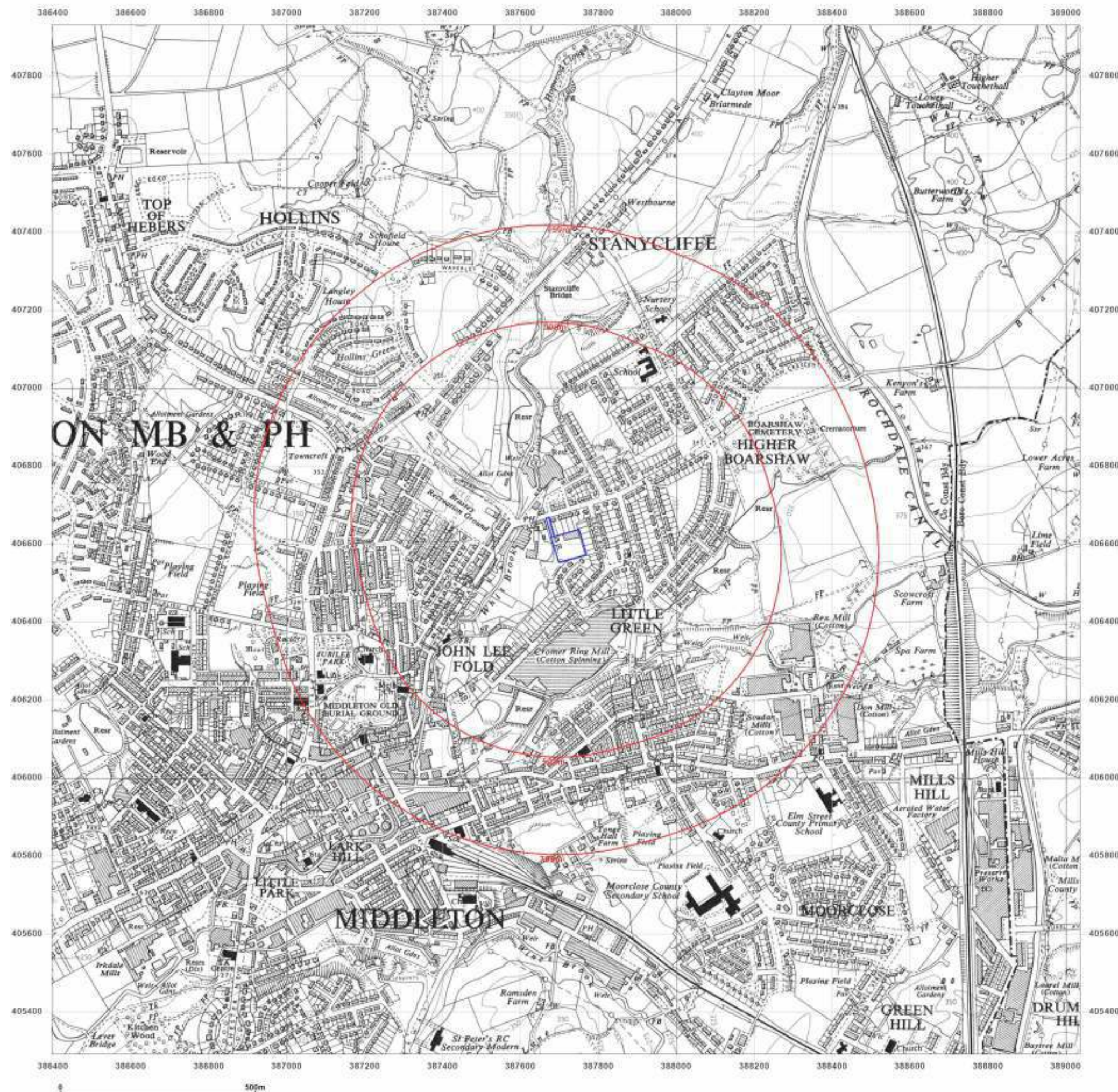


Supplied by:
www.centremapslive.com
groundsure@centremaps.com

© Crown copyright and database rights 2018 Ordnance Survey 100035207

Production date: 27 June 2023

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





Site Details:

Boookes Street, Middleton

Client Ref: CMAPS-CM-1111708-4199-270623
Report Ref: CMAPS-CM-1111708-4199-270623HIS
Grid Ref: 387716, 406610

Map Name: Provisional

Map date: 1965

Scale: 1:10,560

Printed at: 1:10,560



Surveyed 1965
Revised 4066
Edition N/A
Copyright N/A
Levelled N/A



Produced by
Groundsure Insights
www.groundsure.com

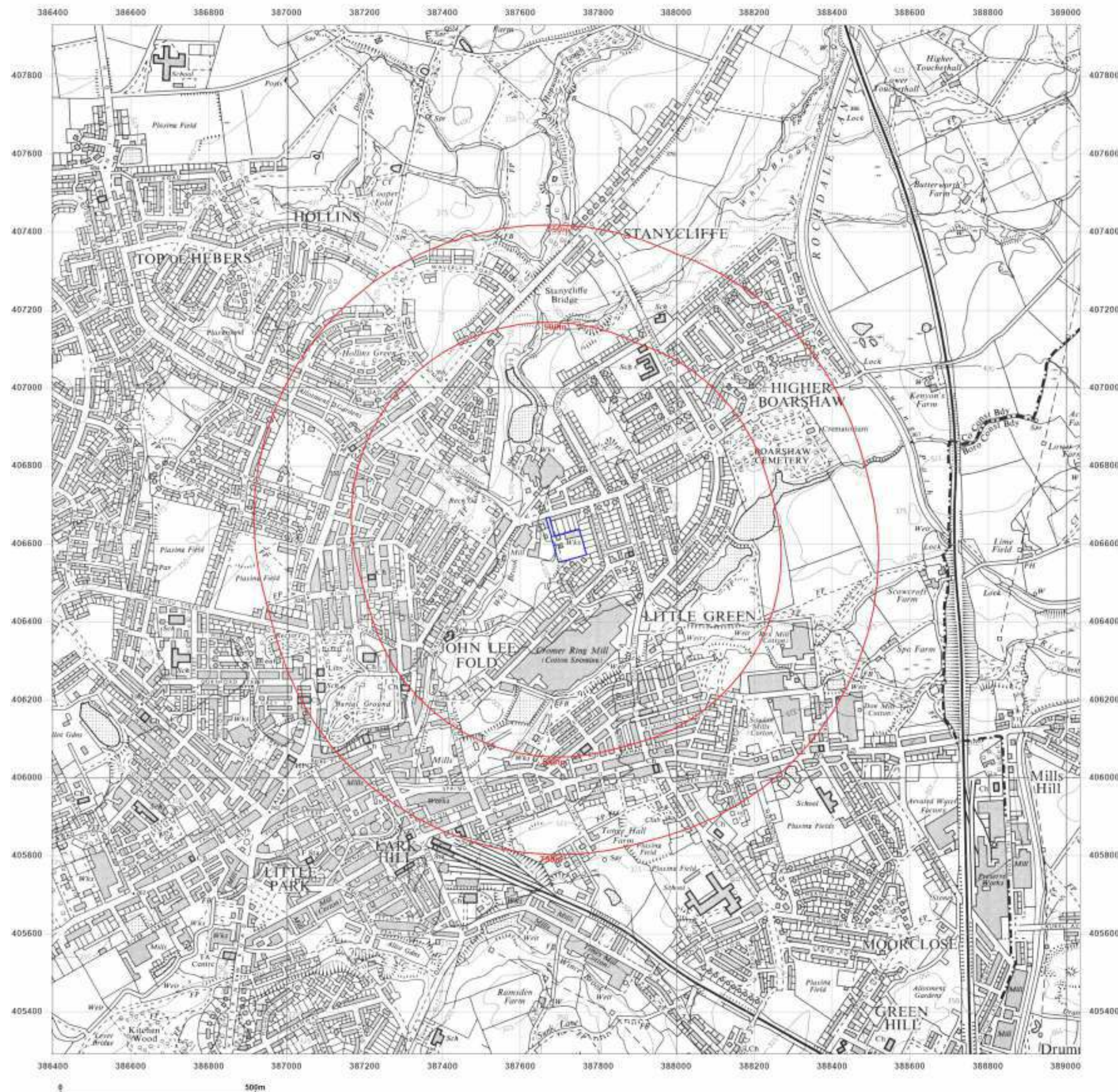


Supplied by:
www.centremapslive.com
groundsure@centremaps.com

© Crown copyright and database rights 2018 Ordnance Survey 100035207

Production date: 27 June 2023

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





Site Details:

Bookes Street, Middleton

Client Ref: CMAPS-CM-1111708-4199-270623
Report Ref: CMAPS-CM-1111708-4199-270623HIS
Grid Ref: 387716, 406610

Map Name: National Grid

Map date: 1975

Scale: 1:10,000

Printed at: 1:10,000



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



Produced by
Groundsure Insights
www.groundsure.com

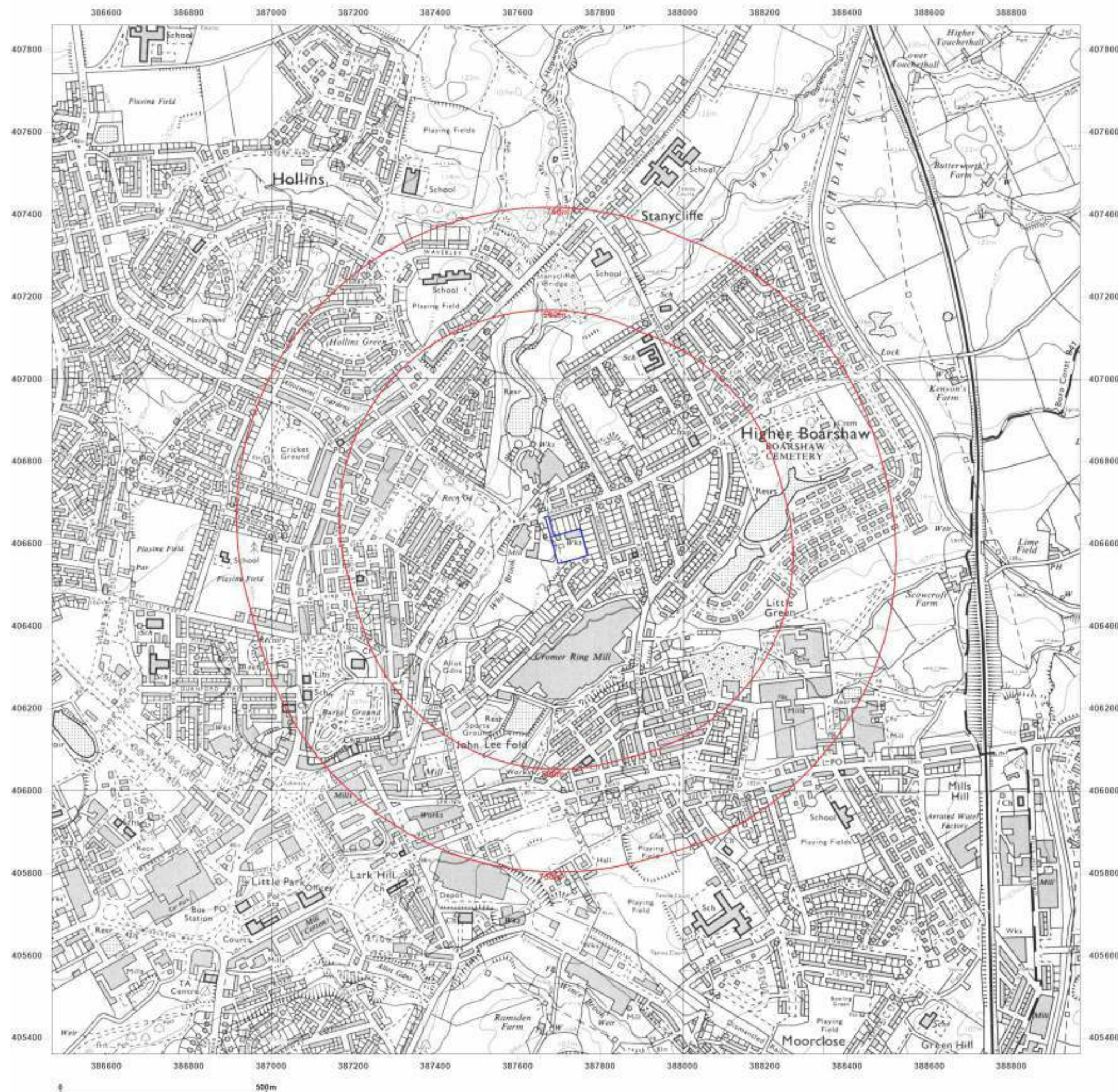


Supplied by:
www.centremapslive.com
groundsure@centremaps.com

© Crown copyright and database rights 2018 Ordnance Survey 100035207

Production date: 27 June 2023

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





Site Details:

Bookes Street, Middleton

Client Ref: CMAPS-CM-1111708-4199-270623
Report Ref: CMAPS-CM-1111708-4199-270623HIS
Grid Ref: 387716, 406610

Map Name: National Grid

Map date: 1982

Scale: 1:10,000

Printed at: 1:10,000



Surveyed 1980
Revised 1982
Edition N/A
Copyright N/A
Levelled N/A



Produced by
Groundsure Insights
www.groundsure.com

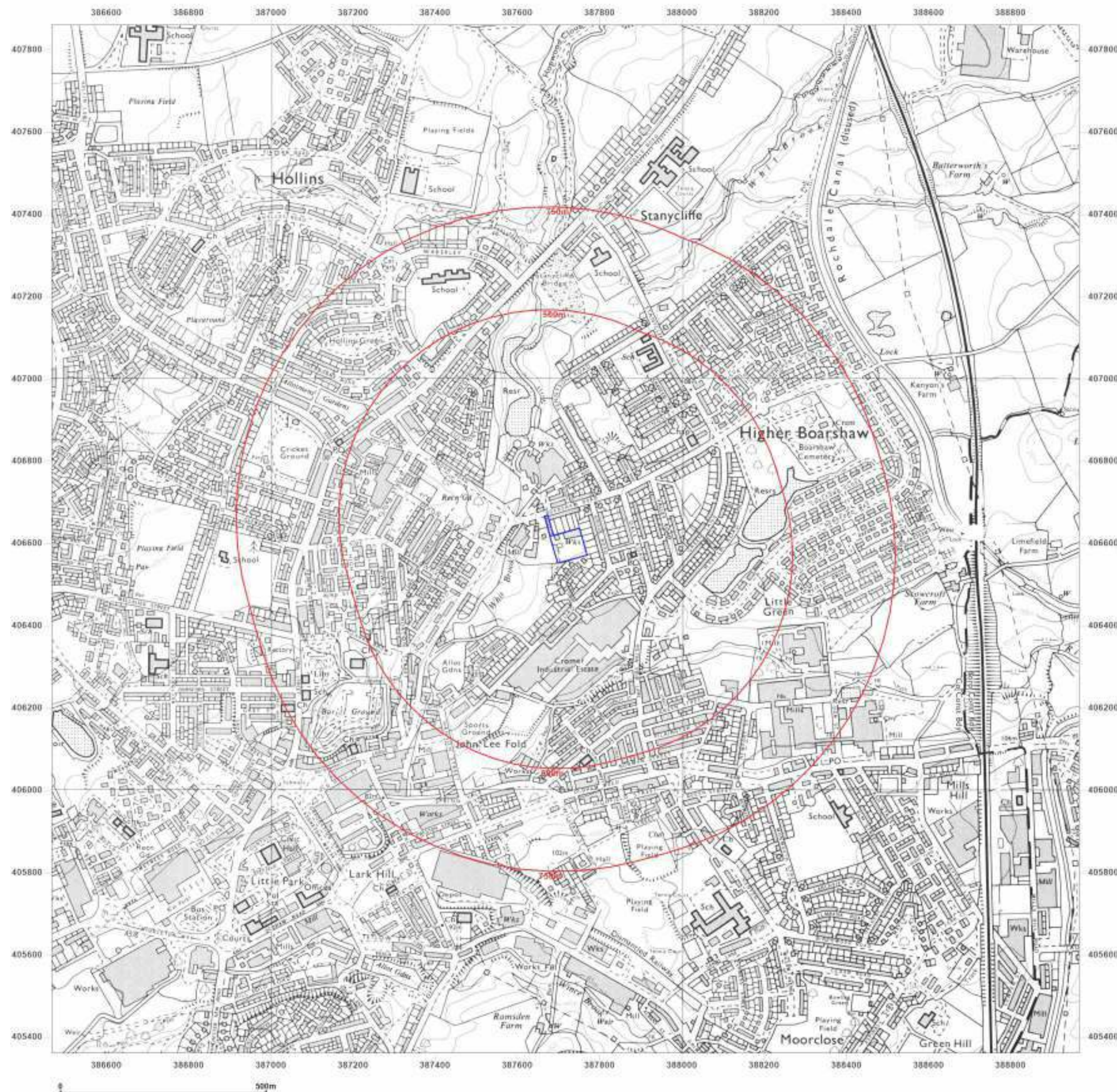


Supplied by:
www.centremapslive.com
groundsure@centremaps.com

© Crown copyright and database rights 2018 Ordnance Survey 100035207

Production date: 27 June 2023

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





Site Details:

Bookes Street, Middleton

Client Ref: CMAPS-CM-1111708-4199-270623
Report Ref: CMAPS-CM-1111708-4199-270623HIS
Grid Ref: 387716, 406610

Map Name: National Grid

Map date: 2001

Scale: 1:10,000

Printed at: 1:10,000



Produced by
Groundsure Insights
www.groundsure.com



Supplied by:
www.centremapslive.com
groundsure@centremaps.com

© Crown copyright and database rights 2018 Ordnance Survey 100035207

Production date: 27 June 2023

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





Site Details:

Bookes Street, Middleton

Client Ref: CMAPS-CM-1111708-4199-270623
Report Ref: CMAPS-CM-1111708-4199-270623HIS
Grid Ref: 387716, 406610

Map Name: National Grid

Map date: 2010

Scale: 1:10,000

Printed at: 1:10,000



Produced by
Groundsure Insights
www.groundsure.com



Supplied by:
www.centremapslive.com
groundsure@centremaps.com

© Crown copyright and database rights 2018 Ordnance Survey 100035207

Production date: 27 June 2023

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





Site Details:

Bookes Street, Middleton

Client Ref: CMAPS-CM-1111708-4199-270623
Report Ref: CMAPS-CM-1111708-4199-270623HIS
Grid Ref: 387716, 406610

Map Name: National Grid

Map date: 2023

Scale: 1:10,000

Printed at: 1:10,000



Produced by
Groundsure Insights
www.groundsure.com

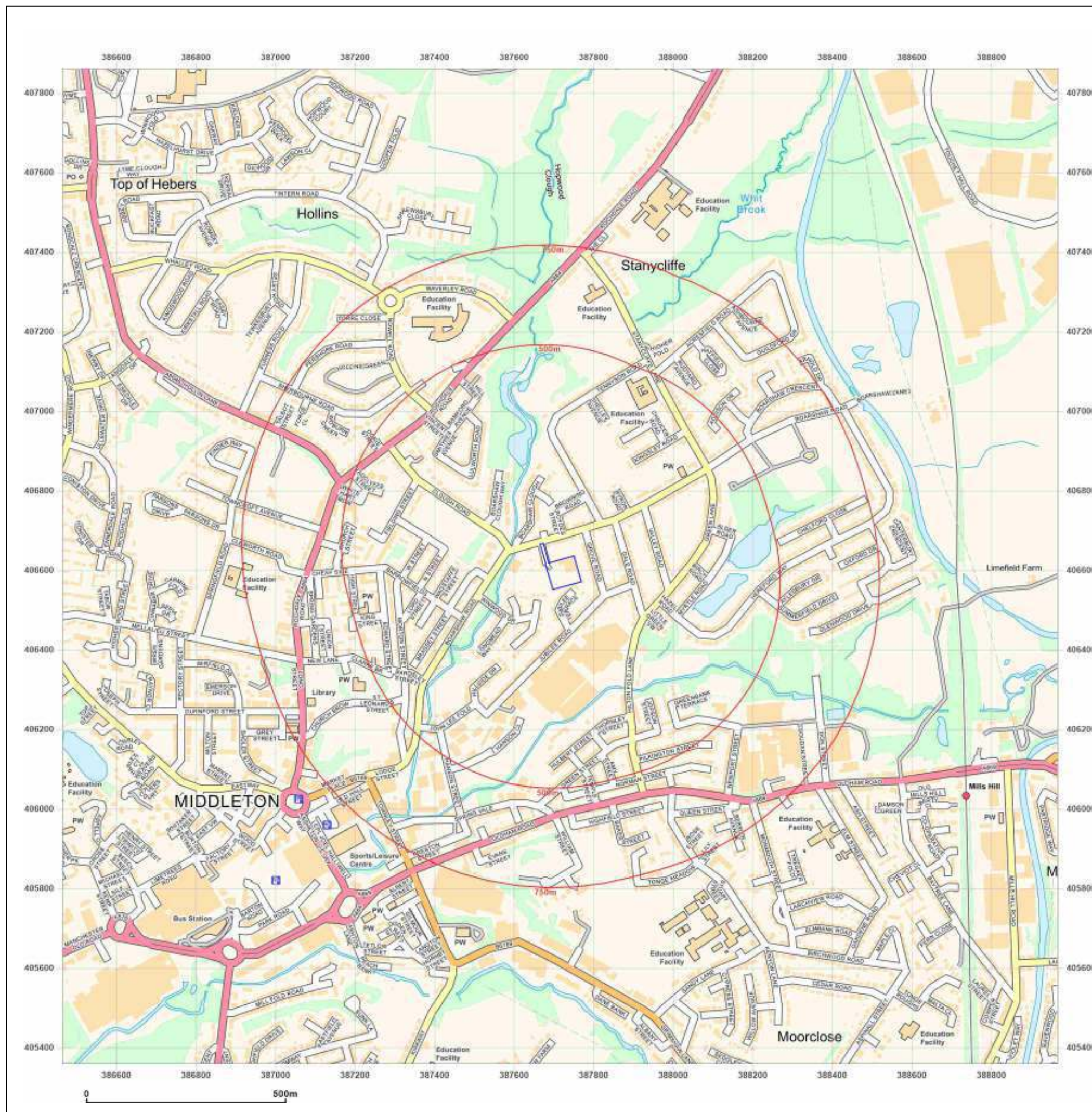


Supplied by:
www.centremapslive.com
groundsure@centremaps.com

© Crown copyright and database rights 2018 Ordnance Survey 100035207

Production date: 27 June 2023

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



LARGE SCALE SURVEY PLANS



Site Details:

Boookes Street, Middleton

Client Ref: CMAPS-CM-1111708-4199-270623
Report Ref: CMAPS-CM-1111708-4199-270623HIS
Grid Ref: 387716, 406610

Map Name: 1056 Scale Town Plan

Map date: 1851

Scale: 1:1,056

Printed at: 1:1,056



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



Produced by
Groundsure Insights
www.groundsure.com

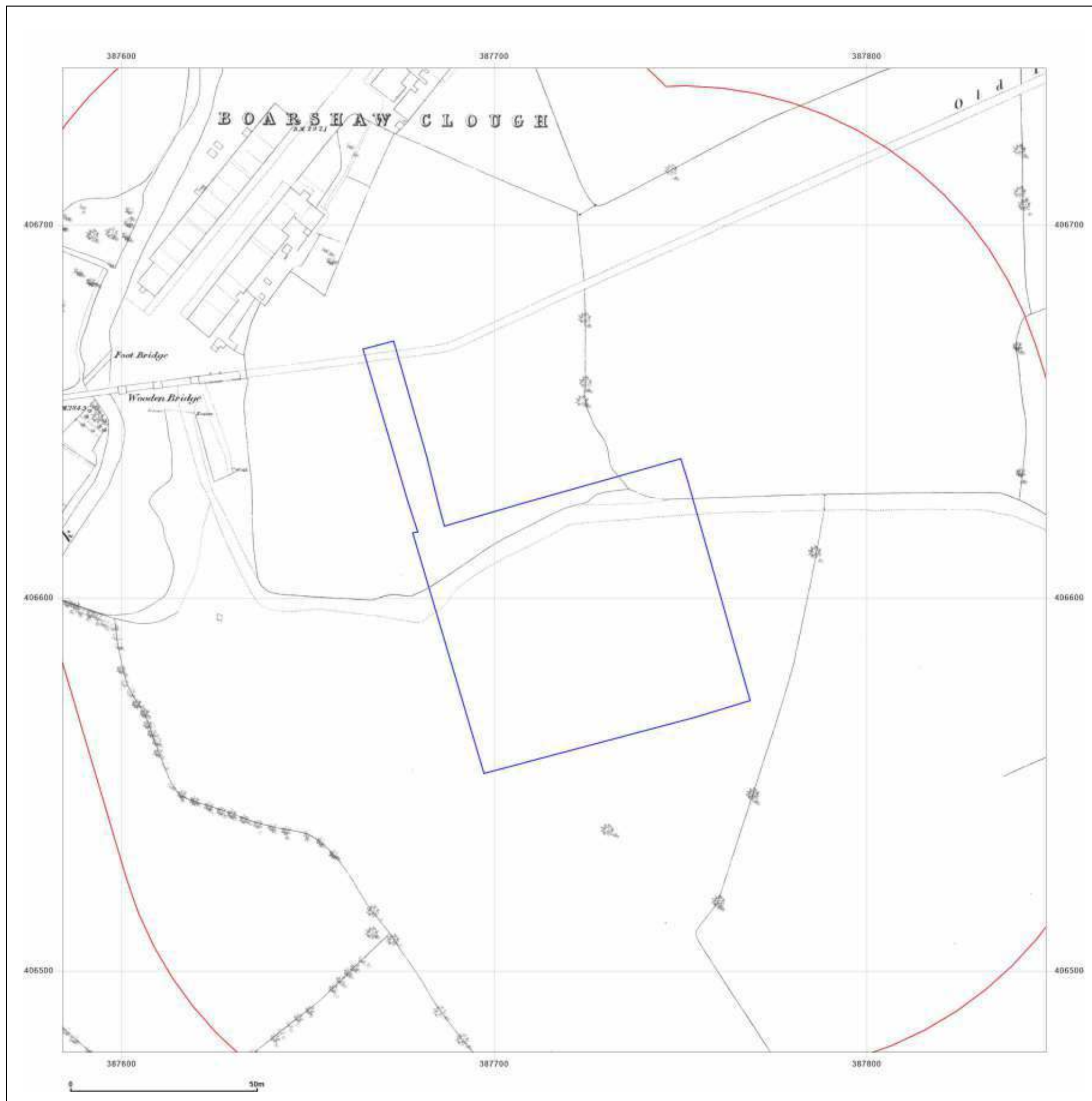


Supplied by:
www.centremapslive.com
groundsure@centremaps.com

© Crown copyright and database rights 2018 Ordnance Survey 100035207

Production date: 27 June 2023

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





Site Details:

Bookes Street, Middleton

Client Ref: CMAPS-CM-1111708-4199-270623
Report Ref: CMAPS-CM-1111708-4199-270623HIS
Grid Ref: 387716, 406610

Map Name: County Series

Map date: 1893

Scale: 1:2,500

Printed at: 1:2,500



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

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



Produced by
Groundsure Insights
www.groundsure.com

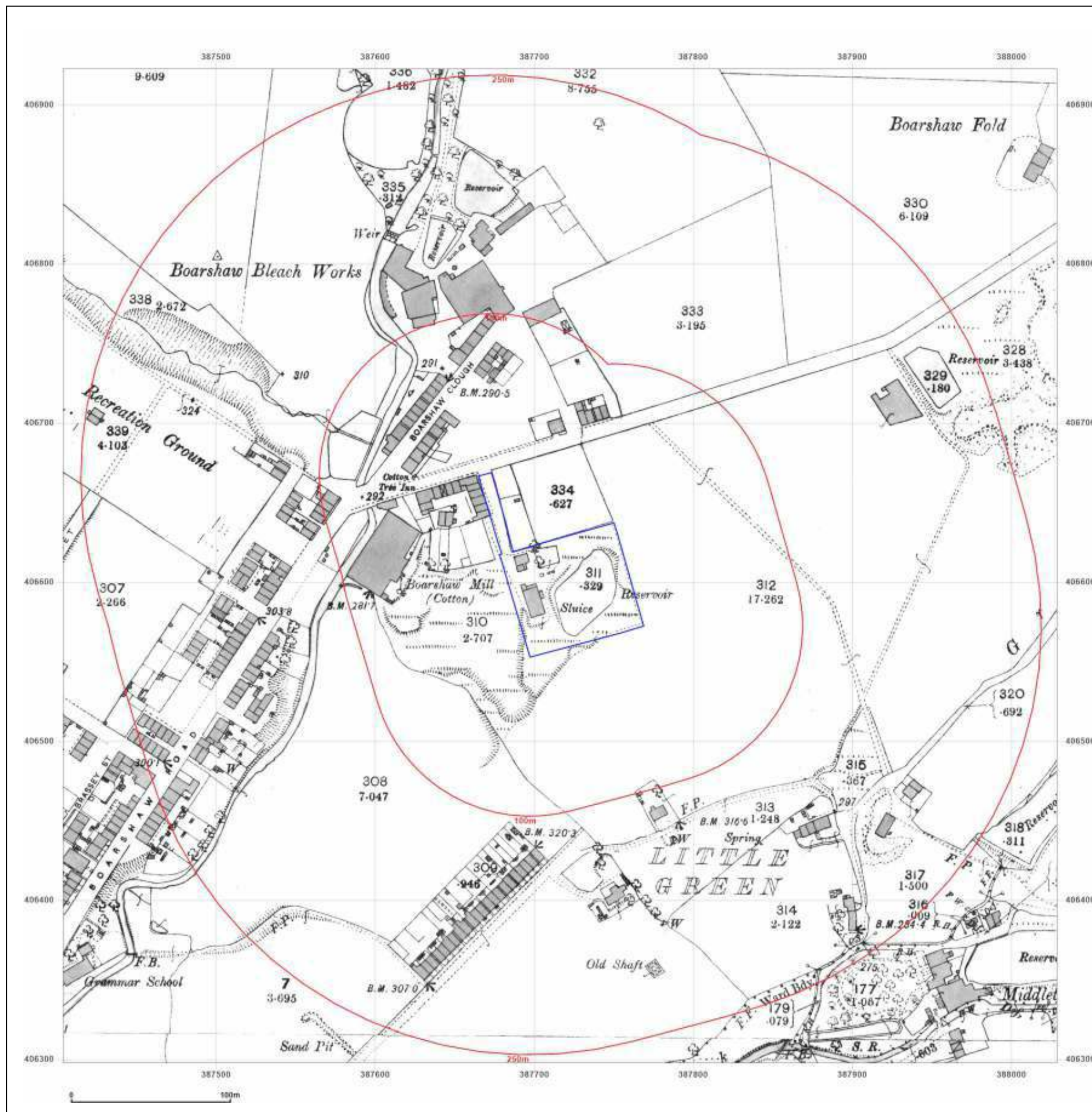


Supplied by:
www.centremapslive.com
groundsure@centremaps.com

© Crown copyright and database rights 2018 Ordnance Survey 100035207

Production date: 27 June 2023

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



Site Details:

Bookes Street, Middleton

Client Ref: CMAPS-CM-1111708-4199-270623
Report Ref: CMAPS-CM-1111708-4199-270623HIS
Grid Ref: 387716, 406610

Map Name: County Series

Map date: 1909

Scale: 1:2,500

Printed at: 1:2,500



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

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



Produced by
Groundsure Insights
www.groundsure.com

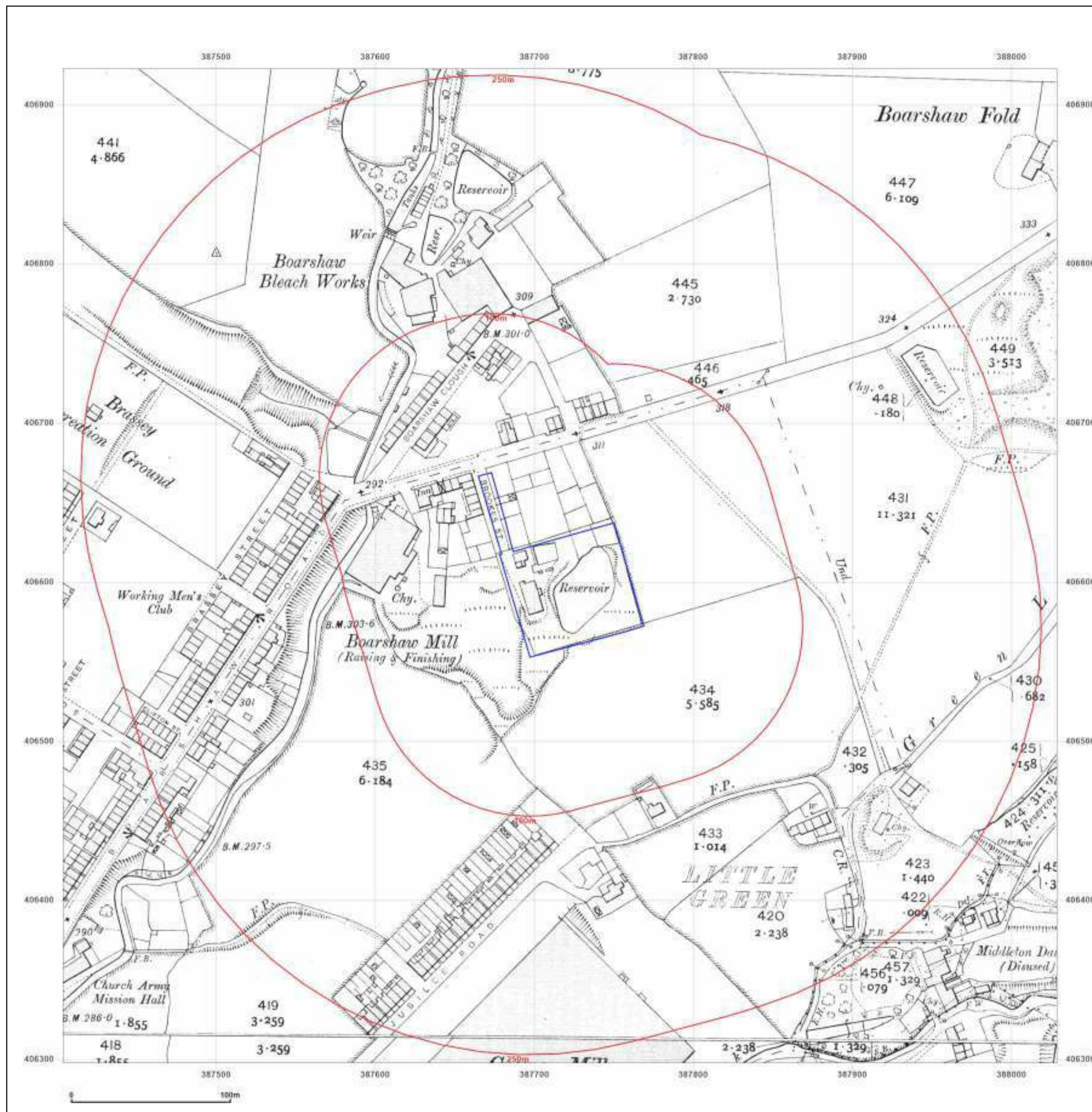


Supplied by:
www.centremapslive.com
groundsure@centremaps.com

© Crown copyright and database rights 2018 Ordnance Survey 100035207

Production date: 27 June 2023

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



Site Details:

Bookes Street, Middleton

Client Ref: CMAPS-CM-1111708-4199-270623
Report Ref: CMAPS-CM-1111708-4199-270623HIS
Grid Ref: 387716, 406610

Map Name: County Series

Map date: 1922

Scale: 1:2,500

Printed at: 1:2,500



Surveyed 1922
Revised 1922
Edition N/A
Copyright N/A
Levelled N/A

Surveyed 1922
Revised 1922
Edition N/A
Copyright N/A
Levelled N/A



Produced by
Groundsure Insights
www.groundsure.com



Supplied by:
www.centremapslive.com
groundsure@centremaps.com

© Crown copyright and database rights 2018 Ordnance Survey 100035207

Production date: 27 June 2023

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



Site Details:

Bookes Street, Middleton

Client Ref: CMAPS-CM-1111708-4199-270623
Report Ref: CMAPS-CM-1111708-4199-270623HIS
Grid Ref: 387716, 406610

Map Name: County Series

Map date: 1932

Scale: 1:2,500

Printed at: 1:2,500



Surveyed 1932
Revised 1932
Edition N/A
Copyright N/A
Levelled N/A



Produced by
Groundsure Insights
www.groundsure.com

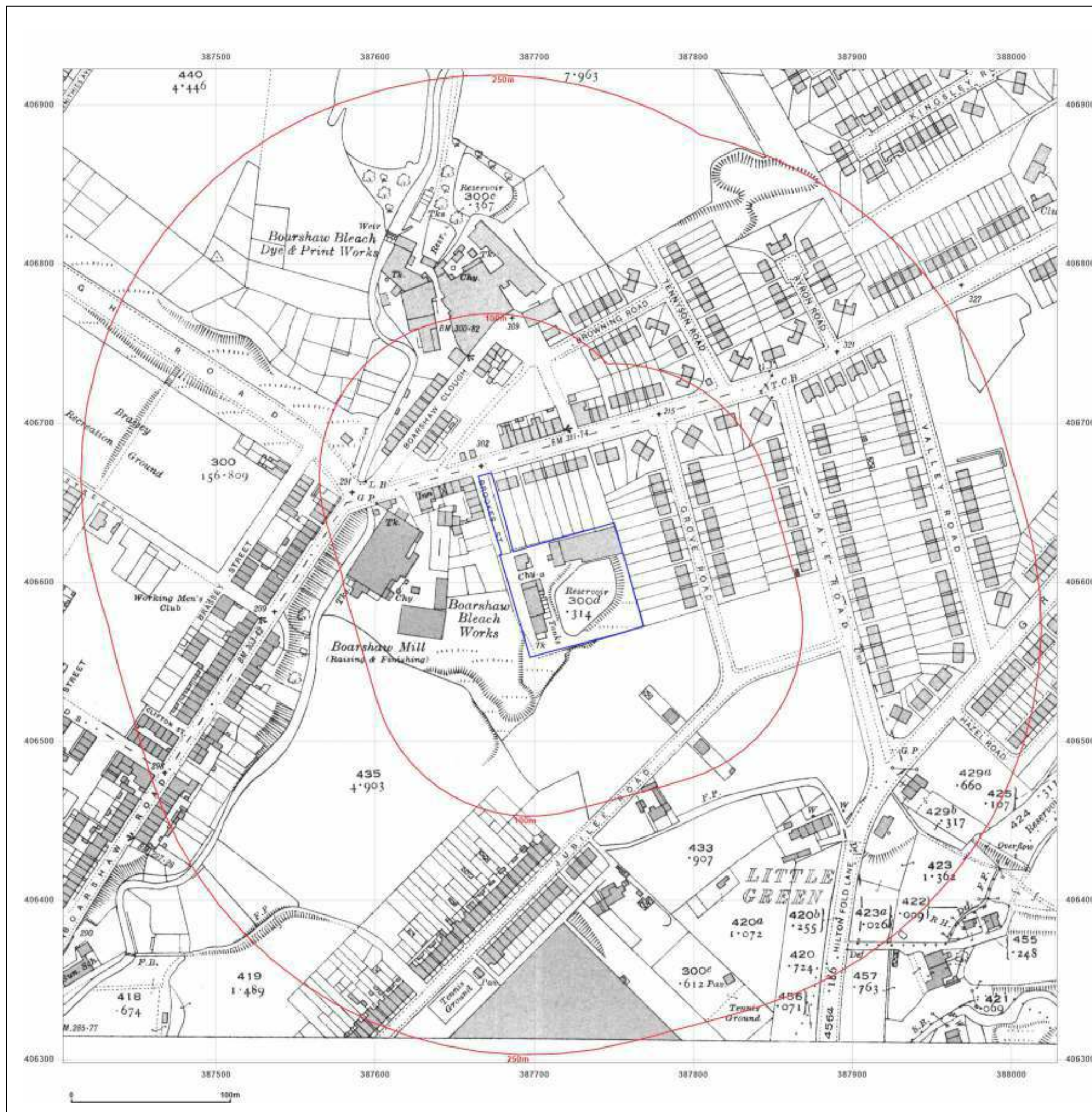


Supplied by:
www.centremapslive.com
groundsure@centremaps.com

© Crown copyright and database rights 2018 Ordnance Survey 100035207

Production date: 27 June 2023

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



Site Details:

Bookes Street, Middleton

Client Ref: CMAPS-CM-1111708-4199-270623
Report Ref: CMAPS-CM-1111708-4199-270623HIS
Grid Ref: 387716, 406610

Map Name: National Grid

Map date: 1954

Scale: 1:1,250

Printed at: 1:2,000



Surveyed 1954
Revised 1954
Edition N/A
Copyright N/A
Levelled 1929

Surveyed 1954
Revised 1954
Edition N/A
Copyright N/A
Levelled 1929

Surveyed 1954
Revised 1954
Edition N/A
Copyright N/A
Levelled 1929

Surveyed 1954
Revised 1954
Edition N/A
Copyright N/A
Levelled 1929



Produced by
Groundsure Insights
www.groundsure.com

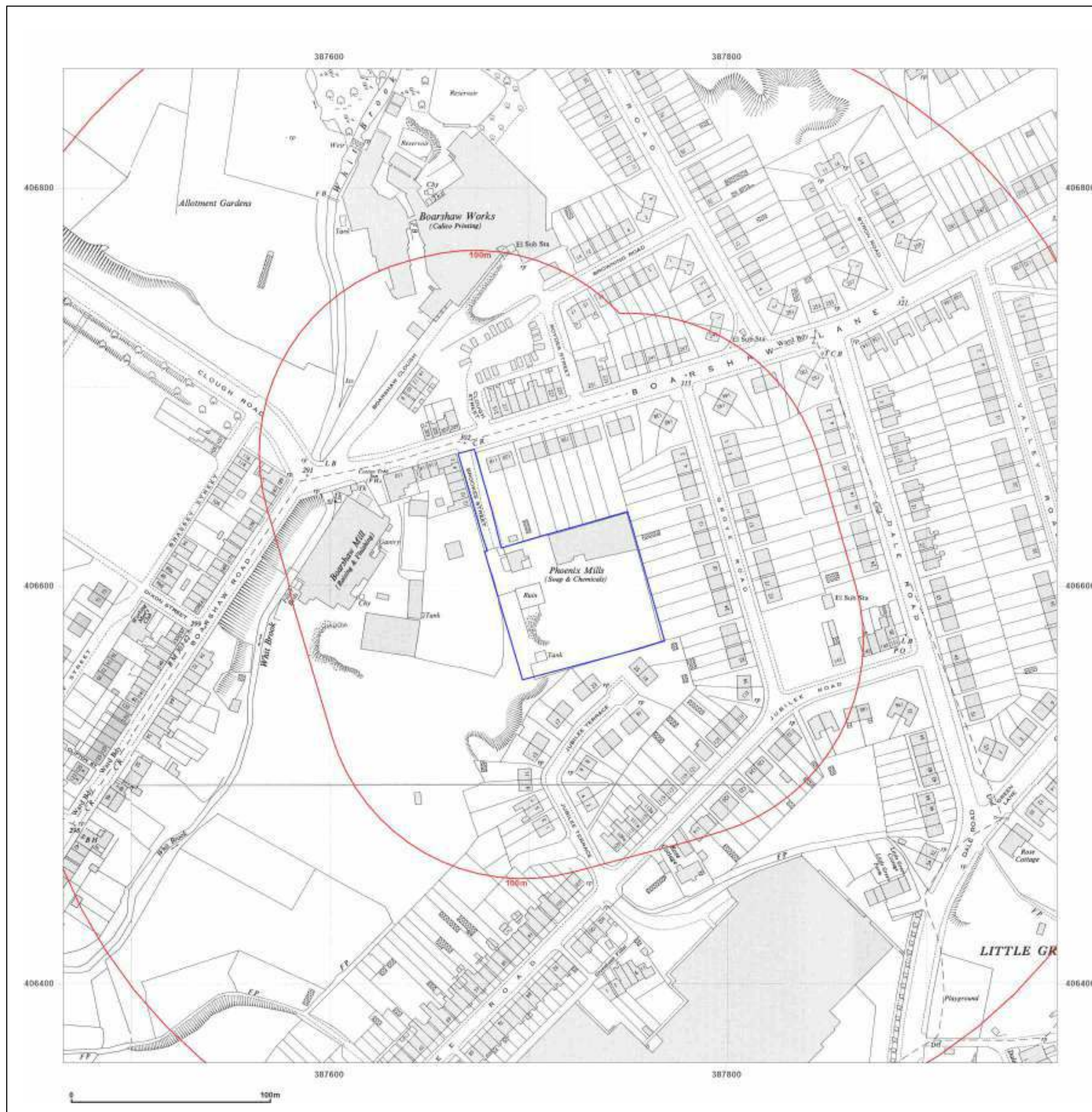


Supplied by:
www.centremapslive.com
groundsure@centremaps.com

© Crown copyright and database rights 2018 Ordnance Survey 100035207

Production date: 27 June 2023

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



Site Details:

Bookes Street, Middleton

Client Ref: CMAPS-CM-1111708-4199-270623
Report Ref: CMAPS-CM-1111708-4199-270623HIS
Grid Ref: 387716, 406610

Map Name: National Grid

Map date: 1955

Scale: 1:1,250

Printed at: 1:2,000



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

Surveyed 1954
Revised N/A
Edition N/A
Copyright 1955
Levelled 1929

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

Surveyed 1954
Revised N/A
Edition N/A
Copyright 1955
Levelled 1929



Produced by
Groundsure Insights
www.groundsure.com

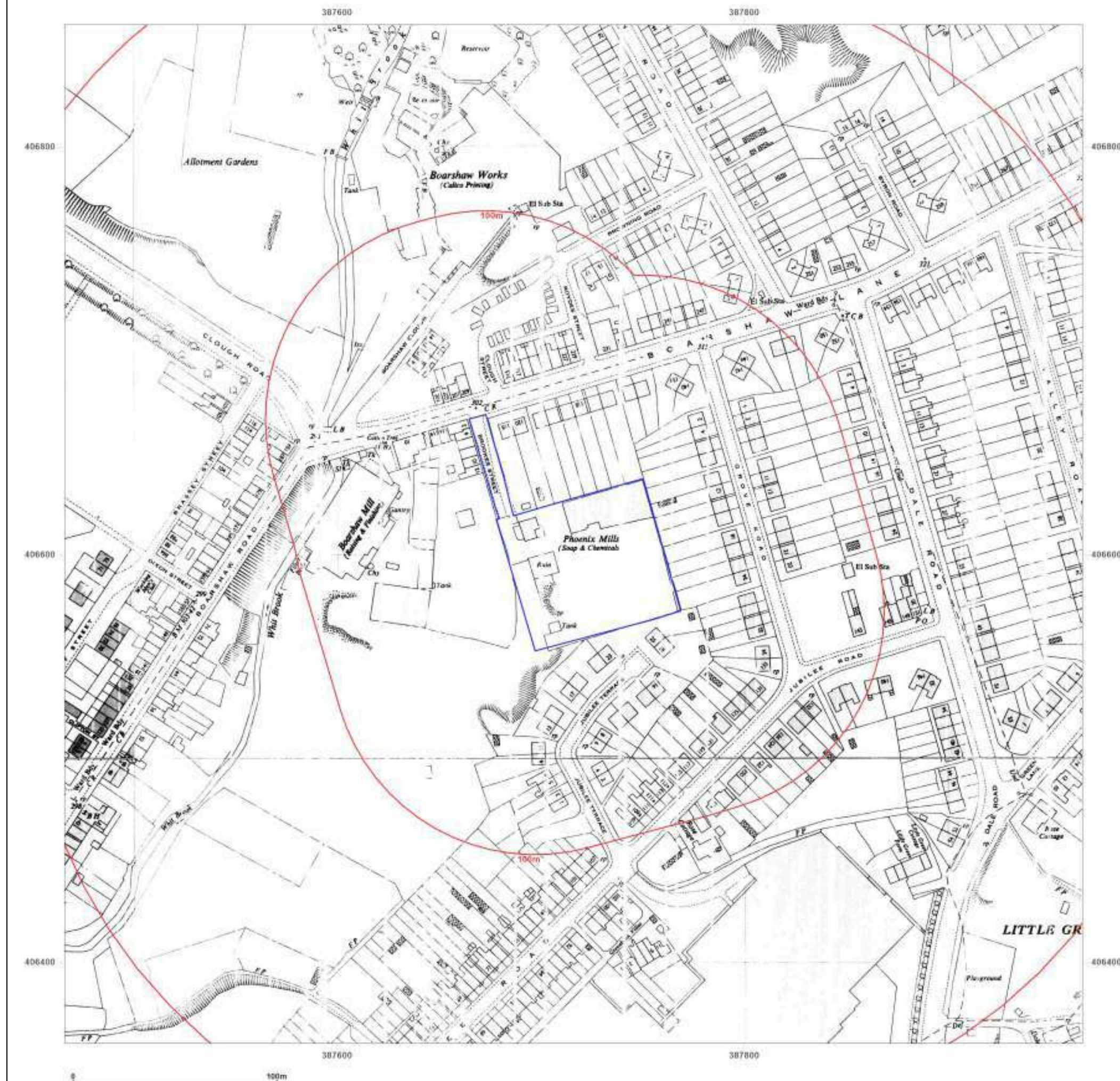


Supplied by:
www.centremapslive.com
groundsure@centremaps.com

© Crown copyright and database rights 2018 Ordnance Survey 100035207

Production date: 27 June 2023

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





Site Details:

Bookes Street, Middleton

Client Ref: CMAPS-CM-1111708-4199-270623
Report Ref: CMAPS-CM-1111708-4199-270623HIS
Grid Ref: 387716, 406610

Map Name: National Grid

Map date: 1955

Scale: 1:2,500

Printed at: 1:2,500



Surveyed 1954
Revised 1954
Edition 1955
Copyright N/A
Levelled 1929

Surveyed 1953
Revised 1953
Edition 1955
Copyright N/A
Levelled 1929



Produced by
Groundsure Insights
www.groundsure.com

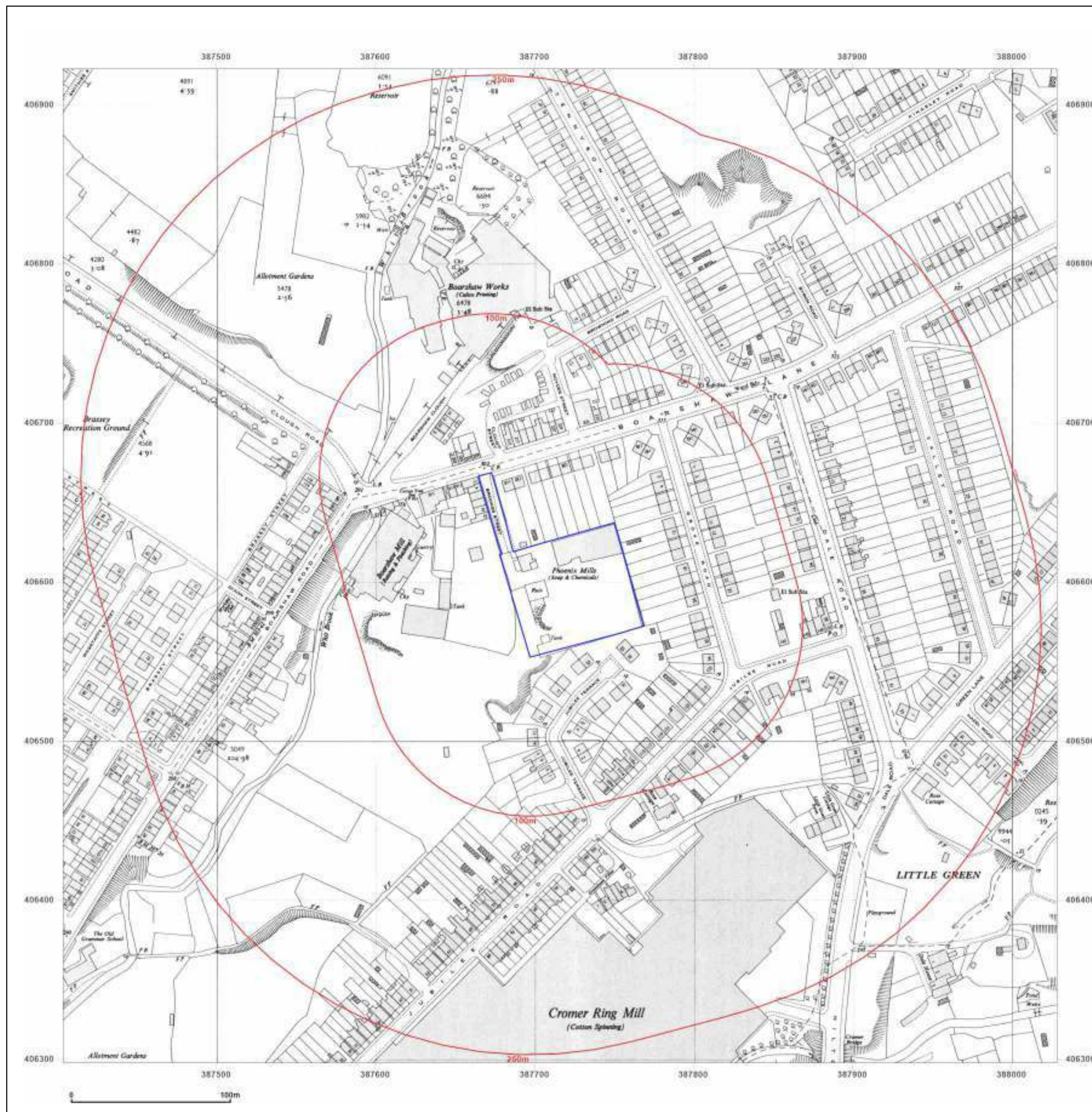


Supplied by:
www.centremapslive.com
groundsure@centremaps.com

© Crown copyright and database rights 2018 Ordnance Survey 100035207

Production date: 27 June 2023

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





Site Details:

Bookes Street, Middleton

Client Ref: CMAPS-CM-1111708-4199-270623
Report Ref: CMAPS-CM-1111708-4199-270623HIS
Grid Ref: 387716, 406610

Map Name: National Grid

Map date: 1960

Scale: 1:1,250

Printed at: 1:2,000



Surveyed 1954
Revised 1959
Edition N/A
Copyright 1960
Levelled 1956

Surveyed 1954
Revised 1959
Edition N/A
Copyright 1960
Levelled 1956



Produced by
Groundsure Insights
www.groundsure.com

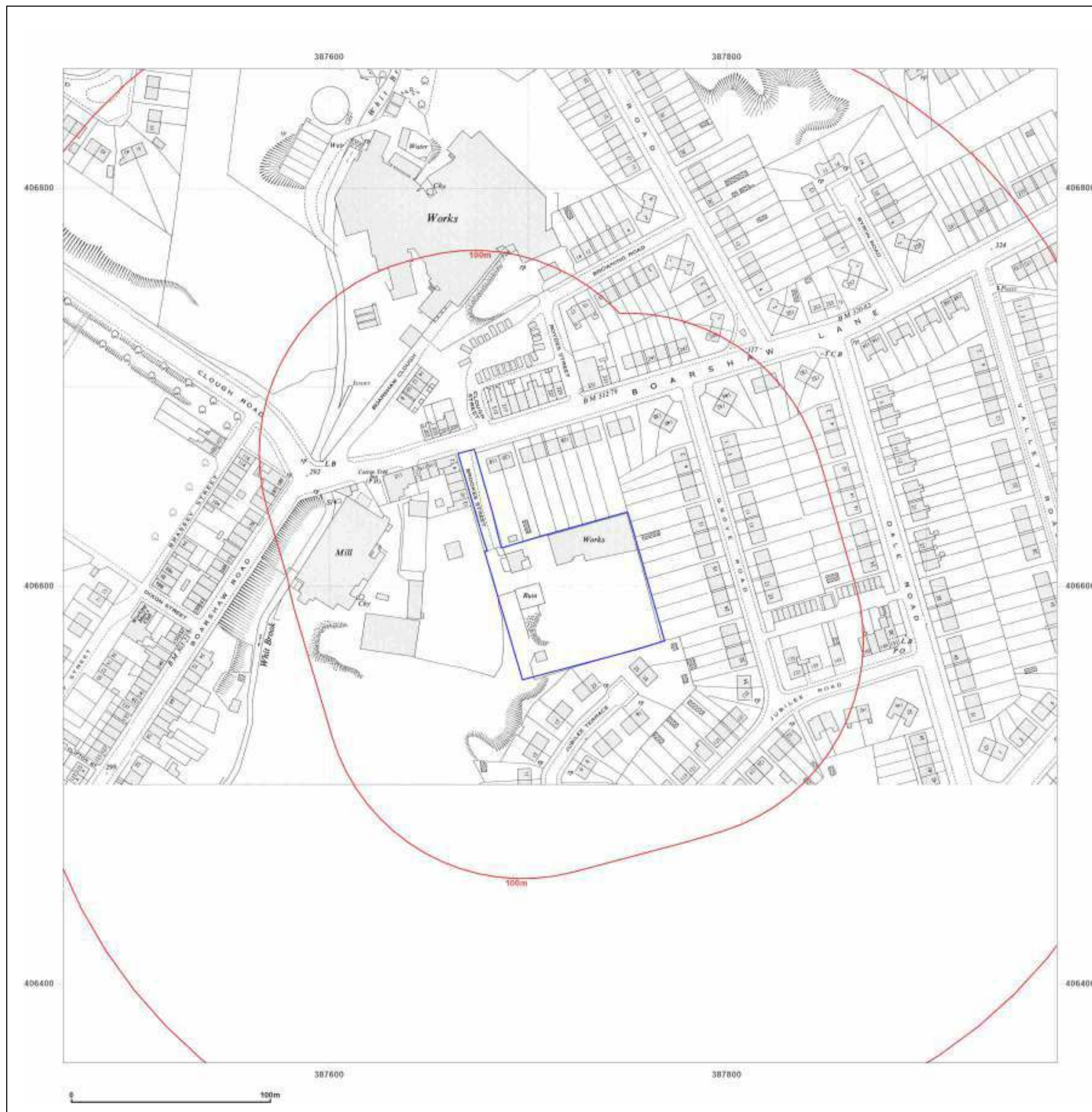


Supplied by:
www.centremapslive.com
groundsure@centremaps.com

© Crown copyright and database rights 2018 Ordnance Survey 100035207

Production date: 27 June 2023

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





Site Details:

Bookes Street, Middleton

Client Ref: CMAPS-CM-1111708-4199-270623
Report Ref: CMAPS-CM-1111708-4199-270623HIS
Grid Ref: 387716, 406610

Map Name: National Grid

Map date: 1967-1970

Scale: 1:1,250

Printed at: 1:2,000



Surveyed 1954
Revised 1970
Edition N/A
Copyright 1970
Levelled 1962

Surveyed 1954
Revised 1970
Edition N/A
Copyright 1970
Levelled 1962

Surveyed 1954
Revised 1967
Edition N/A
Copyright 1967
Levelled 1962



Produced by
Groundsure Insights
www.groundsure.com

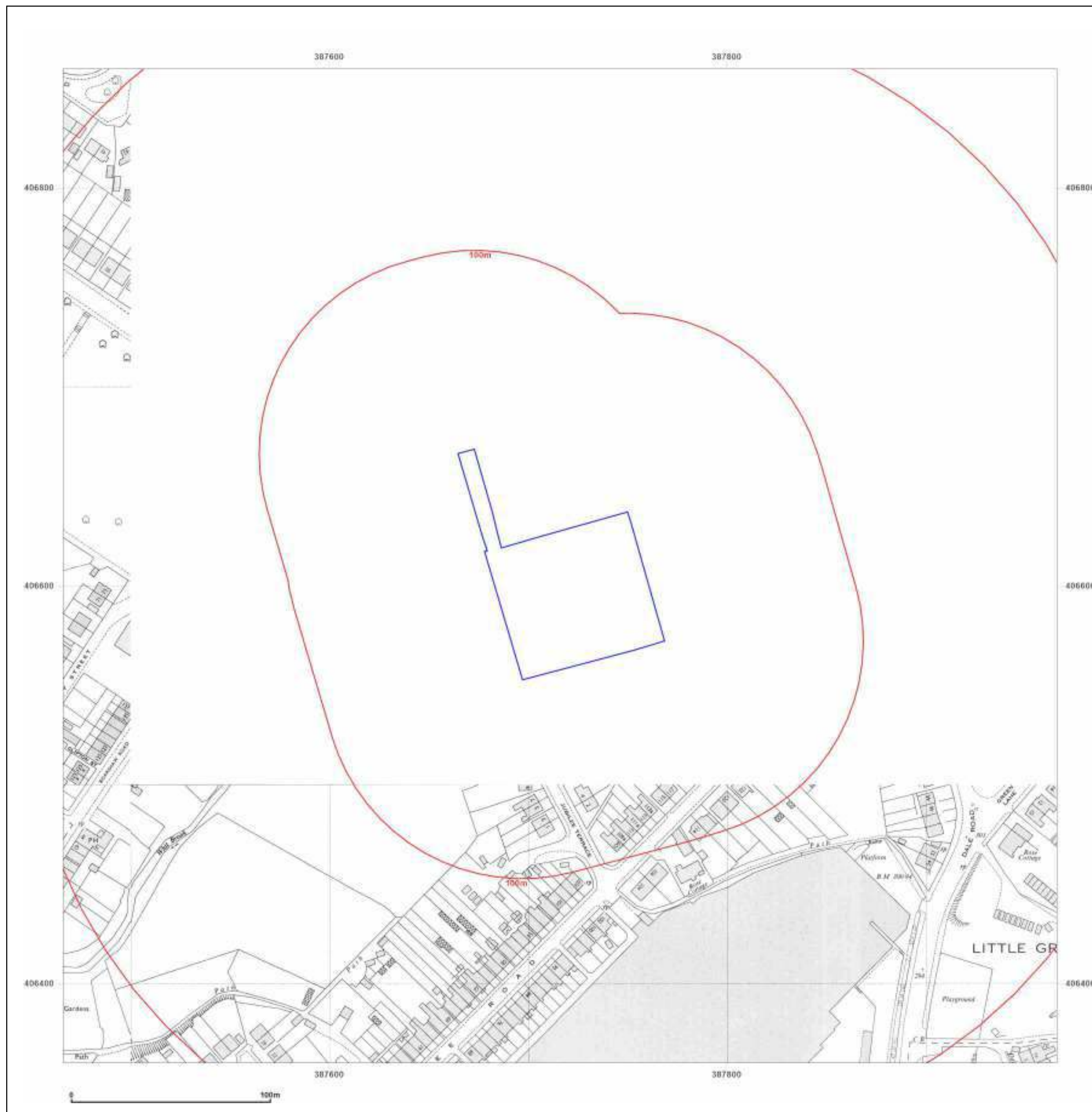


Supplied by:
www.centremapslive.com
groundsure@centremaps.com

© Crown copyright and database rights 2018 Ordnance Survey 100035207

Production date: 27 June 2023

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





Site Details:

Bookes Street, Middleton

Client Ref: CMAPS-CM-1111708-4199-270623
Report Ref: CMAPS-CM-1111708-4199-270623HIS
Grid Ref: 387716, 406610

Map Name: National Grid

Map date: 1975

Scale: 1:1,250

Printed at: 1:2,000



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



Produced by
Groundsure Insights
www.groundsure.com

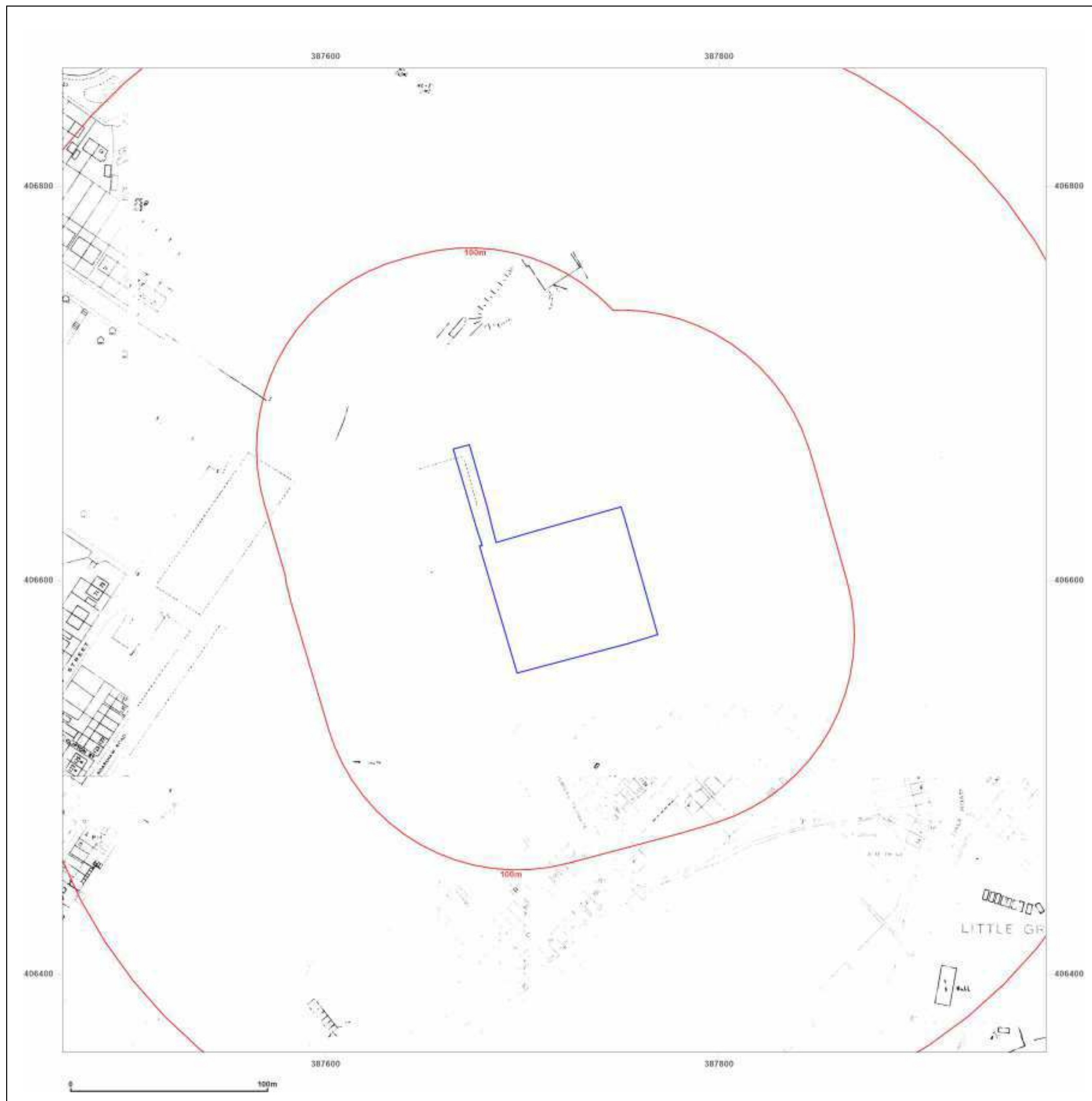


Supplied by:
www.centremapslive.com
groundsure@centremaps.com

© Crown copyright and database rights 2018 Ordnance Survey 100035207

Production date: 27 June 2023

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





Site Details:

Bookes Street, Middleton

Client Ref: CMAPS-CM-1111708-4199-270623
Report Ref: CMAPS-CM-1111708-4199-270623HIS
Grid Ref: 387716, 406610

Map Name: National Grid

Map date: 1978-1982

Scale: 1:1,250

Printed at: 1:2,000



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

Surveyed N/A
Revised N/A
Edition N/A
Copyright 1981
Levelled 1962



Produced by
Groundsure Insights
www.groundsure.com

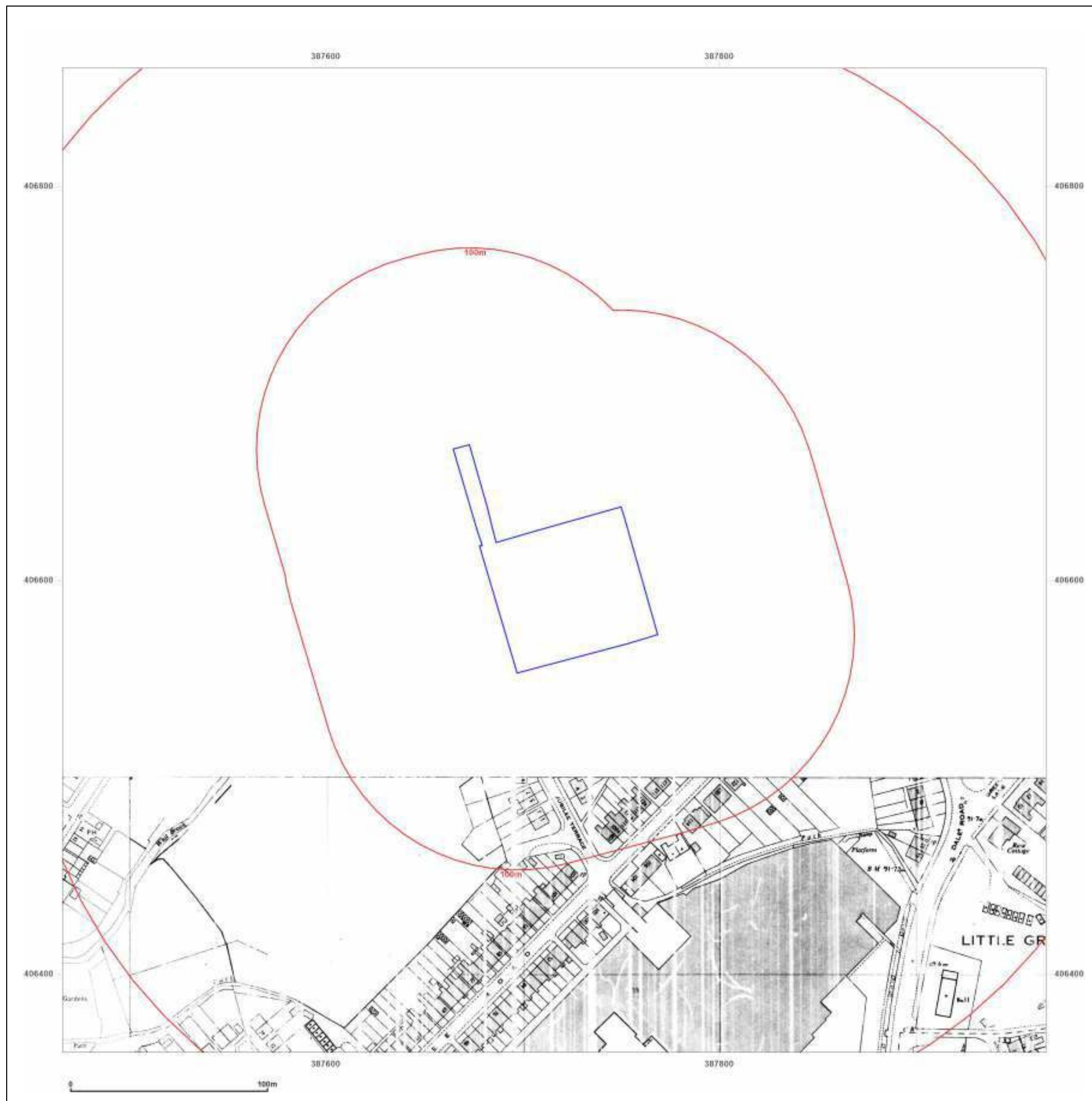


Supplied by:
www.centremapslive.com
groundsure@centremaps.com

© Crown copyright and database rights 2018 Ordnance Survey 100035207

Production date: 27 June 2023

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





Site Details:

Bookes Street, Middleton

Client Ref: CMAPS-CM-1111708-4199-270623
Report Ref: CMAPS-CM-1111708-4199-270623HIS
Grid Ref: 387716, 406610

Map Name: National Grid

Map date: 1992

Scale: 1:1,250

Printed at: 1:2,000



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

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

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

Surveyed 1962
Revised 1992
Edition N/A
Copyright 1992
Levelled 1962



Produced by
Groundsure Insights
www.groundsure.com

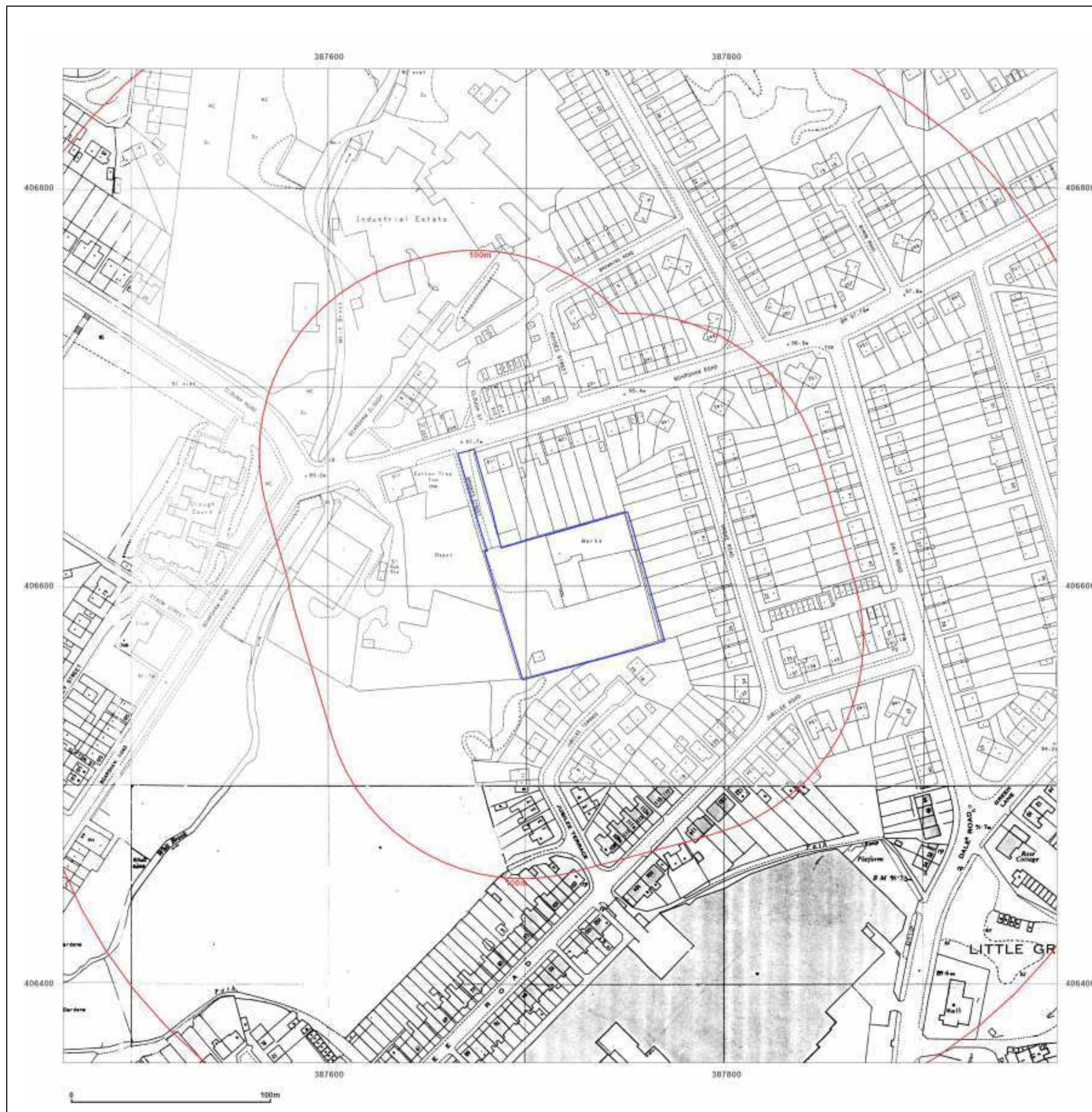


Supplied by:
www.centremapslive.com
groundsure@centremaps.com

© Crown copyright and database rights 2018 Ordnance Survey 100035207

Production date: 27 June 2023

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





Site Details:

Bookes Street, Middleton

Client Ref: CMAPS-CM-1111708-4199-270623
Report Ref: CMAPS-CM-1111708-4199-270623HIS
Grid Ref: 387716, 406610

Map Name: National Grid

Map date: 1992-1993

Scale: 1:1,250

Printed at: 1:2,000



Surveyed 1993 Revised N/A Edition N/A Copyright 1993 Levelled N/A
Surveyed 1962 Revised 1992 Edition N/A Copyright 1992 Levelled 1962



Produced by
Groundsure Insights
www.groundsure.com



Supplied by:
www.centremapslive.com
groundsure@centremaps.com

© Crown copyright and database rights 2018 Ordnance Survey 100035207

Production date: 27 June 2023

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





Site Details:

Bookes Street, Middleton

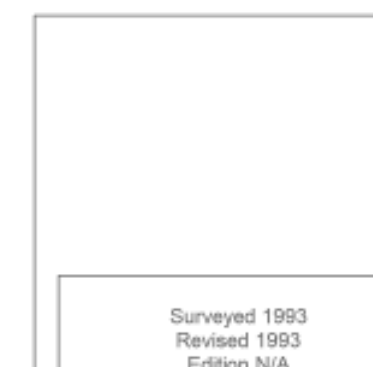
Client Ref: CMAPS-CM-1111708-4199-270623
Report Ref: CMAPS-CM-1111708-4199-270623HIS
Grid Ref: 387716, 406610

Map Name: National Grid

Map date: 1993

Scale: 1:1,250

Printed at: 1:2,000



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



Produced by
Groundsure Insights
www.groundsure.com

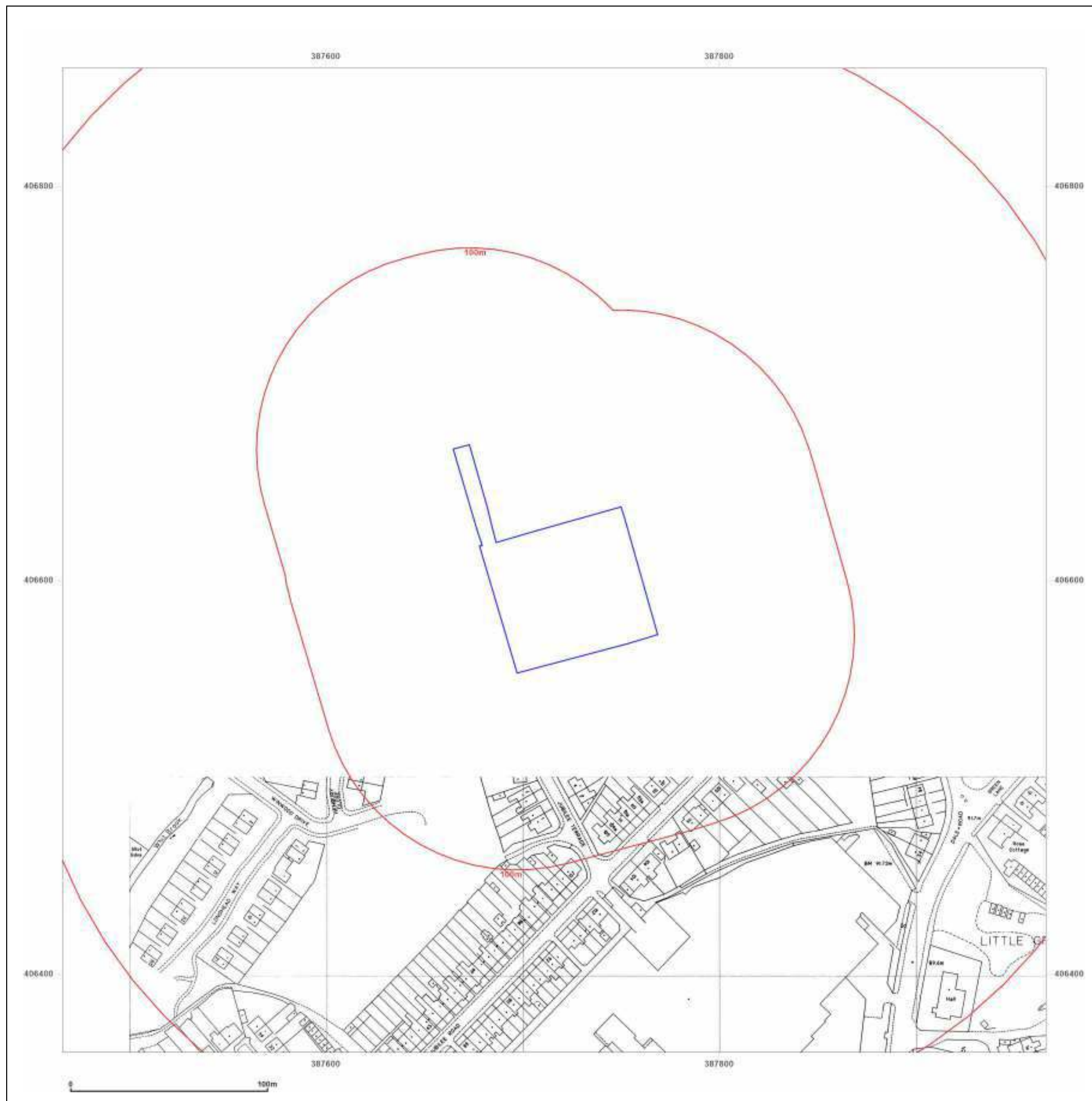


Supplied by:
www.centremapslive.com
groundsure@centremaps.com

© Crown copyright and database rights 2018 Ordnance Survey 100035207

Production date: 27 June 2023

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





Site Details:

Bookes Street, Middleton

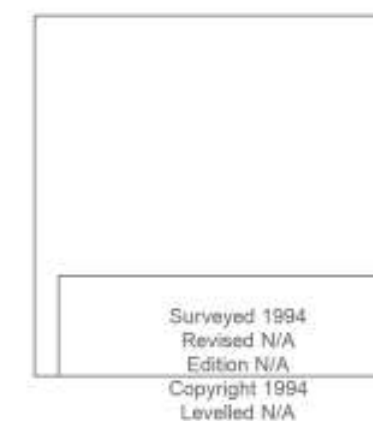
Client Ref: CMAPS-CM-1111708-4199-270623
Report Ref: CMAPS-CM-1111708-4199-270623HIS
Grid Ref: 387716, 406610

Map Name: National Grid

Map date: 1994

Scale: 1:1,250

Printed at: 1:2,000



Produced by
Groundsure Insights
www.groundsure.com

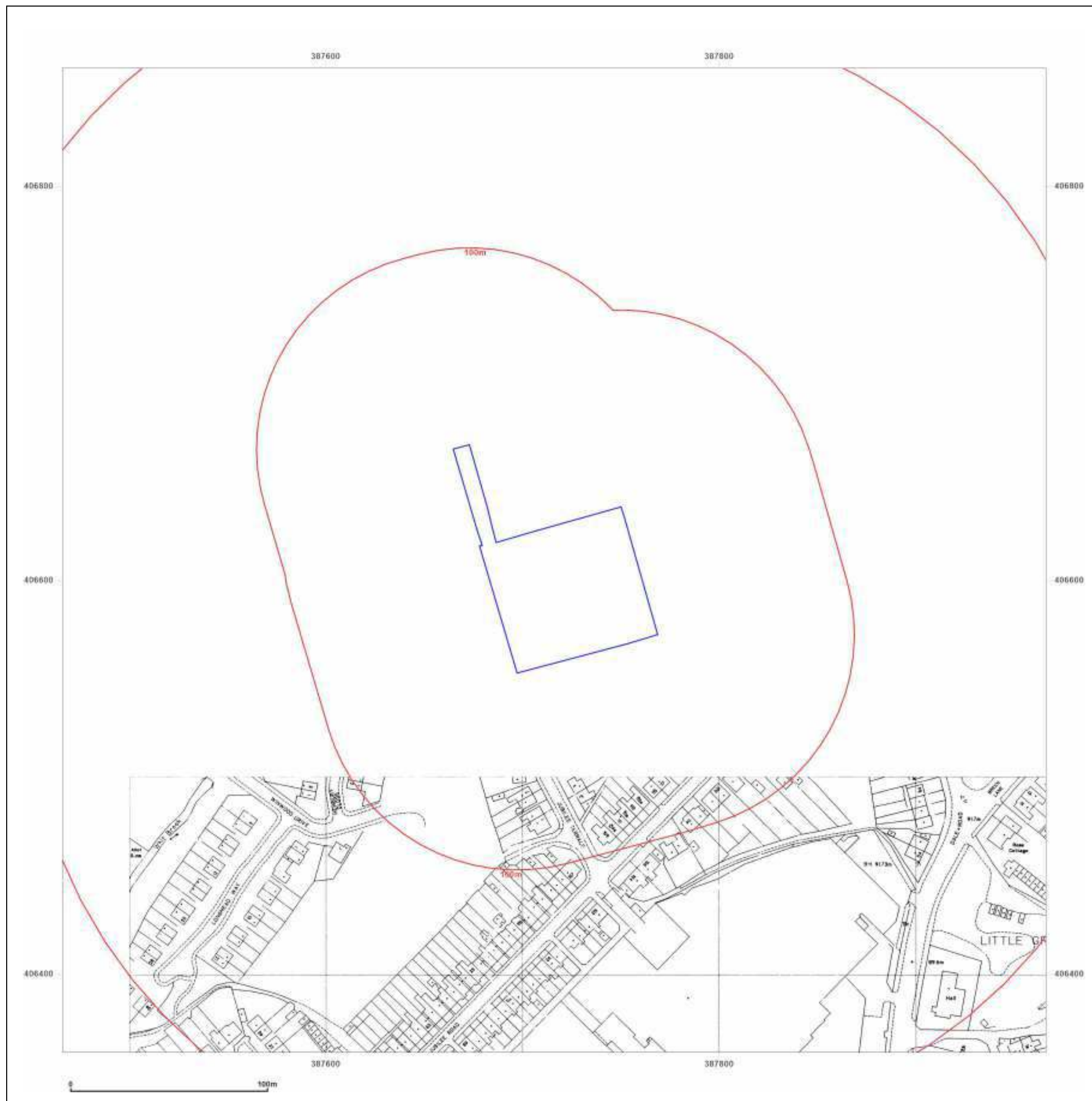


Supplied by:
www.centremapslive.com
groundsure@centremaps.com

© Crown copyright and database rights 2018 Ordnance Survey 100035207

Production date: 27 June 2023

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





Site Details:

Bookes Street, Middleton

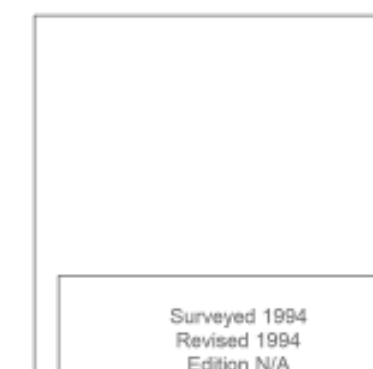
Client Ref: CMAPS-CM-1111708-4199-270623
Report Ref: CMAPS-CM-1111708-4199-270623HIS
Grid Ref: 387716, 406610

Map Name: National Grid

Map date: 1994

Scale: 1:1,250

Printed at: 1:2,000



Surveyed 1994
Revised 1994
Edition N/A
Copyright N/A
Levelled N/A



Produced by
Groundsure Insights
www.groundsure.com

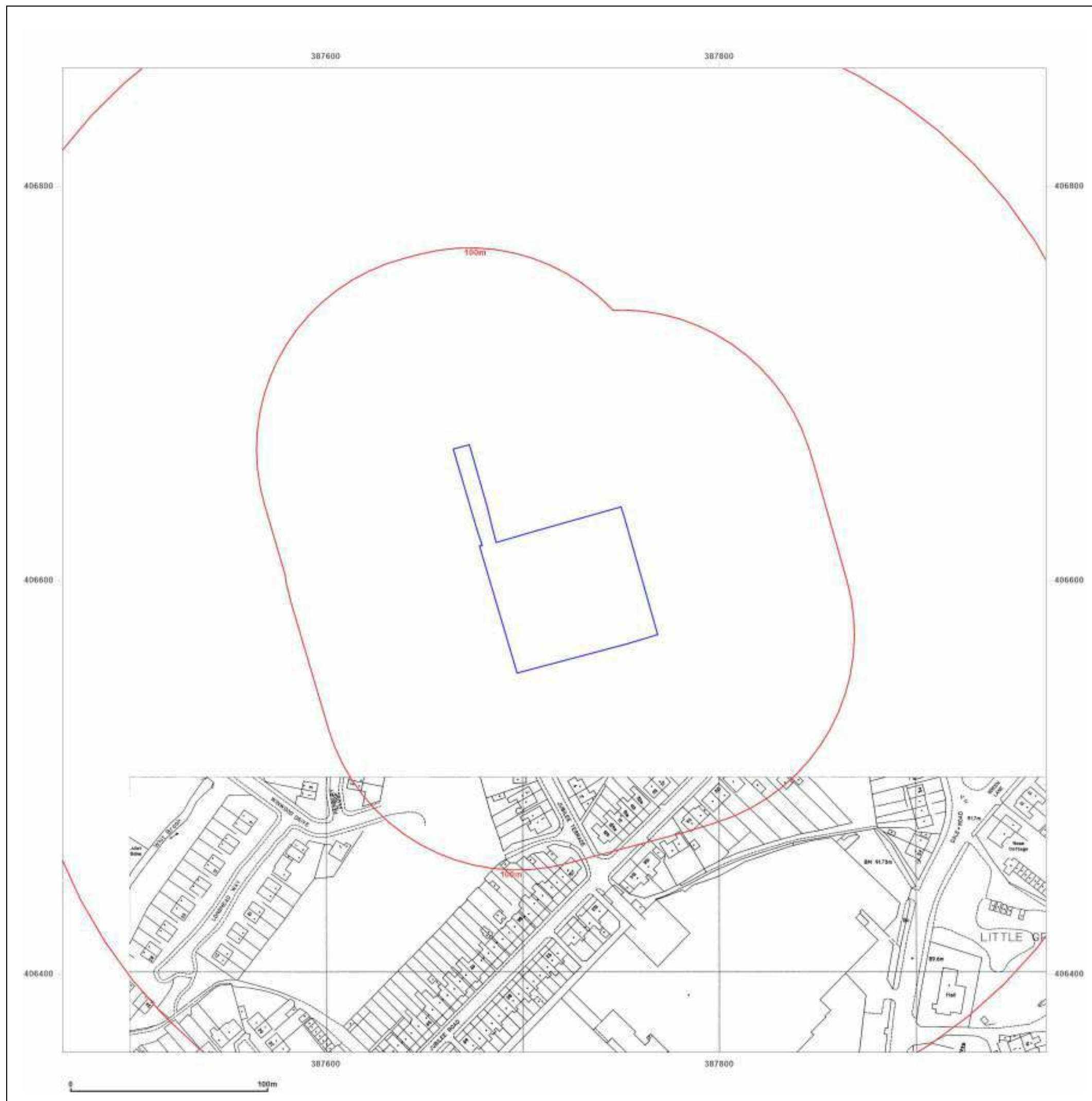


Supplied by:
www.centremapslive.com
groundsure@centremaps.com

© Crown copyright and database rights 2018 Ordnance Survey 100035207

Production date: 27 June 2023

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





Site Details:

Boookes Street, Middleton

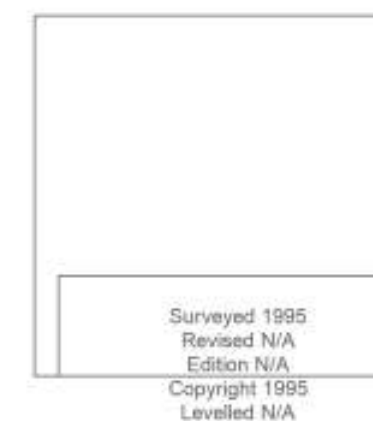
Client Ref: CMAPS-CM-1111708-4199-270623
Report Ref: CMAPS-CM-1111708-4199-270623HIS
Grid Ref: 387716, 406610

Map Name: National Grid

Map date: 1995

Scale: 1:1,250

Printed at: 1:2,000



Produced by
Groundsure Insights
www.groundsure.com

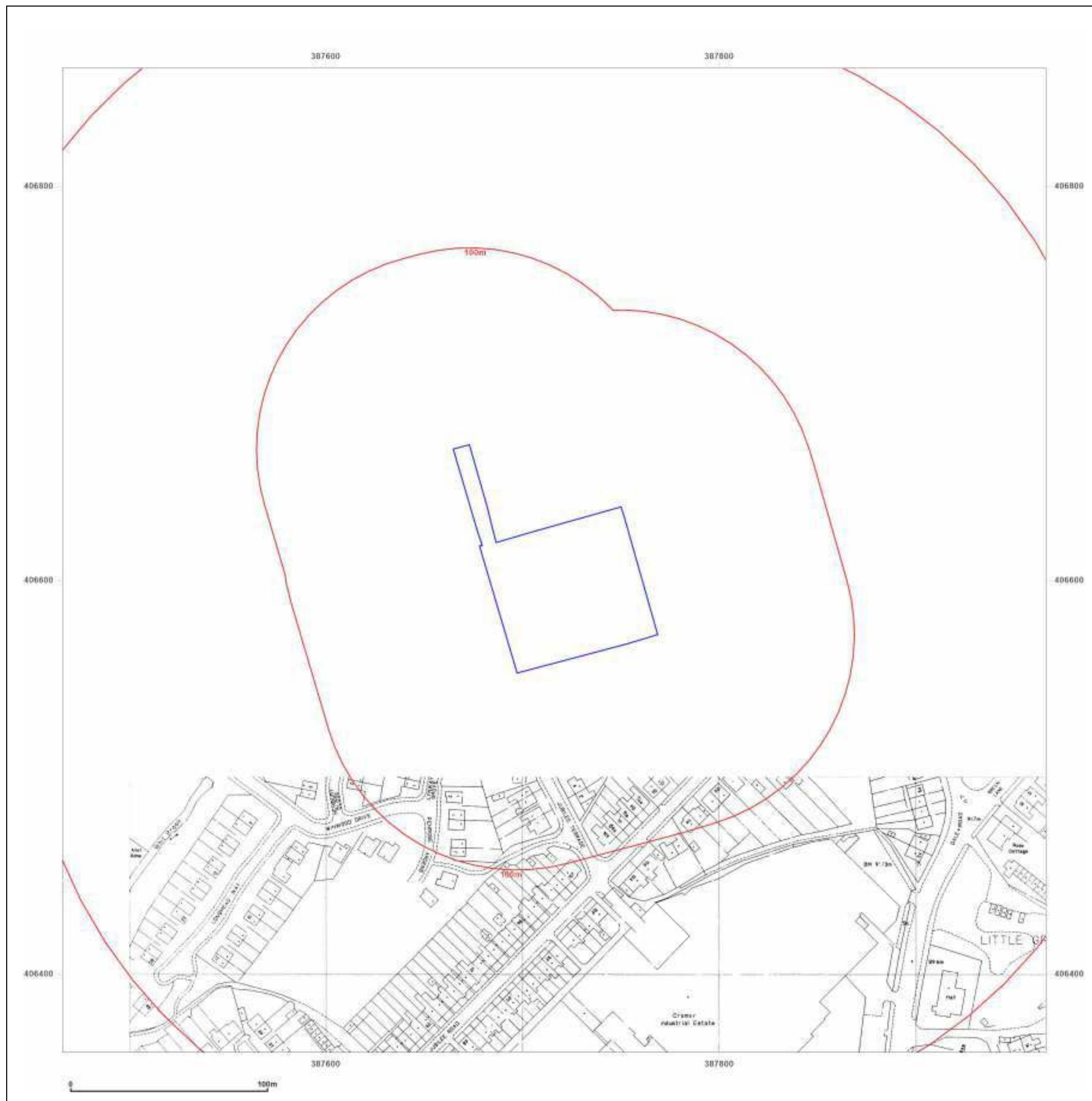


Supplied by:
www.centremapslive.com
groundsure@centremaps.com

© Crown copyright and database rights 2018 Ordnance Survey 100035207

Production date: 27 June 2023

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





Site Details:

Boookes Street, Middleton

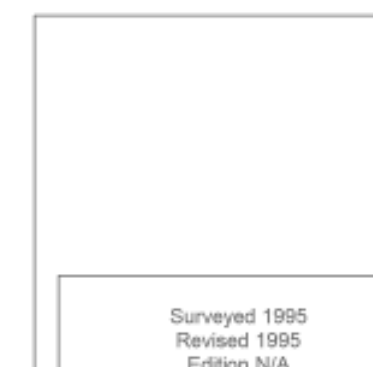
Client Ref: CMAPS-CM-1111708-4199-270623
Report Ref: CMAPS-CM-1111708-4199-270623HIS
Grid Ref: 387716, 406610

Map Name: National Grid

Map date: 1995

Scale: 1:1,250

Printed at: 1:2,000



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



Produced by
Groundsure Insights
www.groundsure.com

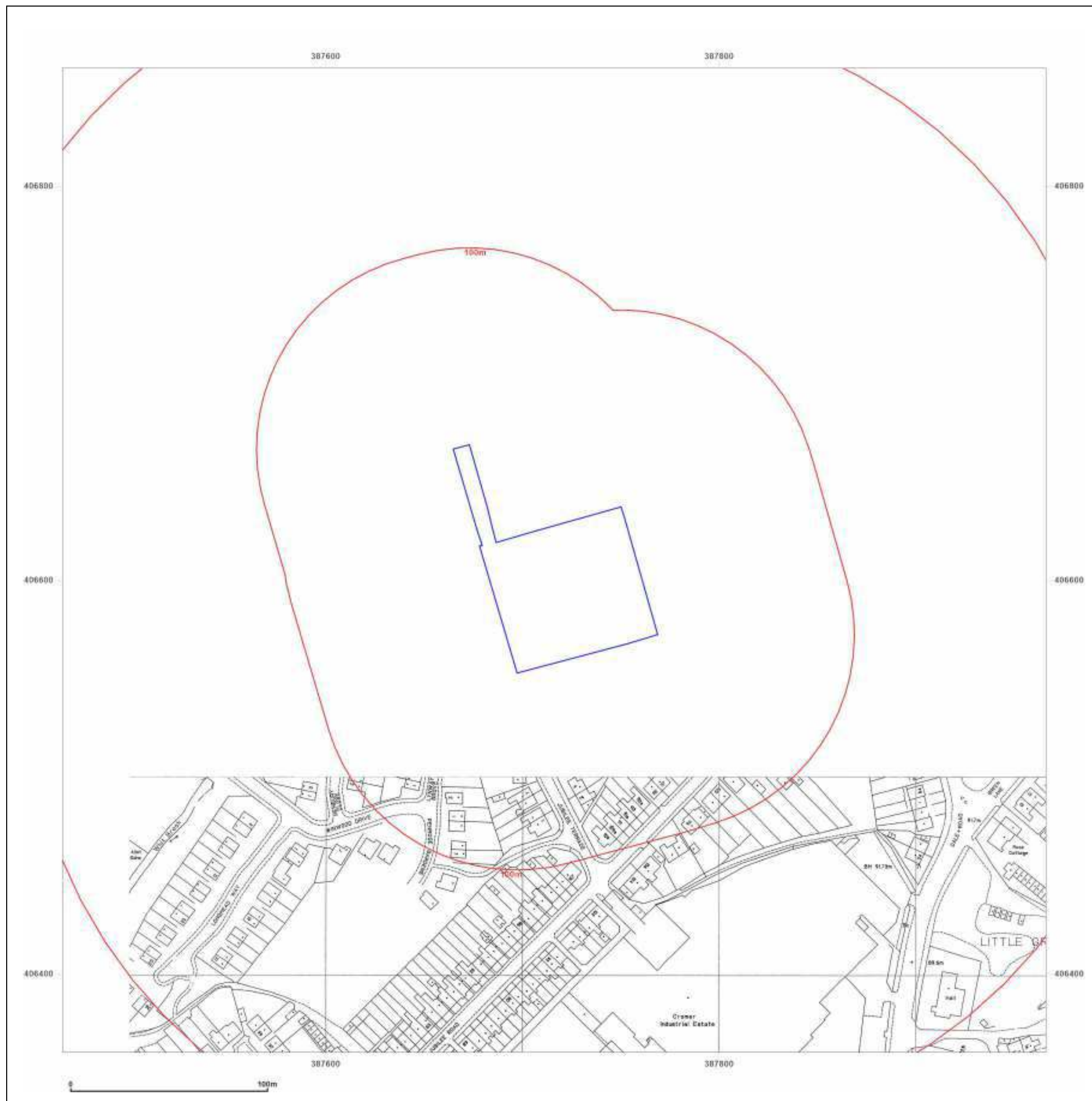


Supplied by:
www.centremapslive.com
groundsure@centremaps.com

© Crown copyright and database rights 2018 Ordnance Survey 100035207

Production date: 27 June 2023

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





Site Details:

Bookes Street, Middleton

Client Ref: CMAPS-CM-1111708-4199-270623
Report Ref: CMAPS-CM-1111708-4199-270623HIS
Grid Ref: 387716, 406610

Map Name: LandLine

Map date: 2003

Scale: 1:1,250

Printed at: 1:1,250



Produced by
Groundsure Insights
www.groundsure.com



Supplied by:
www.centremapslive.com
groundsure@centremaps.com

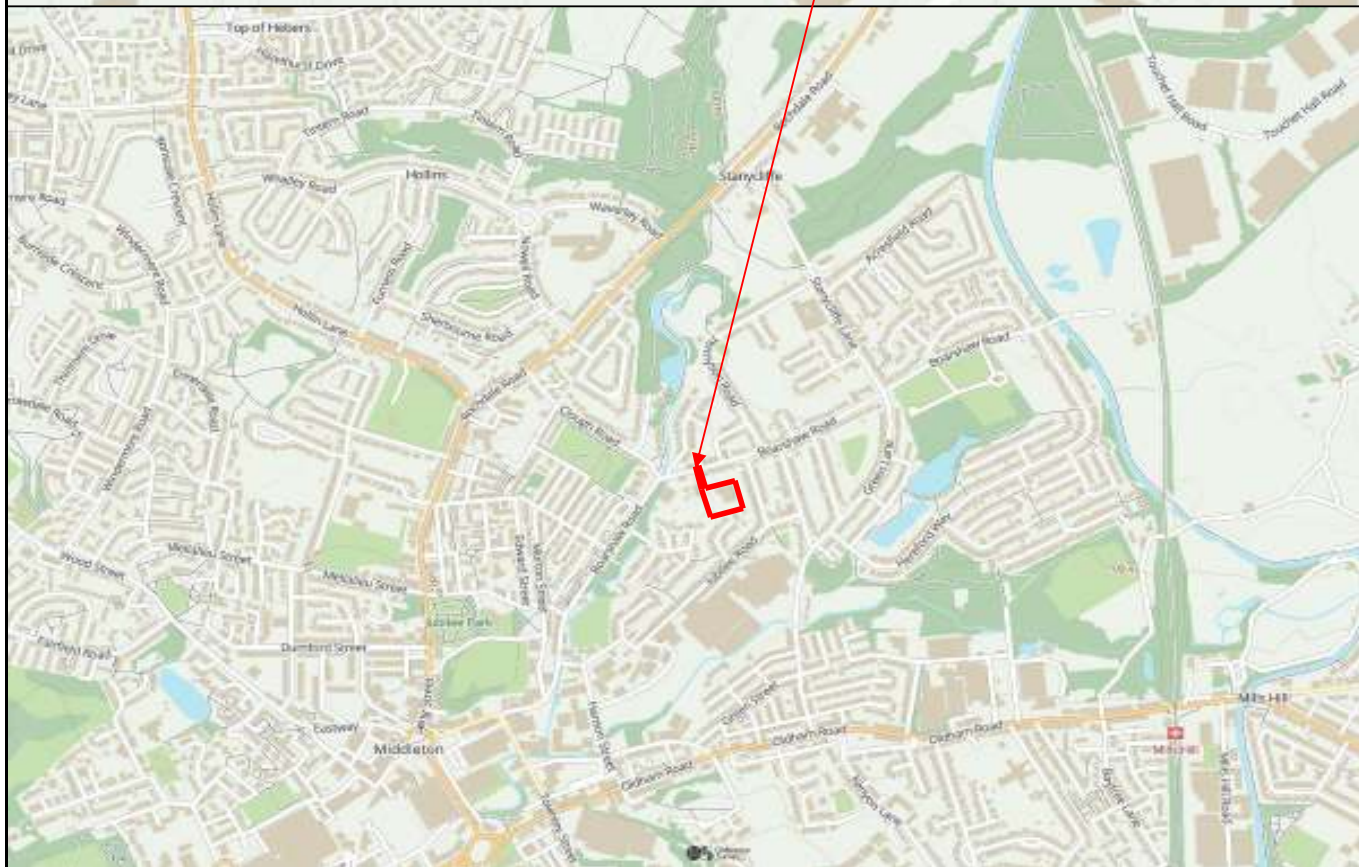
© Crown copyright and database rights 2018 Ordnance Survey 100035207

Production date: 27 June 2023

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



FIGURES



SUB SURFACE
SITE INVESTIGATION SPECIALISTS
3 Peel Street, Preston, Lancashire,
L1 1AF

SITE INVESTIGATION SPECIALISTS, GEOTECHNICAL & ENVIRONMENTAL CONSULTANTS
3 Peel Street, Preston, Lancashire, PR2 2QS. Tel: (01772) 561135 Fax: (01772) 204907

Site: BROOKES STREET, MIDDLETON, ROCHDALE

Client:

Site Location Plan

Date Drawn:
27-Jul-23

Drawn By:
LMB

Date Checked:

Checked By:	
-------------	--

Orientation:



Scale:

Job Number:

7763

Figure Number:

1



CROWN COPYRIGHT © REPRODUCED FROM THE ORDNANCE SURVEY WITH THE PERMISSION OF THE CONTROLLER OF HER MAJESTY'S STATIONARY OFFICE. LICENCE NO: 100033464

SUB SURFACE		Site Plan/ Walkover Photo Locations			
 SITE INVESTIGATION SPECIALISTS, GEOTECHNICAL & ENVIRONMENTAL CONSULTANTS 3 Peel Street, Preston, Lancashire, PR2 2QS. Tel: (01772) 561135 Fax: (01772) 204907					
Site: BROOKES STREET, MIDDLETON, ROCHDALE 0		Date Drawn: 27-Jul-23	Date Checked: _____	Orientation: 	Job Number: 7763
Client: 0		Drawn By: LMB	Checked By: _____	Scale: —	Figure Number: 2

Notes

1. All dimensions are in millimetres unless otherwise stated.
2. All dimensions are to the centre line of the road unless otherwise stated.
3. All dimensions are to the centre line of the road unless otherwise stated.

SCHEDULE OF ACCOMMODATION	
DWELLINGS	
House Type A	New 2-bp dwelling GFA @ 1715 m ² / 183 m ² approx. 2 living and 2 bedrooms with one en-suite Floor @ 1500mm
House Type B	New 3-bp dwelling GFA @ 2105 m ² / 221 m ² approx. 2 living and 2 bedrooms with one en-suite Floor @ 1500mm
House Type C	New 3-bp dwelling GFA @ 2105 m ² / 221 m ² approx. 2 living and 2 bedrooms with one en-suite Floor @ 1500mm
House Type D	New 3-bp dwelling GFA @ 2105 m ² / 221 m ² approx. 2 living and 2 bedrooms with one en-suite Floor @ 1500mm
House Type E	New 3-bp dwelling GFA @ 2105 m ² / 221 m ² approx. 2 living and 2 bedrooms with one en-suite Floor @ 1500mm
House Type F	New 3-bp dwelling GFA @ 2105 m ² / 221 m ² approx. 2 living and 2 bedrooms with one en-suite Floor @ 1500mm
House Type G	New 3-bp dwelling GFA @ 2105 m ² / 221 m ² approx. 2 living and 2 bedrooms with one en-suite Floor @ 1500mm
House Type H	New 3-bp dwelling GFA @ 2105 m ² / 221 m ² approx. 2 living and 2 bedrooms with one en-suite Floor @ 1500mm
House Type I	New 3-bp dwelling GFA @ 2105 m ² / 221 m ² approx. 2 living and 2 bedrooms with one en-suite Floor @ 1500mm
House Type J	New 3-bp dwelling GFA @ 2105 m ² / 221 m ² approx. 2 living and 2 bedrooms with one en-suite Floor @ 1500mm
House Type K	New 3-bp dwelling GFA @ 2105 m ² / 221 m ² approx. 2 living and 2 bedrooms with one en-suite Floor @ 1500mm
House Type L	New 3-bp dwelling GFA @ 2105 m ² / 221 m ² approx. 2 living and 2 bedrooms with one en-suite Floor @ 1500mm
House Type M	New 3-bp dwelling GFA @ 2105 m ² / 221 m ² approx. 2 living and 2 bedrooms with one en-suite Floor @ 1500mm
House Type N	New 3-bp dwelling GFA @ 2105 m ² / 221 m ² approx. 2 living and 2 bedrooms with one en-suite Floor @ 1500mm
House Type O	New 3-bp dwelling GFA @ 2105 m ² / 221 m ² approx. 2 living and 2 bedrooms with one en-suite Floor @ 1500mm
House Type P	New 3-bp dwelling GFA @ 2105 m ² / 221 m ² approx. 2 living and 2 bedrooms with one en-suite Floor @ 1500mm
House Type Q	New 3-bp dwelling GFA @ 2105 m ² / 221 m ² approx. 2 living and 2 bedrooms with one en-suite Floor @ 1500mm
House Type R	New 3-bp dwelling GFA @ 2105 m ² / 221 m ² approx. 2 living and 2 bedrooms with one en-suite Floor @ 1500mm
House Type S	New 3-bp dwelling GFA @ 2105 m ² / 221 m ² approx. 2 living and 2 bedrooms with one en-suite Floor @ 1500mm
House Type T	New 3-bp dwelling GFA @ 2105 m ² / 221 m ² approx. 2 living and 2 bedrooms with one en-suite Floor @ 1500mm
House Type U	New 3-bp dwelling GFA @ 2105 m ² / 221 m ² approx. 2 living and 2 bedrooms with one en-suite Floor @ 1500mm
House Type V	New 3-bp dwelling GFA @ 2105 m ² / 221 m ² approx. 2 living and 2 bedrooms with one en-suite Floor @ 1500mm
House Type W	New 3-bp dwelling GFA @ 2105 m ² / 221 m ² approx. 2 living and 2 bedrooms with one en-suite Floor @ 1500mm
House Type X	New 3-bp dwelling GFA @ 2105 m ² / 221 m ² approx. 2 living and 2 bedrooms with one en-suite Floor @ 1500mm
House Type Y	New 3-bp dwelling GFA @ 2105 m ² / 221 m ² approx. 2 living and 2 bedrooms with one en-suite Floor @ 1500mm
House Type Z	New 3-bp dwelling GFA @ 2105 m ² / 221 m ² approx. 2 living and 2 bedrooms with one en-suite Floor @ 1500mm

APARTMENTS TYPE A	
Apartment Type A	New 2-bp dwelling GFA @ 50 m ² / 538 m ² approx. (GFA subject to actual design)
Apartment Type B	New 2-bp dwelling GFA @ 50 m ² / 538 m ² approx. (GFA subject to actual design)
Apartment Type C	New 2-bp dwelling GFA @ 50 m ² / 538 m ² approx. (GFA subject to actual design)
Apartment Type D	New 2-bp dwelling GFA @ 50 m ² / 538 m ² approx. (GFA subject to actual design)
Apartment Type E	New 2-bp dwelling GFA @ 50 m ² / 538 m ² approx. (GFA subject to actual design)
Apartment Type F	New 2-bp dwelling GFA @ 50 m ² / 538 m ² approx. (GFA subject to actual design)
Apartment Type G	New 2-bp dwelling GFA @ 50 m ² / 538 m ² approx. (GFA subject to actual design)
Apartment Type H	New 2-bp dwelling GFA @ 50 m ² / 538 m ² approx. (GFA subject to actual design)
Apartment Type I	New 2-bp dwelling GFA @ 50 m ² / 538 m ² approx. (GFA subject to actual design)
Apartment Type J	New 2-bp dwelling GFA @ 50 m ² / 538 m ² approx. (GFA subject to actual design)
Apartment Type K	New 2-bp dwelling GFA @ 50 m ² / 538 m ² approx. (GFA subject to actual design)
Apartment Type L	New 2-bp dwelling GFA @ 50 m ² / 538 m ² approx. (GFA subject to actual design)
Apartment Type M	New 2-bp dwelling GFA @ 50 m ² / 538 m ² approx. (GFA subject to actual design)
Apartment Type N	New 2-bp dwelling GFA @ 50 m ² / 538 m ² approx. (GFA subject to actual design)
Apartment Type O	New 2-bp dwelling GFA @ 50 m ² / 538 m ² approx. (GFA subject to actual design)
Apartment Type P	New 2-bp dwelling GFA @ 50 m ² / 538 m ² approx. (GFA subject to actual design)
Apartment Type Q	New 2-bp dwelling GFA @ 50 m ² / 538 m ² approx. (GFA subject to actual design)
Apartment Type R	New 2-bp dwelling GFA @ 50 m ² / 538 m ² approx. (GFA subject to actual design)
Apartment Type S	New 2-bp dwelling GFA @ 50 m ² / 538 m ² approx. (GFA subject to actual design)
Apartment Type T	New 2-bp dwelling GFA @ 50 m ² / 538 m ² approx. (GFA subject to actual design)
Apartment Type U	New 2-bp dwelling GFA @ 50 m ² / 538 m ² approx. (GFA subject to actual design)
Apartment Type V	New 2-bp dwelling GFA @ 50 m ² / 538 m ² approx. (GFA subject to actual design)
Apartment Type W	New 2-bp dwelling GFA @ 50 m ² / 538 m ² approx. (GFA subject to actual design)
Apartment Type X	New 2-bp dwelling GFA @ 50 m ² / 538 m ² approx. (GFA subject to actual design)
Apartment Type Y	New 2-bp dwelling GFA @ 50 m ² / 538 m ² approx. (GFA subject to actual design)
Apartment Type Z	New 2-bp dwelling GFA @ 50 m ² / 538 m ² approx. (GFA subject to actual design)

FOR APPROVAL	
1	Original submitted to LMC 10/01/2021
2	Revised submitted to LMC 10/01/2021
3	Revised submitted to LMC 10/01/2021



Client	Kewell Build Ltd / Tipton Construction
Project	Phoenix Works - Middleton
Proposed Site Layout	
Scale	1:500
Date	JAN 23
Drawn By	LMB
Checked By	
Approved By	
Revision	
Drawing No	21-000-SMB
Issue	1
Author	24/01/2023
Checker	24/01/2023
Approver	24/01/2023
Project Manager	24/01/2023
Project Engineer	24/01/2023
Project Architect	24/01/2023
Project Designer	24/01/2023
Project Drafter	24/01/2023
Project Photographer	24/01/2023
Project Surveyor	24/01/2023
Project Engineer	24/01/2023
Project Architect	24/01/2023
Project Designer	24/01/2023
Project Drafter	24/01/2023
Project Photographer	24/01/2023
Project Surveyor	24/01/2023



PROPOSED SITE LAYOUT
Scale 1:500



COPYRIGHT © Condy and Lofthouse Ltd.

SUB SURFACE SITE INVESTIGATION SPECIALISTS, GEOTECHNICAL & ENVIRONMENTAL CONSULTANTS 3 Peel Street, Preston, Lancashire, PR2 2QS. Tel: (01772) 561135 Fax: (01772) 204907		Proposed Development			
Site:	BROOKES STREET, MIDDLETON, ROCHDALE	Date Drawn:	27-Jul-23	Date Checked:	
Client:	0	Drawn By:	LMB	Checked By:	
				Scale:	—
				Job Number:	7763
				Figure Number:	3