arbtech

Preliminary Risk Assessment: Desk Study

Double10 Ltd

Land Adjacent to Victoria Springs Business Park

Wormald Street

Liversedge

Kirklees

WF15 6BU

29 July 2025

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Executive Summary

Brief	Arbtech Consulting Ltd was commissioned by Double10 Ltd to assess potential geo-environmental risks for a planning proposal at Land Adjacent to Victoria Business Park, Wormald Street, Liversedge, Kirklees, WF15 6BU.
Site Use & Surrounding Area	The application site is located on Wormald Street in Liversedge, with the River Spen flowing northwest to southeast through its center. The A62 (Huddersfield Road) lies about 300m northwest, oriented northeast to southwest. The site is an irregular polygon, aligned southeast to northwest relative to the north-south Wormald Street. The southern half was formerly an industrial estate, while the northern half continues to operate as a woollen mill.
Environmental Setting	The site has been used industrially and commercially since 1890, including woollen mill operations, depots, and demolition activities. It sits atop Secondary A aquifers (Alluvium and Pennine Lower Coal Measures) with variable permeability. The River Spen, of moderate water quality, flows through the site, while groundwater quality is poor. Located within Flood Zones 2 and 3, the site faces a high risk of surface water flooding. Within 500m are several historic landfills, potentially contaminative industrial sites, a COMAH facility, and hazardous substance storage.
Contamination Potential Sources	On-site historical operations (since 1892) such as gasometers, storage tanks, mills, and demolition may have introduced hydrocarbons (PAHs, BTEX), solvents, VOCs, metals, PCBs, asbestos, and dust. Off-site historical sources (1892–1988) including ground workings, depots, and refuse heaps may have contributed made ground, leachate, metals, hydrocarbons, asbestos, dyes, solvents, and ground gas. Current off-site industrial activities and a petrol station pose additional risks from hydrocarbons, solvents, metals, fuels, detergents, and fire suppressants. Nearby COMAH and hazardous substance sites add risks from heavy metals, VOCs, chemicals, and residual tank contents, collectively elevating contamination and migration potential.
Development Considerations	Safe working practices and appropriate PPE are essential for all intrusive works. Depending on findings, gas protection systems may be required to protect future occupants. Excavated soils must be tested and classified to ensure compliant reuse or disposal and to prevent contaminant spread. Groundwater and surface water impacts must be managed carefully given flood risks and aquifer sensitivity. Early consultation with regulators is advised due to nearby hazardous substances and COMAH presence. Dust and asbestos controls should be applied during demolition and groundworks to minimise health risks.
Uncertainty and Data Gaps	Current knowledge of contamination's vertical and lateral extent is limited, as is the understanding of ground gas and vapour migration. The extent and pathways of groundwater contamination remain unverified, and the full effects of historic industrial activities and nearby landfills are not fully understood. Further intrusive

	investigation and a site walkover are recommended to better define risks and mitigation requirements.
Recommendations	A detailed intrusive ground investigation should be carried out, including sampling and testing of soils, groundwater, and ground gas for hydrocarbons, metals, asbestos, VOCs, and other contaminants. Ground gas monitoring is crucial to assess risks to buildings and users. A comprehensive risk assessment following data collection should inform mitigation and remediation strategies. Ongoing regulatory consultation and compliance are essential throughout redevelopment.

This is intended as a summary only. Further detail and the limitations of the assessment is provided within the main body of the Report.

Contents

Introduction

Background

Arbtech Consulting Ltd (Arbtech) was instructed by Double10 Ltd to produce a Preliminary Geo-Environmental Risk Assessment to inform a future planning proposal with Kirklees Council at the site known as Land Adjacent to Victoria Business Park, Wormald Street, Liversedge, Kirklees, WF15 6BU.

A Phase I report is required to assess the historical use and present condition of the site, determine the extent and nature of any contamination risk, and identify potential risks to future users of the land, neighbouring properties, workers, and other offsite receptors. This assessment will ensure that the development can be carried out safely without unacceptable risks to workers, neighbours, controlled waters, property, or ecological systems with suitable recommendations.

Objectives

The objectives of the Arbtech Consulting preliminary geoenvironmental site assessment was to undertake a Phase I Desk Study for the site. Guidance set out in LCRM [1], GPLC1-3[2] and the National Planning Policy Framework (NPPF)[3] states that a Preliminary Risk Assessment with a site reconnaissance is required as a minimum to ascertain if there is a potential contamination risk. If contamination is a potential, then site investigation works are carried out to establish a viable pollutant linkage to assess the potential risks to human health and controlled water receptors. Based on the findings of this report, an appropriate site investigation can be derived, if required, once planning approval has been granted.

1 EA (2020). Land contamination risk management (LCRM).

2 EA (2016). Guiding Principles for Land Contamination. GPLC1- Risk Assessment and Conceptual Models GPLC 2. Site Investigation and Good Practice GPLC 3

3 DCL (2025). National Planning Policy Framework. Department of Communities and Local Government.

Scope of Works

- ⇒ Review of the environmental setting of the Site, including the current use / status of the Site and surrounding area, and review of the geology, hydrogeology and hydrology;
- ⇒ Review of the historical activities of the Site and surrounding area;
- ⇒ Review of regulatory information relating to the Site;
- ⇒ Review of the online planning records for the Site;
- ⇒ Consult and review information from the Local Authority in relation to Part 2A of the 1990 Environmental Protection Act; and
- ⇒ Develop an outline Conceptual Site Model and undertake a Preliminary Risk Assessment with respect to potential contamination focussed on the proposed end use of the Site.

In completing this Assessment, Arbtech Consulting Ltd has utilised the following data sources and third-party information:

- ⇒ Current and Historical Ordnance Survey (OS) maps;
- ⇒ British Geological Survey (BGS) data;
- ⇒ Environment Agency (EA) online data; and
- ⇒ Review of third-party environmental reports.

Site Context

Site Information

Fig.1 2021 Aerial Photograph
Contains Data from, © 2025 Groundsure Insights (Appendix 2)

Fig 2 OS Mastermap site plan
Contains Data from, © 2025 Groundsure Insights

Site co-ordinates:	(NGR) 420955 423488	**Site Area:**	1.85ha
Site Location	The application site is located in Liversedge on Wormald Street. The River Spen runs northwest to southeast through the centre of the site. The A62 (Huddersfield Road), oriented northeast to southwest, is approximately 300m northwest of the site.		
Current Site use	The site is an irregular polygon shape oriented southeast to northwest relative to Wormald Street, which is oriented north to south. The southern half of the site has previously been in use as an industrial estate, with the northern half in use as woollen mill up to the present. Current industrial land uses are listed on site such as demolition services and electrical features. A site walkover has not yet been carried out as part of the Preliminary Risk Assessment.		
Surrounding Area features	North	Industrial and commercial use with recreation and residential beyond.	
	East	Mixed commercial, industrial and residential	
	South	Mainly residential with some commercial and industrial in close proximity to the site.	
	West	Mixed commercial, industrial and residential with agricultural land further afield.	

Data Review

Historical Features	
Strategy	The historical development of the Site and surrounding area has been assessed through a review of available historical OS maps and Google Earth historical satellite imagery. A summary of the key historical Site uses and developments in the surrounding area is presented below. Copies of pertinent historical maps are included as Appendix 3.
Historical Features On-Site	Historically, based on the earliest available mapping dated 1854 the site features as a larger open area of land with a river corridor from the upper west corner from the Woolen Mill to the northwest. Mapping dated 1890 shows a woollen mill identified as 'Providence Mills' present in the centre of the northern half of the site, north of the Spen River which runs northwest to southeast through the site. The mill comprises a large irregular quadrilateral building, oriented northwest to southeast, situated on the north bank of the river. A series of attached units forms a u shape to the north of the large building with a chimney situated to the western side of the units. To the east of the northern half of the site Rhodes Street and Wormald Street both intersect the site and are oriented north to south. Cuttings are present along the riverbanks, in the northwestern corner, and in the southeastern corner along Wormald Street. The site remains in this configuration until maps dated 1907. To the south of the river is an 'L' shaped unit, oriented northwest to southeast and located on the riverbank, with a smaller rectangular unit, also oriented northwest to southeast, located south of the 'L' shaped unit. Northwest of these units is a rectangular tank, oriented northwest to southeast. To the north of the river there are two additional large units. In the northwest corner is a large quadrilateral shaped unit, oriented northeast to southwest. To the southwest of this unit is a smaller square unit that connects to the existing mill buildings. Mapping dated 1922 shows a large, rectangular unit, oriented northeast to southwest, straddling the river and connecting the northern mill buildings to the southern half of the site. There are several smaller units organised in a cluster to the northwest of the large unit. In addition, a rectangular unit, oriented northeast to southwest, is located on the western boundary opposite the large rectangular building. In the northern half of the site there is a rectangular glasshouse type structure located between two of the existing mill buildings. In 1933 maps a new tank, oriented northeast to southwest, is shown as present in the southwest corner of the site. 1938 maps show a narrow, rectangular glasshouse type structure, oriented northwest to southeast, present over the northwestern part of the river, adjoining to the mill buildings in the north of the site. Mapping dated 1955-1956 shows a large, irregular shaped building labelled 'transport depot' present in the southeast area of the site, south of the river. An electricity substation is identified in the northern half of the site, adjacent

	to Rhodes Street. Three narrow, rectangular areas of cuttings are also shown in the western area of the site to the south of the river, each oriented northwest to southeast. In maps dated 1965-1970 there is a small, irregular shaped building, oriented northwest to southeast, located on the south boundary and southeast of the large, rectangular building that straddles the river. Two smaller units are located northeast and southeast of the new unit. Mapping dated 1970-1972 shows that there is now site access from a transport depot to the west of the site, south of the river. In 1988-1992 maps Rhodes Street is no longer present to the northeast of the site. Site access is now from Wormald Street to the east. 2003 mapping shows the transport depot to the southeast of the site is no longer present. According to satellite imagery between 2002-2011 the site remains in industrial use. Imagery from 2011 shows the southern part of the building that straddles the river has been demolished, leaving a smaller structure over the river. Later imagery from 2023 shows the remainder of the aforementioned building has been demolished, along with a central section of the main building north of the river. By imagery from 2025 the building in the northwest corner of the site has been fully demolished.
Potentially Contaminative Historical Features Off-Site	Potential sources of contamination identified in the surrounding area (within 100m, excluding repeat entries beyond the nearest) include: ⇒ Gasometer – on site 1905 ⇒ Unspecified Tank – on site 1892 ⇒ Unspecified Mills – on site 1938 ⇒ Unspecified Commercial/Industrial – on site 1892 ⇒ Unspecified Works – on site 1974-1988 ⇒ Unspecified Ground Workings - 2m southwest 1892 ⇒ Unspecified Depot – 2m north 1988 ⇒ Refuse Heap – 13m southwest 1955 ⇒ Unspecified Heap – 13m southwest 1967-1988 ⇒ Carpet Works – 43m northwest 1967
Implications for historic Land Contamination Risk	Several sources of potential historic contamination have been identified on the subject site itself and within close proximity. The site itself has historically been used as a woollen mill with offsite history featuring a gas works and other industrial activity. 213No. Historical industrial land use records are recorded within 500m. Generally, the wider area is noted for its industrial activity with residential development increasing in time. This context will be further assessed in the risk assessment.

Environmental Setting

Feature		Information	
Published Geology	**Artificial**	No Artificial and Made Ground records within 500m.	
	Superficial	Superficial geology is recorded on site as Alluvium – Clay, Sand and Gravel. Noted as intergranular with high to very low permeability. No landslips recorded within 500m.	
	Bedrock	Bedrock geology is recorded as Pennine Lower Coal Measures Formation – Mudstone, Siltstone and Sandstone and Pennine Lower Coal Measures Formation – Sandstone (southern corner of the site). Both noted as fractured with high to low permeability. 25No. Bedrock faults recorded within 500m – nearest is 48m south coal seam, inferred.	
	BGS Logs	16No. BGS logs within 250m - the nearest is 6m north (records not available). Records for 8m north Ref.SE22SW404 from 1980 to a final depth of 8mbgl. Logs show Made Ground with water strikes noted at 3.5mbgl.	
Hydrogeology	**Aquifer Designation**	**Superficial**	Secondary A
		Bedrock	Secondary A
	Source Protection Zone (SPZ)	No Source Protection Zones within 500m. The site is in an area of medium vulnerability for the Bedrock Aquifer. Bedrock shows well connected fractures.	
	Groundwater Abstractions	No recorded groundwater abstractions within 1km. No potable abstractions within 2km.	
Hydrology	**Nearest Surface Water**	5No. surface water features and 14No. Water Network (OS Master Map) within 250m - the nearest is on site for inland river not influenced by normal tidal action (Spen River). 1No. entry on site for WFD Surface water body catchments for the Spen Beck from Source to River Calder.	
	Water Quality Data	Spen Beck from Source to River Calder on site has an overall moderate rating. On site Groundwater body Aire & Calder Carb Limestone / Millstone Grit / Coal Measures is recorded as overall poor rating.	

Environmental Setting

Feature		Information
	Flooding	13No. records for risk of flooding from rivers or sea within 50m - the nearest is on site, high risk. 3No. Historical flood event records within 500m – nearest is on site 2020 February Flood Incident Storm Ciara/dennis in 2020 for channel capacity exceeded (no raised defences), fluvial. 5No. flood defence records within 250m – nearest is on site. No areas benefiting from flood defences and no flood storage areas. The site is recorded to be within a flood zone 2 and zone 3 (Fluvial /Tidal Models). Surface water highest flooding risk on site and in 50m – 1 in 30 year, Greater than 1.0m. Highest groundwater flooding risk on site and within 50m – low.
	Surface Water Abstractions	No surface water abstractions within 1km.
	Discharge Consents	8No. Licensed discharge to controlled waters within 500m - the nearest is 35m east (revoked). The nearest active is 344m east for sewage discharges. 8No. Licensed pollutant (Part A(2)/B) release within 500m - the nearest is 54m west (historical permit) for hot dip galvanizing processes. 2No. Pollutant release to public sewer within 500m – nearest 301m northwest.
	Pollution Incidents	14No. pollution incidents recorded within 500m - the nearest is on site - Water impact: Cat. 2 (significant).
Minerals and Mining	**Coal Report**	The site and surrounding areas are not within a JPB mining area. The site is within an area which could be affected by past, current or future coal mining.
	Coal Mining Development Risk	No development high risk is associated with the site from coal mining. Mining remediation authority map viewer identifies an absence of historic coal mining activities on or near the site.

Environmental Setting

Feature		Information
	Surface Extractions	59No. entries within 250m for Surface Ground Workings – the nearest is 2m southwest unspecified ground workings 1892. 4No. Brit pits within 500m - the nearest is 139m southeast for Coal, Deep (ceased).
	Mining Instability / Non-Coal Mining Area	4No. entries for non-coal mining – the nearest is on site for iron ore (bedded). Underground mine workings may have occurred in the past or current mines may be working at significant depth to modern engineering standards. Potential for difficult ground conditions are unlikely and are at a level where they need not be considered. 22No. entries for underground workings within 1km – nearest is 145m southeast disused colliery 1905.
Ground Stability	**Collapsible Ground**	Negligible to Very low
	Compressible Ground	Moderate to Negligible
	Ground Dissolution	Negligible
	Landslide	Very low
	Running Sand	Negligible to Low
	Shrinking/Swelling Clay	Negligible to Very low
Landfill Site	**Registered**	1No. historical landfill records within 500m – the nearest is 368m west for inert, commercial environmental permitting regulations (waste), no date recorded. No active or recent landfill sites within 500m. 17No. historic waste sites within 500m – the nearest is 341m east for a refuse destructor (B). 3No. Licensed waste sites within 500m - the nearest is 184m north for a vehicle depollution facility. 29No. Waste exemption sites within 500m - the nearest is on site for preparatory treatments (balling, sorting, shredding etc). There are 8No. records for on site.
	Potential: infilled land	9No. Artificial and Made Ground records within 500m - the nearest is 12m southwest as made ground (undivided), artificial deposit.
Radon	Between 1% and 3% no protective measures required.	

Environmental Setting

Feature	Information
Designated Sites	Within 1km: ⇒ SSSI Impact Risk Zone and Nitrate Vulnerable Zone on site ⇒ Green Belt 607m southeast ⇒ 1No. Listed building 159m northwest Block to Road of Spen Valley Carpet Works (Right Hand Part) ⇒ Agricultural land classification on site – Urban (Non-agricultural/no quality assigned) ⇒ 5No. Priority habitat inventory – nearest on site for deciduous woodland No other environmental designation records.
Contemporary Trade Directory	44No. Entries for Recent industrial land uses within 250m: ⇒ On site, 72m southeast, 114m northwest, 146m northwest, 169m northwest, 215m northwest, 221m northwest, 225m south & 248m east Electricity Sub Station ⇒ On site Demolition Services ⇒ 7m north Horticultural Equipment ⇒ 9m north Tool Repairs ⇒ 9m northeast, 60m north Special Purpose Machinery and Equipment ⇒ 10m southwest Electrical Features ⇒ 24m east Metalworks including Blacksmiths ⇒ 48m northeast, 54m north, 68m northwest, 139m southeast & 184m north Business Parks and Industrial Estates ⇒ 59m southeast Metals Manufacturers, Fabricators and Stockholders ⇒ 63m southeast Textiles, Fabrics, Silk and Machinery ⇒ 81m north Measurement and Inspection Equipment ⇒ 86m north Engines ⇒ 91m north & 166m southeast General Construction Supplies ⇒ 93m east Hydraulic Engineers & Distribution and Haulage ⇒ 94m northwest Cutting, Drilling and Welding Services ⇒ 108m south Industrial Coatings and Finishings & Precision Engineers ⇒ 118m north Second hand Vehicles ⇒ 120m north Seals, Tapes, Taps and Valves ⇒ 134m northwest Curtains and Blinds & Pumps and Compressors ⇒ 150m northeast Medals, Trophies, Ceremonial and Religious Goods ⇒ 168m north Petrol and Fuel Stations ⇒ 186m north Vehicle Repair, Testing and Servicing ⇒ 195m northeast Mechanical Engineers ⇒ 197m southeast & 199m northwest Unspecified Works or Factories ⇒ 201m north Vehicle Parts and Accessories
Fuel Station Entries	3No. fuel station entries within 500m – nearest is 170m north (open).

Environmental Setting	
Feature	**Information**
Unexploded Bomb Risk (UXO)	Zetica Risk maps presented in Appendix 4 identifies a low risk of UXO.
Environmental Search (other)	1No. entry for Control of Major Accident Hazards (COMAH) within 500m – 13m east British Gas Historical NIHHS Site. 2No. entries for Hazardous substance storage/usage within 500m – nearest is 36m east for Deemed hazardous substances consent for fixed storage and piped distribution of natural gas (historical consent). 3No. entries for Historical licensed industrial activities (IPC) within 500m – nearest is 395m east for coating processes and printing. 3No. entries for List 1 dangerous substance within 500m – nearest is 86m east for Mercury (other), Cadmium (not active). 2No. entries for List 2 dangerous substance within 500m – nearest is 86m east for Chromium, Copper, Lead, Nickel, Zinc (not active). 2No. entries for National Geographic Database (NGD) Current or recent tanks within 500m – nearest is 56m west for open storage tank.

Environmental Database Review	
Strategy	The Groundsure Report provides a database of environmental information held by various statutory bodies including the EA, Local Authority (LA), Health & Safety Executive (HSE) and HPA amongst others. A full copy of the Groundsure Report is provided in Appendix 2, and the most relevant information is summarised below.
Features on Site	The site has a potential for contamination pertaining to historic and current industrial land uses. Several tanks have been recorded historically; gas works and associated features and infrastructure, mills, works and current commercial and industrial land uses. A river also bisects the south oriented east to west.
Potentially Contaminative Features Off-Site (250m)	Offsite potential to onsite migration potential from: Historical: ⇒ Gasometer – on site 1905 ⇒ Unspecified Tank – on site 1892 ⇒ Unspecified Mills – on site 1938 ⇒ Unspecified Commercial/Industrial – on site 1892 ⇒ Unspecified Works – on site 1974-1988 ⇒ Unspecified Ground Workings - 2m southwest 1892 ⇒ Unspecified Depot – 2m north 1988 ⇒ Refuse Heap – 13m southwest 1955 ⇒ Unspecified Heap – 13m southwest 1967-1988 ⇒ Carpet Works – 43m northwest 1967 Current: ⇒ On site, 72m southeast, 114m northwest, 146m northwest, 169m northwest, 215m northwest, 221m northwest, 225m south & 248m east Electricity Sub Station ⇒ On site Demolition Services ⇒ 7m north Horticultural Equipment ⇒ 9m north Tool Repairs ⇒ 9m northeast, 60m north Special Purpose Machinery and Equipment ⇒ 10m southwest Electrical Features ⇒ 24m east Metalworks including Blacksmiths ⇒ 48m northeast, 54m north, 68m northwest, 139m southeast & 184m north Business Parks and Industrial Estates ⇒ 59m southeast Metals Manufacturers, Fabricators and Stockholders ⇒ 63m southeast Textiles, Fabrics, Silk and Machinery ⇒ 81m north Measurement and Inspection Equipment ⇒ 86m north Engines ⇒ 91m north & 166m southeast General Construction Supplies ⇒ 93m east Hydraulic Engineers & Distribution and Haulage ⇒ 94m northwest Cutting, Drilling and Welding Services ⇒ 108m south Industrial Coatings and Finishings & Precision Engineers

	⇒ 118m north Secondhand Vehicles ⇒ 120m north Seals, Tapes, Taps and Valves ⇒ 134m northwest Curtains and Blinds & Pumps and Compressors ⇒ 150m northeast Medals, Trophies, Ceremonial and Religious Goods ⇒ 168m north Petrol and Fuel Stations ⇒ 186m north Vehicle Repair, Testing and Servicing ⇒ 195m northeast Mechanical Engineers ⇒ 197m southeast & 199m northwest Unspecified Works or Factories ⇒ 201m north Vehicle Parts and Accessories Other: ⇒ 1No. entry for Control of Major Accident Hazards (COMAH) within 500m – 13m east British Gas Historical NIHHS Site. ⇒ 2No. entries for Hazardous substance storage/usage within 500m – nearest is 36m east for Deemed hazardous substances consent for fixed storage and piped distribution of natural gas (historical consent). ⇒ 3No. entries for Historical licensed industrial activities (IPC) within 500m – nearest is 395m east for coating processes and printing. ⇒ 3No. entries for List 1 dangerous substance within 500m – nearest is 86m east for Mercury (other), Cadmium (not active). ⇒ 2No. entries for List 2 dangerous substance within 500m – nearest is 86m east for Chromium, Copper, Lead, Nickel, Zinc (not active). ⇒ 2No. entries for National Geographic Database (NGD) Current or recent tanks within 500m – nearest is 56m west for open storage tank.
Implications for Land Contamination Risk	Potential sources of contamination have been identified within 100m. These are considered further in the conceptual site model below.

Planning Review	
Planning Portal Records	The site is presented to inform a future planning proposal with Kirklees Council at the site known as Land Adjacent to Victoria Business Park, Wormald Street, Liversedge, Kirklees, WF15 6BU.
Part 2A of the Environmental Protection Act (EPA) 1990	No recorded sites determined as Contaminated Land within 500m.
Local Authority Records	Arbtech Consulting Ltd. have not contacted Kirklees Council however, consultations can be made at Contaminated land | Kirklees Council.

Conceptual Site Model

Overview

A conceptual site model (CSM) is a representation of the characteristics of the site. It shows the possible relationships between contaminants, pathways and receptors. The CSM is used to identify potential contaminants, receptors (e.g., humans, groundwater), and pathways (e.g., inhalation, ingestion).

Overall Site Sensitivity

The site has been in continuous industrial and later commercial use since the site was first developed as a woollen mill in 1890. Several associated mill and depot buildings, tanks and associated units appeared on site through the 20th century, including multiple buildings that cross or cover parts of the Spen River, which runs northwest to southeast through the centre of the site. From 2011 onwards, demolition of various mill buildings has occurred with some remaining to the present. Significant historical and ongoing industrial activity in the surrounding area, alongside site-based operations, indicates the likely presence of made ground and potential contamination associated with former industrial processes.

Geologically, the site is underlain by Alluvium - Clay, Sand and Gravel, classified as a Secondary A Aquifer with high to very low permeability. The underlying Pennine Lower Coal Measures Formation (Mudstone, Siltstone and Sandstone) is also a Secondary A aquifer with high to low permeability and medium vulnerability. A small area on the southern tip of the site is recorded as Pennine Lower Coal Measures Formation – Sandstone, again with high to low permeability. The site does not lie within a Source Protection Zone and there are no groundwater, surface water or potable abstractions on site or within 500m.

There is an inland river (the Spen River) on site, which is rated overall moderate quality, while the groundwater body is rated as poor, highlighting a level of sensitivity with respect to surface water receptors on site. The site is within Flood Zones 2 and 3 and there is a high risk of surface water flooding (return period 1 in 30 year, Greater than 1.0m), indicating a moderate to high risk of flooding from fluvial sources.

A number of historical landfill sites are present within 500 m of the site boundary. Environmental records also identify several nearby potential sources of contamination and hazard, including a COMAH site 13 m east, historical hazardous substance storage within 36 m, and records for dangerous substances and tanks within 100 m of the site. Together, these increase the potential for offsite contamination affecting the site.

In summary, the site has a moderate to high overall sensitivity due to the presence of the River Spen through the site, underlying Secondary A aquifers of variable permeability, significant flood risk, and the current industrial/commercial use. Together, these factors indicate that any contamination present has credible pathways to impact both on-site and off-site receptors.

Identified potential contamination sources within 100m of the Site are presented in the following table:

Contamination Sources

Ref.	Source	Location	Dates Present	Potential Associated Contaminants of Concern
Source 1	On-Site Potential	Gasometer (on site), unspecified tank (on site), mills (on site), commercial/industrial (on site), works (on site), electricity substation (on site), demolition services (on site)	1892–present	Hydrocarbons (incl. PAHs, BTEX), solvents, VOCs, heavy metals, PCBs, asbestos, demolition dusts
Source 2	Off-Site Potential – Historical	Ground workings (2m SW), depot (2m N), refuse heap (13m SW), unspecified heap (13m SW), carpet works (43m NW)	1892–1988	Made ground, leachate, heavy metals, hydrocarbons, asbestos, dyes, solvents, ground gas
Source 3	Off-Site Potential – Current	Electricity substations (72–248m in all directions), metalworks (24m E), industrial estates (48–184m N/SE), engineering, fabrication, machinery, repairs, and vehicle services (7–201m in all directions), petrol station (168m N)	Current	Hydrocarbons, solvents, VOCs, metals, fuels, lubricants, cleaning agents, detergents, fire suppressants
Source 4	Other	COMAH site (13m E), hazardous substance storage (36m E), historical IPC activity (395m E), List 1 & 2 dangerous substances (86m E), open storage tank (56m W)	Historical–Current	Mercury, cadmium, chromium, copper, lead, nickel, zinc, VOCs, industrial chemicals, infill gases, natural gas, residual tank contents

Potential Receptors

Relevant potential receptors are considered to include:

⇒ Construction workers during groundworks (hardstanding).
⇒ Third parties (adjacent Site users and adjacent residents).
⇒ Future Site users (residential).
⇒ Secondary A Aquifer Surface Water
⇒ The Built Environment (the building and infrastructure / utilities).

Potential Pathways

The potential pathways are considered to be:

⇒ Direct contact, ingestion or inhalation of soil bound contaminants / dust during or following
⇒ redevelopment.
⇒ Inhalation of organic vapours associated with contamination.
⇒ Migration of ground gas / vapours into on-site buildings.
⇒ Leaching of contamination into groundwater followed by migration of groundwater to the wider groundwater environment.

Pollutant Linkage Assessment					
Source	**Pathway**	**Receptor**	**Risk Rating**	**Justification and any Mitigation**	**Investigation Required**
On-Site Potential	Ingestion, dermal contact, inhalation of dust/vapours, leaching to groundwater, construction worker exposure	Future site users, construction workers, buildings, controlled waters	Moderate–High	Historical industrial/commercial uses and current substation/demolition services may have caused localised contamination. Mitigation via cover systems and/or remediation likely if confirmed.	Yes – intrusive investigation recommended
Off-Site Potential – Historical	Migration of contamination via groundwater, surface water runoff, wind-blown dust, or ground gas movement	Future site users, off-site receptors, buildings	Moderate	Historic adjacent and nearby potentially contaminative uses (e.g. heaps, workings, depots) may present risk via lateral migration or vapour/gas. Monitoring or gas protection may be needed.	Yes – ground gas and contamination monitoring recommended
Off-Site Potential – Current	Infiltration of contaminants, vapour migration, surface runoff, indirect groundwater impact	Future site users, off-site receptors, controlled waters	Low–Moderate	Ongoing industrial/commercial activities nearby could present a lower but persistent risk. Risk may be limited by distance and intervening properties. Ongoing risk assessment required.	Possibly – subject to overall assessment
Other	Leaching, vapour migration, groundwater migration, atmospheric dispersion	Controlled waters, site users, wider environment	Moderate–High	Presence of COMAH site, hazardous substances, and dangerous chemical records nearby elevate risk potential. Regulatory consultation and risk-based design may be required.	Yes – further regulatory consultation and targeted investigation

Conclusions and Recommendations

Land Contamination Summary	
Uncertainty and Data Gaps	Historical use and adjacent industrial/commercial activities indicate possible contamination, but the full extent, type, and depth remain unclear. Lack of intrusive investigation and monitoring data creates uncertainty about subsurface conditions, contaminant migration, and impact on groundwater and receptors. No walkover has been carried out as part of the risk assessment.
Soils	Potentially contaminated soils from on-site industrial use, demolition, and made ground. Contaminants likely include hydrocarbons, heavy metals, asbestos, solvents, and demolition dust. Risks to human health and the environment are plausible but not confirmed without testing.
Groundwater	Underlying Secondary A aquifers of variable permeability may be vulnerable to contamination. Groundwater quality is unknown on site, with moderate risk due to historical and current nearby contaminative sources. No local abstraction points increase the likelihood of widespread impact.
Ground Gas	On site gas features and associated activities and infilled ground, combined with historical industrial activity, raise the risk of hazardous ground gases (methane, CO_2) affecting future buildings and site users. Ground gas monitoring and potential mitigation measures should be considered.
Volatile Organic Vapours	VOCs and related vapours likely from on-site gasometers, tanks, industrial processes, and demolition activities. These pose inhalation risks, particularly within buildings. Monitoring and risk assessment are recommended.
Potential Contaminated Land Development Risks	The site's moderate to high sensitivity (river, aquifers, flood risk) combined with contamination potential poses risks to health, controlled waters, and infrastructure. Appropriate investigation, risk assessment, and mitigation strategies are essential before redevelopment.

Recommendations and Development	
Ground Investigation Recommendations	Based on the preliminary assessment, an intrusive ground investigation is recommended to: ⇒ Confirm the presence, type, and extent of soil contamination, particularly hydrocarbons, heavy metals, asbestos, solvents, and demolition debris. ⇒ Assess groundwater quality and potential contaminant migration within the Secondary A aquifers. ⇒ Monitor and evaluate ground gas concentrations and flux to determine the risk to future site users and structures. ⇒ Characterize volatile organic vapour risks in soil and groundwater. ⇒ Provide data to inform remediation, mitigation, and design measures such as cover systems, gas protection, and groundwater controls. A phased approach is advised, including trial pits, boreholes, soil sampling, groundwater monitoring, and ground gas/vapour monitoring. Further regulatory consultation may be required depending on initial findings. Results will inform necessary mitigation measures (e.g., gas barriers, remediation) and enable a detailed assessment of pollutant linkages. Soil testing and classification may also be required for the reuse or disposal of surplus soils.
Development Considerations	Site Preparation: Demolition debris and made ground may require careful handling and disposal. Appropriate dust and asbestos control measures should be implemented during site clearance. Health and Safety: Safe working practices must be followed throughout all intrusive works. Site workers should be equipped with appropriate Personal Protective Equipment (PPE) to minimize exposure to potential contaminants. Remediation and Mitigation: Depending on investigation findings, installation of gas protection systems (e.g., barriers or ventilation) may be required to safeguard future site users. Remediation strategies such as soil removal, capping, or in-situ treatment may also be necessary. Material Management: Soil testing and classification should guide the reuse or disposal of excavated materials to ensure compliance with waste regulations and to prevent spreading contamination. Groundwater Management: Consider potential impacts on and from the underlying Secondary A aquifers. Design drainage and attenuation features to prevent contaminant migration and manage flood risk, especially given the proximity of the Spen River and flood zones 2 and 3. Regulatory Compliance: Liaise with relevant environmental regulators, particularly due to nearby COMAH sites and hazardous substance storage. Ensure all planning and contaminated land legislation requirements are met.

Appendices

Appendix 1: Risk Evaluation

Appendix 2: Groundsure Enviro + Geo Insight

Appendix 3: Historical Map Selection

Appendix 4: Zetica UXO Mapping

Appendix 5: Document Production Record

If you require clarification of the information contained herein, please do not hesitate to contact us via 01244 661170.

Yours Sincerely,

Charlotte Radiven BSc Hons

Geo-Environmental Manager

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Appendix 1: Risk Evaluation

PRINCIPLES OF RISK EVALUATION

The risk evaluation methodology presented below is qualitative in nature and is therefore a subjective method. It is based upon guidance presented in CIRIA publication referenced C552, 'Contaminated land risk assessment ~ A guide to good practice', 2001 and involves the classification of the following:

- The magnitude of the potential consequence (severity) of risk occurring
- The magnitude of the probability (likelihood) of the risk occurring
- These are then considered in conjunction to give a risk matrix

Consequence to Receptor Definition Matrix			
	Human Health	**Controlled Waters**	**Buildings/Services**
Severe Consequence	Acute or chronic permanent impact on human health.	Sensitive controlled water pollution ongoing, or just about to occur.	Catastrophic collapse
Medium Consequence	Chronic permanent impact on human health	Gradual pollution of sensitive controlled water	Degradation of materials
Mild Consequence	Chronic temporary impact on human health	Gradual pollution of non-sensitive controlled water	Damage to building rendering it unsafe.to occupy (e.g. foundation damage resulting in instability).
Minor Consequence	Non-permanent health effects to human health (easily prevented by means such as personal protective clothing etc).	Slight discoloration of water	Easily repairable effects of damage to buildings, structures and services, i.e. discoloration of concrete

Probability Definitions	
Probability	**Definition in Context**
Higher	There is a pollution linkage and an event that either appears very likely in the short term and almost inevitable over the long term, or there is evidence at the receptor of harm or pollution. Positive evidence of source, pathway and receptor.
Likely	There is a pollution linkage, and all the elements are present and in the right place, which means that it is probable that an event will occur. Circumstances are such that an event is not inevitable, but possible in the short term and likely over the long term. Suspect source, pathway, and receptor
Low Likelihood	There is a pollution linkage, and circumstances are possible under which an event could occur. However, it is by no means certain that even over a longer period such event would take place and is less likely in the shorter term.
Unlikely	There is a pollution linkage, but circumstances are such that it is improbable that an event would occur even in the very long term. No evidence of hazard, pathway, and receptor

Standard Risk Matrix

		Consequence/Magnitude of impact			
		Severe	**Medium**	**Mild**	**Minor**
Probability	**High**	Very High	High	Moderate	Moderate/Low
	Likely	High	Moderate	Moderate/low	Low
	Low Likelihood	Moderate	Moderate/low	Low	Very Low
	Unlikely	Moderate/low	Low	Very Low	Very Low

Classified risks and likely action

Significance Level	Definition/Comments
Very High Risk	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. Demonstrable contaminated land situation, highest threat & liability level, urgent action recommended.
High Risk	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. Likely contaminated land situation, risk assessment and action recommended.
Moderate	It is possible that harm could arise to a designated receptor from an identified hazard. However, if 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 longer term. Plausible contaminated land situation, risk assessment and possible action recommended.
Low Risk	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. Unlikely contaminated land situation, possible risk assessment and possible action.
Very Low Risk	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 action recommended except vigilance for changes in conditions.

Appendix 2: Groundsure Enviro + Geo Insight

Groundsure LOCATION INTELLIGENCE

Enviro+Geo Insight

Land Adjacent to Victoria Spring Business Park, Wormald Street, Liversedge, Kirklees WF15 6BU

Order Details

Date: 08/07/2025

Your ref: Land Adj to Victoria Spring Business Park WF15 6BU

Our Ref: GS-8ZL-YUZ-X9T-R3R

Site Details

Location: 420955 423488

Area: 1.85 ha

Authority: Kirklees Council ↗

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

Certified B Corporation

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 >	21	34	56	102	-
22 >	1.2 >	Historical tanks >	6	25	18	57	-
26 >	1.3 >	Historical energy features >	6	21	15	19	-
29	1.4	Historical petrol stations	0	0	0	0	-
29 >	1.5 >	Historical garages >	0	0	12	4	-
30	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
31 >	2.1 >	Historical industrial land uses >	31	61	91	150	-
43 >	2.2 >	Historical tanks >	9	32	45	92	-
50 >	2.3 >	Historical energy features >	17	24	33	34	-
54	2.4	Historical petrol stations	0	0	0	0	-
54 >	2.5 >	Historical garages >	0	0	16	4	-
Page	Section	Waste and landfill >	On site	0-50m	50-250m	250-500m	500-2000m
56	3.1	Active or recent landfill	0	0	0	0	-
56	3.2	Historical landfill (BGS records)	0	0	0	0	-
57	3.3	Historical landfill (LA/mapping records)	0	0	0	0	-
57 >	3.4 >	Historical landfill (EA/NRW records) >	0	0	0	1	-
57 >	3.5 >	Historical waste sites >	0	0	0	17	-
60 >	3.6 >	Licensed waste sites >	0	0	3	0	-
61 >	3.7 >	Waste exemptions >	8	2	10	9	-
Page	Section	Current industrial land use >	On site	0-50m	50-250m	250-500m	500-2000m
64 >	4.1 >	Recent industrial land uses >	2	6	36	-	-
68 >	4.2 >	National Geographic Database (NGD) - Current or recent tanks >	0	0	2	-	-
68 >	4.3 >	Current or recent petrol stations >	0	0	1	2	-
68	4.4	Electricity cables	0	0	0	0	-
69	4.5	Gas pipelines	0	0	0	0	-

69	4.6	Sites determined as Contaminated Land	0	0	0	0	-
69 >	4.7 >	Control of Major Accident Hazards (COMAH) >	0	1	0	0	-
69	4.8	Regulated explosive sites	0	0	0	0	-
69 >	4.9 >	Hazardous substance storage/usage >	0	2	0	0	-
70 >	4.10 >	Historical licensed industrial activities (IPC) >	0	0	0	3	-
71	4.11	Licensed industrial activities (Part A(1))	0	0	0	0	-
71 >	4.12 >	Licensed pollutant release (Part A(2)/B) >	0	0	4	4	-
72	4.13	Radioactive Substance Authorisations	0	0	0	0	-
72 >	4.14 >	Licensed Discharges to controlled waters >	0	1	1	6	-
74	4.15	Pollutant release to surface waters (Red List)	0	0	0	0	-
74 >	4.16 >	Pollutant release to public sewer >	0	0	0	2	-
74 >	4.17 >	List 1 Dangerous Substances >	0	0	1	2	-
75 >	4.18 >	List 2 Dangerous Substances >	0	0	1	1	-
75 >	4.19 >	Pollution Incidents (EA/NRW) >	1	2	5	6	-
77	4.20	Pollution inventory substances	0	0	0	0	-
77	4.21	Pollution inventory waste transfers	0	0	0	0	-
77	4.22	Pollution inventory radioactive waste	0	0	0	0	-

Page	Section	Hydrogeology >	On site	0-50m	50-250m	250-500m	500-2000m
78 >	5.1 >	Superficial aquifer >	Identified (within 500m)				
79 >	5.2 >	Bedrock aquifer >	Identified (within 500m)				
80 >	5.3 >	Groundwater vulnerability >	Identified (within 50m)				
82	5.4	Groundwater vulnerability- soluble rock risk	None (within 0m)				
82	5.5	Groundwater vulnerability- local information	None (within 0m)				
83 >	5.6 >	Groundwater abstractions >	0	0	0	0	7
85	5.7	Surface water abstractions	0	0	0	0	0
86	5.8	Potable abstractions	0	0	0	0	0
86	5.9	Source Protection Zones	0	0	0	0	-
86	5.10	Source Protection Zones (confined aquifer)	0	0	0	0	-

Page	Section	Hydrology >	On site	0-50m	50-250m	250-500m	500-2000m

87 >	6.1 >	Water Network (OS MasterMap) >	7	0	7	-	-
89 >	6.2 >	Surface water features >	1	1	3	-	-
89 >	6.3 >	WFD Surface water body catchments >	1	-	-	-	-
89 >	6.4 >	WFD Surface water bodies >	1	0	0	-	-
90 >	6.5 >	WFD Groundwater bodies >	1	-	-	-	-
Page	Section	**River and coastal flooding >**	On site	0-50m	50-250m	250-500m	500-2000m
91 >	7.1 >	Risk of flooding from rivers and the sea >	High (within 50m)				
92 >	7.2 >	Historical Flood Events >	1	0	2	-	-
92 >	7.3 >	Flood Defences >	2	2	1	-	-
93	7.4	Areas Benefiting from Flood Defences	0	0	0	-	-
93	7.5	Flood Storage Areas	0	0	0	-	-
94 >	7.6 >	Flood Zone 2 >	Identified (within 50m)				
95 >	7.7 >	Flood Zone 3 >	Identified (within 50m)				
Page	Section	**Surface water flooding >**					
96 >	8.1 >	Surface water flooding >	1 in 30 year, Greater than 1.0m (within 50m)				
Page	Section	**Groundwater flooding >**					
98 >	9.1 >	Groundwater flooding >	Low (within 50m)				
Page	Section	**Environmental designations >**	On site	0-50m	50-250m	250-500m	500-2000m
99	10.1	Sites of Special Scientific Interest (SSSI)	0	0	0	0	0
100	10.2	Conserved wetland sites (Ramsar sites)	0	0	0	0	0
100	10.3	Special Areas of Conservation (SAC)	0	0	0	0	0
100	10.4	Special Protection Areas (SPA)	0	0	0	0	0
100	10.5	National Nature Reserves (NNR)	0	0	0	0	0
101	10.6	Local Nature Reserves (LNR)	0	0	0	0	0
101	10.7	Designated Ancient Woodland	0	0	0	0	0
101	10.8	Biosphere Reserves	0	0	0	0	0
101	10.9	Forest Parks	0	0	0	0	0
102	10.10	Marine Conservation Zones	0	0	0	0	0
102 >	10.11 >	Green Belt >	0	0	0	0	1

102	10.12	Proposed Ramsar sites	0	0	0	0	0
102	10.13	Possible Special Areas of Conservation (pSAC)	0	0	0	0	0
103	10.14	Potential Special Protection Areas (pSPA)	0	0	0	0	0
103	10.15	Nitrate Sensitive Areas	0	0	0	0	0
103 >	**10.16 >**	**Nitrate Vulnerable Zones >**	1	0	0	0	0
104 >	**10.17 >**	**SSSI Impact Risk Zones >**	1	-	-	-	-
105	10.18	SSSI Units	0	0	0	0	0
Page	Section	**Visual and cultural designations >**	On site	0-50m	50-250m	250-500m	500-2000m
106	11.1	World Heritage Sites	0	0	0	-	-
107	11.2	Area of Outstanding Natural Beauty	0	0	0	-	-
107	11.3	National Parks	0	0	0	-	-
107 >	**11.4 >**	**Listed Buildings >**	0	0	1	-	-
108	11.5	Conservation Areas	0	0	0	-	-
108	11.6	Scheduled Ancient Monuments	0	0	0	-	-
108	11.7	Registered Parks and Gardens	0	0	0	-	-
Page	Section	**Agricultural designations >**	On site	0-50m	50-250m	250-500m	500-2000m
109 >	**12.1 >**	**Agricultural Land Classification >**	Urban (within 250m)				
110	12.2	Open Access Land	0	0	0	-	-
110	12.3	Tree Felling Licences	0	0	0	-	-
110	12.4	Environmental Stewardship Schemes	0	0	0	-	-
110	12.5	Countryside Stewardship Schemes	0	0	0	-	-
Page	Section	**Habitat designations >**	On site	0-50m	50-250m	250-500m	500-2000m
111 >	**13.1 >**	**Priority Habitat Inventory >**	1	0	4	-	-
112	13.2	Habitat Networks	0	0	0	-	-
112	13.3	Open Mosaic Habitat	0	0	0	-	-
112	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
113 >	**14.1 >**	**10k Availability >**	Identified (within 500m)				
114 >	**14.2 >**	**Artificial and made ground (10k) >**	0	1	5	3	-

116 >	14.3 >	Superficial geology (10k) >	1	0	0	0	-
117	14.4	Landslip (10k)	0	0	0	0	-
118 >	14.5 >	Bedrock geology (10k) >	2	1	14	12	-
120 >	14.6 >	Bedrock faults and other linear features (10k) >	0	1	7	17	-
Page	Section	**Geology 1:50,000 scale >**	On site	0-50m	50-250m	250-500m	500-2000m
122 >	15.1 >	50k Availability >	Identified (within 500m)				
123	15.2	Artificial and made ground (50k)	0	0	0	0	-
123	15.3	Artificial ground permeability (50k)	0	0	-	-	-
124 >	15.4 >	Superficial geology (50k) >	1	0	0	0	-
125 >	15.5 >	Superficial permeability (50k) >	Identified (within 50m)				
125	15.6	Landslip (50k)	0	0	0	0	-
125	15.7	Landslip permeability (50k)	None (within 50m)				
126 >	15.8 >	Bedrock geology (50k) >	2	2	13	11	-
128 >	15.9 >	Bedrock permeability (50k) >	Identified (within 50m)				
128 >	15.10 >	Bedrock faults and other linear features (50k) >	0	1	8	16	-
Page	Section	**Boreholes >**	On site	0-50m	50-250m	250-500m	500-2000m
130 >	16.1 >	BGS Boreholes >	0	3	13	-	-
Page	Section	**Natural ground subsidence >**					
132 >	17.1 >	Shrink swell clays >	Very low (within 50m)				
134 >	17.2 >	Running sands >	Low (within 50m)				
136 >	17.3 >	Compressible deposits >	Moderate (within 50m)				
138 >	17.4 >	Collapsible deposits >	Very low (within 50m)				
140 >	17.5 >	Landslides >	Very low (within 50m)				
141 >	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
143 >	18.1 >	BritPits >	0	0	1	3	-
145 >	18.2 >	Surface ground workings >	0	13	46	-	-
147 >	18.3 >	Underground workings >	0	0	1	4	17
148	18.4	Underground mining extents	0	0	0	0	-

148	18.5	Historical Mineral Planning Areas	0	0	0	0	-
149 >	**18.6 >**	**Non-coal mining >**	1	0	1	1	1
149	18.7	JPB mining areas	None (within 0m)				
150	18.8	The Coal Authority non-coal mining	0	0	0	0	-
150	18.9	Researched mining	0	0	0	0	-
150	18.10	Mining record office plans	0	0	0	0	-
150	18.11	BGS mine plans	0	0	0	0	-
151 >	**18.12 >**	**Coal mining >**	Identified (within 0m)				
151	18.13	Brine areas	None (within 0m)				
151	18.14	Gypsum areas	None (within 0m)				
151	18.15	Tin mining	None (within 0m)				
151	18.16	Clay mining	None (within 0m)				

Page	Section	Ground cavities and sinkholes	On site	0-50m	50-250m	250-500m	500-2000m
152	19.1	Natural cavities	0	0	0	0	-
152	19.2	Mining cavities	0	0	0	0	0
152	19.3	Reported recent incidents	0	0	0	0	-
152	19.4	Historical incidents	0	0	0	0	-

Page	Section	**Radon >**					
154 >	**20.1 >**	**Radon >**	Between 3% and 5% (within 0m)				

Page	Section	**Soil chemistry >**	On site	0-50m	50-250m	250-500m	500-2000m
156 >	**21.1 >**	**BGS Estimated Background Soil Chemistry >**	13	11	-	-	-
157	21.2	BGS Estimated Urban Soil Chemistry	0	0	-	-	-
158	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
159	22.1	Underground railways (London)	0	0	0	-	-
159	22.2	Underground railways (Non-London)	0	0	0	-	-
160	22.3	Railway tunnels	0	0	0	-	-
160 >	**22.4 >**	**Historical railway and tunnel features >**	0	0	7	-	-
160	22.5	Royal Mail tunnels	0	0	0	-	-

161 >	22.6 >	Historical railways >	0	0	10	-	-
161	22.7	Railways	0	0	0	-	-
161	22.8	Crossrail 2	0	0	0	0	-
162	22.9	HS2	0	0	0	0	-

Recent aerial photograph

Capture Date: 30/05/2021

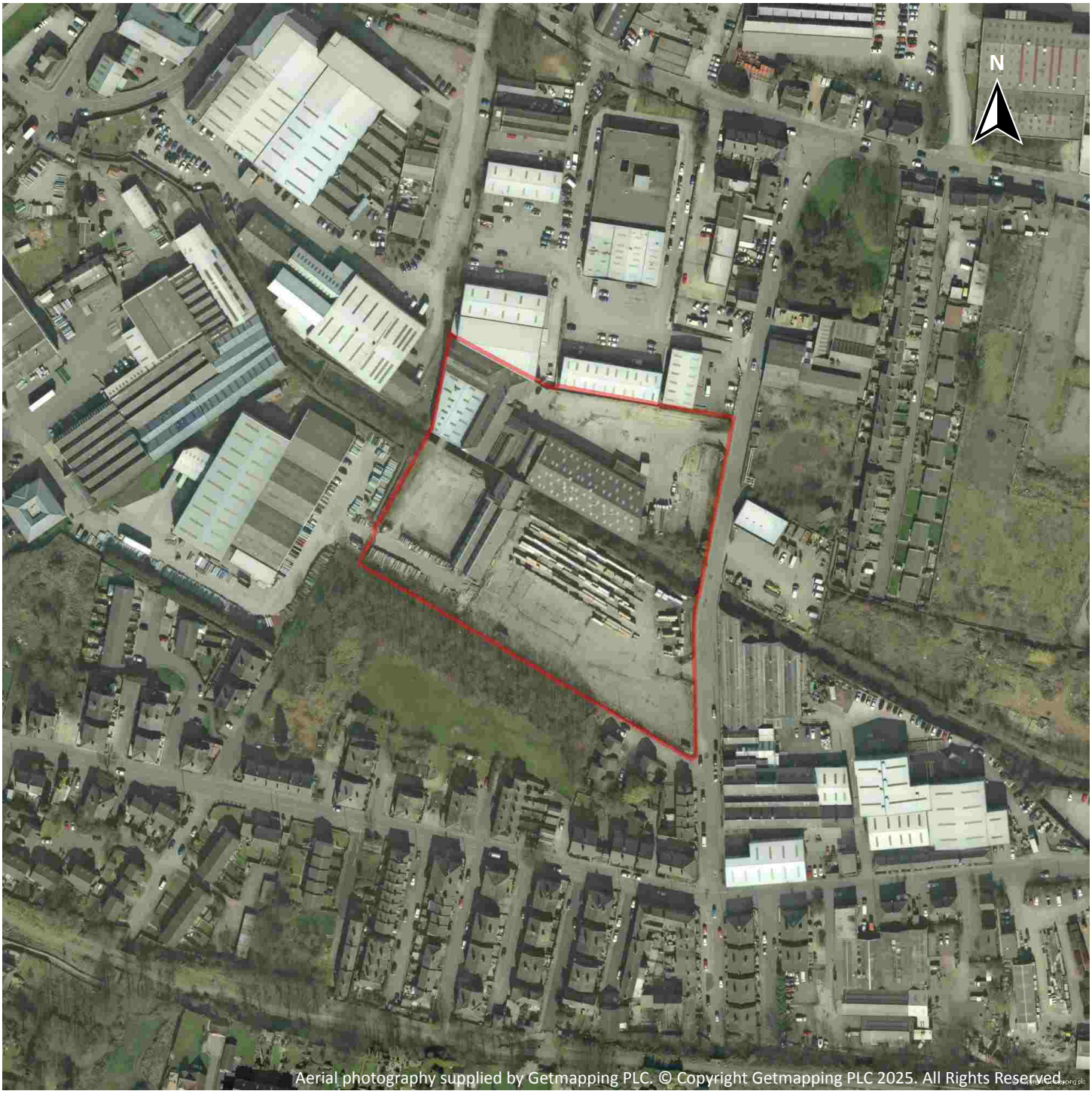
Site Area: 1.85ha

Recent site history - 2018 aerial photograph

Capture Date: 01/07/2018

Site Area: 1.85ha

Recent site history - 2012 aerial photograph



Capture Date: 26/03/2012

Site Area: 1.85ha

Recent site history - 1999 aerial photograph

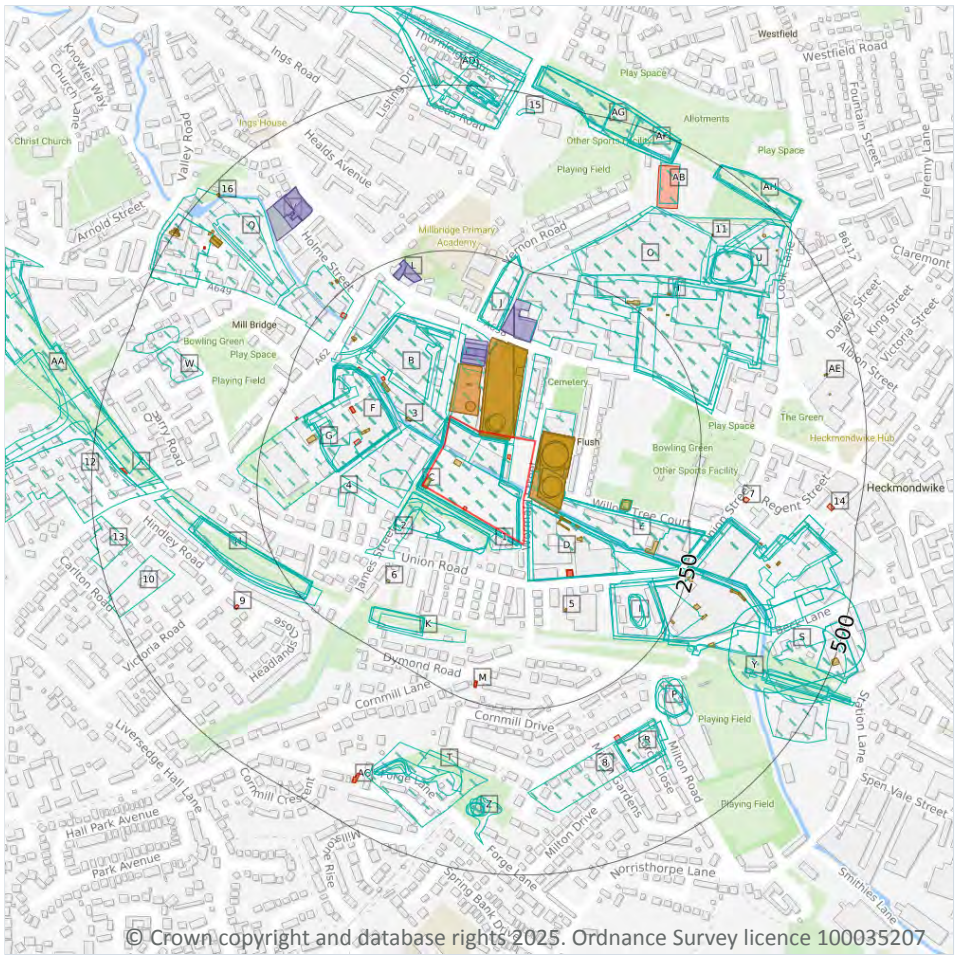
Capture Date: 10/07/1999

Site Area: 1.85ha

OS MasterMap site plan

Site Area: 1.85ha

1 Past land use



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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	213

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**	**Gasometer**	**1905**	**1436939**

ID	Location	Land use	Dates present	Group ID
A	**On site**	**Unspecified Tank**	**1892**	**1495690**
A	**On site**	**Unspecified Mills**	**1938**	**1499015**
A	**On site**	**Unspecified Mills**	**1948**	**1504530**
A	**On site**	**Unspecified Mills**	**1931**	**1518278**
A	**On site**	**Unspecified Commercial/Industrial**	**1892**	**1526205**
A	**On site**	**Unspecified Tank**	**1948**	**1535830**
A	**On site**	**Unspecified Tank**	**1931**	**1555780**
A	**On site**	**Unspecified Commercial/Industrial**	**1892 - 1931**	**1559405**
A	**On site**	**Unspecified Mills**	**1931**	**1563170**
A	**On site**	**Unspecified Tank**	**1938**	**1563677**
A	**On site**	**Unspecified Commercial/Industrial**	**1905**	**1565925**
A	**On site**	**Unspecified Commercial/Industrial**	**1967**	**1570400**
A	**On site**	**Unspecified Mills**	**1955**	**1572751**
A	**On site**	**Unspecified Commercial/Industrial**	**1974 - 1988**	**1577568**
A	**On site**	**Unspecified Commercial/Industrial**	**1938**	**1581368**
B	**On site**	**Unspecified Commercial/Industrial**	**1892 - 1905**	**1498836**
B	**On site**	**Unspecified Works**	**1974 - 1988**	**1500359**
C	**On site**	**Unspecified Tank**	**1938**	**1526426**
C	**On site**	**Unspecified Tank**	**1931**	**1534295**
C	**On site**	**Unspecified Tank**	**1955**	**1546688**
A	1m N	Unspecified Tank	1931	1526337
A	1m N	Unspecified Tank	1955 - 1967	1505194
1	2m SW	Unspecified Ground Workings	1892	1438748
A	2m N	Unspecified Depot	1988	1445415
A	3m N	Unspecified Commercial/Industrial	1967 - 1988	1532166
D	5m E	Unspecified Mills	1938	1533932
C	6m NW	Unspecified Depot	1974 - 1988	1509059
E	6m E	Unspecified Works	1967 - 1974	1531174

ID	Location	Land use	Dates present	Group ID
E	6m E	Unspecified Commercial/Industrial	1981 - 1988	1541330
E	6m E	Unspecified Mills	1948 - 1955	1541564
D	6m E	Unspecified Works	1967	1489794
B	7m W	Unspecified Mills	1938	1445930
D	7m E	Unspecified Commercial/Industrial	1955 - 1988	1504242
D	7m E	Unspecified Mills	1931	1580699
D	9m E	Unspecified Tank	1955 - 1988	1551433
D	11m E	Unspecified Tanks	1938	1488362
D	11m E	Unspecified Tank	1931	1512814
D	11m E	Unspecified Tank	1948	1561747
D	12m E	Unspecified Works	1981 - 1988	1490224
A	13m SW	Unspecified Heap	1967 - 1988	1554195
A	13m SW	Refuse Heap	1955	1556573
A	14m SW	Refuse Heap	1938	1548049
D	14m E	Unspecified Tanks	1931	1541265
C	15m W	Unspecified Heap	1967	1466241
A	17m SW	Refuse Heap	1931	1536856
A	17m SW	Refuse Heap	1948	1577588
D	19m E	Unspecified Tank	1955 - 1967	1560390
2	23m SW	Unspecified Ground Workings	1892	1438747
D	28m E	Unspecified Tank	1948	1523091
D	28m E	Unspecified Tank	1892 - 1931	1572762
B	43m NW	Carpet Works	1967	1447176
B	44m NW	Unspecified Commercial/Industrial	1931	1498142
B	44m NW	Unspecified Commercial/Industrial	1948	1578801
E	48m E	Unspecified Mills	1931	1496601
E	51m E	Unspecified Commercial/Industrial	1931	1538230
F	65m NW	Unspecified Commercial/Industrial	1892	1431553

ID	Location	Land use	Dates present	Group ID
4	73m W	Unspecified Ground Workings	1967	1438749
F	74m NW	Unspecified Mills	1905	1536646
F	75m NW	Unspecified Mills	1931	1565534
F	75m NW	Unspecified Mills	1938	1505376
F	77m NW	Unspecified Mills	1948	1495944
F	77m NW	Unspecified Mills	1931	1561754
G	77m NW	Unspecified Mills	1955 - 1988	1556866
E	144m E	Unspecified Tanks	1948 - 1955	1498737
E	144m E	Unspecified Tanks	1931	1561642
E	145m SE	Unspecified Mills	1955	1445931
E	145m SE	Unspecified Works	1967 - 1981	1540165
H	145m N	Unspecified Mills	1974 - 1988	1487254
E	145m E	Unspecified Tanks	1938	1492851
I	145m SE	Disused Colliery	1905	1447186
E	147m E	Unspecified Tanks	1931	1512539
J	149m NE	Tramway Terminus	1905	1445099
J	149m NE	Tramway Depot	1948	1540214
J	149m NE	Tramway Depot	1905 - 1931	1579768
J	149m NE	Tramway Depot	1938	1536654
J	150m NE	Omnibus Depot	1955	1479261
I	151m SE	Unspecified Works	1988	1507979
K	156m SW	Cuttings	1892	1582427
B	165m NW	Unspecified Covered Tank	1892 - 1905	1541022
K	171m SW	Cuttings	1931	1517525
K	173m SW	Cuttings	1905 - 1948	1572941
K	173m SW	Cuttings	1955	1571231
I	178m SE	Refuse Heap	1938 - 1948	1540978
I	178m SE	Refuse Heap	1955	1557563

ID	Location	Land use	Dates present	Group ID
I	180m SE	Refuse Heap	1967	1483972
I	181m SE	Refuse Heap	1905 - 1931	1572970
H	183m NE	Unspecified Commercial/Industrial	1931	1510530
H	183m NE	Unspecified Commercial/Industrial	1948	1551413
H	185m NE	Unspecified Industrial/Commercial	1938	1447271
H	187m NE	Tramway Depot	1931	1534223
E	196m E	Unspecified Mills	1892	1506930
E	196m E	Unspecified Commercial/Industrial	1905	1526197
E	197m E	Union Mills	1938	1552874
E	199m E	Union Mills	1931	1512300
H	200m NE	Unspecified Commercial/Industrial	1892 - 1905	1488627
E	201m E	Unspecified Works	1988	1499992
E	207m E	Mill Pond	1892 - 1905	1511801
E	207m E	Unspecified Commercial/Industrial	1892 - 1931	1535426
E	207m E	Unspecified Commercial/Industrial	1948	1549289
B	215m NW	Unspecified Works	1974 - 1988	1572516
H	216m N	Unspecified Depot	1931	1445416
N	221m SW	Cuttings	1967 - 1988	1546266
N	221m SW	Cuttings	1892	1564116
N	222m SW	Cuttings	1931	1581999
N	223m SW	Cuttings	1905 - 1931	1514219
N	223m SW	Cuttings	1948	1529638
N	223m SW	Cuttings	1938	1541894
N	227m SW	Cuttings	1955	1566358
O	237m NE	Unspecified Commercial/Industrial	1948	1571374
O	240m NE	Woollen Mills	1967	1446377
E	250m E	Unspecified Industrial/Commercial	1938	1447239
E	252m E	Unspecified Mills	1967	1523132

ID	Location	Land use	Dates present	Group ID
E	253m E	Unspecified Commercial/Industrial	1931	1578886
E	256m E	Unspecified Mill	1981	1448305
H	273m NE	Mill Ponds	1892 - 1905	1509953
P	292m SE	Refuse Heap	1931	1483025
P	292m SE	Refuse Heap	1948 - 1955	1550078
P	296m SE	Refuse Heap	1938	1496265
P	304m SE	Refuse Heap	1931	1531881
P	304m SE	Unspecified Heap	1967	1466247
Q	307m NW	Mill Pond	1892 - 1905	1515674
Q	308m NW	Unspecified Works	1974 - 1988	1504282
8	328m SE	Unspecified Mills	1955 - 1967	1548408
R	330m SE	Unspecified Mills	1931	1504822
R	332m SE	Unspecified Mills	1938	1526057
R	335m SE	Unspecified Mills	1892 - 1931	1500146
R	335m SE	Unspecified Mills	1948	1538567
S	341m E	Refuse Destructor	1948	1497217
S	341m E	Refuse Destructor	1905 - 1931	1507563
T	341m S	Unspecified Ground Workings	1967	1482985
U	347m NE	Colliery	1892 - 1905	1533054
T	347m SW	Iron Works	1892	1433972
U	352m NE	Unspecified Industrial/Commercial	1938	1447270
U	359m NE	Refuse Heap	1938	1572957
U	359m NE	Refuse Heap	1931	1566688
U	359m NE	Refuse Heap	1948	1569864
T	361m S	Unspecified Ground Workings	1938 - 1948	1565683
U	362m NE	Refuse Heap	1967	1516829
U	363m NE	Refuse Heap	1931	1572031
U	363m NE	Refuse Heap	1955	1562430

ID	Location	Land use	Dates present	Group ID
T	371m SW	Unspecified Ground Workings	1955	1528453
T	372m SW	Unspecified Ground Workings	1931	1552063
W	372m NW	Unspecified Pit	1892	1449606
T	376m SW	Unspecified Heap	1948	1491543
T	376m SW	Unspecified Heap	1931	1581382
X	383m W	Cuttings	1892	1508527
Y	384m SE	Railway Building	1955	1530345
S	385m SE	Railway Station	1931	1571253
Z	385m S	Refuse Heap	1892	1499666
Z	388m S	Unspecified Heap	1967 - 1988	1545095
AA	392m W	Railway Sidings	1955	1521725
Z	392m S	Refuse Heap	1955	1576968
Y	393m SE	Railway Building	1892 - 1905	1499632
Z	396m S	Refuse Heap	1931	1506715
AA	396m W	Railway Sidings	1948	1505846
Z	397m S	Refuse Heap	1938	1511877
Z	398m S	Refuse Heap	1948	1537082
Z	398m S	Refuse Heap	1931	1543122
10	398m W	Nursery	1948	1453481
AA	404m W	Railway Sidings	1931	1485789
AB	405m NE	Electricity Transformer Station	1974 - 1988	1534899
S	405m SE	Refuse Destructor	1931	1505565
U	405m NE	Unspecified Warehouse	1948 - 1955	1521181
S	411m SE	Railway Station	1948 - 1955	1578485
S	412m SE	Railway Station	1938	1497437
S	414m SE	Refuse Destructor	1955	1533821
12	416m W	Colliery	1892 - 1905	1575004
S	416m SE	Railway Station	1967	1578031

ID	Location	Land use	Dates present	Group ID
S	420m SE	Railway Station	1892 - 1931	1513061
S	424m SE	Unspecified Works	1974 - 1988	1532657
X	426m W	Cuttings	1974 - 1988	1546023
X	426m W	Cuttings	1967	1578692
W	426m W	Unspecified Ground Workings	1892	1440218
Q	430m NW	Unspecified Commercial/Industrial	1948	1492764
Q	430m NW	Unspecified Commercial/Industrial	1892 - 1931	1494730
AD	438m N	Railway Sidings	1955	1490316
AD	438m N	Railway Sidings	1967	1500719
AD	439m N	Unspecified Depot	1974 - 1988	1517802
13	450m W	Nursery	1955	1453480
AA	457m W	Railway Sidings	1892 - 1905	1522222
AD	461m N	Railway Sidings	1948	1498559
AD	461m N	Railway Sidings	1905 - 1931	1523191
AD	464m N	Goods Station	1931	1521205
AF	464m NE	Cuttings	1938	1493575
AD	465m N	Railway Building	1955 - 1967	1560607
AG	465m N	Cuttings	1931	1534539
AG	465m N	Cuttings	1905	1535548
AG	465m N	Cuttings	1948	1573744
15	466m N	Unspecified Ground Workings	1905	1440133
AF	469m NE	Cuttings	1931	1518883
AF	469m NE	Cuttings	1931	1574523
AD	470m N	Cuttings	1955	1433517
AF	470m NE	Cuttings	1955	1566619
S	471m E	Refuse Destructor	1931	1541748
S	471m E	Refuse Destructor	1931	1569379
AG	471m N	Cuttings	1981 - 1988	1514410

ID	Location	Land use	Dates present	Group ID
AD	472m N	Goods Station	1938	1494543
AG	472m NE	Cuttings	1967	1521532
AD	472m N	Goods Station	1948	1497271
AD	472m N	Goods Station	1905 - 1931	1503683
AG	474m N	Cuttings	1974	1509011
AD	475m N	Goods Station	1955	1505585
AG	476m N	Cuttings	1938	1569154
AD	477m N	Railway Sidings	1938	1538968
AD	478m N	Goods Station	1967	1492141
AH	480m NE	Cuttings	1938	1567743
AG	481m N	Cuttings	1931	1511924
AH	482m NE	Cuttings	1905 - 1931	1516223
AH	482m NE	Cuttings	1948	1529664
AH	482m NE	Cuttings	1931	1526272
AH	484m NE	Cuttings	1955	1530174
AG	485m N	Cuttings	1955	1504184

This data is sourced from Ordnance Survey / Groundsure.

1.2 Historical tanks

Records within 500m	**106**

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 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**	**Tanks**	**1907**	**234626**
A	**On site**	**Gas Works**	**1907 - 1922**	**247874**

ID	Location	Land use	Dates present	Group ID
A	**On site**	**Gas Works**	**1894**	**251973**
A	**On site**	**Gasholder Station**	**1955 - 1958**	**257282**
A	**On site**	**Gasometer**	**1922**	**259026**
C	**On site**	**Unspecified Tank**	**1933 - 1938**	**252821**
A	1m N	Unspecified Tank	1933 - 1938	249137
A	4m N	Gasometer	1894 - 1907	253006
A	6m N	Gasholder	1956 - 1958	248186
D	7m E	Gas Works	1922	236971
A	7m N	Gasholder Station	1967	258628
A	8m N	Gas Works	1894	236970
A	8m N	Gas Holder Station	1956	236560
D	9m E	Gasholder Station	1967	248911
D	9m E	Gasholder Station	1955	251625
D	9m E	Gasholder Station	1956	247876
D	10m E	Gas Holder Station	1993	236557
D	12m E	Gasometers	1922	237087
D	12m E	Unspecified Tank	1933 - 1938	251582
D	14m E	Gasholder	1967	257515
D	14m E	Gasholder	1955	261629
D	14m E	Gasholder	1956	255490
D	14m E	Gas Holder	1993	237155
D	19m E	Gas Holder Station	1965	249817
D	19m E	Gas Holder Station	1955	251320
D	20m E	Unspecified Tank	1933 - 1938	253753
D	20m E	Unspecified Tank	1894 - 1907	254698
A	20m NE	Gasometer	1894	237238
D	23m E	Gasholder	1956	249272
D	23m E	Gasholder	1955	259156

ID	Location	Land use	Dates present	Group ID
D	23m E	Gasholder	1965	261373
D	51m E	Settling Tanks	1983 - 1988	260217
A	54m NE	Unspecified Tank	1938	239661
D	54m E	Settling Tanks	1995	247684
3	56m W	Unspecified Tank	1970 - 1996	247164
D	57m E	Settling Tanks	1972	246597
D	60m E	Settling Tanks	1972	249484
D	78m E	Settling Tanks	1972 - 1988	245841
D	80m E	Tanks	1955 - 1995	250910
B	99m NW	Tanks	1933 - 1938	254307
F	109m NW	Tanks	1956 - 1958	246602
F	112m NW	Unspecified Tank	1938	239662
5	117m SE	Unspecified Tank	1972 - 1995	250081
E	145m E	Tanks	1933 - 1938	259458
6	150m SW	Unspecified Tank	1938	239663
G	175m NW	Tanks	1991 - 1996	256477
B	183m NW	Tanks	1970 - 1996	254144
E	183m E	Tanks	1922	235915
B	184m NW	Unspecified Tank	1956 - 1958	252332
H	250m NE	Tanks	1955 - 1956	260046
E	252m SE	Unspecified Tank	1972	242778
E	252m E	Tanks	1922	235914
H	260m NE	Unspecified Tank	1967	242797
B	263m NW	Unspecified Tank	1996	246158
B	263m NW	Unspecified Tank	1970	250051
B	267m NW	Unspecified Tank	1958	248487
B	267m NW	Unspecified Tank	1956	246109
B	267m NW	Unspecified Tank	1985 - 1991	261248

ID	Location	Land use	Dates present	Group ID
E	273m E	Tanks	1938	235916
H	274m NE	Unspecified Tank	1967	258188
H	275m NE	Unspecified Tank	1993	246715
E	291m SE	Tanks	1922 - 1938	256164
H	298m NE	Tanks	1907	235912
E	318m SE	Unspecified Tank	1922	242792
E	319m E	Tanks	1933	247393
E	320m E	Tanks	1922	256170
E	332m E	Tanks	1933	253734
E	339m E	Tanks	1933	257676
R	350m SE	Unspecified Tank	1956	256552
R	351m SE	Unspecified Tank	1965	251350
R	351m SE	Unspecified Tank	1972	261383
R	351m SE	Unspecified Tank	1955	262413
E	356m E	Unspecified Tank	1972 - 1983	259719
E	367m E	Unspecified Tank	1972 - 1983	245634
E	382m E	Tanks	1955	246978
E	382m E	Tanks	1965	254076
E	383m E	Tanks	1956	249373
11	408m NE	Unspecified Tank	1967	242798
Q	432m NW	Unspecified Tank	1922	245668
Q	432m NW	Unspecified Tank	1985 - 1991	248276
Q	432m NW	Unspecified Tank	1970	250617
Q	432m NW	Unspecified Tank	1956	261843
Q	433m NW	Unspecified Tank	1958	248762
Q	433m NW	Unspecified Tank	1933 - 1938	248549
AE	447m E	Unspecified Tank	1955 - 1967	253052
AE	449m E	Unspecified Tank	1907	242793

ID	Location	Land use	Dates present	Group ID
Q	452m NW	Unspecified Tank	1956 - 1958	262099
Q	453m NW	Unspecified Tank	1922 - 1938	247266
U	462m NE	Unspecified Tank	1894	242783
U	463m NE	Unspecified Tank	1894	242784
16	481m NW	Unspecified Tank	1956 - 1991	256180
Q	491m NW	Unspecified Tank	1994 - 1996	251484
Q	491m NW	Tanks	1972	254191
Q	491m NW	Tanks	1956	260903
Q	491m NW	Tanks	1958	257500
Q	491m NW	Tanks	1933 - 1938	251229
Q	492m NW	Unspecified Tank	1990	248254
Q	492m NW	Unspecified Tank	1990	251941
Q	492m NW	Unspecified Tank	1972	254490
Q	492m NW	Unspecified Tank	1990	257470
Q	492m NW	Unspecified Tank	1990	259800
Q	492m NW	Unspecified Tank	1990	262201
Q	495m NW	Tanks	1994 - 1996	249877
Q	496m NW	Tanks	1956 - 1990	261219
Q	497m NW	Tanks	1907	249163
S	497m E	Tanks	1955 - 1995	249683

This data is sourced from Ordnance Survey / Groundsure.

1.3 Historical energy features

Records within 500m	61

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 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**	**Electricity Substation**	**1970 - 1997**	**147465**
A	**On site**	**Gasholder Station**	**1955 - 1958**	**149689**
A	**On site**	**Gas Works**	**1894**	**152170**
A	**On site**	**Electricity Substation**	**1956 - 1996**	**156327**
A	**On site**	**Gas Works**	**1907 - 1922**	**159269**
A	**On site**	**Gasometer**	**1922**	**160887**
A	4m N	Gasometer	1894 - 1907	152023
A	6m N	Gasholder	1956 - 1958	149566
D	7m E	Gas Works	1922	144903
A	7m N	Gasholder Station	1967	158120
A	8m N	Gas Works	1894	144902
A	8m N	Gas Holder Station	1956	142048
D	9m E	Gasholder Station	1955	151081
D	9m E	Gasholder Station	1967	153020
D	9m E	Gasholder Station	1956	151106
D	10m E	Gas Holder Station	1993	142046
D	12m E	Gasometers	1922	144963
D	14m E	Gasholder	1955	148070
D	14m E	Gasholder	1967	148627
D	14m E	Gasholder	1956	154094
D	14m E	Gas Holder	1993	145018
D	19m E	Gas Holder Station	1955	156101
D	19m E	Gas Holder Station	1965	160175
A	20m NE	Gasometer	1894	141933
D	23m E	Gasholder	1956	145501
D	23m E	Gasholder	1965	153389
D	23m E	Gasholder	1955	155146
D	76m SE	Electricity Substation	1955 - 1972	147346

ID	Location	Land use	Dates present	Group ID
D	76m SE	Electricity Substation	1983 - 1988	147479
D	77m SE	Electricity Substation	1995	152683
D	77m SE	Electricity Substation	1956	161359
F	112m NW	Electricity Substation	1956 - 1958	161538
B	113m NW	Electricity Substation	1970 - 1996	147536
F	141m NW	Electricity Substation	1970 - 1991	146430
F	141m NW	Electricity Substation	1996	152757
B	153m NW	Electricity Substation	1991 - 1996	147060
G	212m NW	Electricity Substation	1991 - 1996	148349
B	216m NW	Electricity Substation	1956 - 1996	152086
M	218m S	Electricity Substation	1997	155272
M	219m S	Electricity Substation	1970	161189
M	220m S	Electricity Substation	1981 - 1990	153223
E	245m E	Electricity Substation	1995	143261
E	251m E	Electricity Substation	1983 - 1988	153021
E	252m E	Electricity Substation	1972	162331
E	256m E	Electricity Substation	1955 - 1956	145970
R	323m SE	Electricity Substation	1972	143940
7	325m E	Electricity Substation	1972 - 1983	148912
9	332m SW	Electricity Substation	1970 - 1997	156336
AB	398m NE	Electricity Substation	1993	142499
AC	423m SW	Electricity Substation	1981 - 1997	145550
AC	423m SW	Electricity Substation	1970	154448
X	445m W	Electricity Substation	1979	160111
X	445m W	Electricity Substation	1970	150065
Q	448m NW	Electricity Substation	1985	145625
Q	448m NW	Electricity Substation	1991	145786
Q	449m NW	Electricity Substation	1958	160177

ID	Location	Land use	Dates present	Group ID
Q	449m NW	Electricity Substation	1956	156637
Q	449m NW	Electricity Substation	1970	162207
X	449m W	Electricity Substation	1956 - 1958	159514
X	449m W	Electricity Substation	1993	158208
14	451m E	Electricity Substation	1972 - 1995	159234

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 un-grouped 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	16

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 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	83m N	Garage	1985 - 1991	51077
A	83m N	Garage	1956	47450
A	88m N	Garage	1970	49720
A	96m N	Garage	1996	48861
A	97m N	Garage	1958	50830
J	146m N	Garage	1993	47961

ID	Location	Land use	Dates present	Group ID
J	146m N	Garage	1955 - 1967	48721
J	150m N	Garage	1985 - 1991	51326
J	151m N	Garage	1970	49733
L	209m N	Garage	1970	46783
L	209m N	Garage	1956	48223
L	220m N	Garage	1958	51029
V	369m NW	Garage	1970	51584
V	369m NW	Garage	1991	51303
V	370m NW	Garage	1996	47799
V	370m NW	Garage	1985	46915

This data is sourced from Ordnance Survey / Groundsure.

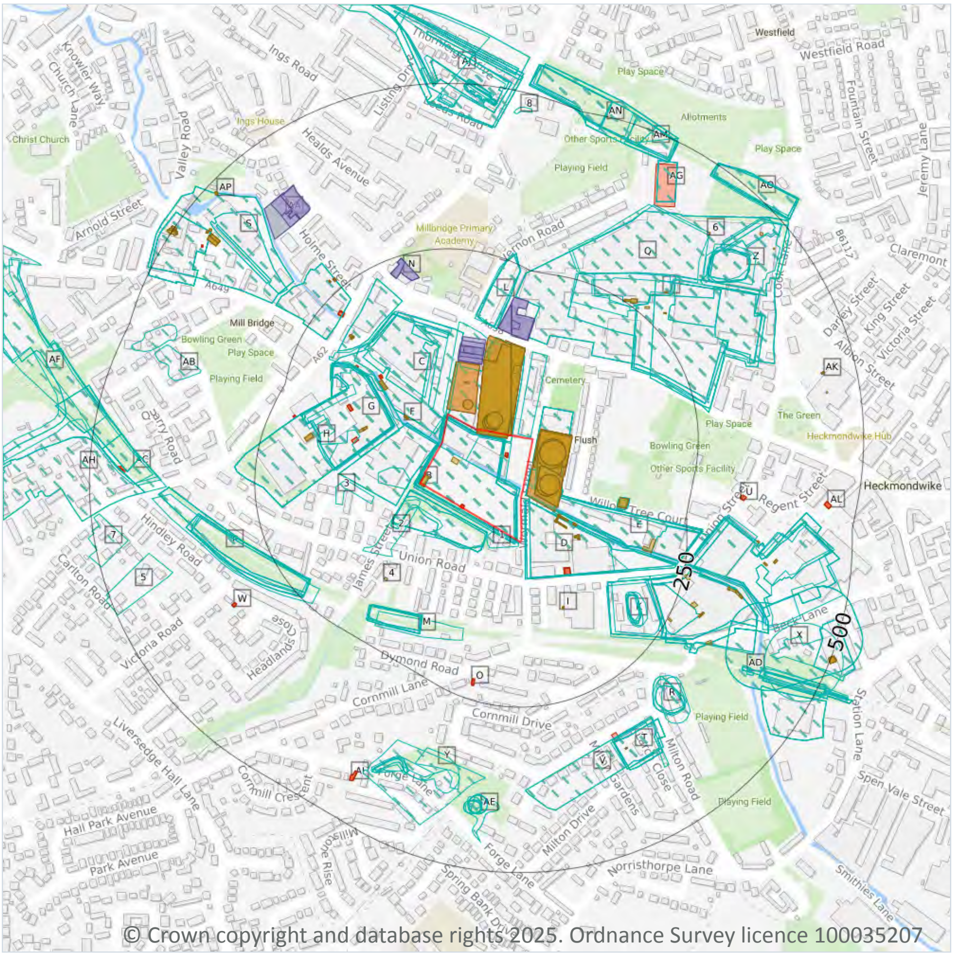
1.6 Historical military land

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	333

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 31 >

ID	Location	Land Use	Date	Group ID
A	**On site**	**Unspecified Tank**	**1938**	**1563677**
A	**On site**	**Unspecified Commercial/Industrial**	**1938**	**1581368**
A	**On site**	**Unspecified Mills**	**1938**	**1499015**

ID	Location	Land Use	Date	Group ID
A	On site	Unspecified Commercial/Industrial	1931	1559405
A	On site	Unspecified Mills	1931	1563170
A	On site	Unspecified Commercial/Industrial	1931	1559405
A	On site	Unspecified Mills	1931	1563170
A	On site	Unspecified Commercial/Industrial	1988	1577568
A	On site	Unspecified Commercial/Industrial	1981	1577568
A	On site	Unspecified Commercial/Industrial	1974	1577568
A	On site	Unspecified Commercial/Industrial	1967	1570400
A	On site	Unspecified Mills	1955	1572751
A	On site	Unspecified Mills	1948	1504530
A	On site	Unspecified Tank	1948	1535830
A	On site	Unspecified Tank	1931	1555780
A	On site	Unspecified Mills	1931	1518278
A	On site	Unspecified Commercial/Industrial	1905	1565925
A	On site	Unspecified Commercial/Industrial	1905	1559405
A	On site	Gasometer	1905	1436939
A	On site	Unspecified Tank	1892	1495690
A	On site	Unspecified Commercial/Industrial	1892	1559405
A	On site	Unspecified Commercial/Industrial	1892	1526205
B	On site	Unspecified Tank	1938	1526426
B	On site	Unspecified Tank	1931	1534295
B	On site	Unspecified Tank	1931	1534295
B	On site	Unspecified Tank	1955	1546688
C	On site	Unspecified Works	1988	1500359
C	On site	Unspecified Works	1981	1500359
C	On site	Unspecified Works	1974	1500359
C	On site	Unspecified Commercial/Industrial	1905	1498836
C	On site	Unspecified Commercial/Industrial	1892	1498836

ID	Location	Land Use	Date	Group ID
A	1m N	Unspecified Tank	1931	1526337
A	1m N	Unspecified Tank	1931	1526337
A	1m N	Unspecified Tank	1955	1505194
1	2m SW	Unspecified Ground Workings	1892	1438748
A	2m N	Unspecified Depot	1988	1445415
A	3m N	Unspecified Commercial/Industrial	1988	1532166
A	3m N	Unspecified Commercial/Industrial	1981	1532166
A	3m N	Unspecified Commercial/Industrial	1974	1532166
A	3m N	Unspecified Commercial/Industrial	1967	1532166
A	5m N	Unspecified Tank	1967	1505194
D	5m E	Unspecified Mills	1938	1533932
B	6m NW	Unspecified Depot	1988	1509059
B	6m NW	Unspecified Depot	1981	1509059
B	6m NW	Unspecified Depot	1974	1509059
E	6m E	Unspecified Commercial/Industrial	1988	1541330
E	6m E	Unspecified Commercial/Industrial	1981	1541330
E	6m E	Unspecified Works	1974	1531174
E	6m E	Unspecified Works	1967	1531174
E	6m E	Unspecified Mills	1955	1541564
D	6m E	Unspecified Works	1967	1489794
C	7m W	Unspecified Mills	1938	1445930
D	7m E	Unspecified Commercial/Industrial	1988	1504242
D	7m E	Unspecified Commercial/Industrial	1981	1504242
D	7m E	Unspecified Commercial/Industrial	1974	1504242
D	7m E	Unspecified Commercial/Industrial	1967	1504242
D	7m E	Unspecified Commercial/Industrial	1955	1504242
D	7m E	Unspecified Mills	1931	1580699
D	7m E	Unspecified Mills	1931	1580699

ID	Location	Land Use	Date	Group ID
D	9m E	Unspecified Tank	1988	1551433
D	9m E	Unspecified Tank	1981	1551433
D	9m E	Unspecified Tank	1974	1551433
D	9m E	Unspecified Tank	1967	1551433
D	9m E	Unspecified Tank	1955	1551433
D	11m E	Unspecified Tanks	1938	1488362
D	11m E	Unspecified Tank	1948	1561747
D	11m E	Unspecified Tank	1931	1512814
D	12m E	Unspecified Works	1988	1490224
D	12m E	Unspecified Works	1981	1490224
A	13m SW	Unspecified Heap	1988	1554195
A	13m SW	Unspecified Heap	1981	1554195
A	13m SW	Unspecified Heap	1974	1554195
A	13m SW	Unspecified Heap	1967	1554195
A	13m SW	Refuse Heap	1955	1556573
A	14m SW	Refuse Heap	1938	1548049
D	14m E	Unspecified Tanks	1931	1541265
D	14m E	Unspecified Tanks	1931	1541265
B	15m W	Unspecified Heap	1967	1466241
A	17m SW	Refuse Heap	1948	1577588
A	17m SW	Refuse Heap	1931	1536856
D	19m E	Unspecified Tank	1967	1560390
D	19m E	Unspecified Tank	1955	1560390
2	23m SW	Unspecified Ground Workings	1892	1438747
D	28m E	Unspecified Tank	1948	1523091
D	28m E	Unspecified Tank	1931	1572762
D	28m E	Unspecified Tank	1905	1572762
D	28m E	Unspecified Tank	1892	1572762

ID	Location	Land Use	Date	Group ID
C	43m NW	Carpet Works	1967	1447176
C	44m NW	Unspecified Commercial/Industrial	1948	1578801
C	44m NW	Unspecified Commercial/Industrial	1931	1498142
E	48m E	Unspecified Mills	1948	1541564
E	48m E	Unspecified Mills	1931	1496601
E	51m E	Unspecified Commercial/Industrial	1931	1538230
E	51m E	Unspecified Commercial/Industrial	1931	1538230
G	65m NW	Unspecified Commercial/Industrial	1892	1431553
3	73m W	Unspecified Ground Workings	1967	1438749
G	74m NW	Unspecified Mills	1905	1536646
G	75m NW	Unspecified Mills	1931	1565534
G	75m NW	Unspecified Mills	1931	1565534
G	75m NW	Unspecified Mills	1938	1505376
G	77m NW	Unspecified Mills	1948	1495944
G	77m NW	Unspecified Mills	1931	1561754
H	77m NW	Unspecified Mills	1988	1556866
H	77m NW	Unspecified Mills	1981	1556866
H	77m NW	Unspecified Mills	1974	1556866
H	77m NW	Unspecified Mills	1967	1556866
H	77m NW	Unspecified Mills	1955	1556866
E	144m E	Unspecified Tanks	1948	1498737
E	144m E	Unspecified Tanks	1931	1561642
E	145m SE	Unspecified Works	1981	1540165
E	145m SE	Unspecified Works	1974	1540165
E	145m SE	Unspecified Works	1967	1540165
E	145m SE	Unspecified Mills	1955	1445931
J	145m N	Unspecified Mills	1988	1487254
J	145m N	Unspecified Mills	1981	1487254

ID	Location	Land Use	Date	Group ID
J	145m N	Unspecified Mills	1974	1487254
E	145m E	Unspecified Tanks	1938	1492851
K	145m SE	Disused Colliery	1905	1447186
E	147m E	Unspecified Tanks	1931	1512539
E	147m E	Unspecified Tanks	1931	1512539
E	147m E	Unspecified Tanks	1955	1498737
L	149m NE	Tramway Depot	1948	1540214
L	149m NE	Tramway Depot	1931	1579768
L	149m NE	Tramway Depot	1905	1579768
L	149m NE	Tramway Terminus	1905	1445099
L	149m NE	Tramway Depot	1938	1536654
L	150m NE	Omnibus Depot	1955	1479261
K	151m SE	Unspecified Works	1988	1507979
M	156m SW	Cuttings	1892	1582427
C	165m NW	Unspecified Covered Tank	1905	1541022
C	165m NW	Unspecified Covered Tank	1892	1541022
M	171m SW	Cuttings	1931	1517525
M	171m SW	Cuttings	1931	1517525
M	173m SW	Cuttings	1938	1572941
M	173m SW	Cuttings	1955	1571231
M	174m SW	Cuttings	1948	1572941
M	174m SW	Cuttings	1931	1572941
M	174m SW	Cuttings	1905	1572941
K	178m SE	Refuse Heap	1938	1540978
K	178m SE	Refuse Heap	1955	1557563
K	180m SE	Refuse Heap	1967	1483972
K	181m SE	Refuse Heap	1948	1540978
K	181m SE	Refuse Heap	1931	1572970

ID	Location	Land Use	Date	Group ID
K	181m SE	Refuse Heap	1905	1572970
K	182m SE	Refuse Heap	1931	1572970
K	182m SE	Refuse Heap	1931	1572970
J	183m NE	Unspecified Commercial/Industrial	1948	1551413
J	183m NE	Unspecified Commercial/Industrial	1931	1510530
J	185m NE	Unspecified Industrial/Commercial	1938	1447271
J	187m NE	Tramway Depot	1931	1534223
J	187m NE	Tramway Depot	1931	1534223
E	196m E	Unspecified Commercial/Industrial	1905	1526197
E	196m E	Unspecified Mills	1892	1506930
E	197m E	Union Mills	1938	1552874
E	199m E	Union Mills	1931	1512300
E	199m E	Union Mills	1931	1512300
J	200m NE	Unspecified Commercial/Industrial	1905	1488627
J	200m NE	Unspecified Commercial/Industrial	1892	1488627
E	201m E	Unspecified Works	1988	1499992
E	207m E	Mill Pond	1905	1511801
E	207m E	Mill Pond	1892	1511801
E	207m E	Unspecified Commercial/Industrial	1948	1549289
E	207m E	Unspecified Commercial/Industrial	1931	1535426
E	207m E	Unspecified Commercial/Industrial	1905	1535426
E	207m E	Unspecified Commercial/Industrial	1892	1535426
C	215m NW	Unspecified Works	1988	1572516
C	215m NW	Unspecified Works	1981	1572516
C	215m NW	Unspecified Works	1974	1572516
J	216m N	Unspecified Depot	1931	1445416
P	221m SW	Cuttings	1988	1546266
P	221m SW	Cuttings	1981	1546266

ID	Location	Land Use	Date	Group ID
P	221m SW	Cuttings	1974	1546266
P	221m SW	Cuttings	1967	1546266
P	221m SW	Cuttings	1892	1564116
P	222m SW	Cuttings	1931	1581999
P	222m SW	Cuttings	1931	1581999
P	223m SW	Cuttings	1948	1529638
P	223m SW	Cuttings	1931	1514219
P	223m SW	Cuttings	1905	1514219
P	223m SW	Cuttings	1938	1541894
P	227m SW	Cuttings	1955	1566358
Q	237m NE	Unspecified Commercial/Industrial	1948	1571374
Q	240m NE	Woollen Mills	1967	1446377
E	250m E	Unspecified Industrial/Commercial	1938	1447239
E	252m E	Unspecified Mills	1967	1523132
E	253m E	Unspecified Commercial/Industrial	1931	1578886
E	253m E	Unspecified Commercial/Industrial	1931	1578886
E	256m E	Unspecified Mill	1981	1448305
J	273m NE	Mill Ponds	1905	1509953
J	273m NE	Mill Ponds	1892	1509953
R	292m SE	Refuse Heap	1948	1550078
R	292m SE	Refuse Heap	1931	1483025
R	294m SE	Refuse Heap	1955	1550078
R	296m SE	Refuse Heap	1938	1496265
R	304m SE	Refuse Heap	1931	1531881
R	304m SE	Refuse Heap	1931	1531881
R	304m SE	Unspecified Heap	1967	1466247
S	307m NW	Mill Pond	1905	1515674
S	307m NW	Mill Pond	1892	1515674

ID	Location	Land Use	Date	Group ID
S	308m NW	Unspecified Works	1988	1504282
S	308m NW	Unspecified Works	1981	1504282
S	308m NW	Unspecified Works	1974	1504282
V	328m SE	Unspecified Mills	1967	1548408
V	328m SE	Unspecified Mills	1955	1548408
T	330m SE	Unspecified Mills	1931	1504822
T	330m SE	Unspecified Mills	1931	1504822
T	332m SE	Unspecified Mills	1938	1526057
T	335m SE	Unspecified Mills	1948	1538567
T	335m SE	Unspecified Mills	1931	1500146
T	335m SE	Unspecified Mills	1905	1500146
T	335m SE	Unspecified Mills	1892	1500146
X	341m E	Refuse Destructor	1948	1497217
X	341m E	Refuse Destructor	1931	1507563
X	341m E	Refuse Destructor	1905	1507563
Y	341m S	Unspecified Ground Workings	1967	1482985
Z	347m NE	Colliery	1905	1533054
Z	347m NE	Colliery	1892	1533054
Y	347m SW	Iron Works	1892	1433972
Z	352m NE	Unspecified Industrial/Commercial	1938	1447270
Z	359m NE	Refuse Heap	1938	1572957
Z	359m NE	Refuse Heap	1948	1569864
Z	359m NE	Refuse Heap	1931	1566688
Y	361m S	Unspecified Ground Workings	1948	1565683
Z	362m NE	Refuse Heap	1967	1516829
Z	363m NE	Refuse Heap	1931	1572031
Z	363m NE	Refuse Heap	1931	1572031
Z	363m NE	Refuse Heap	1955	1562430

ID	Location	Land Use	Date	Group ID
Y	371m SW	Unspecified Ground Workings	1955	1528453
Y	372m SW	Unspecified Ground Workings	1931	1552063
Y	372m SW	Unspecified Ground Workings	1931	1552063
AB	372m NW	Unspecified Pit	1892	1449606
Y	374m SW	Unspecified Ground Workings	1938	1565683
Y	376m SW	Unspecified Heap	1948	1491543
Y	376m SW	Unspecified Heap	1931	1581382
AC	383m W	Cuttings	1892	1508527
AD	384m SE	Railway Building	1955	1530345
X	385m SE	Railway Station	1931	1571253
X	385m SE	Railway Station	1931	1571253
AE	385m S	Refuse Heap	1892	1499666
AE	388m S	Unspecified Heap	1988	1545095
AE	388m S	Unspecified Heap	1981	1545095
AE	388m S	Unspecified Heap	1974	1545095
AE	388m S	Unspecified Heap	1967	1545095
AF	392m W	Railway Sidings	1955	1521725
AE	392m S	Refuse Heap	1955	1576968
AD	393m SE	Railway Building	1905	1499632
AD	393m SE	Railway Building	1892	1499632
AE	396m S	Refuse Heap	1931	1506715
AE	396m S	Refuse Heap	1931	1506715
AF	396m W	Railway Sidings	1948	1505846
AE	397m S	Refuse Heap	1938	1511877
AE	398m S	Refuse Heap	1948	1537082
AE	398m S	Refuse Heap	1931	1543122
5	398m W	Nursery	1948	1453481
AF	404m W	Railway Sidings	1931	1485789

ID	Location	Land Use	Date	Group ID
AG	405m NE	Electricity Transformer Station	1988	1534899
AG	405m NE	Electricity Transformer Station	1981	1534899
AG	405m NE	Electricity Transformer Station	1974	1534899
X	405m SE	Refuse Destructor	1931	1505565
Z	405m NE	Unspecified Warehouse	1948	1521181
Z	408m NE	Unspecified Warehouse	1955	1521181
X	411m SE	Railway Station	1955	1578485
X	412m SE	Railway Station	1938	1497437
X	414m SE	Refuse Destructor	1955	1533821
AH	416m W	Colliery	1905	1575004
AH	416m W	Colliery	1892	1575004
X	416m SE	Railway Station	1967	1578031
X	420m SE	Railway Station	1948	1578485
X	420m SE	Railway Station	1931	1513061
X	420m SE	Railway Station	1905	1513061
X	420m SE	Railway Station	1892	1513061
X	424m SE	Unspecified Works	1988	1532657
X	424m SE	Unspecified Works	1981	1532657
X	424m SE	Unspecified Works	1974	1532657
AC	426m W	Cuttings	1988	1546023
AC	426m W	Cuttings	1981	1546023
AC	426m W	Cuttings	1974	1546023
AC	426m W	Cuttings	1967	1578692
AB	426m W	Unspecified Ground Workings	1892	1440218
S	430m NW	Unspecified Commercial/Industrial	1948	1492764
S	430m NW	Unspecified Commercial/Industrial	1931	1494730
S	430m NW	Unspecified Commercial/Industrial	1905	1494730
S	430m NW	Unspecified Commercial/Industrial	1892	1494730

ID	Location	Land Use	Date	Group ID
AJ	438m N	Railway Sidings	1967	1500719
AJ	438m N	Railway Sidings	1955	1490316
AJ	439m N	Unspecified Depot	1988	1517802
AJ	439m N	Unspecified Depot	1981	1517802
AJ	439m N	Unspecified Depot	1974	1517802
7	450m W	Nursery	1955	1453480
AF	457m W	Railway Sidings	1905	1522222
AF	457m W	Railway Sidings	1892	1522222
AJ	461m N	Railway Sidings	1948	1498559
AJ	461m N	Railway Sidings	1931	1523191
AJ	461m N	Railway Sidings	1905	1523191
AJ	464m N	Goods Station	1931	1521205
AJ	464m N	Goods Station	1931	1521205
AM	464m NE	Cuttings	1938	1493575
AJ	465m N	Railway Building	1967	1560607
AN	465m N	Cuttings	1948	1573744
AN	465m N	Cuttings	1931	1534539
AN	465m N	Cuttings	1905	1535548
8	466m N	Unspecified Ground Workings	1905	1440133
AJ	466m N	Railway Building	1955	1560607
AM	469m NE	Cuttings	1931	1574523
AM	469m NE	Cuttings	1931	1518883
AJ	470m N	Cuttings	1955	1433517
AM	470m NE	Cuttings	1955	1566619
X	471m E	Refuse Destructor	1931	1541748
X	471m E	Refuse Destructor	1931	1569379
AN	471m N	Cuttings	1988	1514410
AN	471m N	Cuttings	1981	1514410

ID	Location	Land Use	Date	Group ID
AJ	472m N	Goods Station	1938	1494543
AN	472m NE	Cuttings	1967	1521532
AJ	472m N	Goods Station	1948	1497271
AJ	472m N	Goods Station	1931	1503683
AJ	472m N	Goods Station	1905	1503683
AN	474m N	Cuttings	1974	1509011
AJ	475m N	Goods Station	1955	1505585
AN	476m N	Cuttings	1938	1569154
AJ	477m N	Railway Sidings	1938	1538968
AJ	478m N	Railway Sidings	1931	1523191
AJ	478m N	Railway Sidings	1931	1523191
AJ	478m N	Goods Station	1967	1492141
AO	480m NE	Cuttings	1938	1567743
AN	481m N	Cuttings	1931	1511924
AN	481m N	Cuttings	1931	1511924
AO	482m NE	Cuttings	1948	1529664
AO	482m NE	Cuttings	1931	1516223
AO	482m NE	Cuttings	1905	1516223
AO	482m NE	Cuttings	1931	1526272
AO	482m NE	Cuttings	1931	1526272
AO	484m NE	Cuttings	1955	1530174
AN	485m N	Cuttings	1955	1504184

This data is sourced from Ordnance Survey / Groundsure.

2.2 Historical tanks

Records within 500m	178

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 31 >**

ID	Location	Land Use	Date	Group ID
A	**On site**	**Gasholder Station**	**1956**	**257282**
A	**On site**	**Gasholder Station**	**1958**	**257282**
A	**On site**	**Gas Works**	**1894**	**251973**
A	**On site**	**Gas Works**	**1907**	**247874**
A	**On site**	**Tanks**	**1907**	**234626**
A	**On site**	**Gas Works**	**1922**	**247874**
A	**On site**	**Gasometer**	**1922**	**259026**
B	**On site**	**Unspecified Tank**	**1933**	**252821**
B	**On site**	**Unspecified Tank**	**1938**	**252821**
A	1m N	Unspecified Tank	1938	249137
A	4m N	Gasometer	1894	253006
A	4m N	Gasometer	1907	253006
A	4m N	Unspecified Tank	1933	249137
A	6m N	Gasholder	1956	248186
A	6m N	Gasholder	1958	248186
D	7m E	Gas Works	1922	236971
A	7m N	Gasholder Station	1967	258628
A	7m N	Gasholder Station	1955	257282
A	8m N	Gas Works	1894	236970
A	8m N	Gas Holder Station	1956	236560
D	9m E	Gasholder Station	1967	248911
D	9m E	Gasholder Station	1955	251625
D	9m E	Gasholder Station	1956	247876
D	10m E	Gas Holder Station	1993	236557
D	12m E	Gasometers	1922	237087
D	12m E	Unspecified Tank	1933	251582
D	12m E	Unspecified Tank	1938	251582

ID	Location	Land Use	Date	Group ID
D	14m E	Gasholder	1967	257515
D	14m E	Gasholder	1955	261629
D	14m E	Gasholder	1956	255490
D	14m E	Gas Holder	1993	237155
D	19m E	Gas Holder Station	1965	249817
D	19m E	Gas Holder Station	1955	251320
D	20m E	Unspecified Tank	1894	254698
D	20m E	Unspecified Tank	1907	254698
D	20m E	Unspecified Tank	1933	253753
D	20m E	Unspecified Tank	1938	253753
A	20m NE	Gasometer	1894	237238
D	23m E	Gasholder	1956	249272
D	23m E	Gasholder	1965	261373
D	23m E	Gasholder	1955	259156
D	51m E	Settling Tanks	1983	260217
D	51m E	Settling Tanks	1988	260217
D	51m E	Settling Tanks	1988	260217
A	54m NE	Unspecified Tank	1938	239661
D	54m E	Settling Tanks	1995	247684
F	56m W	Unspecified Tank	1970	247164
F	57m W	Unspecified Tank	1996	247164
D	57m E	Settling Tanks	1972	246597
F	58m W	Unspecified Tank	1985	247164
F	58m W	Unspecified Tank	1991	247164
D	60m E	Settling Tanks	1972	249484
D	78m E	Settling Tanks	1983	245841
D	78m E	Settling Tanks	1988	245841
D	78m E	Settling Tanks	1988	245841

ID	Location	Land Use	Date	Group ID
D	78m E	Settling Tanks	1972	245841
D	80m E	Tanks	1983	250910
D	80m E	Tanks	1988	250910
D	80m E	Tanks	1988	250910
D	80m E	Tanks	1965	250910
D	80m E	Tanks	1955	250910
D	80m E	Tanks	1972	250910
D	81m E	Tanks	1995	250910
D	81m E	Tanks	1956	250910
C	99m NW	Tanks	1933	254307
C	99m NW	Tanks	1938	254307
G	109m NW	Tanks	1956	246602
G	109m NW	Tanks	1958	246602
G	112m NW	Unspecified Tank	1938	239662
I	117m SE	Unspecified Tank	1995	250081
I	118m SE	Unspecified Tank	1983	250081
I	118m SE	Unspecified Tank	1988	250081
I	118m SE	Unspecified Tank	1988	250081
I	118m SE	Unspecified Tank	1972	250081
E	145m E	Tanks	1933	259458
E	145m E	Tanks	1938	259458
4	150m SW	Unspecified Tank	1938	239663
H	175m NW	Tanks	1996	256477
H	176m NW	Tanks	1991	256477
C	183m NW	Tanks	1996	254144
C	183m NW	Tanks	1970	254144
E	183m E	Tanks	1922	235915
C	184m NW	Unspecified Tank	1958	252332

ID	Location	Land Use	Date	Group ID
C	184m NW	Unspecified Tank	1956	252332
C	184m NW	Tanks	1985	254144
C	184m NW	Tanks	1991	254144
J	250m NE	Tanks	1956	260046
J	250m NE	Tanks	1955	260046
E	252m SE	Unspecified Tank	1972	242778
E	252m E	Tanks	1922	235914
J	260m NE	Unspecified Tank	1967	242797
C	263m NW	Unspecified Tank	1996	246158
C	263m NW	Unspecified Tank	1970	250051
C	267m NW	Unspecified Tank	1958	248487
C	267m NW	Unspecified Tank	1956	246109
C	267m NW	Unspecified Tank	1985	261248
C	267m NW	Unspecified Tank	1991	261248
E	273m E	Tanks	1938	235916
J	274m NE	Unspecified Tank	1967	258188
J	275m NE	Unspecified Tank	1993	246715
E	291m SE	Tanks	1933	256164
E	291m SE	Tanks	1938	256164
E	291m SE	Tanks	1922	256164
J	298m NE	Tanks	1907	235912
E	318m SE	Unspecified Tank	1922	242792
E	319m E	Tanks	1933	247393
E	320m E	Tanks	1922	256170
E	332m E	Tanks	1933	253734
E	339m E	Tanks	1933	257676
T	350m SE	Unspecified Tank	1956	256552
T	351m SE	Unspecified Tank	1965	251350

ID	Location	Land Use	Date	Group ID
T	351m SE	Unspecified Tank	1955	262413
T	351m SE	Unspecified Tank	1972	261383
E	356m E	Unspecified Tank	1983	259719
E	356m E	Unspecified Tank	1972	259719
E	367m E	Unspecified Tank	1983	245634
E	368m E	Unspecified Tank	1972	245634
E	382m E	Tanks	1965	254076
E	382m E	Tanks	1955	246978
E	383m E	Tanks	1956	249373
6	408m NE	Unspecified Tank	1967	242798
S	432m NW	Unspecified Tank	1922	245668
S	432m NW	Unspecified Tank	1985	248276
S	432m NW	Unspecified Tank	1991	248276
S	432m NW	Unspecified Tank	1970	250617
S	432m NW	Unspecified Tank	1956	261843
S	433m NW	Unspecified Tank	1958	248762
S	433m NW	Unspecified Tank	1933	248549
S	433m NW	Unspecified Tank	1938	248549
AK	447m E	Unspecified Tank	1967	253052
AK	447m E	Unspecified Tank	1955	253052
AK	447m E	Unspecified Tank	1956	253052
AK	449m E	Unspecified Tank	1907	242793
S	452m NW	Unspecified Tank	1958	262099
S	452m NW	Unspecified Tank	1956	262099
S	453m NW	Unspecified Tank	1922	247266
S	454m NW	Unspecified Tank	1933	247266
S	454m NW	Unspecified Tank	1938	247266
Z	462m NE	Unspecified Tank	1894	242783

ID	Location	Land Use	Date	Group ID
Z	463m NE	Unspecified Tank	1894	242784
AP	481m NW	Unspecified Tank	1958	256180
AP	481m NW	Unspecified Tank	1985	256180
AP	481m NW	Unspecified Tank	1991	256180
AP	482m NW	Unspecified Tank	1970	256180
AP	482m NW	Unspecified Tank	1956	256180
S	491m NW	Unspecified Tank	1994	251484
S	491m NW	Unspecified Tank	1996	251484
S	491m NW	Tanks	1972	254191
S	491m NW	Tanks	1956	260903
S	491m NW	Tanks	1958	257500
S	491m NW	Tanks	1933	251229
S	491m NW	Tanks	1938	251229
S	492m NW	Unspecified Tank	1972	254490
S	492m NW	Unspecified Tank	1990	257470
S	492m NW	Unspecified Tank	1990	251941
S	492m NW	Unspecified Tank	1990	248254
S	492m NW	Unspecified Tank	1990	259800
S	492m NW	Unspecified Tank	1990	262201
S	495m NW	Tanks	1994	249877
S	495m NW	Tanks	1996	249877
S	496m NW	Tanks	1958	261219
S	496m NW	Tanks	1972	261219
S	496m NW	Tanks	1956	261219
S	496m NW	Tanks	1972	261219
S	496m NW	Tanks	1990	261219
S	496m NW	Tanks	1990	261219
S	496m NW	Tanks	1990	261219

ID	Location	Land Use	Date	Group ID
S	496m NW	Tanks	1990	261219
S	496m NW	Tanks	1990	261219
S	497m NW	Tanks	1907	249163
X	497m E	Tanks	1983	249683
X	497m E	Tanks	1988	249683
X	497m E	Tanks	1988	249683
X	497m E	Tanks	1995	249683
X	497m E	Tanks	1965	249683
X	497m E	Tanks	1955	249683
X	497m E	Tanks	1972	249683
X	498m E	Tanks	1956	249683

This data is sourced from Ordnance Survey / Groundsure.

2.3 Historical energy features

Records within 500m	**108**

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 31 >**

ID	Location	Land Use	Date	Group ID
A	**On site**	**Electricity Substation**	**1996**	**156327**
A	**On site**	**Electricity Substation**	**1997**	**147465**
A	**On site**	**Electricity Substation**	**1970**	**156327**
A	**On site**	**Electricity Substation**	**1970**	**147465**
A	**On site**	**Gasholder Station**	**1956**	**149689**
A	**On site**	**Electricity Substation**	**1956**	**156327**
A	**On site**	**Electricity Substation**	**1985**	**156327**
A	**On site**	**Electricity Substation**	**1991**	**156327**
A	**On site**	**Electricity Substation**	**1981**	**147465**

ID	Location	Land Use	Date	Group ID
A	**On site**	**Electricity Substation**	**1990**	**147465**
A	**On site**	**Electricity Substation**	**1990**	**147465**
A	**On site**	**Electricity Substation**	**1958**	**156327**
A	**On site**	**Gasholder Station**	**1958**	**149689**
A	**On site**	**Gas Works**	**1894**	**152170**
A	**On site**	**Gas Works**	**1907**	**159269**
A	**On site**	**Gas Works**	**1922**	**159269**
A	**On site**	**Gasometer**	**1922**	**160887**
A	4m N	Gasometer	1894	152023
A	4m N	Gasometer	1907	152023
A	6m N	Gasholder	1956	149566
A	6m N	Gasholder	1958	149566
D	7m E	Gas Works	1922	144903
A	7m N	Gasholder Station	1967	158120
A	7m N	Gasholder Station	1955	149689
A	8m N	Gas Works	1894	144902
A	8m N	Gas Holder Station	1956	142048
D	9m E	Gasholder Station	1967	153020
D	9m E	Gasholder Station	1955	151081
D	9m E	Gasholder Station	1956	151106
D	10m E	Gas Holder Station	1993	142046
D	12m E	Gasometers	1922	144963
D	14m E	Gasholder	1967	148627
D	14m E	Gasholder	1955	148070
D	14m E	Gasholder	1956	154094
D	14m E	Gas Holder	1993	145018
D	19m E	Gas Holder Station	1965	160175
D	19m E	Gas Holder Station	1955	156101

ID	Location	Land Use	Date	Group ID
A	20m NE	Gasometer	1894	141933
D	23m E	Gasholder	1956	145501
D	23m E	Gasholder	1965	153389
D	23m E	Gasholder	1955	155146
D	76m SE	Electricity Substation	1972	147346
D	76m SE	Electricity Substation	1983	147479
D	76m SE	Electricity Substation	1988	147479
D	76m SE	Electricity Substation	1988	147479
D	77m SE	Electricity Substation	1995	152683
D	77m SE	Electricity Substation	1955	147346
D	77m SE	Electricity Substation	1956	161359
G	112m NW	Electricity Substation	1958	161538
G	112m NW	Electricity Substation	1956	161538
C	113m NW	Electricity Substation	1985	147536
C	113m NW	Electricity Substation	1991	147536
C	114m NW	Electricity Substation	1970	147536
C	115m NW	Electricity Substation	1996	147536
G	141m NW	Electricity Substation	1970	146430
G	141m NW	Electricity Substation	1996	152757
G	143m NW	Electricity Substation	1985	146430
G	143m NW	Electricity Substation	1991	146430
C	153m NW	Electricity Substation	1996	147060
C	154m NW	Electricity Substation	1991	147060
H	212m NW	Electricity Substation	1996	148349
H	214m NW	Electricity Substation	1991	148349
C	216m NW	Electricity Substation	1970	152086
C	216m NW	Electricity Substation	1956	152086
C	217m NW	Electricity Substation	1958	152086

ID	Location	Land Use	Date	Group ID
C	217m NW	Electricity Substation	1996	152086
C	218m NW	Electricity Substation	1985	152086
C	218m NW	Electricity Substation	1991	152086
O	218m S	Electricity Substation	1997	155272
O	219m S	Electricity Substation	1970	161189
O	220m S	Electricity Substation	1981	153223
O	220m S	Electricity Substation	1990	153223
O	220m S	Electricity Substation	1990	153223
E	245m E	Electricity Substation	1995	143261
E	251m E	Electricity Substation	1983	153021
E	251m E	Electricity Substation	1988	153021
E	251m E	Electricity Substation	1988	153021
E	252m E	Electricity Substation	1972	162331
E	256m E	Electricity Substation	1955	145970
E	256m E	Electricity Substation	1956	145970
T	323m SE	Electricity Substation	1972	143940
U	325m E	Electricity Substation	1983	148912
U	327m E	Electricity Substation	1972	148912
W	332m SW	Electricity Substation	1997	156336
W	333m SW	Electricity Substation	1970	156336
W	333m SW	Electricity Substation	1981	156336
W	333m SW	Electricity Substation	1990	156336
W	333m SW	Electricity Substation	1990	156336
AG	398m NE	Electricity Substation	1993	142499
AI	423m SW	Electricity Substation	1997	145550
AI	423m SW	Electricity Substation	1970	154448
AI	424m SW	Electricity Substation	1981	145550
AI	424m SW	Electricity Substation	1990	145550

ID	Location	Land Use	Date	Group ID
AI	424m SW	Electricity Substation	1990	145550
AC	445m W	Electricity Substation	1979	160111
AC	445m W	Electricity Substation	1970	150065
S	448m NW	Electricity Substation	1985	145625
S	448m NW	Electricity Substation	1991	145786
S	449m NW	Electricity Substation	1958	160177
S	449m NW	Electricity Substation	1970	162207
S	449m NW	Electricity Substation	1956	156637
AC	449m W	Electricity Substation	1958	159514
AC	449m W	Electricity Substation	1956	159514
AC	449m W	Electricity Substation	1993	158208
AL	451m E	Electricity Substation	1983	159234
AL	451m E	Electricity Substation	1988	159234
AL	451m E	Electricity Substation	1972	159234
AL	451m E	Electricity Substation	1995	159234

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	20

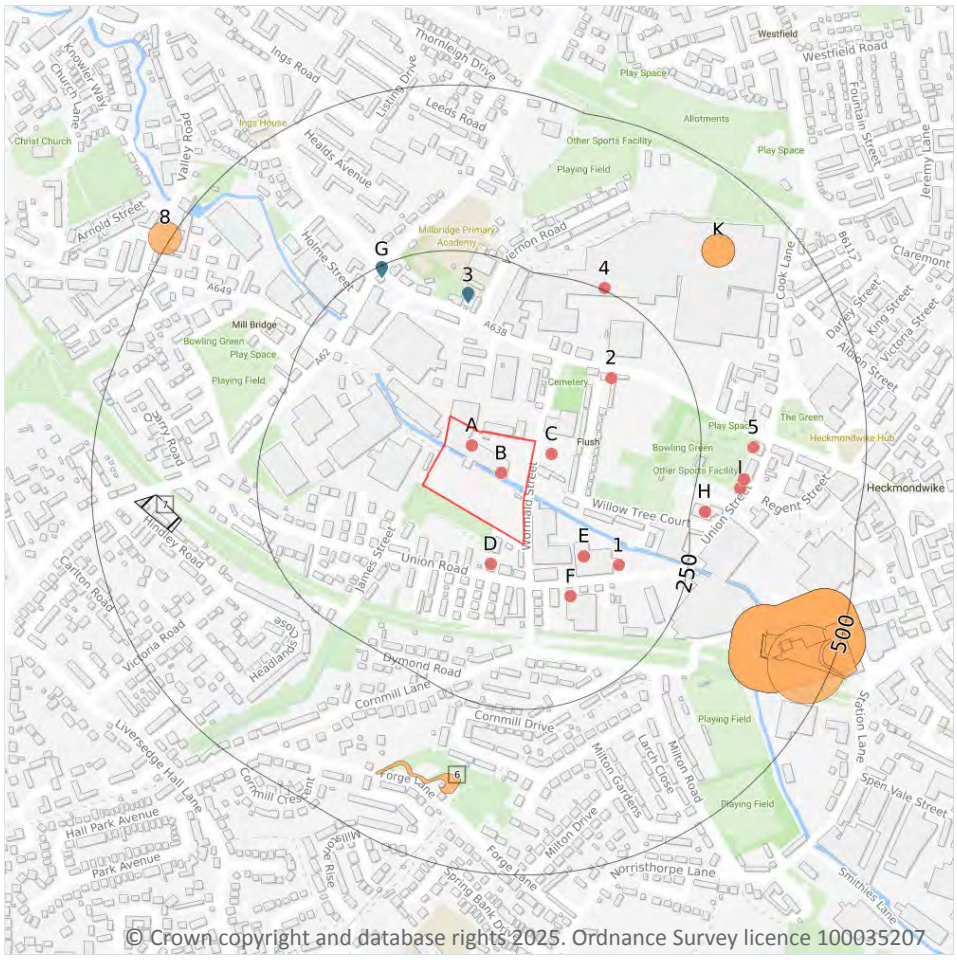
Garages digitised from historical Ordnance Survey mapping at high-detail 1:1,250 and 1:2,500 scale. Any records shown are available intelligently grouped in section 1. Grouped and the original un-grouped features can be cross-referenced across sections 1 and 2 using the 'Group ID'.

Features are displayed on the Past land use - un-grouped map on **page 31 >**

ID	Location	Land Use	Date	Group ID
A	83m N	Garage	1985	51077
A	83m N	Garage	1991	51077
A	83m N	Garage	1956	47450
A	88m N	Garage	1970	49720
A	96m N	Garage	1996	48861
A	97m N	Garage	1958	50830
L	146m N	Garage	1993	47961
L	146m N	Garage	1967	48721
L	146m N	Garage	1955	48721
L	150m N	Garage	1985	51326
L	150m N	Garage	1991	51326
L	151m N	Garage	1970	49733
L	159m N	Garage	1956	48721
N	209m N	Garage	1970	46783
N	209m N	Garage	1956	48223
N	220m N	Garage	1958	51029
AA	369m NW	Garage	1970	51584
AA	369m NW	Garage	1991	51303
AA	370m NW	Garage	1996	47799
AA	370m NW	Garage	1985	46915

This data is sourced from Ordnance Survey / Groundsure.

3 Waste and landfill



3.1 Active or recent landfill

Records within 500m	0

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

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

3.2 Historical landfill (BGS records)

Records within 500m	0

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

This data is sourced from the British Geological Survey.

3.3 Historical landfill (LA/mapping records)

Records within 500m	0

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

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

3.4 Historical landfill (EA/NRW records)

Records within 500m	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 56 >**

ID	Location	Details		
7	368m W	Site Address: Hindley Road, Liversedge Licence Holder Address: -	Waste Licence: - Site Reference: - Waste Type: Inert, Commercial 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	17

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

Features are displayed on the Waste and landfill map on **page 56 >**

ID	Location	Address	Further Details	Date
J	341m E	Site Address: N/A	Type of Site: Refuse Destructor (B) Planning application reference: N/A Description: N/A Data source: Historic Mapping Data Type: Polygon	1948

ID	Location	Address	Further Details	Date
J	341m E	Site Address: N/A	Type of Site: Refuse Destructor (B) Planning application reference: N/A Description: N/A Data source: Historic Mapping Data Type: Polygon	1931
J	341m E	Site Address: N/A	Type of Site: Refuse Destructor (B) Planning application reference: N/A Description: N/A Data source: Historic Mapping Data Type: Polygon	1905
6	363m S	Site Address: N/A	Type of Site: Ground Workings and Refuse Heap Planning application reference: N/A Description: N/A Data source: Historic Mapping Data Type: Polygon	1938
K	374m NE	Site Address: Flush Mills, 17, Westgate, HECKMONDWIKE, West Yorkshire, WF16 0EN	Type of Site: Waste Transfer Station Planning application reference: 2010/62/93074/E0 Description: Scheme comprises change of use to approved authorised treatment facility for recycling of waste electrical and electronic equiment (waste transfer). An application (ref: 2010/62/93074/E0) for detailed planning permission was granted by Kirklees B.C. A detailed planning application has been granted. Data source: Historic Planning Application Data Type: Point	24/07/2011
K	374m NE	Site Address: Flush Mills, 113-115, Westgate, HECKMONDWIKE, West Yorkshire, WF16 0EN	Type of Site: Waste Transfer Station Planning application reference: 2011/62/92088/E Description: Scheme comprises change of use to approved authorized treatment facility (aatf) for preparing re-use and recycling of waste electrical and electronic equipment (weee) and waste transfer of plastics and aluminium. An application (ref: 2011/62/92088/E)r detailed planning permission was submitted to Kirklees B.C. A detailed planning application has been submitted. Data source: Historic Planning Application Data Type: Point	05/03/2012
J	387m E	Site Address: N/A	Type of Site: Refuse Destructor Planning application reference: N/A Description: N/A Data source: Historic Mapping Data Type: Polygon	1907

ID	Location	Address	Further Details	Date
J	387m E	Site Address: N/A	Type of Site: Refuse Destructor Planning application reference: N/A Description: N/A Data source: Historic Mapping Data Type: Polygon	1922
J	387m E	Site Address: N/A	Type of Site: U.D. Council Refuse Destructor Planning application reference: N/A Description: N/A Data source: Historic Mapping Data Type: Polygon	1933
J	387m E	Site Address: N/A	Type of Site: U.D. Council Refuse Destructor Planning application reference: N/A Description: N/A Data source: Historic Mapping Data Type: Polygon	1938
J	390m E	Site Address: N/A	Type of Site: Refuse Destructor Planning application reference: N/A Description: N/A Data source: Historic Mapping Data Type: Polygon	1955
J	405m SE	Site Address: N/A	Type of Site: Refuse Destructor (B) Planning application reference: N/A Description: N/A Data source: Historic Mapping Data Type: Polygon	1931
J	414m E	Site Address: N/A	Type of Site: Refuse Destructor Planning application reference: N/A Description: N/A Data source: Historic Mapping Data Type: Polygon	1938
J	414m SE	Site Address: N/A	Type of Site: Refuse Destructor Planning application reference: N/A Description: N/A Data source: Historic Mapping Data Type: Polygon	1955
J	415m E	Site Address: N/A	Type of Site: Refuse Destructor Planning application reference: N/A Description: N/A Data source: Historic Mapping Data Type: Polygon	1956
J	475m E	Site Address: N/A	Type of Site: Ground Workings and Refuse Heap Planning application reference: N/A Description: N/A Data source: Historic Mapping Data Type: Polygon	1956

ID	Location	Address	Further Details	Date
8	483m NW	Site Address: Site At, Valley Road, Liversedge, West Yorkshire, WF15 6	Type of Site: Taxi Office & Car Breakers Yard Planning application reference: 2013/62/93681/E Description: Scheme comprises construction of taxi office, car breakers and parking and construction of portable building. The associated works include sewer systems, landscaping, infrastructure, enabling works and access roads. Data source: Historic Planning Application Data Type: Point	04/06/2014

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

3.6 Licensed waste sites

Records within 500m	**3**

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

Features are displayed on the Waste and landfill map on **page 56 >**

ID	Location	Details		
3	184m N	Site Name: R C C Autos Ltd Site Address: 7, Vernon Road, Liversedge, West Yorkshire, WF15 6HU Correspondence Address: -	Type of Site: Vehicle Depollution Facility Size: 25000 tonnes Environmental Permitting Regulations (Waste) Licence Number: 629004 EPR reference: EA/EPR/DB3709TG Operator: Rcc Autos Limited Waste Management licence No: 403026 Annual Tonnage: 4999	Issue Date: 14/03/2016 Effective Date: 14/03/2016 Modified: - Surrendered Date: 29/01/2025 Expiry Date: - Cancelled Date: - Status: Surrendered
G	244m NW	Site Name: Rawsons Scrapyard Site Address: Liversedge Goods Yard, Halifax Road, Liversedge, West Yorkshire, WF15 6PS Correspondence Address: -	Type of Site: Metal Recycling Site (Vehicle Dismantler) Size: 25000 tonnes Environmental Permitting Regulations (Waste) Licence Number: MRH001 EPR reference: EA/EPR/HP3094ZX/A001 Operator: Mr Harold Rawson Waste Management licence No: 65019 Annual Tonnage: 4999	Issue Date: 14/10/1998 Effective Date: - Modified: - Surrendered Date: - Expiry Date: - Cancelled Date: - Status: Issued

ID	Location	Details		
G	244m NW	Site Name: Rawsons Scrapyard Site Address: Liversedge Goods Yard, Halifax Road, Liversedge, West Yorkshire, WF15 6PS Correspondence Address: -	Type of Site: Metal Recycling Site (Vehicle Dismantler) Size: 25000 tonnes Environmental Permitting Regulations (Waste) Licence Number: 638596 EPR reference: EA/EPR/HP3094ZX Operator: Robert Robinson Waste Management licence No: 65019 Annual Tonnage: 4999	Issue Date: 14/10/1998 Effective Date: 14/10/1998 Modified: - Surrendered Date: - Expiry Date: - Cancelled Date: - Status: Suspended

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

3.7 Waste exemptions

Records within 500m	**29**

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 56 >**

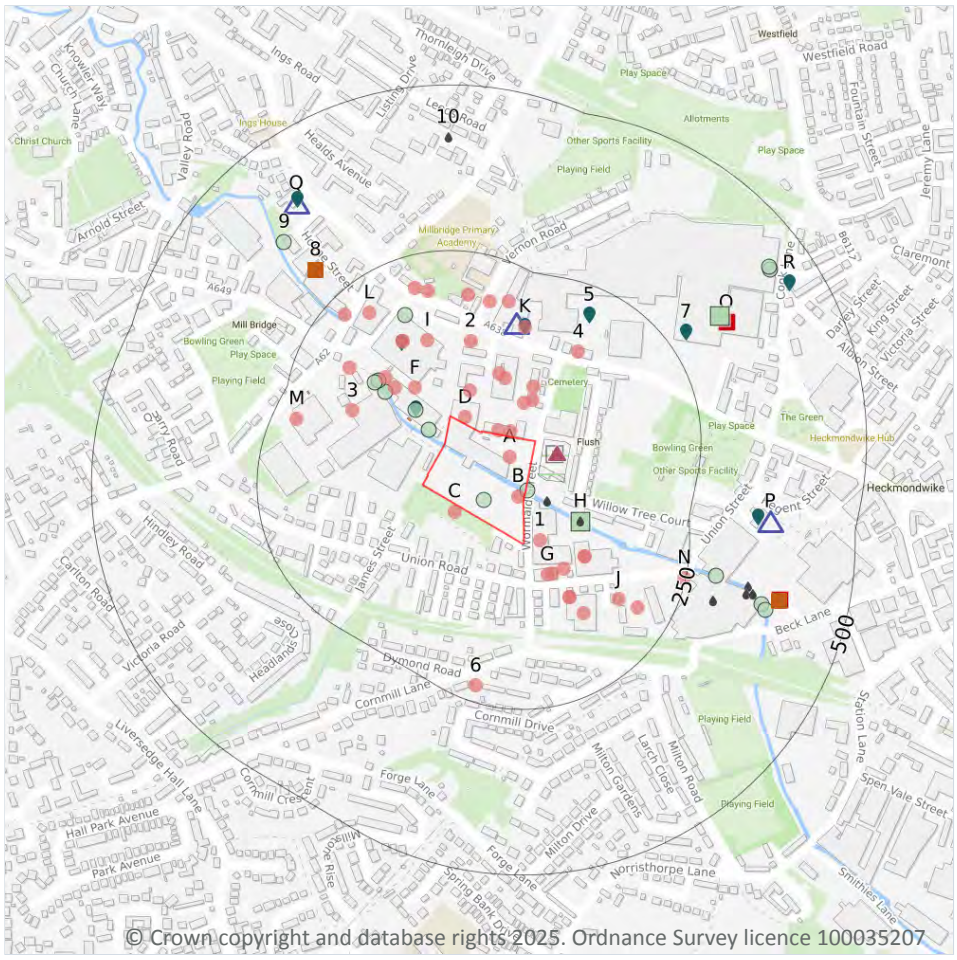
ID	Location	Site	Reference	Category	Sub-Category	Description
A	**On site**	**Providence Mills, Wormald Street, Liversedge, Wf15 6ar**	**WEX239807**	**Treating waste exemption**	**Not on a farm**	**Preparatory treatments (baling, sorting, shredding etc)**
A	**On site**	**Providence Mills, Wormald Street, Liversedge, Wf15 6ar**	**WEX239807**	**Treating waste exemption**	**Not on a farm**	**Recovery of textiles**
A	**On site**	**Providence Mills, Wormald Street, Liversedge, Wf15 6ar**	**WEX097146**	**Treating waste exemption**	**Not on a farm**	**Preparatory treatments (baling, sorting, shredding etc)**
A	**On site**	**Providence Mills, Wormald Street, Liversedge, Wf15 6ar**	**WEX097146**	**Treating waste exemption**	**Not on a farm**	**Recovery of textiles**
A	**On site**	**Providence Mills, Wormald Street, Liversedge, Wf15 6ar**	**WEX366783**	**Treating waste exemption**	**Not on a farm**	**Recovery of textiles**
A	**On site**	**Providence Mills, Wormald Street, Liversedge, Wf15 6ar**	**WEX366783**	**Treating waste exemption**	**Not on a farm**	**Preparatory treatments (baling, sorting, shredding etc)**

ID	Location	Site	Reference	Category	Sub-Category	Description
B	**On site**	**Providence Mills Wormald Street Liversedge West Yorkshire Wf15 6ar**	**EPR/DF0132DY/A001**	**Treating waste exemption**	**Non-agricultural waste only**	**Recovery of textiles**
B	**On site**	**Providence Mills Wormald Street Liversedge West Yorkshire Wf15 6ar**	**EPR/DF0132DY/A001**	**Treating waste exemption**	**Non-agricultural waste only**	**Preparatory treatments (baling, sorting, shredding etc)**
C	27m E	36 Wormald Street Liversedge West Yorkshire Wf15 6be	EPR/UF0734QR/A001	Treating waste exemption	Non-agricultural waste only	Screening and blending of waste
C	27m E	36 Wormald Street Liversedge West Yorkshire Wf15 6be	EPR/UF0734QR/A001	Using waste exemption	Non-agricultural waste only	Use of waste in construction
D	52m SW	Crystal Works, Unit D, Union Road, Liversedge, Wf15 7je	WEX385436	Treating waste exemption	Not on a farm	Preparatory treatments (baling, sorting, shredding etc)
D	52m SW	Crystal Works, Unit D, Union Road, Liversedge, Wf15 7je	WEX385436	Storing waste exemption	Not on a farm	Storage of waste in a secure place
E	92m E	Crystal Works, Unit D, Union Road, Liversedge, Wf15 7je	WEX115360	Storing waste exemption	Not on a farm	Storage of waste in a secure place
E	92m E	Crystal Works, Unit D, Union Road, Liversedge, Wf15 7je	WEX115360	Treating waste exemption	Not on a farm	Preparatory treatments (baling, sorting, shredding etc)
E	92m E	Crystal Works, Unit D, Union Road, Liversedge, Wf15 7je	WEX257653	Treating waste exemption	Not on a farm	Preparatory treatments (baling, sorting, shredding etc)
E	92m E	Crystal Works, Unit D, Union Road, Liversedge, Wf15 7je	WEX257653	Storing waste exemption	Not on a farm	Storage of waste in a secure place
F	108m SE	-	WEX393536	Storing waste exemption	Not on a farm	Storage of waste in secure containers
F	108m SE	-	WEX393536	Storing waste exemption	Not on a farm	Storage of waste in a secure place
1	146m E	Unitd Crystal Works Union Road Liversedge West Yorkshire Wf15 7je	EPR/SF0407VR/A001	Treating waste exemption	Non-agricultural waste only	Preparatory treatments (baling, sorting, shredding etc)
2	148m NE	Autoneum Gb Ltd, Flush Mills, Westgate, Heckmondwike, Wf16 0ew	WEX079609	Treating waste exemption	Not on a farm	Preparatory treatments (baling, sorting, shredding etc)

ID	Location	Site	Reference	Category	Sub-Category	Description
4	252m NE	-	WEX352405	Treating waste exemption	Not on a farm	Preparatory treatments (baling, sorting, shredding etc)
H	271m E	16, Union Street, Heckmondwike, Wf16 0hh	WEX201129	Treating waste exemption	Not on a farm	Sorting and de-naturing of controlled drugs for disposal
H	271m E	16, Union Street, Heckmondwike, Wf16 0hh	WEX044375	Treating waste exemption	Not on a farm	Sorting and de-naturing of controlled drugs for disposal
H	271m E	16, Union Street, Heckmondwike, Wf16 0hh	WEX066116	Treating waste exemption	Not on a farm	Sorting and de-naturing of controlled drugs for disposal
H	271m E	16, Union Street, Heckmondwike, Wf16 0hh	WEX311374	Treating waste exemption	Not on a farm	Sorting and de-naturing of controlled drugs for disposal
I	317m E	16, Union Street, Heckmondwike, Wf16 0hh	WEX426690	Treating waste exemption	Not on a farm	Sorting and de-naturing of controlled drugs for disposal
I	319m E	Bridlington Medical Centre Station Avenue Bridlington North Humberside Yo16 4lz	EPR/BH0371VQ/A001	Treating waste exemption	Non-agricultural waste only	Sorting and de-naturing of controlled drugs for disposal
I	319m E	16 Union Street Heckmondwike West Yorkshire Wf16 0hh	EPR/PH0371VZ/A001	Treating waste exemption	Non-agricultural waste only	Sorting and de-naturing of controlled drugs for disposal
5	329m E	Flush Mills, Westgate, Heckmondwike, Wf16 0en	WEX151749	Treating waste exemption	Not on a farm	Preparatory treatments (baling, sorting, shredding etc)

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

4 Current industrial land use



4.1 Recent industrial land uses

Records within 250m	44

Current potentially contaminative industrial sites.

Features are displayed on the Current industrial land use map on **page 64 >**

ID	Location	Company	Address	Activity	Category
A	**On site**	**Electricity Sub Station**	**West Yorkshire, WF15**	**Electrical Features**	**Infrastructure and Facilities**
B	**On site**	**Demo Group UK Ltd**	**Providence Yard, Wormald Street, Liversedge, West Yorkshire, WF15 6AR**	**Demolition Services**	**Construction Services**

ID	Location	Company	Address	Activity	Category
A	7m N	Trade Price Hydroponics	Unit 6 Victoria Spring Business Park, Wormald Street, Liversedge, West Yorkshire, WF15 6RA	Horticultural Equipment	Industrial Products
A	9m N	Proform Tooling Ltd	Unit 4 Victoria Spring Business Park, Wakefield Road, Millbridge, Liversedge, West Yorkshire, WF15 6RA	Tool Repairs	Repair and Servicing
D	9m NE	Bibby Turboflex	Unit 15 to 16 Victoria Spring Business Park, Wakefield Road, Millbridge, Liversedge, West Yorkshire, WF15 6RA	Special Purpose Machinery and Equipment	Industrial Products
C	10m SW	Electricity Sub Station	West Yorkshire, WF15	Electrical Features	Infrastructure and Facilities
1	24m E	T K Halford LLP	The Forge, Wormald Street, Millbridge, Liversedge, West Yorkshire, WF15 7FB	Metalworkers Including Blacksmiths	Construction Services
D	48m NE	Business Park	West Yorkshire, WF15	Business Parks and Industrial Estates	Industrial Features
A	54m N	Frost Hill Business Park	West Yorkshire, WF15	Business Parks and Industrial Estates	Industrial Features
G	59m SE	M C J Fabrications Ltd	Crystal Works, Union Road, Liversedge, West Yorkshire, WF15 7JT	Metals Manufacturers, Fabricators and Stockholders	Industrial Products
A	60m N	G S M Power Transmissions UK Ltd	Unit 4 Frost Hill Business Park, Rhodes Street, Liversedge, West Yorkshire, WF15 6BG	Special Purpose Machinery and Equipment	Industrial Products
G	63m SE	Fybagrate	Unit C Crystal Works, Union Road, Liversedge, West Yorkshire, WF15 7JT	Textiles, Fabrics, Silk and Machinery	Industrial Products
F	68m NW	Bmk Industrial Estate	West Yorkshire, WF15	Business Parks and Industrial Estates	Industrial Features
G	72m SE	Electricity Sub Station	West Yorkshire, WF15	Electrical Features	Infrastructure and Facilities
A	81m N	County Scales North Ltd	Unit 1 Frost Hill Business Park, Rhodes Street, Millbridge, Liversedge, West Yorkshire, WF15 6BG	Measurement and Inspection Equipment	Industrial Products
A	86m N	Performance Turbo Centre UK Ltd	Unit 10 Victoria Spring Business Park, Wakefield Road, Millbridge, Liversedge, West Yorkshire, WF15 6BU	Engines	Industrial Products

ID	Location	Company	Address	Activity	Category
A	91m N	Curved Frame Specialists Ltd	Victoria Springs, Unit 11-12 Wakefield Road, Liversedge, West Yorkshire, WF15 6BU	General Construction Supplies	Industrial Products
G	93m E	B P M Phoenix Ltd	Unit B Crystal Works, Union Road, Liversedge, West Yorkshire, WF15 7JE	Hydraulic Engineers	Engineering Services
G	93m E	C J Distributors Ltd	Crystal Works, Union Road, Liversedge, West Yorkshire, WF15 7JE	Distribution and Haulage	Transport, Storage and Delivery
F	94m NW	L D C Engineering Ltd	Unit 144 B M K Industrial Estate, Wakefield Road, Millbridge, Liversedge, West Yorkshire, WF15 6BS	Cutting, Drilling and Welding Services	Construction Services
G	108m SE	Yorkshire Rubber Linings Ltd	Spenborough Industrial Estate 96, Union Road, Liversedge, West Yorkshire, WF15 7JZ	Industrial Coatings and Finishings	Industrial Products
G	108m SE	A R Machinery Ltd	Unit 1 Spenborough Industrial Estate 96, Union Road, Liversedge, West Yorkshire, WF15 7JZ	Precision Engineers	Engineering Services
F	114m NW	Electricity Sub Station	West Yorkshire, WF15	Electrical Features	Infrastructure and Facilities
2	118m N	Simply Car Sales	Newby House, Gasworks Street, Millbridge, Liversedge, West Yorkshire, WF15 6BH	Secondhand Vehicles	Motoring
I	120m N	The Gasket Shop	B M K Industrial Estate, Wakefield Road, Millbridge, Liversedge, West Yorkshire, WF15 6BS	Seals, Tapes, Taps and Valves	Industrial Products
I	134m NW	Apollo Blinds	B M K Industrial Estate, Wakefield Road, Millbridge, Liversedge, West Yorkshire, WF15 6BS	Curtains and Blinds	Consumer Products
I	134m NW	Onboard Power	B M K Industrial Estate, Wakefield Road, Millbridge, Liversedge, West Yorkshire, WF15 6BS	Pumps and Compressors	Industrial Products
G	139m SE	Spenborough Industrial Estate	West Yorkshire, WF15	Business Parks and Industrial Estates	Industrial Features
3	146m NW	Electricity Sub Station	West Yorkshire, WF15	Electrical Features	Infrastructure and Facilities
4	150m NE	Pennine Trophies Ltd	513, Wakefield Road, Millbridge, Liversedge, West Yorkshire, WF15 6AU	Medals, Trophies, Ceremonial and Religious Goods	Consumer Products

ID	Location	Company	Address	Activity	Category
J	166m SE	Foregale	Union Road, Liversedge, West Yorkshire, WF15 7JS	General Construction Supplies	Industrial Products
K	168m N	Beechley Service Station	Flush Garage, Wakefield Road, Liversedge, West Yorkshire, WF15 6AU	Petrol and Fuel Stations	Road and Rail
F	169m NW	Electricity Sub Station	West Yorkshire, WF15	Electrical Features	Infrastructure and Facilities
K	184m N	Business Park	West Yorkshire, WF15	Business Parks and Industrial Estates	Industrial Features
K	186m N	R C C Autos	7, Vernon Road, Millbridge, Liversedge, West Yorkshire, WF15 6HU	Vehicle Repair, Testing and Servicing	Repair and Servicing
I	192m N	Discotechnology	479, Wakefield Road, Millbridge, Liversedge, West Yorkshire, WF15 6BL	Electronic Equipment	Industrial Products
K	195m NE	C E Bennett & Sons	Anchor Business Park, Wakefield Road, Millbridge, Liversedge, West Yorkshire, WF15 6AU	Mechanical Engineers	Engineering Services
J	197m SE	Works	West Yorkshire, WF15	Unspecified Works Or Factories	Industrial Features
L	199m NW	Works	West Yorkshire, WF15	Unspecified Works Or Factories	Industrial Features
I	201m N	B F C Motor Spares	471, Wakefield Road, Millbridge, Liversedge, West Yorkshire, WF15 6BL	Vehicle Parts and Accessories	Motoring
M	215m NW	Electricity Sub Station	West Yorkshire, WF15	Electrical Features	Infrastructure and Facilities
L	221m NW	Electricity Sub Station	West Yorkshire, WF15	Electrical Features	Infrastructure and Facilities
6	225m S	Electricity Sub Station	West Yorkshire, WF15	Electrical Features	Infrastructure and Facilities
N	248m E	Electricity Sub Station	West Yorkshire, WF16	Electrical Features	Infrastructure and Facilities

This data is sourced from Ordnance Survey.

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

Records within 250m	2

Current or recent tanks identified from the Ordnance Survey NGD.

Features are displayed on the Current industrial land use map on **page 64 >**

ID	Location	Tank description	Activity	Date first identified
F	56m W	Open Storage Tank	Commercial Activity: Distribution Or Storage	23/09/2002
M	215m W	Roofed Storage Tank	Commercial Activity: Distribution Or Storage	05/06/2016

This data is sourced from Ordnance Survey.

4.3 Current or recent petrol stations

Records within 500m	3

Open, closed, under development and obsolete petrol stations.

Features are displayed on the Current industrial land use map on **page 64 >**

ID	Location	Company	Address	LPG	Status
K	170m N	UNBRANDED	Wakefield Road, Liversedge, West Yorkshire, WF15 6AU	No	Open
P	371m E	MORRISONS	17, Union Street, Heckmondwike, West Yorkshire, WF16 0HL	No	Open
Q	397m NW	ASDA EXPRESS	Bradford Road, Liversedge, West Yorkshire, WF15 6JE	No	Open

This data is sourced from Experian.

4.4 Electricity cables

Records within 500m	0

High voltage underground electricity transmission cables.

This data is sourced from National Grid.

4.5 Gas pipelines

Records within 500m	0

High pressure underground gas transmission pipelines.

This data is sourced from National Grid.

4.6 Sites determined as Contaminated Land

Records within 500m	0

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

This data is sourced from Local Authority records.

4.7 Control of Major Accident Hazards (COMAH)

Records within 500m	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 64 >**

ID	Location	Company	Address	Operational status	Tier
E	13m E	British Gas	British Gas, Wormald Street, Liversedge	Historical NIHHS Site	-

This data is sourced from the Health and Safety Executive.

4.8 Regulated explosive sites

Records within 500m	0

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

This data is sourced from the Health and Safety Executive.

4.9 Hazardous substance storage/usage

Records within 500m	2

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.

Features are displayed on the Current industrial land use map on **page 64 >**

ID	Location	Details	
E	36m E	Application reference number: 92/04974 Application status: Historical Consent Application date: 27/10/1992 Address: British Gas Plc, North Eastern, Wormald Street, Heckmondwike, WF16 9FB	Details: Deemed hazardous substances conset for fixed storage and piped distribution of natural gas Enforcement: No Enforcement Notified Date of enforcement: No Enforcement Notified Comment: No Enforcement Notified
E	36m E	Application reference number: 2000/91097 Application status: Approved Application date: 03/04/2000 Address: Transco PLC, Heckmondwike Holder Station, Wormald Street, Heckmondwike, West Yorkshire, England, WF16 0ER	Details: Continuation of consent for fixed and piped distribution of natural gas. Enforcement: No Enforcement Notified Date of enforcement: No Enforcement Notified Comment: No Enforcement Notified

This data is sourced from Local Authority records.

4.10 Historical licensed industrial activities (IPC)

Records within 500m	**3**

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

Features are displayed on the Current industrial land use map on **page 64 >**

ID	Location	Details	
N	395m E	Operator: Stonehouse Battye Ltd Address: Flush Mills, Heckmondwike, West Yorkshire, WF16 0EP Process: Coating Processes And Printing Permit Number: AU7567	Original Permit Number: IPCAPP Date Approved: 29-8-1996 Effective Date: 1-9-1996 Status: Superseded By Variation
N	395m E	Operator: Stonehouse Battye Ltd Address: Flush Mills, Heckmondwike, West Yorkshire, WF16 0EP Process: Coating Processes And Printing Permit Number: BD4589	Original Permit Number: IPCMINVAR Date Approved: 24-11-1998 Effective Date: 30-11-1998 Status: Superseded By Variation
N	395m E	Operator: Stonehouse Battye Ltd Address: Flush Mills, Heckmondwike, West Yorkshire, WF16 0EP Process: Coating Processes And Printing Permit Number: BH5331	Original Permit Number: IPCMINVAR Date Approved: 31-3-2000 Effective Date: 1-4-2000 Status: Revoked

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

4.11 Licensed industrial activities (Part A(1))

Records within 500m	0

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

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

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

Records within 500m	8

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

Features are displayed on the Current industrial land use map on **page 64 >**

ID	Location	Address	Details	
F	54m W	Yorkshire Spin Galvanizing Ltd, Unit 152, Bmk Industrial Estate, Off Wakefield Rd, Liversidge, Heckmondwike, WF15 6BS	Process: Hot Dip Galvanizing Processes Status: Historical Permit Permit Type: Part B	Enforcement: No Enforcements Notified Date of enforcement: No Enforcements Notified Comment: No Enforcements Notified
I	134m NW	CV Refinishers Ltd, 114 BMK Industrial Estate, Heckmondwike, WF15 6BS	Process: Respraying of Road Vehicles Status: Historical Permit Permit Type: Part B	Enforcement: No Enforcements Notified Date of enforcement: No Enforcements Notified Comment: No Enforcements Notified
K	167m N	Flush (Dean) Garage, Wakefield Road, Liversedge, WF15 6AU	Process: Petrol Vapour Recovery Status: Historical Permit Permit Type: Part B	Enforcement: No Enforcements Notified Date of enforcement: No Enforcements Notified Comment: No Enforcements Notified
5	207m NE	Treka Bus Ltd, Flush Mills, Westgate, Heckmondwike, WF16 0EN	Process: Polymerisation Processes Status: Current Permit Permit Type: Part B	Enforcement: No Enforcements Notified Date of enforcement: No Enforcements Notified Comment: No Enforcements Notified

ID	Location	Address	Details	
7	281m NE	Firths Furnishings Ltd, Flush Hills, Flush,Heckmondwike, West Yorkshire, WF16 9PD	Process: Di-isocyanate Processes Status: Historical Permit Permit Type: Part B	Enforcement: No Enforcements Notified Date of enforcement: No Enforcements Notified Comment: No Enforcements Notified
P	351m E	Wm Morrisons Petrol Filling Station, 17 Union Street, Heckmondwike, WF16 0HL	Process: Unloading of Petrol into Storage at Service Stations Status: Current Permit Permit Type: Part B	Enforcement: No Enforcements Notified Date of enforcement: No Enforcements Notified Comment: No Enforcements Notified
Q	401m NW	Millbridge Filling Station, Bradford Road, Liversedge, WF15 6JE	Process: Unloading of Petrol into Storage at Service Stations Status: Current Permit Permit Type: Part B	Enforcement: No Enforcements Notified Date of enforcement: No Enforcements Notified Comment: No Enforcements Notified
R	451m NE	GN Motors, Cook Lane, Heckmondwike, WF16 9JG	Process: Waste Oil Burner 0.4 MW Status: New Legislation Applies 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.

4.13 Radioactive Substance Authorisations

Records within 500m	0

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

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

4.14 Licensed Discharges to controlled waters

Records within 500m	8

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 64 >**

ID	Location	Address	Details	
B	35m E	HECKMONDWIKE,WESTYORKS, WESTYORKS	Effluent Type: TRADE DISCHARGES - PROCESS EFFLUENT - WATER COMPANY (WTW) Permit Number: T/CHEM/53 Permit Version: 1 Receiving Water: TRIB OF SPEN	Status: REVOKED (WRA 91, S88 & SCHED 10 AS AMENDED BY ENV ACT 1995) Issue date: 17/05/1963 Effective Date: 17/05/1963 Revocation Date: 09/09/2003
H	86m E	RIGBYMARYLAND(STAINLESSLTD,CRYSTALWORKS,UNIONROAD,HECKMONDWIKE,WF16OHQ	Effluent Type: TRADE DISCHARGES - UNSPECIFIED Permit Number: 3116 Permit Version: 1 Receiving Water: SPEN BECK	Status: REVOKED - UNSPECIFIED Issue date: 10/11/1975 Effective Date: 10/11/1975 Revocation Date: 23/11/2000
N	298m E	FLEXITALLICLTD,OFFUNIONSTREET,HECKMONDWIKE,DEWSBURY,WESTYORKSHIRE	Effluent Type: TRADE DISCHARGES - UNSPECIFIED Permit Number: C4671 Permit Version: 1 Receiving Water: RIVER SPEN	Status: CONSENT REVOKED - DISCHARGE CEASED (WRA 91, SCHED 10 & 6) Issue date: 22/06/1987 Effective Date: 22/06/1987 Revocation Date: 31/07/1990
N	298m E	EDDISONPLANTLTD,BACKLANE, HECKMONDWIKE,DEWSBURY, WESTYORKSHIRE	Effluent Type: TRADE DISCHARGES - UNSPECIFIED Permit Number: 3082 Permit Version: 1 Receiving Water: SPEN BECK	Status: REVOKED - UNSPECIFIED Issue date: 05/12/1976 Effective Date: 05/12/1976 Revocation Date: 22/07/1991
N	344m E	MORRISONSCARPARKCSO,OFFUNIONSTREET,HECKMONDWIKE,WESTYORKSHIRE,WF160EQ	Effluent Type: SEWAGE DISCHARGES - SEWER STORM OVERFLOW - WATER COMPANY Permit Number: C5094 Permit Version: 3 Receiving Water: RIVER SPEN	Status: VARIED UNDER EPR 2010 Issue date: 21/02/2018 Effective Date: 31/03/2018 Revocation Date: -
N	344m E	MORRISONSCARPARKCSO,OFFUNIONSTREET,HECKMONDWIKE,WESTYORKSHIRE,WF160EQ	Effluent Type: SEWAGE DISCHARGES - SEWER STORM OVERFLOW - WATER COMPANY Permit Number: C5094 Permit Version: 2 Receiving Water: RIVER SPEN	Status: MODIFIED - (WRA 91 SCHED 10 - AS AMENDED BY ENV ACT 1995) Issue date: 01/03/2004 Effective Date: 01/03/2004 Revocation Date: 30/03/2018
N	354m E	MORRISONSCARPARKCSO,OFFUNIONSTREET,HECKMONDWIKE,WESTYORKSHIRE,WF160EQ	Effluent Type: SEWAGE DISCHARGES - SEWER STORM OVERFLOW - WATER COMPANY Permit Number: C5094 Permit Version: 1 Receiving Water: RIVER SPEN	Status: TRANSFERRED FROM COPA 1974 Issue date: 10/05/1988 Effective Date: 10/05/1988 Revocation Date: 29/02/2004
10	421m N	HARGREAVESFUELOILLEEDSROADLIVE,RSEDGETANKERWASHINGEFFLUENT(,CEASED	Effluent Type: TRADE DISCHARGES - UNSPECIFIED Permit Number: 2162 Permit Version: 1 Receiving Water: SPEN BECK	Status: REVOKED - UNSPECIFIED Issue date: 07/11/1966 Effective Date: 07/11/1966 Revocation Date: 17/08/1992

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

4.15 Pollutant release to surface waters (Red List)

Records within 500m	0

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

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

4.16 Pollutant release to public sewer

Records within 500m	2

Discharges of Special Category Effluents to the public sewer.

Features are displayed on the Current industrial land use map on **page 64 >**

ID	Location	Address	Details	
8	301m NW	SPEN VALLEY ELECTROPLATING CO LTD, FROST HILL, FROST HILL, LIVERSEDGE, WEST YORKSHIRE, WF15 6BH	Permission reference: AF4046 Local Authority: KIRKLEES METROPOLITAN BOROUGH COUNCIL First received date: 01/06/2001	Last received date: 01/01/2018 Status: RECEIVED
N	395m E	STONEHOUSE BATTYE LTD, FLUSH MILLS, FLUSH MILLS, HECKMONDWIKE, WEST YORKSHIRE, WF16 0EP	Permission reference: AN9182 Local Authority: KIRKLEES METROPOLITAN BOROUGH COUNCIL First received date: 01/06/2001	Last received date: 01/01/2018 Status: RECEIVED

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

4.17 List 1 Dangerous Substances

Records within 500m	3

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

Features are displayed on the Current industrial land use map on **page 64 >**

ID	Location	Name	Status	Receiving Water	Authorised Substances
H	86m E	Rigby Maryland, Heckmondwyke	Not Active	Calder, Spen, River Ryburn	Mercury (other), Cadmium
O	339m NE	Stonehouse Battye Ltd, Heckmondwike	Active	Dummy Site	Hexachlorocyclohexane, Dieldrin

ID	Location	Name	Status	Receiving Water	Authorised Substances
N	395m E	Stonehouse Battye Ltd, Heckmondwyke	Not Active	Calder, Spen River, River Ryburn	Hexachlorocyclohexane, Aldrin, Dieldrin, Endrin, Total DDT

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

4.18 List 2 Dangerous Substances

Records within 500m **2**

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

Features are displayed on the Current industrial land use map on **page 64 >**

ID	Location	Name	Status	Receiving Water	Authorised Substances
H	86m E	Rigby-maryland(stainless) Ltd	Not Active	Spen Beck	Chromium, Copper, Lead, Nickel, Zinc
O	336m NE	Stonehouse Battye Ltd, Heckmondwyke	Not Active	Unknown	Permethrin

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

4.19 Pollution Incidents (EA/NRW)

Records within 500m **14**

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 64 >**

ID	Location	Details	
C	**On site**	**Incident Date: 29/09/2001** **Incident Identification: 33745** **Pollutant: Inorganic Chemicals/Products** **Pollutant Description: Other Inorganic Chemical or Product**	**Water Impact: Category 2 (Significant)** **Land Impact: Category 2 (Significant)** **Air Impact: Category 2 (Significant)**
B	2m E	Incident Date: 31/07/2001 Incident Identification: 20816 Pollutant: Pollutant Not Identified Pollutant Description: Not Identified	Water Impact: Category 3 (Minor) Land Impact: Category 4 (No Impact) Air Impact: Category 4 (No Impact)

ID	Location	Details	
F	28m W	Incident Date: 13/09/2003 Incident Identification: 189582 Pollutant: Inorganic Chemicals/Products Pollutant Description: Other Inorganic Chemical or Product	Water Impact: Category 3 (Minor) Land Impact: Category 4 (No Impact) Air Impact: Category 4 (No Impact)
F	54m W	Incident Date: 21/01/2002 Incident Identification: 53521 Pollutant: Atmospheric Pollutants and Effects Pollutant Description: Other Atmospheric Pollutant or Effect	Water Impact: Category 3 (Minor) Land Impact: Category 3 (Minor) Air Impact: Category 3 (Minor)
F	105m W	Incident Date: 09/06/2005 Incident Identification: 318874 Pollutant: Organic Chemicals/Products Pollutant Description: Other Organic Chemical or Product	Water Impact: Category 2 (Significant) Land Impact: Category 4 (No Impact) Air Impact: Category 4 (No Impact)
F	121m NW	Incident Date: 04/06/2013 Incident Identification: 1118624 Pollutant: Organic Chemicals/Products Pollutant Description: Adhesives	Water Impact: Category 2 (Significant) Land Impact: Category 4 (No Impact) Air Impact: Category 4 (No Impact)
F	125m NW	Incident Date: 04/04/2007 Incident Identification: 482462 Pollutant: Organic Chemicals/Products Pollutant Description: Other Organic Chemical or Product	Water Impact: Category 2 (Significant) Land Impact: Category 4 (No Impact) Air Impact: Category 4 (No Impact)
I	168m NW	Incident Date: 04/09/2003 Incident Identification: 187373 Pollutant: Atmospheric Pollutants and Effects Pollutant Description: Smoke	Water Impact: Category 4 (No Impact) Land Impact: Category 4 (No Impact) Air Impact: Category 3 (Minor)
N	294m E	Incident Date: 29/04/2002 Incident Identification: 75450 Pollutant: General Biodegradable Materials and Wastes Pollutant Description: Other General Biodegradable Material or Waste	Water Impact: Category 2 (Significant) Land Impact: Category 4 (No Impact) Air Impact: Category 4 (No Impact)
9	364m NW	Incident Date: 14/07/2003 Incident Identification: 173442 Pollutant: Specific Waste Materials Pollutant Description: Tyres	Water Impact: Category 3 (Minor) Land Impact: Category 3 (Minor) Air Impact: Category 4 (No Impact)
N	371m E	Incident Date: 09/06/2005 Incident Identification: 319087 Pollutant: Sewage Materials Pollutant Description: Other Sewage Material	Water Impact: Category 2 (Significant) Land Impact: Category 4 (No Impact) Air Impact: Category 4 (No Impact)

ID	Location	Details	
N	378m E	Incident Date: 28/06/2006 Incident Identification: 411328 Pollutant: Sewage Materials Pollutant Description: Crude Sewage	Water Impact: Category 2 (Significant) Land Impact: Category 4 (No Impact) Air Impact: Category 4 (No Impact)
R	439m NE	Incident Date: 02/07/2002 Incident Identification: 88817 Pollutant: Inorganic Chemicals/Products Pollutant Description: Acids	Water Impact: Category 3 (Minor) Land Impact: Category 3 (Minor) Air Impact: Category 3 (Minor)
R	440m NE	Incident Date: 02/07/2002 Incident Identification: 88832 Pollutant: Inorganic Chemicals/Products Pollutant Description: Acids	Water Impact: Category 3 (Minor) Land Impact: Category 3 (Minor) Air Impact: Category 3 (Minor)

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

4.20 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.

4.21 Pollution inventory waste transfers

Records within 500m	0

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

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

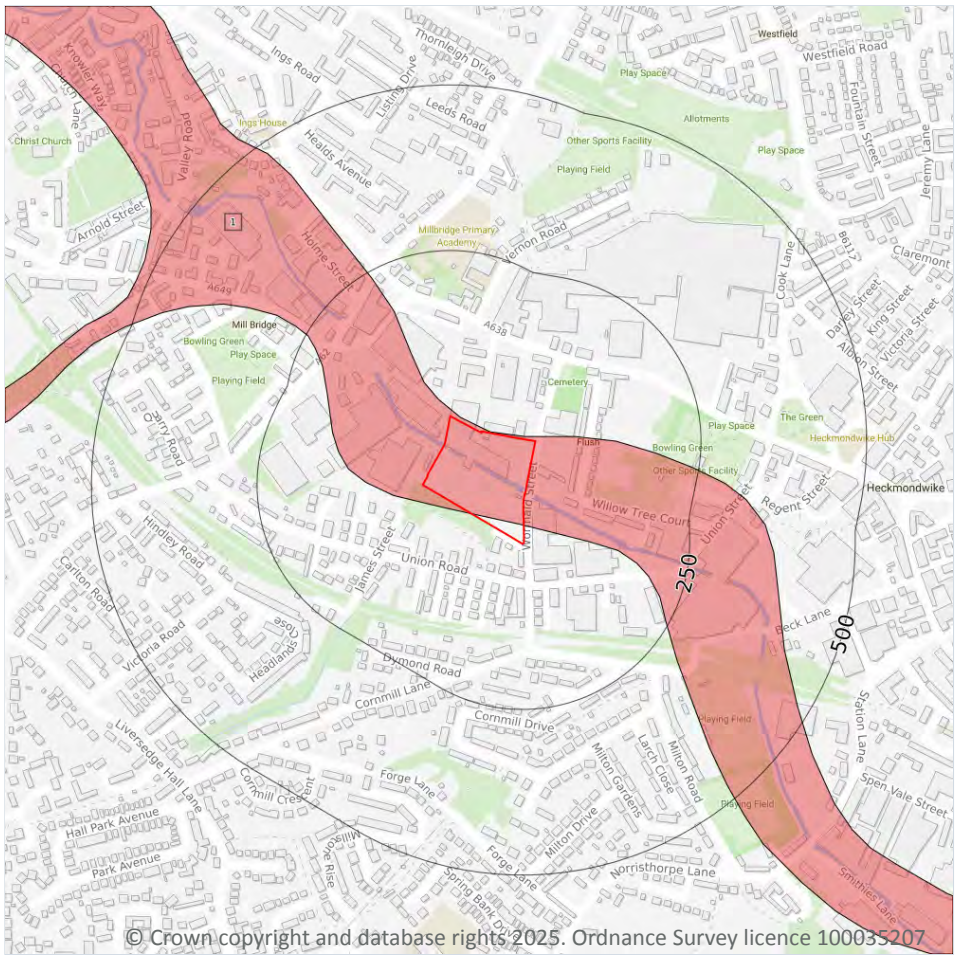
4.22 Pollution inventory radioactive waste

Records within 500m	0

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

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

5 Hydrogeology - Superficial aquifer



5.1 Superficial aquifer

Records within 500m	1

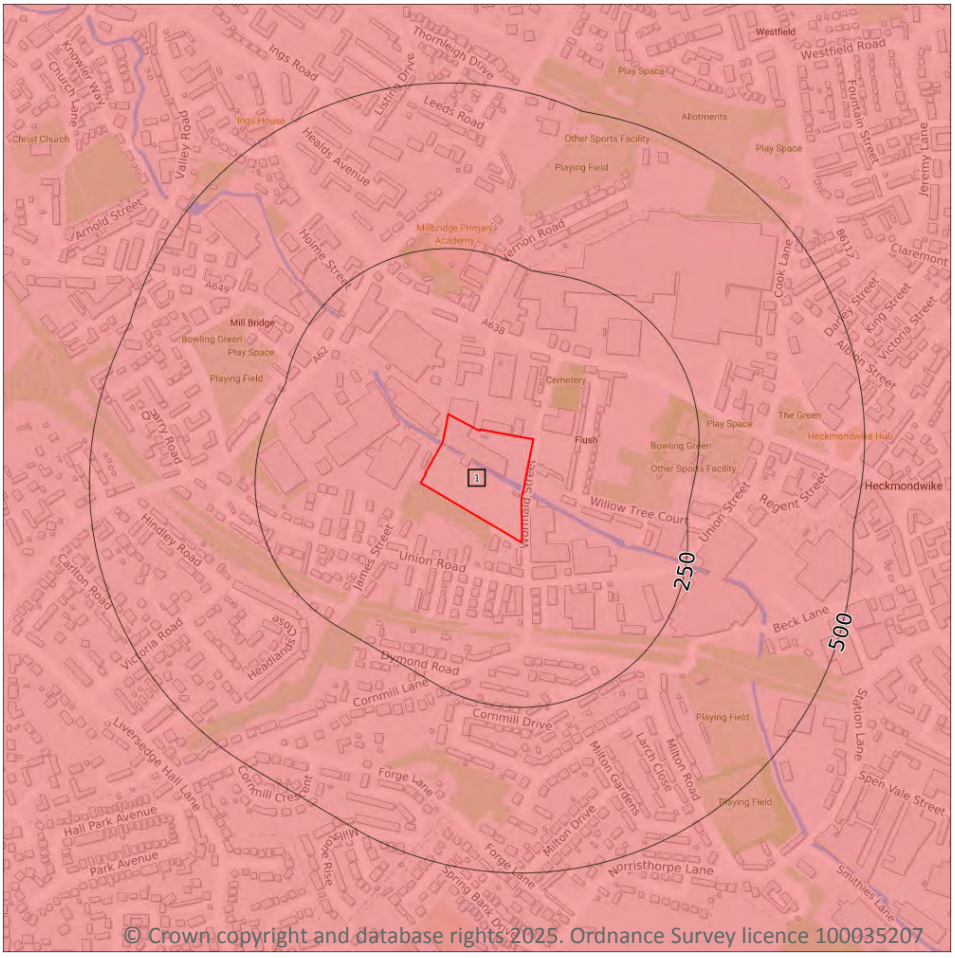
Aquifer status of groundwater held within superficial geology.

Features are displayed on the Hydrogeology map on **page 78 >**

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



5.2 Bedrock aquifer

Records within 500m	1

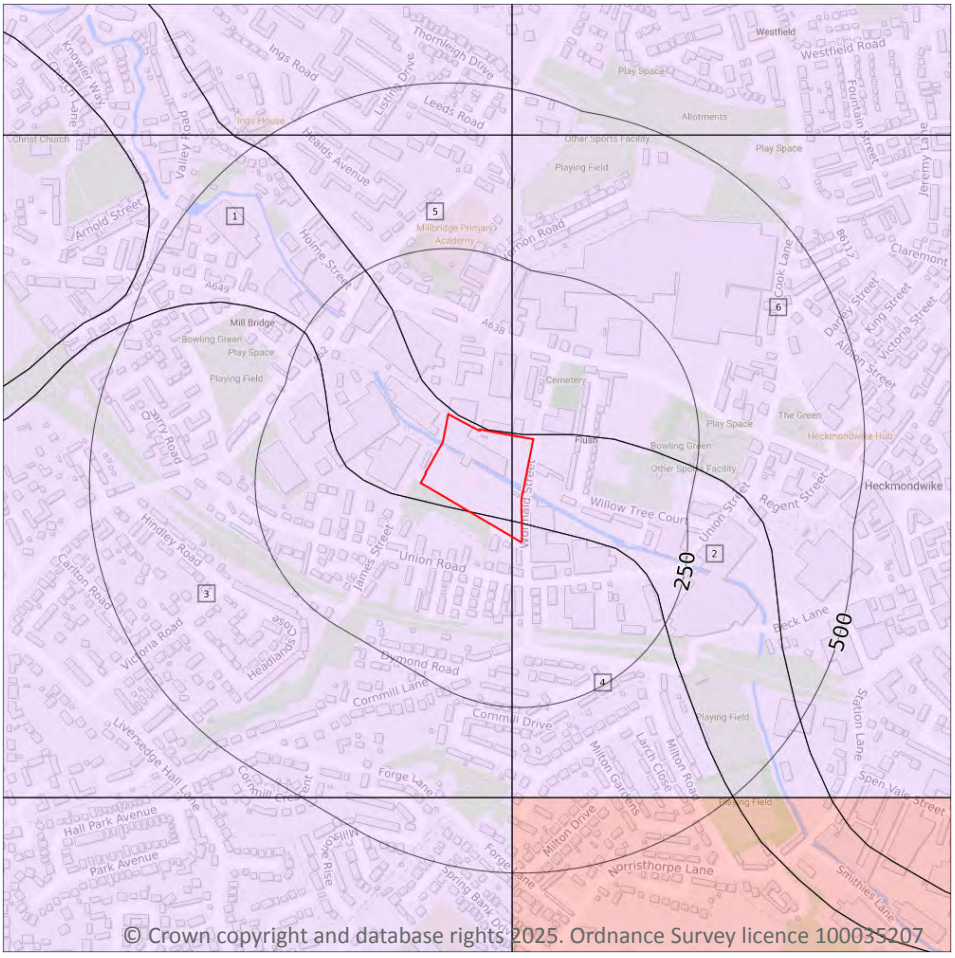
Aquifer status of groundwater held within bedrock geology.

Features are displayed on the Bedrock aquifer map on **page 79 >**

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	6

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 80 >**

ID	Location	Summary	Soil / surface	Superficial geology	Bedrock geology
1	**On site**	**Summary Classification: Secondary bedrock aquifer - Medium Vulnerability Combined classification: Productive Bedrock Aquifer, Productive Superficial Aquifer**	**Leaching class: Low Infiltration value: <40% Dilution value: 300-550mm/year**	**Vulnerability: Low Aquifer type: Secondary Thickness: <3m Patchiness value: <90% Recharge potential: No Data**	**Vulnerability: Medium Aquifer type: Secondary Flow mechanism: Well connected fractures**
2	**On site**	**Summary Classification: Secondary bedrock aquifer - Medium Vulnerability Combined classification: Productive Bedrock Aquifer, Productive Superficial Aquifer**	**Leaching class: Low Infiltration value: <40% Dilution value: 300-550mm/year**	**Vulnerability: Low Aquifer type: Secondary Thickness: <3m Patchiness value: <90% Recharge potential: No Data**	**Vulnerability: Medium Aquifer type: Secondary Flow mechanism: Well connected fractures**
3	**On site**	**Summary Classification: Secondary bedrock aquifer - Medium Vulnerability Combined classification: Productive Bedrock Aquifer, No Superficial Aquifer**	**Leaching class: Low Infiltration value: <40% Dilution value: 300-550mm/year**	**Vulnerability: - Aquifer type: - Thickness: <3m Patchiness value: <90% Recharge potential: No Data**	**Vulnerability: Medium Aquifer type: Secondary Flow mechanism: Well connected fractures**
4	**On site**	**Summary Classification: Secondary bedrock aquifer - Medium Vulnerability Combined classification: Productive Bedrock Aquifer, No Superficial Aquifer**	**Leaching class: Low Infiltration value: <40% Dilution value: 300-550mm/year**	**Vulnerability: - Aquifer type: - Thickness: <3m Patchiness value: <90% Recharge potential: No Data**	**Vulnerability: Medium Aquifer type: Secondary Flow mechanism: Well connected fractures**
5	2m N	Summary Classification: Secondary bedrock aquifer - Medium Vulnerability Combined classification: Productive Bedrock Aquifer, No Superficial Aquifer	Leaching class: Low Infiltration value: <40% Dilution value: 300-550mm/year	Vulnerability: - Aquifer type: - Thickness: <3m Patchiness value: <90% Recharge potential: No Data	Vulnerability: Medium Aquifer type: Secondary Flow mechanism: Well connected fractures
6	4m N	Summary Classification: Secondary bedrock aquifer - Medium Vulnerability Combined classification: Productive Bedrock Aquifer, No Superficial Aquifer	Leaching class: Low Infiltration value: <40% Dilution value: 300-550mm/year	Vulnerability: - Aquifer type: - Thickness: <3m Patchiness value: <90% Recharge potential: No Data	Vulnerability: Medium 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.

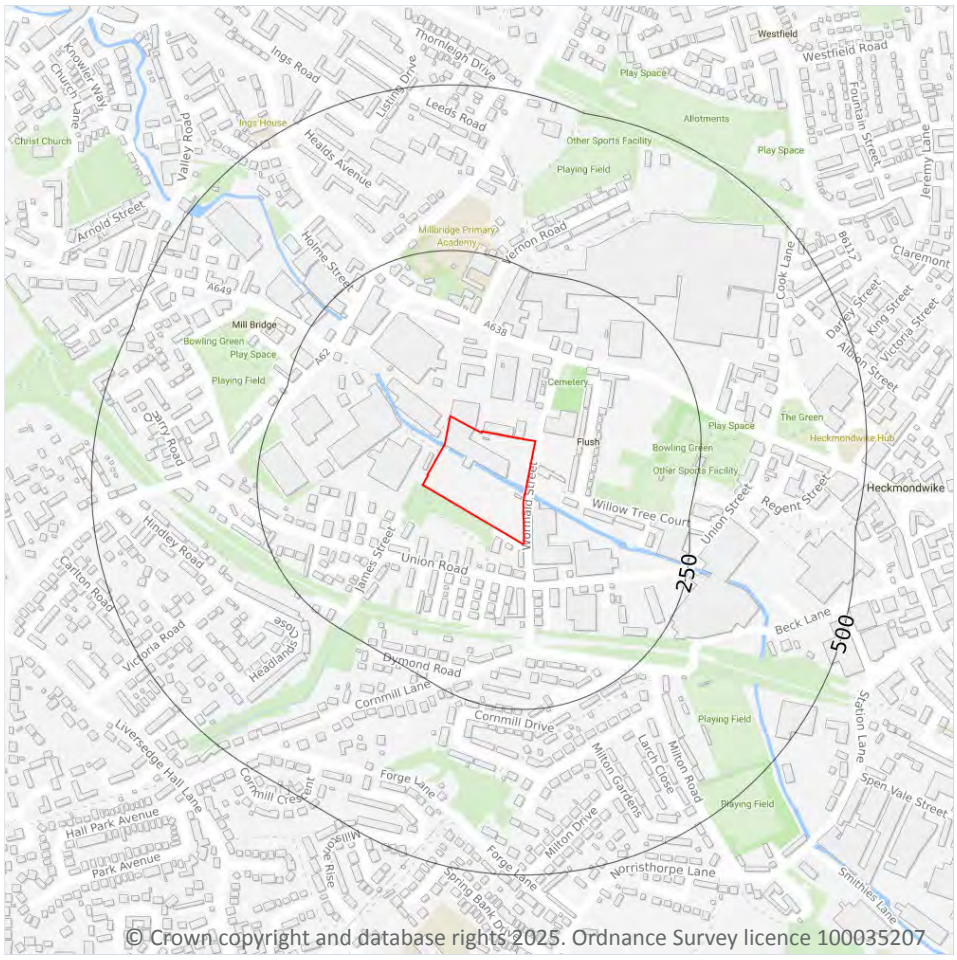
5.5 Groundwater vulnerability- local information

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
- 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	7

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 83 >**

ID	Location	Details	
-	1573m SE	Status: Historical Licence No: 2/27/13/189 Details: Evaporative Cooling Direct Source: GROUNDWATERS Point: BOREHOLE Data Type: Point Name: MORTON INTERNATIONAL Easting: 422430 Northing: 422700	Annual Volume (m^3): - Max Daily Volume (m^3): - Original Application No: - Original Start Date: 30/04/1997 Expiry Date: 31/12/2006 Issue No: 100 Version Start Date: 30/04/1997 Version End Date: -
-	1573m SE	Status: Historical Licence No: 2/27/13/189 Details: Evaporative Cooling Direct Source: GROUNDWATERS Point: BOREHOLE-COAL MEASURES-DEWSBURY Data Type: Point Name: RHOM & HAAS (UK) LTD Easting: 422430 Northing: 422700	Annual Volume (m^3): 270000 Max Daily Volume (m^3): 725 Original Application No: - Original Start Date: 30/04/1997 Expiry Date: 31/12/2006 Issue No: 101 Version Start Date: 02/05/2000 Version End Date: -
-	1624m E	Status: Historical Licence No: 2/27/13/193 Details: General use relating to Secondary Category (Medium Loss) Direct Source: GROUNDWATERS Point: BOREHOLE Data Type: Point Name: THOMAS CARR LIMITED C/O BERNARD KAYE Easting: 422650 Northing: 423400	Annual Volume (m^3): - Max Daily Volume (m^3): - Original Application No: - Original Start Date: 04/03/1998 Expiry Date: 31/12/2008 Issue No: 100 Version Start Date: 04/03/1998 Version End Date: -
-	1624m E	Status: Historical Licence No: 2/27/13/193 Details: General use relating to Secondary Category (Medium Loss) Direct Source: GROUNDWATERS Point: BOREHOLE - COAL MEASURES - STAINCLIFFE DEWSBURY Data Type: Point Name: THOMAS CARR LTD Easting: 422650 Northing: 423400	Annual Volume (m^3): - Max Daily Volume (m^3): - Original Application No: - Original Start Date: 04/03/1998 Expiry Date: 31/12/2008 Issue No: 100 Version Start Date: 04/03/1998 Version End Date: -

ID	Location	Details	
-	1740m E	Status: Historical Licence No: 2/27/13/193 Details: General use relating to Secondary Category (Medium Loss) Direct Source: GROUNDWATERS Point: BOREHOLE Data Type: Point Name: THOMAS CARR LIMITED C/O BERNARD KAYE Easting: 422750 Northing: 423260	Annual Volume (m^3): - Max Daily Volume (m^3): - Original Application No: - Original Start Date: 04/03/1998 Expiry Date: 31/12/2008 Issue No: 100 Version Start Date: 04/03/1998 Version End Date: -
-	1740m E	Status: Historical Licence No: 2/27/13/193 Details: General use relating to Secondary Category (Medium Loss) Direct Source: GROUNDWATERS Point: BOREHOLE - COAL MEASURES - STAINCLIFFE DEWSBURY Data Type: Point Name: THOMAS CARR LTD Easting: 422750 Northing: 423260	Annual Volume (m^3): - Max Daily Volume (m^3): - Original Application No: - Original Start Date: 04/03/1998 Expiry Date: 31/12/2008 Issue No: 100 Version Start Date: 04/03/1998 Version End Date: -
-	1789m S	Status: Historical Licence No: 2/27/13/231 Details: General Farming & Domestic Direct Source: GROUNDWATERS Point: BOREHOLE - COAL MEASURES - MIRFIELD Data Type: Point Name: JOHN L BARBER & SON Easting: 420920 Northing: 421600	Annual Volume (m^3): 25000 Max Daily Volume (m^3): 103 Original Application No: - Original Start Date: 08/09/2008 Expiry Date: 31/03/2015 Issue No: 1 Version Start Date: 08/09/2008 Version End Date: -

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

5.7 Surface water abstractions

Records within 2000m	**0**

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.

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.

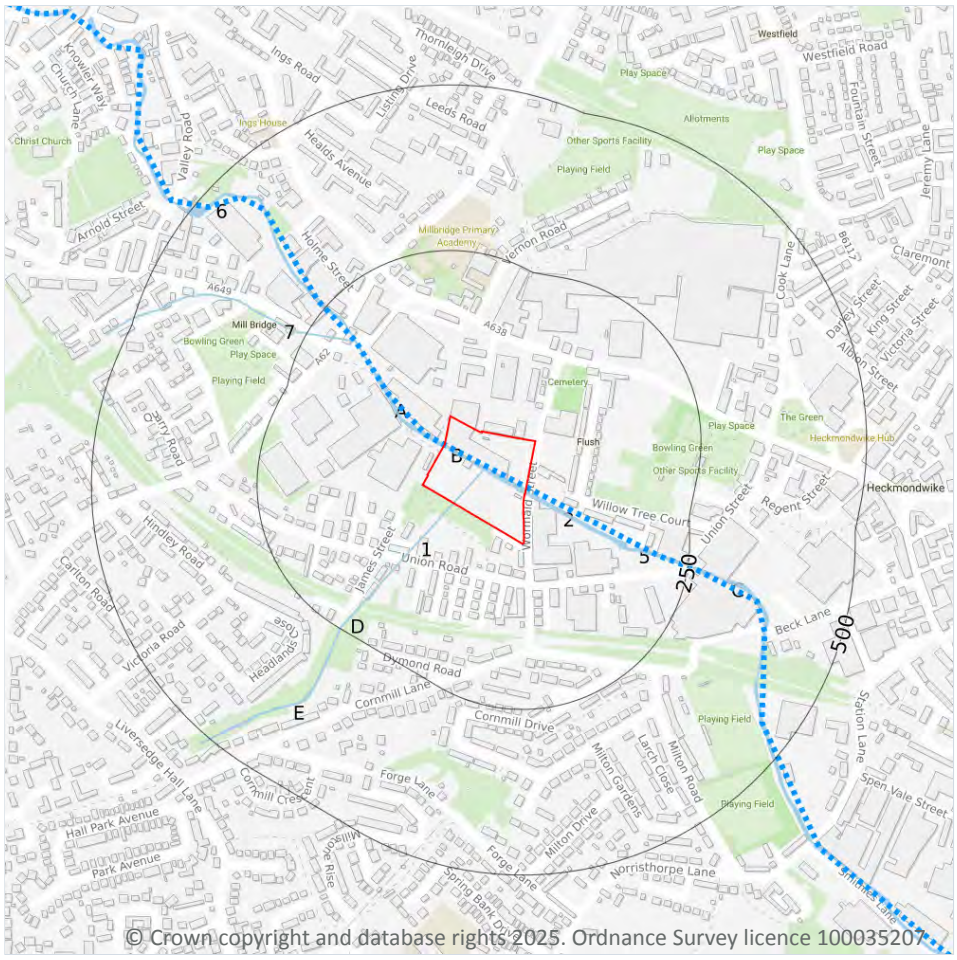
5.10 Source Protection Zones (confined aquifer)

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



6.1 Water Network (OS MasterMap)

Records within 250m	14

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 87 >**

ID	Location	Type of water feature	Ground level	Permanence	Name
1	**On site**	**Inland river not influenced by normal tidal action.**	**Not provided**	**Watercourse contains water year round (in normal circumstances)**	-

ID	Location	Type of water feature	Ground level	Permanence	Name
2	**On site**	**Inland river not influenced by normal tidal action.**	**On ground surface**	**Watercourse contains water year round (in normal circumstances)**	**Spen River**
A	**On site**	**Inland river not influenced by normal tidal action.**	**On ground surface**	**Watercourse contains water year round (in normal circumstances)**	**Spen River**
B	**On site**	**Inland river not influenced by normal tidal action.**	**Underground**	**Watercourse contains water year round (in normal circumstances)**	**Spen River**
B	**On site**	**Inland river not influenced by normal tidal action.**	**Underground**	**Watercourse contains water year round (in normal circumstances)**	**Spen River**
B	**On site**	**Inland river not influenced by normal tidal action.**	**On ground surface**	**Watercourse contains water year round (in normal circumstances)**	**Spen River**
B	**On site**	**Inland river not influenced by normal tidal action.**	**On ground surface**	**Watercourse contains water year round (in normal circumstances)**	**Spen River**
5	167m E	Inland river not influenced by normal tidal action.	On ground surface	Watercourse contains water year round (in normal circumstances)	-
C	173m E	Inland river not influenced by normal tidal action.	On ground surface	Watercourse contains water year round (in normal circumstances)	Spen River
6	182m NW	Inland river not influenced by normal tidal action.	On ground surface	Watercourse contains water year round (in normal circumstances)	Spen River
7	182m NW	Inland river not influenced by normal tidal action.	On ground surface	Watercourse contains water year round (in normal circumstances)	Tanhouse Beck
D	222m SW	Inland river not influenced by normal tidal action.	On ground surface	Watercourse contains water year round (in normal circumstances)	-
D	239m SW	Inland river not influenced by normal tidal action.	Underground	Watercourse contains water year round (in normal circumstances)	-
E	242m SW	Inland river not influenced by normal tidal action.	On ground surface	Watercourse contains water year round (in normal circumstances)	-

This data is sourced from the Ordnance Survey.

6.2 Surface water features

Records within 250m	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 87 >**

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 87 >**

ID	Location	Type	Water body catchment	Water body ID	Operational catchment	Management catchment
B	**On site**	**River**	**Spen Beck from Source to River Calder**	**GB104027062710**	**Calder Lower**	**Aire and Calder**

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 87 >**

ID	Location	Type	Name	Water body ID	Overall rating	Chemical rating	Ecological rating	Year
3	**On site**	**River**	**Spen Beck from Source to River Calder**	**GB104027062710** ↗	**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**

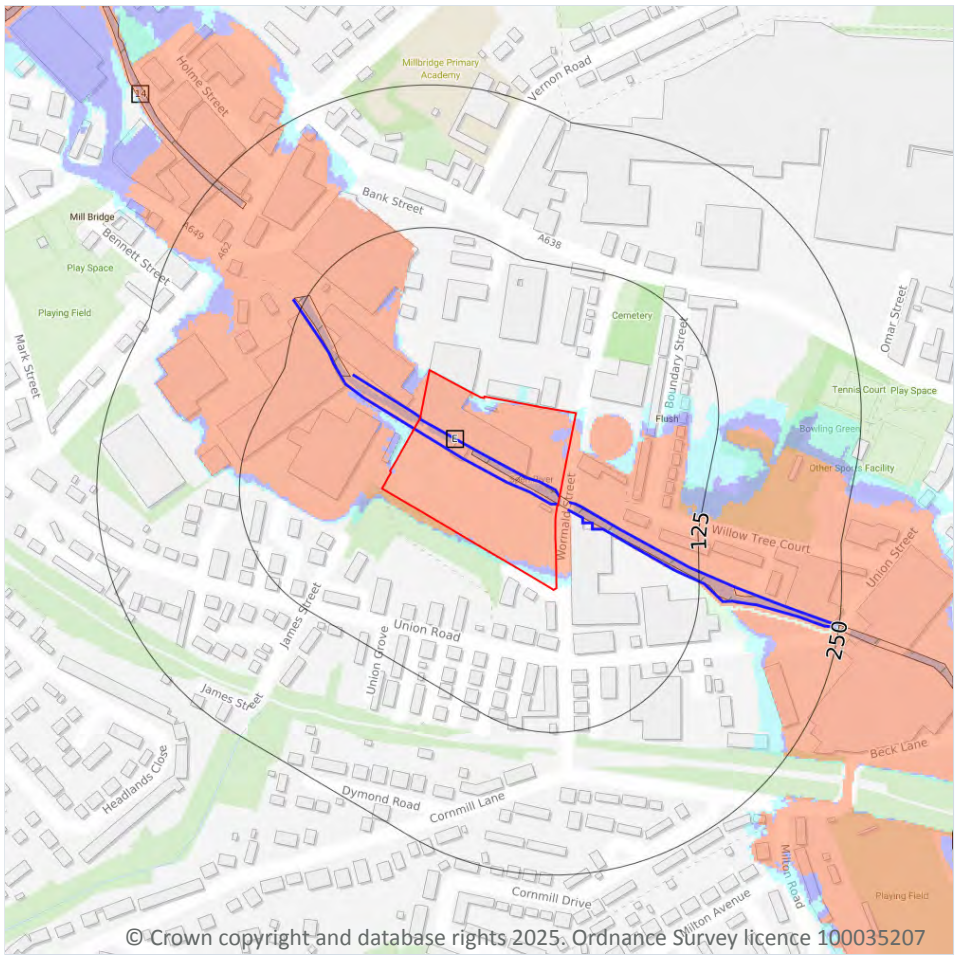
Groundwater bodies are also covered by the Directive and the same regime of objectives and reporting detailed in the previous section is in place. Click on the water body ID in the table to visit the EA Catchment Explorer to find out more about each groundwater body listed.

Features are displayed on the Hydrology map on **page 87 >**

ID	Location	Name	Water body ID	Overall rating	Chemical rating	Quantitative	Year
B	**On site**	**Aire & Calder Carb Limestone / Millstone Grit / Coal Measures.**	**GB40402G700400** ↗	**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	13

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 91 >**

Distance	Flood risk category
On site	**High**
0 - 50m	High

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

7.2 Historical Flood Events

Records within 250m	**3**

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 91 >**

ID	Location	Event name	Date of flood	Flood source	Flood cause	Type of flood
A	**On site**	**2020 February Flood Incident - Storm Ciara/dennis**	**2020-02-08 2020-03-19**	**Main river**	**Channel capacity exceeded (no raised defences)**	**Fluvial**
D	67m W	2020 February Flood Incident - Storm Ciara/dennis	2020-02-08 2020-03-19	Main river	Channel capacity exceeded (no raised defences)	Fluvial
14	216m NW	2020 February Flood Incident - Storm Ciara/dennis	2020-02-08 2020-03-19	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	**5**

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.

Features are displayed on the River and coastal flooding map on **page 91 >**

ID	Location	Update
E	**On site**	**08/11/2022**
E	**On site**	**08/11/2022**

ID	Location	Update
A	9m E	08/11/2022
A	9m SE	08/11/2022
D	71m W	08/11/2022

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.

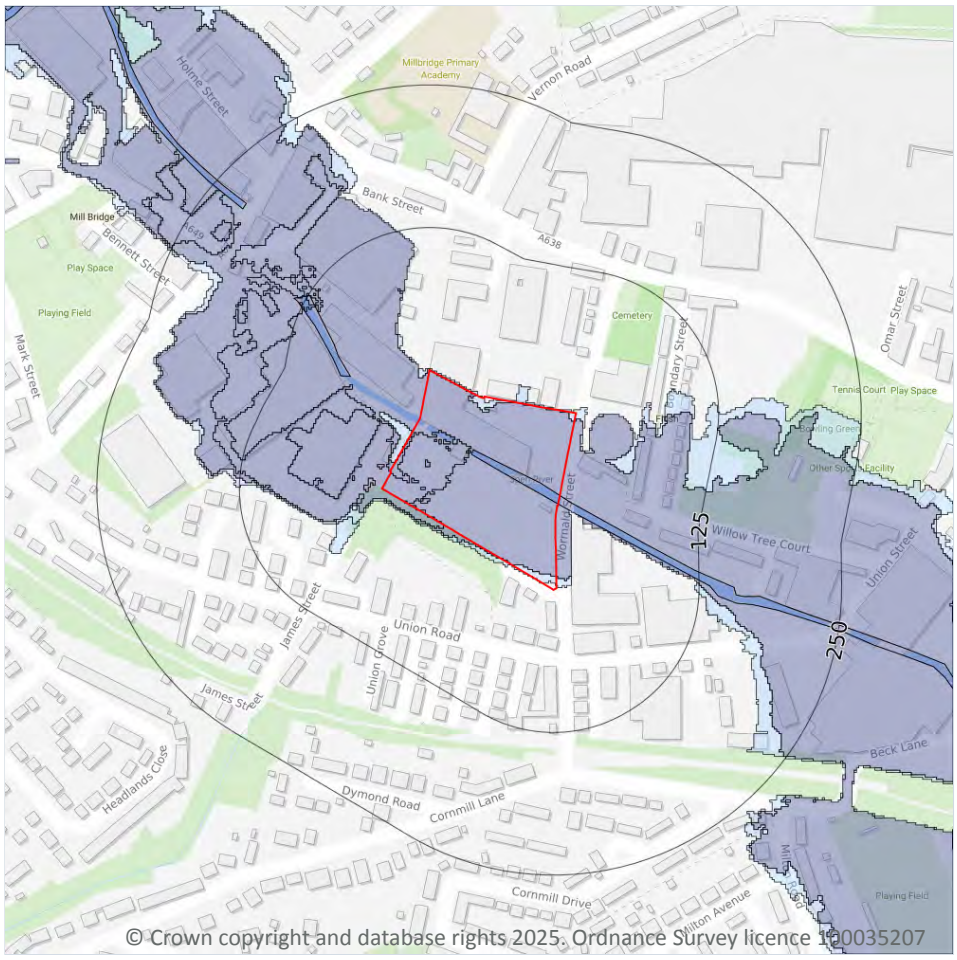
7.5 Flood Storage Areas

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 91 >**

Location	Type
On site	**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	1

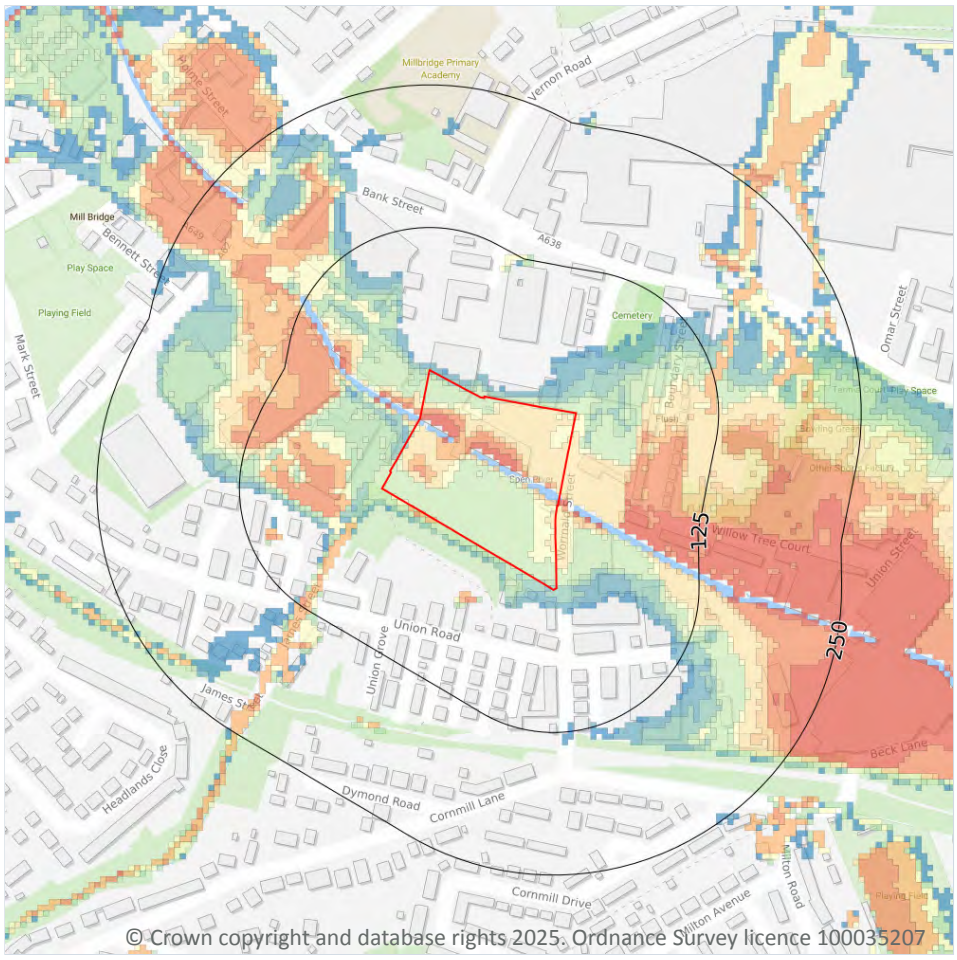
Areas of land at risk of flooding, when the presence of flood defences are ignored. Covering land with a 1 in 100 (1%) or greater chance of flooding each year from rivers or a 1 in 200 (0.5%) or greater chance of flooding each year from the sea.

Features are displayed on the River and coastal flooding map on **page 91 >**

Location	Type
On site	**Zone 3 - (Fluvial /Tidal Models)**

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	**1 in 30 year, Greater than 1.0m**
Highest risk within 50m	**1 in 30 year, Greater than 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 96 >**

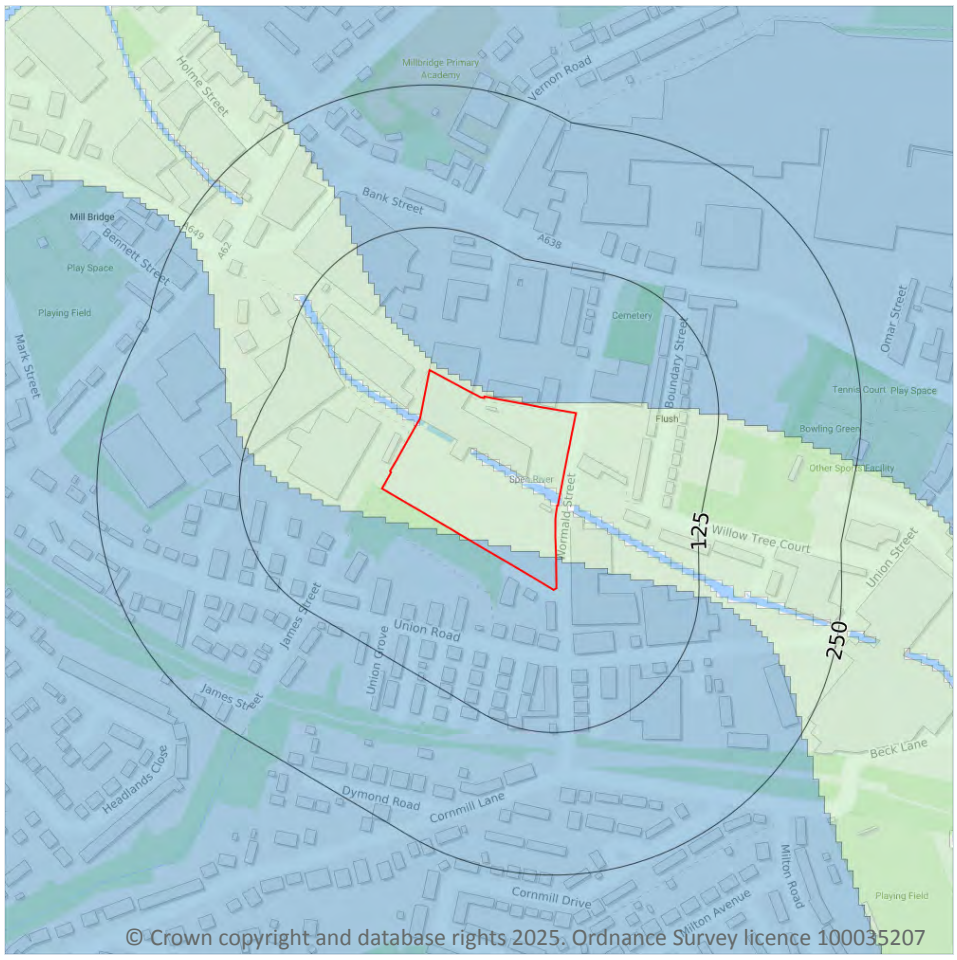
The data shown on the map and in the table above shows the highest likelihood of flood events happening at the site. Lower likelihood events may have greater flood depths and hence a greater potential impact on a site.

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	Greater than 1.0m
1 in 250 year	Greater than 1.0m
1 in 100 year	Greater than 1.0m
1 in 30 year	Greater than 1.0m

This data is sourced from Ambiental Risk Analytics.

9 Groundwater flooding



Site Outline

Search buffers in metres (m)

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

9.1 Groundwater flooding

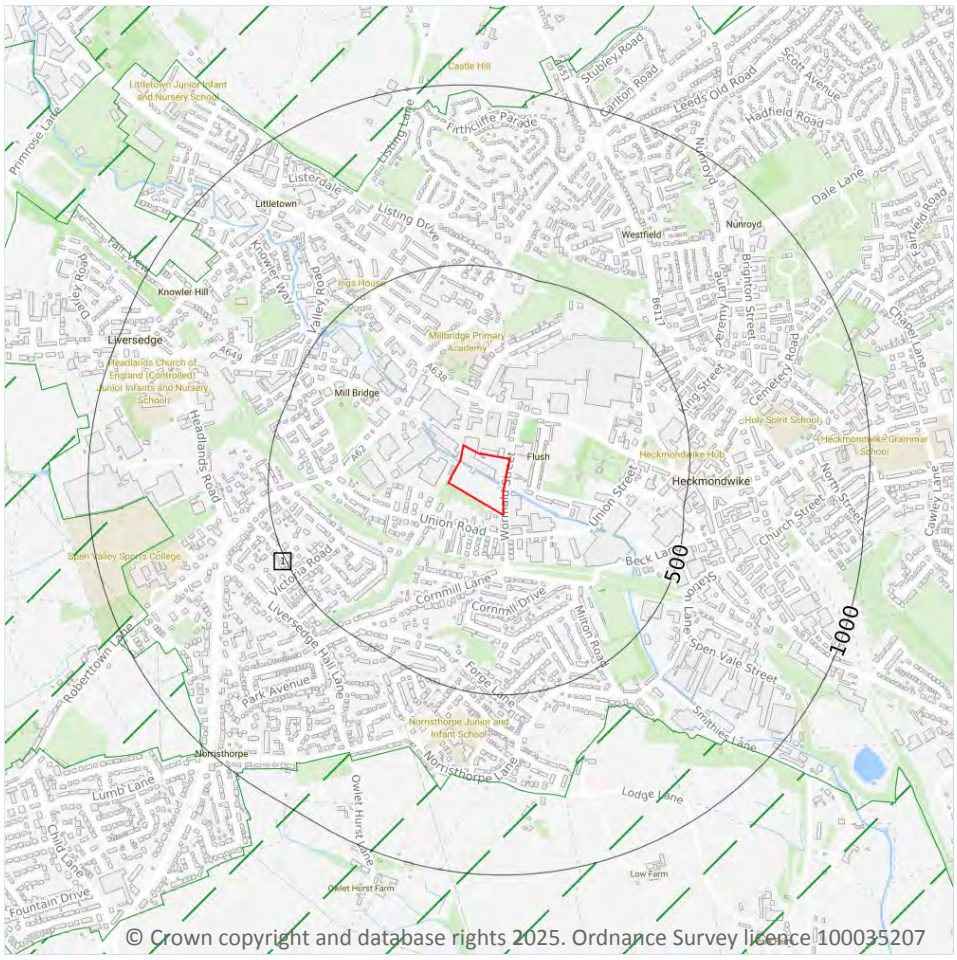
Highest risk on site	**Low**
Highest risk within 50m	**Low**

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

Features are displayed on the Groundwater flooding map on **page 98 >**

This data is sourced from Ambiental Risk Analytics.

10 Environmental designations



10.1 Sites of Special Scientific Interest (SSSI)

Records within 2000m	0

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

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

10.2 Conserved wetland sites (Ramsar sites)

Records within 2000m	0

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

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

10.3 Special Areas of Conservation (SAC)

Records within 2000m	0

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

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

10.4 Special Protection Areas (SPA)

Records within 2000m	0

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

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

10.5 National Nature Reserves (NNR)

Records within 2000m	0

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

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

10.6 Local Nature Reserves (LNR)

Records within 2000m	0

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

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

10.7 Designated Ancient Woodland

Records within 2000m	0

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

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

10.8 Biosphere Reserves

Records within 2000m	0

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

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

10.9 Forest Parks

Records within 2000m	0

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

This data is sourced from the Forestry Commission.

10.10 Marine Conservation Zones

Records within 2000m	0

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

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

10.11 Green Belt

Records within 2000m	1

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

Features are displayed on the Environmental designations map on **page 99 >**

ID	Location	Name	Local Authority name
1	607m SE	South and West Yorkshire Green Belt	Kirklees

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

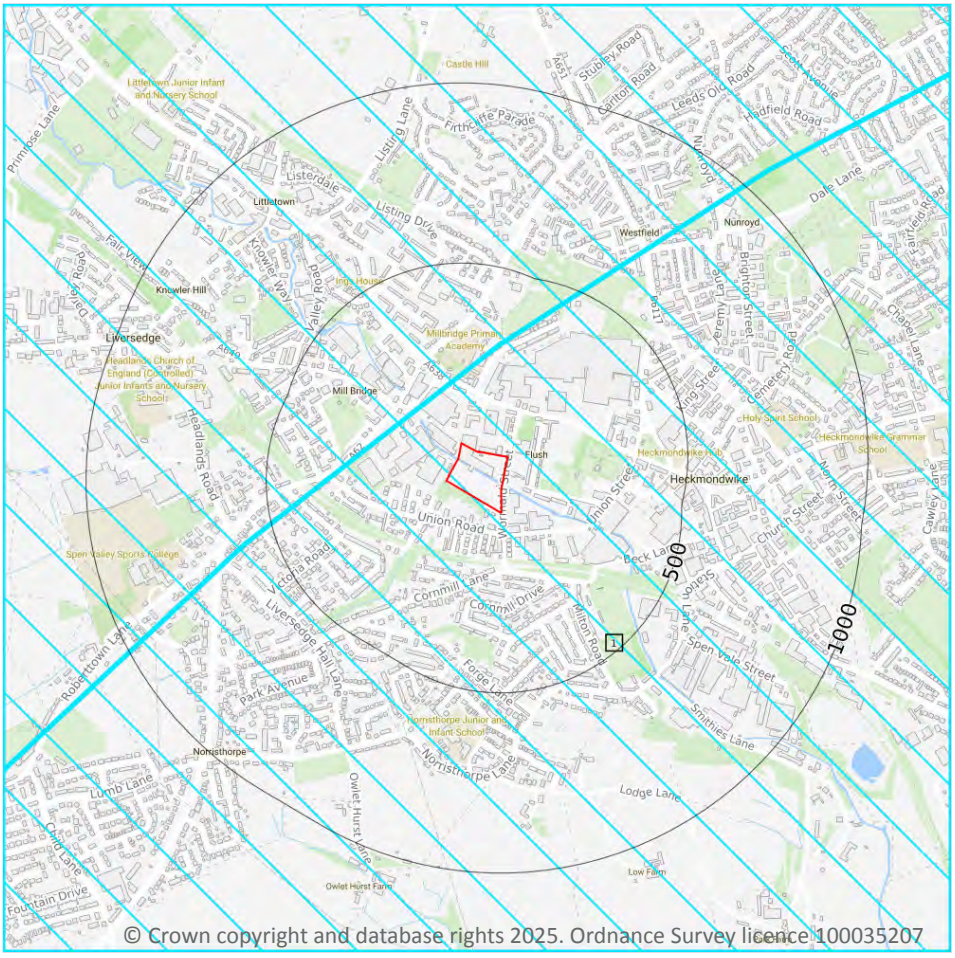
Records within 2000m	1

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	**Spen Beck from Source to River Calder NVZ**	**Surface Water**	**271**	**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 104 >**

ID	Location	Type of developments requiring consultation
1	**On site**	**https://irz.geodata.org.uk/IRZ/step2.html?irzcode=0000000630000&notes=&location=424739,422878%20(IRZ%20polygon%20centre)**

This data is sourced from Natural England.

10.18 SSSI Units

Records within 2000m	0

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

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

11 Visual and cultural designations

Site Outline

Search buffers in metres (m)

- Listed buildings
- Conservation areas
- Conservation areas - no data
- National Parks
- Areas of Outstanding Natural Beauty
- Registered parks and gardens
- Scheduled Monuments
- World Heritage Sites

11.1 World Heritage Sites

Records within 250m	0

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

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

11.2 Area of Outstanding Natural Beauty

Records within 250m	0

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

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

11.3 National Parks

Records within 250m	0

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

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

11.4 Listed Buildings

Records within 250m	1

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

Features are displayed on the Visual and cultural designations map on **page 106 >**

ID	Location	Name	Grade	Reference Number	Listed date
1	159m NW	Block To Road Of Spen Valley Carpet Works (Right Hand Part)	II	1184636	13/01/1984

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.

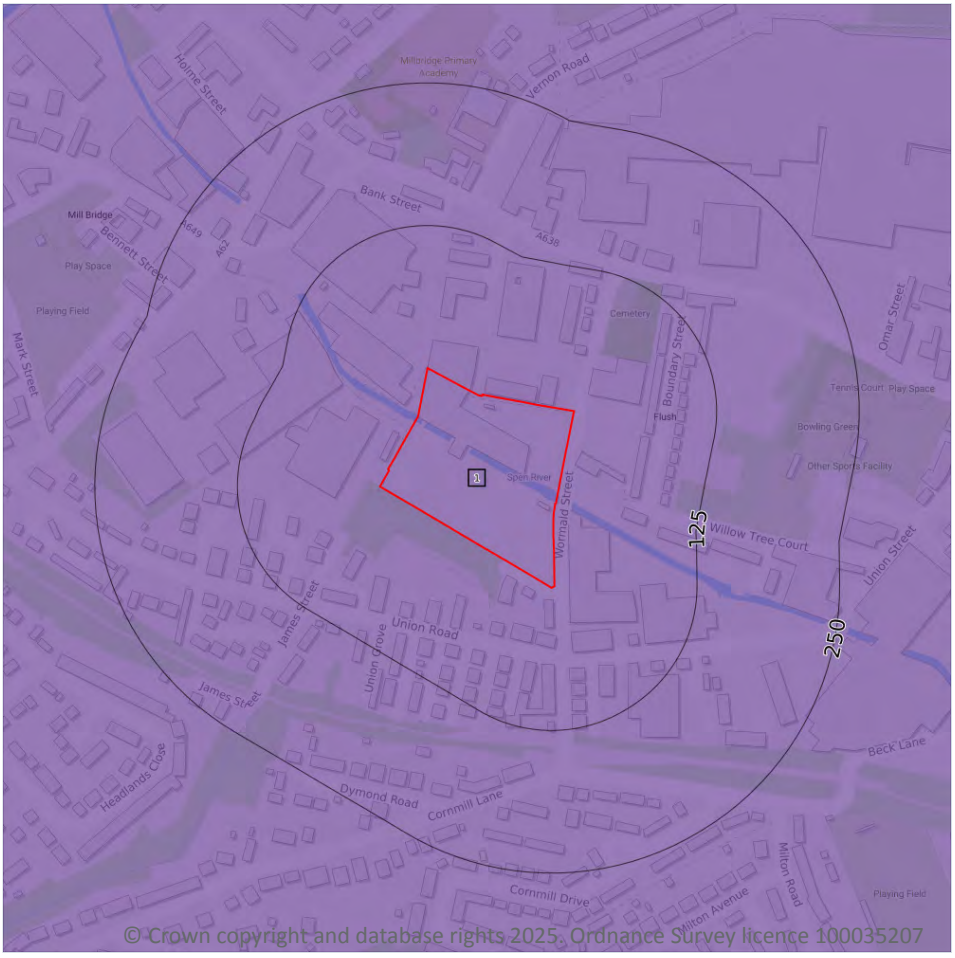
11.7 Registered Parks and Gardens

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 109 >**

ID	Location	Classification	Description
1	**On site**	**Urban**	**Non-agricultural/no quality assigned**

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	5

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 111 >**

ID	Location	Main Habitat	Other habitats
1	**On site**	**Deciduous woodland**	**Main habitat: DWOOD (INV > 50%)**
2	50m SW	Deciduous woodland	Main habitat: DWOOD (INV > 50%)
3	127m S	Deciduous woodland	Main habitat: DWOOD (INV > 50%)
4	158m S	Deciduous woodland	Main habitat: DWOOD (INV > 50%)

ID	Location	Main Habitat	Other habitats
5	249m SW	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

14.1 10k Availability

Records within 500m	1

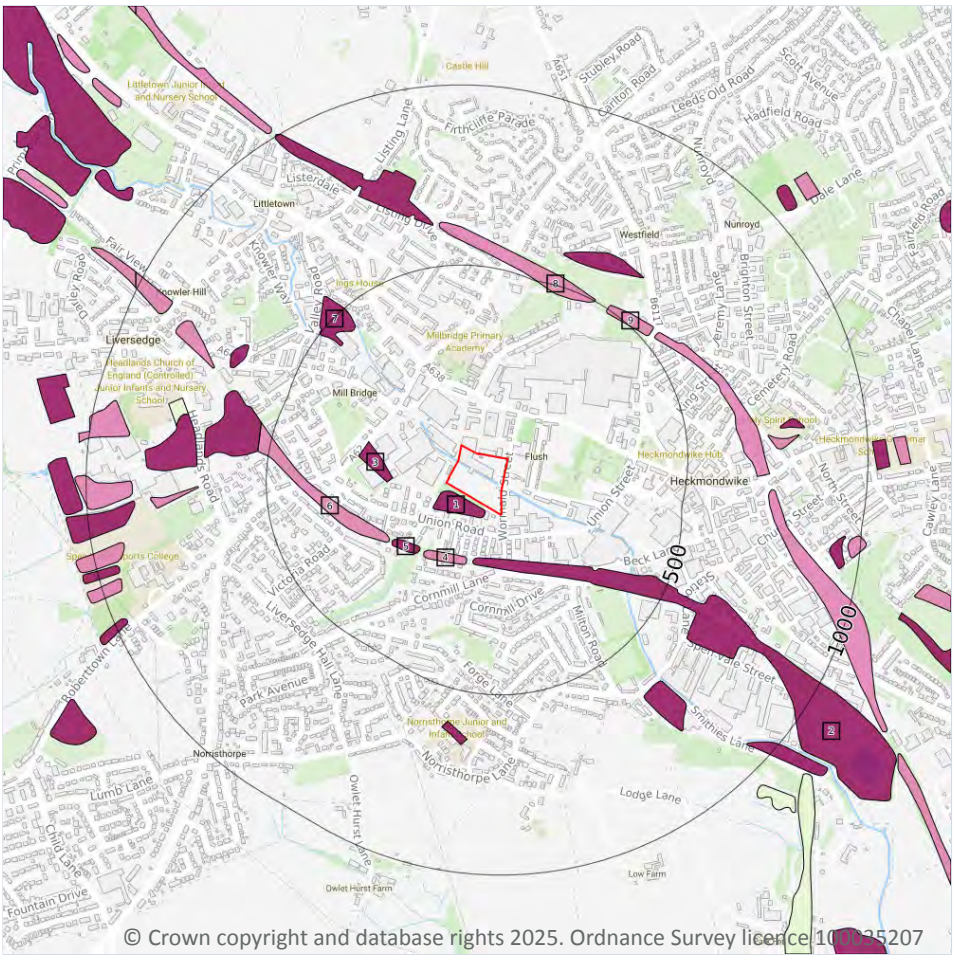
An indication on the coverage of 1:10,000 scale geology data for the site, the most detailed dataset provided by the British Geological Survey. Either 'Full', 'Partial' or 'No coverage' for each geological theme.

Features are displayed on the Geology 1:10,000 scale - Availability map on **page 113 >**

ID	Location	Artificial	Superficial	Bedrock	Mass movement	Sheet No.
1	**On site**	**Full**	**Full**	**Full**	**Full**	**SE22SW**

This data is sourced from the British Geological Survey.

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



14.2 Artificial and made ground (10k)

Records within 500m	9

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 114 >**

ID	Location	LEX Code	Description	Rock description
1	12m SW	MGR-ARTDP	Made Ground (Undivided)	Artificial Deposit
2	123m S	MGR-ARTDP	Made Ground (Undivided)	Artificial Deposit
3	150m W	MGR-ARTDP	Made Ground (Undivided)	Artificial Deposit
4	151m SW	WGR-VOID	Worked Ground (Undivided)	Void

ID	Location	LEX Code	Description	Rock description
5	191m SW	MGR-ARTDP	Made Ground (Undivided)	Artificial Deposit
6	219m SW	WGR-VOID	Worked Ground (Undivided)	Void
7	433m NW	MGR-ARTDP	Made Ground (Undivided)	Artificial Deposit
8	476m N	WGR-VOID	Worked Ground (Undivided)	Void
9	490m NE	WGR-VOID	Worked Ground (Undivided)	Void

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	1

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 116 >**

ID	Location	LEX Code	Description	Rock description
1	**On site**	**ALV-XCSV**	**Alluvium - Clay, Sand And Gravel**	**Clay, Sand And Gravel**

This data is sourced from the British Geological Survey.

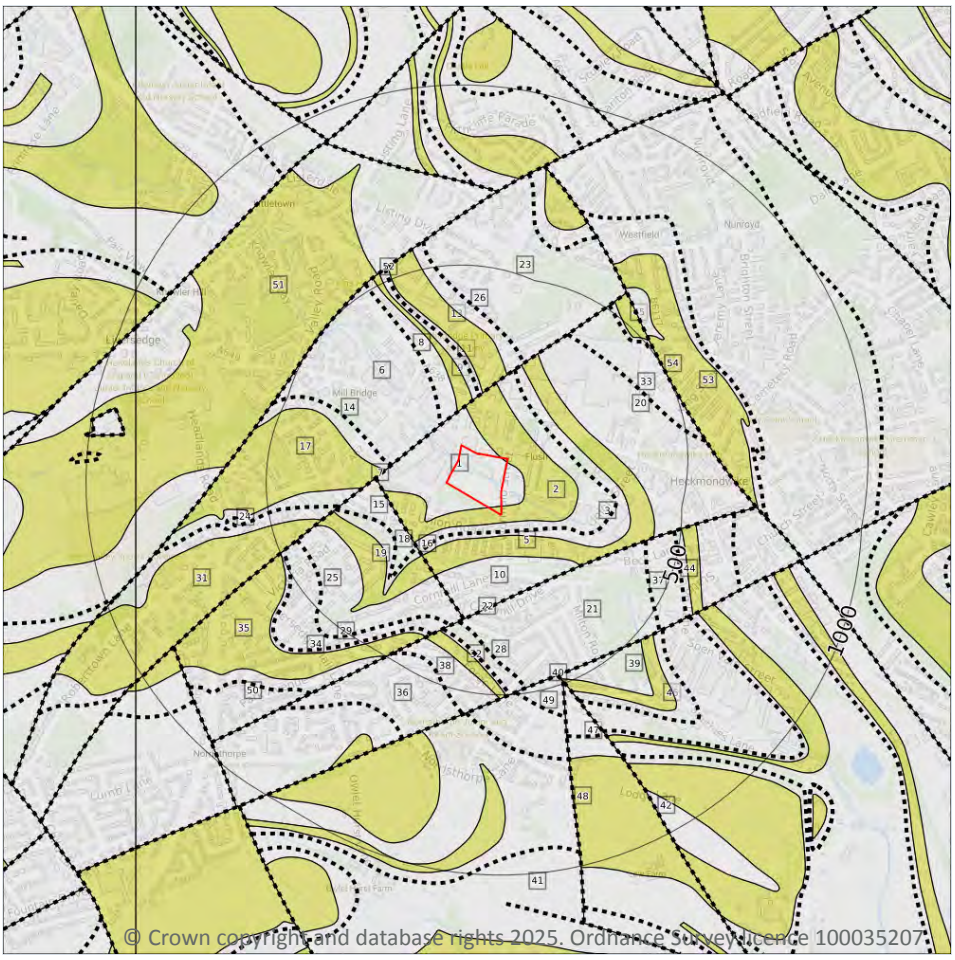
14.4 Landslip (10k)

Records within 500m	0

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

This data is sourced from the British Geological Survey.

Geology 1:10,000 scale - Bedrock



Site Outline

Search buffers in metres (m)

Bedrock faults and other linear features (10k)

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

14.5 Bedrock geology (10k)

Records within 500m	29

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 118 >**

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-SDST**	**Pennine Lower Coal Measures Formation - Sandstone**	**Langsettian Sub-age**
3	23m S	PLCM-MDSS	Pennine Lower Coal Measures Formation - Mudstone, Siltstone And Sandstone	Langsettian Sub-age

ID	Location	LEX Code	Description	Rock age
5	59m S	PLCM-SDST	Pennine Lower Coal Measures Formation - Sandstone	Langsettian Sub-age
6	80m NW	PLCM-MDSS	Pennine Lower Coal Measures Formation - Mudstone, Siltstone And Sandstone	Langsettian Sub-age
9	93m N	PLCM-SDST	Pennine Lower Coal Measures Formation - Sandstone	Langsettian Sub-age
10	115m S	PLCM-MDSS	Pennine Lower Coal Measures Formation - Mudstone, Siltstone And Sandstone	Langsettian Sub-age
11	128m N	PLCM-MDSS	Pennine Lower Coal Measures Formation - Mudstone, Siltstone And Sandstone	Langsettian Sub-age
13	157m N	PLCM-SDST	Pennine Lower Coal Measures Formation - Sandstone	Langsettian Sub-age
15	163m SW	PLCM-MDSS	Pennine Lower Coal Measures Formation - Mudstone, Siltstone And Sandstone	Langsettian Sub-age
17	172m W	PLCM-SDST	Pennine Lower Coal Measures Formation - Sandstone	Langsettian Sub-age
19	209m SW	FHR-SDST	Falhouse Rock - Sandstone	Langsettian Sub-age
20	217m NE	PLCM-MDSS	Pennine Lower Coal Measures Formation - Mudstone, Siltstone And Sandstone	Langsettian Sub-age
21	220m SE	PLCM-MDSS	Pennine Lower Coal Measures Formation - Mudstone, Siltstone And Sandstone	Langsettian Sub-age
23	229m N	PLCM-MDSS	Pennine Lower Coal Measures Formation - Mudstone, Siltstone And Sandstone	Langsettian Sub-age
24	232m W	PLCM-MDSS	Pennine Lower Coal Measures Formation - Mudstone, Siltstone And Sandstone	Langsettian Sub-age
25	238m SW	PLCM-MDSS	Pennine Lower Coal Measures Formation - Mudstone, Siltstone And Sandstone	Langsettian Sub-age
31	361m W	PLCM-SDST	Pennine Lower Coal Measures Formation - Sandstone	Langsettian Sub-age
32	363m SW	PLCM-SDST	Pennine Lower Coal Measures Formation - Sandstone	Langsettian Sub-age
35	397m SW	PLCM-SDST	Pennine Lower Coal Measures Formation - Sandstone	Langsettian Sub-age
36	401m SW	PLCM-MDSS	Pennine Lower Coal Measures Formation - Mudstone, Siltstone And Sandstone	Langsettian Sub-age
39	473m S	PLCM-MDSS	Pennine Lower Coal Measures Formation - Mudstone, Siltstone And Sandstone	Langsettian Sub-age
41	473m S	PLCM-MDSS	Pennine Lower Coal Measures Formation - Mudstone, Siltstone And Sandstone	Langsettian Sub-age
45	484m NE	PLCM-SDST	Pennine Lower Coal Measures Formation - Sandstone	Langsettian Sub-age
46	485m S	PLCM-SDST	Pennine Lower Coal Measures Formation - Sandstone	Langsettian Sub-age

ID	Location	LEX Code	Description	Rock age
47	494m S	PLCM-MDSS	Pennine Lower Coal Measures Formation - Mudstone, Siltstone And Sandstone	Langsettian Sub-age
50	496m SW	PLCM-MDSS	Pennine Lower Coal Measures Formation - Mudstone, Siltstone And Sandstone	Langsettian Sub-age
51	497m NW	FHR-SDST	Falhouse Rock - Sandstone	Langsettian Sub-age
53	500m NE	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	**25**

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 118 >**

ID	Location	Category	Description
4	48m S	ROCK	Coal seam, inferred
7	80m NW	FAULT	Normal fault, inferred; downthrow not specified
8	81m NW	ROCK	Coal seam, inferred
12	145m N	ROCK	Coal seam, inferred
14	160m W	ROCK	Coal seam, inferred
16	163m SW	FAULT	Normal fault, inferred; downthrow not specified
18	196m SW	ROCK	Coal seam, inferred
22	220m SE	FAULT	Normal fault, inferred; downthrow not specified
26	269m N	ROCK	Coal seam, inferred
27	303m W	ROCK	Coal seam, inferred
28	319m S	ROCK	Coal seam, inferred
29	335m SW	ROCK	Coal seam, inferred
30	355m SW	ROCK	Coal seam, inferred
33	380m NE	ROCK	Coal seam, inferred
34	383m SW	ROCK	Coal seam, inferred

ID	Location	Category	Description
37	408m E	ROCK	Coal seam, inferred
38	452m SW	ROCK	Coal seam, inferred
40	473m S	FAULT	Normal fault, inferred; downthrow not specified
42	473m S	FAULT	Normal fault, inferred; downthrow not specified
43	474m NE	ROCK	Coal seam, inferred
44	481m E	ROCK	Coal seam, inferred
48	494m S	FAULT	Normal fault, inferred; downthrow not specified
49	494m S	ROCK	Coal seam, inferred
52	497m NW	FAULT	Normal fault, inferred; downthrow not specified
54	500m NE	FAULT	Normal fault, inferred; downthrow not specified

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 122 >**

ID	Location	Artificial	Superficial	Bedrock	Mass movement	Sheet No.
1	**On site**	**Full**	**Full**	**Full**	**Full**	**EW077_huddersfield_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.

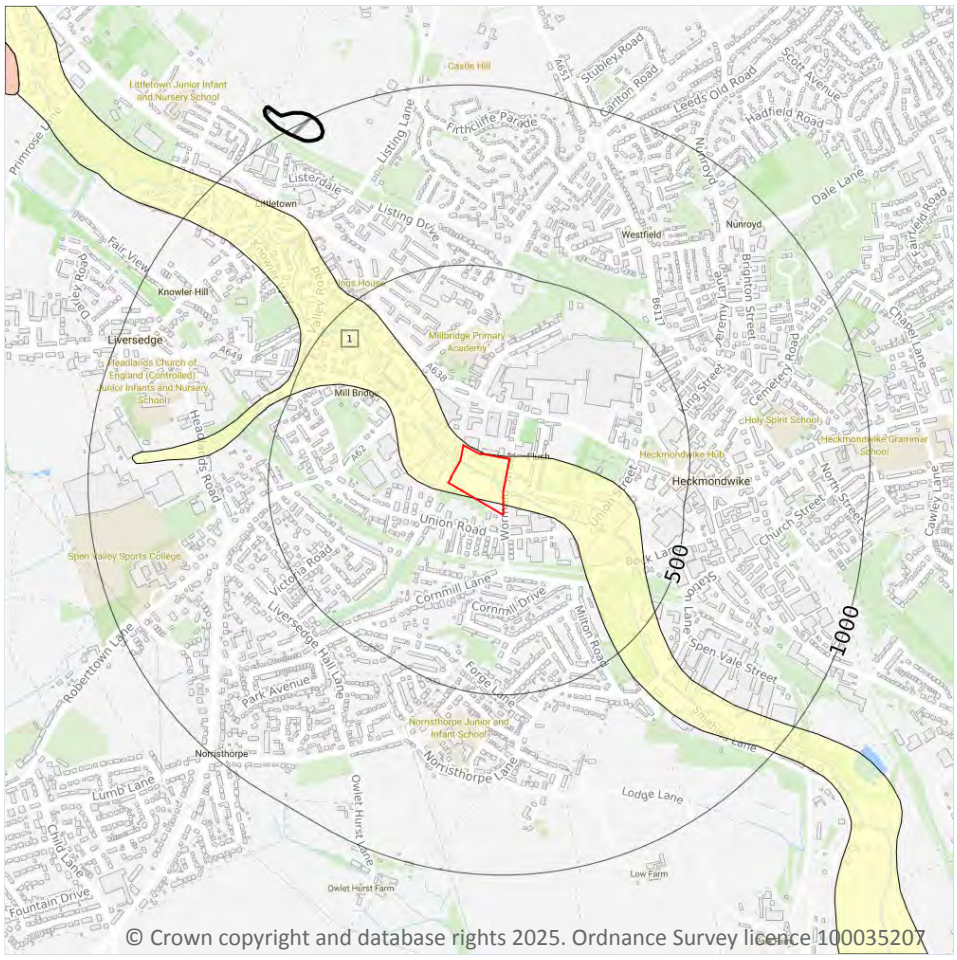
15.3 Artificial ground permeability (50k)

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



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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	1

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 124 >**

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

This data is sourced from the British Geological Survey.

15.5 Superficial permeability (50k)

Records within 50m	1

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

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

This data is sourced from the British Geological Survey.

15.6 Landslip (50k)

Records within 500m	0

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

This data is sourced from the British Geological Survey.

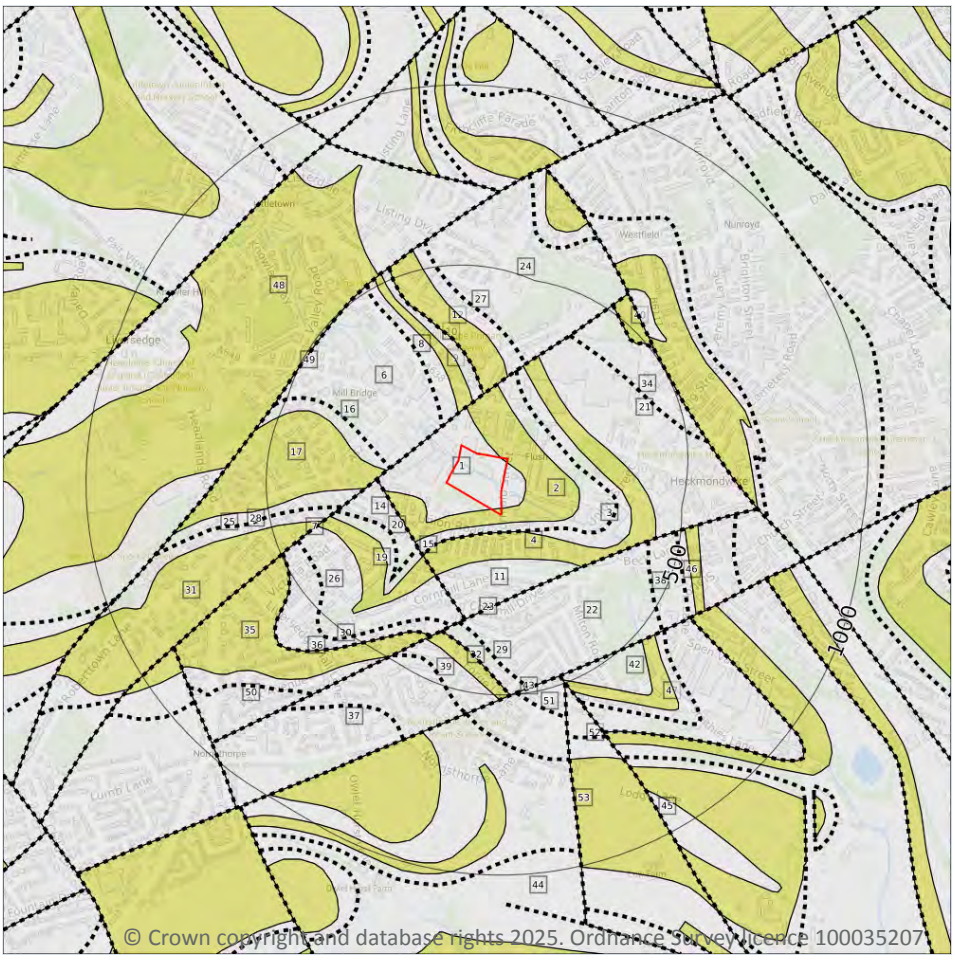
15.7 Landslip permeability (50k)

Records within 50m	0

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

This data is sourced from the British Geological Survey.

Geology 1:50,000 scale - Bedrock



Site Outline

Search buffers in metres (m)

Bedrock faults and other linear features (50k)

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

15.8 Bedrock geology (50k)

Records within 500m	28

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 126 >**

ID	Location	LEX Code	Description	Rock age
1	**On site**	**PLCM-MDSS**	**PENNINE LOWER COAL MEASURES FORMATION - MUDSTONE, SILTSTONE AND SANDSTONE**	**WESTPHALIAN**
2	**On site**	**FHR-SDST**	**FALHOUSE ROCK - SANDSTONE**	**WESTPHALIAN**
3	25m S	PLCM-MDSS	PENNINE LOWER COAL MEASURES FORMATION - MUDSTONE, SILTSTONE AND SANDSTONE	WESTPHALIAN

ID	Location	LEX Code	Description	Rock age
4	49m S	PLCM-SDST	PENNINE LOWER COAL MEASURES FORMATION - SANDSTONE	WESTPHALIAN
6	74m NW	PLCM-MDSS	PENNINE LOWER COAL MEASURES FORMATION - MUDSTONE, SILTSTONE AND SANDSTONE	WESTPHALIAN
9	90m N	PLCM-SDST	PENNINE LOWER COAL MEASURES FORMATION - SANDSTONE	WESTPHALIAN
10	124m N	PLCM-MDSS	PENNINE LOWER COAL MEASURES FORMATION - MUDSTONE, SILTSTONE AND SANDSTONE	WESTPHALIAN
11	124m S	PLCM-MDSS	PENNINE LOWER COAL MEASURES FORMATION - MUDSTONE, SILTSTONE AND SANDSTONE	WESTPHALIAN
12	155m NE	PLCM-SDST	PENNINE LOWER COAL MEASURES FORMATION - SANDSTONE	WESTPHALIAN
14	160m SW	PLCM-MDSS	PENNINE LOWER COAL MEASURES FORMATION - MUDSTONE, SILTSTONE AND SANDSTONE	WESTPHALIAN
17	169m W	PLCM-SDST	PENNINE LOWER COAL MEASURES FORMATION - SANDSTONE	WESTPHALIAN
19	208m SW	FHR-SDST	FALHOUSE ROCK - SANDSTONE	WESTPHALIAN
21	215m NE	PLCM-MDSS	PENNINE LOWER COAL MEASURES FORMATION - MUDSTONE, SILTSTONE AND SANDSTONE	WESTPHALIAN
22	222m SE	PLCM-MDSS	PENNINE LOWER COAL MEASURES FORMATION - MUDSTONE, SILTSTONE AND SANDSTONE	WESTPHALIAN
24	225m N	PLCM-MDSS	PENNINE LOWER COAL MEASURES FORMATION - MUDSTONE, SILTSTONE AND SANDSTONE	WESTPHALIAN
25	226m W	PLCM-MDSS	PENNINE LOWER COAL MEASURES FORMATION - MUDSTONE, SILTSTONE AND SANDSTONE	WESTPHALIAN
26	237m SW	PLCM-MDSS	PENNINE LOWER COAL MEASURES FORMATION - MUDSTONE, SILTSTONE AND SANDSTONE	WESTPHALIAN
31	358m W	PLCM-SDST	PENNINE LOWER COAL MEASURES FORMATION - SANDSTONE	WESTPHALIAN
32	362m SW	PLCM-SDST	PENNINE LOWER COAL MEASURES FORMATION - SANDSTONE	WESTPHALIAN
35	387m SW	PLCM-SDST	PENNINE LOWER COAL MEASURES FORMATION - SANDSTONE	WESTPHALIAN
37	402m SW	PLCM-MDSS	PENNINE LOWER COAL MEASURES FORMATION - MUDSTONE, SILTSTONE AND SANDSTONE	WESTPHALIAN
40	474m NE	PLCM-SDST	PENNINE LOWER COAL MEASURES FORMATION - SANDSTONE	WESTPHALIAN

ID	Location	LEX Code	Description	Rock age
42	476m S	PLCM-MDSS	PENNINE LOWER COAL MEASURES FORMATION - MUDSTONE, SILTSTONE AND SANDSTONE	WESTPHALIAN
44	476m S	PLCM-MDSS	PENNINE LOWER COAL MEASURES FORMATION - MUDSTONE, SILTSTONE AND SANDSTONE	WESTPHALIAN
47	489m S	PLCM-SDST	PENNINE LOWER COAL MEASURES FORMATION - SANDSTONE	WESTPHALIAN
48	492m NW	FHR-SDST	FALHOUSE ROCK - SANDSTONE	WESTPHALIAN
50	494m SW	PLCM-MDSS	PENNINE LOWER COAL MEASURES FORMATION - MUDSTONE, SILTSTONE AND SANDSTONE	WESTPHALIAN
52	500m S	PLCM-MDSS	PENNINE LOWER COAL MEASURES FORMATION - MUDSTONE, SILTSTONE AND SANDSTONE	WESTPHALIAN

This data is sourced from the British Geological Survey.

15.9 Bedrock permeability (50k)

Records within 50m **3**

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**
49m S	Fracture	High	Moderate

This data is sourced from the British Geological Survey.

15.10 Bedrock faults and other linear features (50k)

Records within 500m **25**

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.

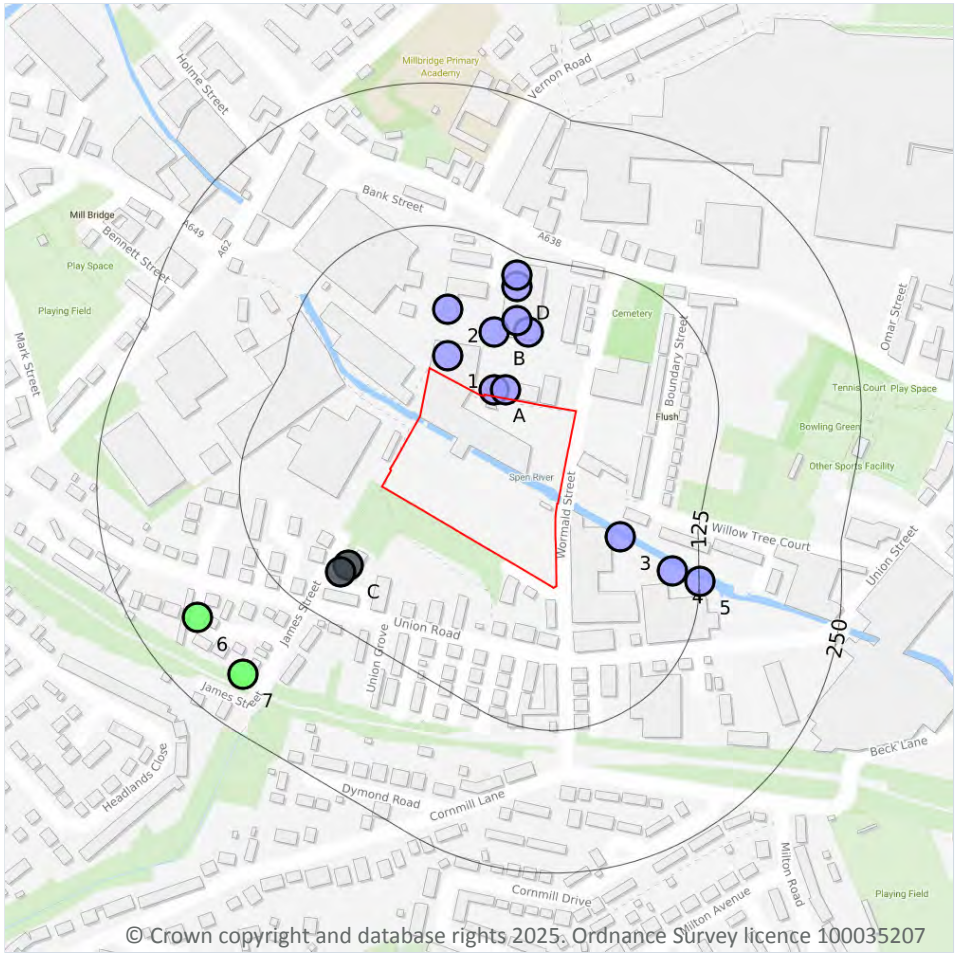
Features are displayed on the Geology 1:50,000 scale - Bedrock map on **page 126 >**

ID	Location	Category	Description
5	49m S	ROCK	Coal seam, inferred

ID	Location	Category	Description
7	74m NW	FAULT	Fault, inferred
8	75m NW	ROCK	Coal seam, inferred
13	155m NE	ROCK	Coal seam, inferred
15	160m SW	FAULT	Fault, inferred
16	161m W	ROCK	Coal seam, inferred
18	195m SW	ROCK	Coal seam, inferred
20	208m SW	ROCK	Coal seam, inferred
23	222m SE	FAULT	Fault, inferred
27	266m N	ROCK	Coal seam, inferred
28	297m W	ROCK	Coal seam, inferred
29	320m S	ROCK	Coal seam, inferred
30	337m SW	ROCK	Coal seam, inferred
33	362m SW	ROCK	Coal seam, inferred
34	379m NE	ROCK	Coal seam, inferred
36	387m SW	ROCK	Coal seam, inferred
38	414m E	ROCK	Coal seam, inferred
39	453m SW	ROCK	Coal seam, inferred
41	474m NE	ROCK	Coal seam, inferred
43	476m S	FAULT	Fault, inferred
45	476m S	FAULT	Fault, inferred
46	487m E	ROCK	Coal seam, inferred
49	492m NW	FAULT	Fault, inferred
51	496m S	ROCK	Coal seam, inferred
53	500m S	FAULT	Fault, inferred

This data is sourced from the British Geological Survey.

16 Boreholes



16.1 BGS Boreholes

Records within 250m	16

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.

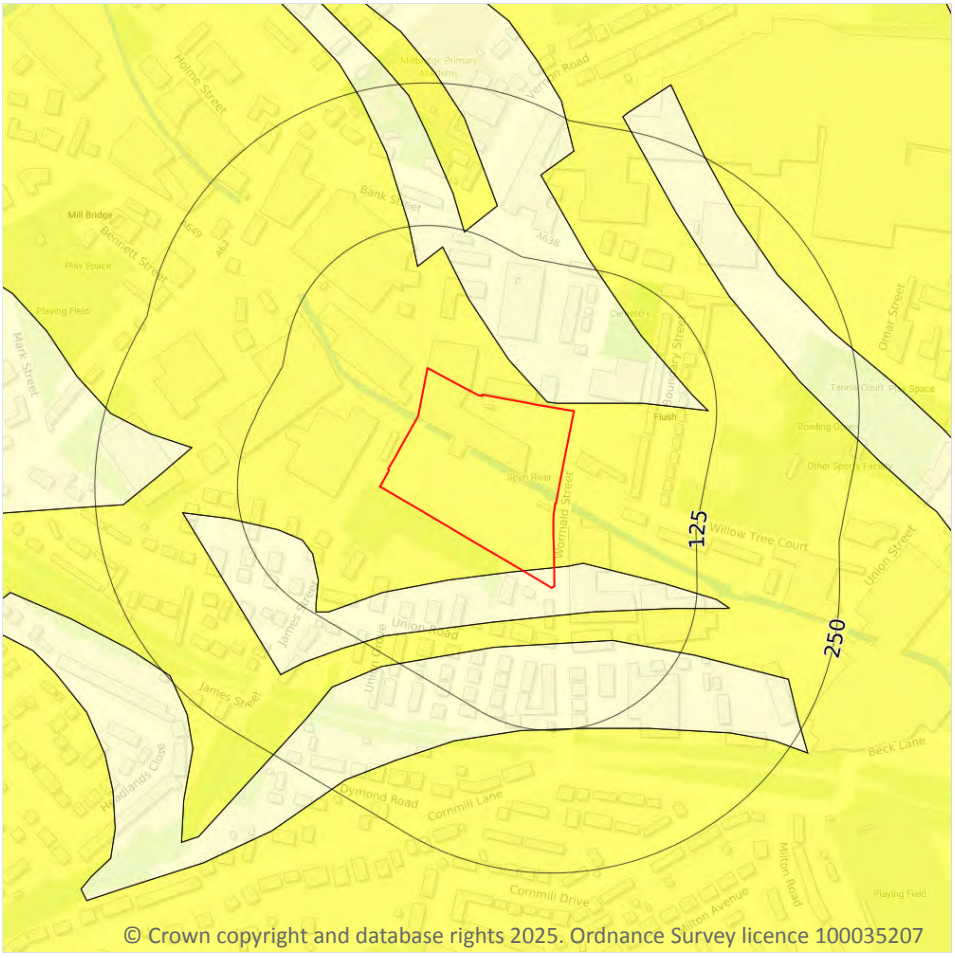
Features are displayed on the Boreholes map on **page 130 >**

ID	Location	Grid reference	Name	Length	Confidential	Web link
A	6m N	420960 423560	GASWORKS ST HECKMONDWIKE TP C	3.0	N	77892 ↗
A	8m N	420970 423560	GASWORKS ST HECKMONDWIKE 4	8.0	N	77888 ↗
1	18m NE	420920 423590	GASWORKS ST HECKMONDWIKE TP E	3.0	N	77894 ↗

ID	Location	Grid reference	Name	Length	Confidential	Web link
2	54m N	420920 423630	GASWORKS ST HECKMONDWIKE TP D	3.0	N	77893 ↗
B	54m NE	420960 423610	GASWORKS ST HECKMONDWIKE 2	4.0	N	77886 ↗
3	57m E	421071 423431	RIGBY MARYLAND LTD, LIVERSEDGE 3	5.25	N	18157882 ↗
B	61m N	420990 423610	GASWORKS ST HECKMONDWIKE 5	4.0	N	77889 ↗
B	69m N	420980 423620	GASWORKS ST HECKMONDWIKE TP B	3.0	N	77891 ↗
C	75m SW	420832 423406	HECKMONDWYKE 2	-	Y	N/A
C	83m SW	420826 423400	HECKMONDWYKE 1	-	Y	N/A
D	98m N	420980 423650	GASWORKS ST HECKMONDWIKE 1	1.0	N	77885 ↗
4	102m E	421117 423401	RIGBY MARYLAND LTD, LIVERSEDGE 2	8.0	N	18157881 ↗
D	108m NE	420980 423660	GASWORKS ST HECKMONDWIKE TP A	1.0	N	77890 ↗
5	126m E	421141 423392	RIGBY MARYLAND LTD, LIVERSEDGE 1	5.9	N	18157880 ↗
6	199m SW	420700 423360	UNION ST LIVERSEDGE 2	25.0	N	77803 ↗
7	205m SW	420740 423310	UNION ST LIVERSEDGE 1	26.0	N	77802 ↗

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	4

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).

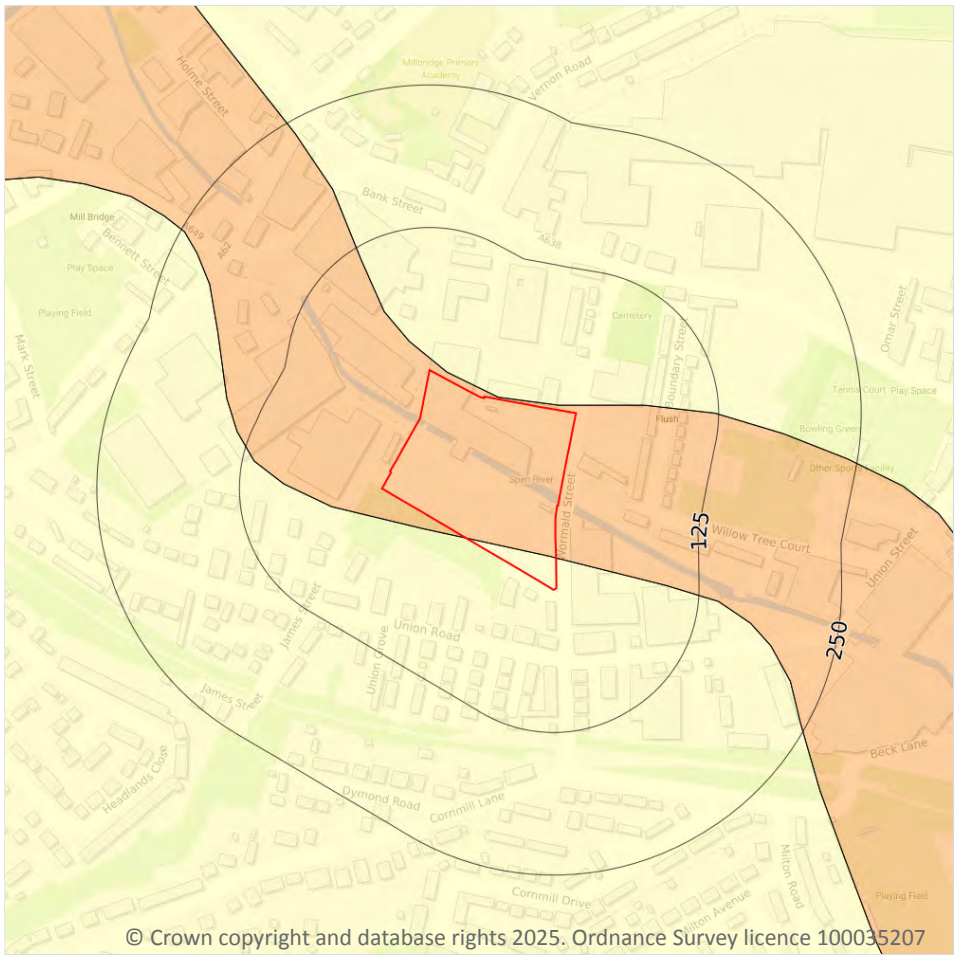
Features are displayed on the Natural ground subsidence - Shrink swell clays map on **page 132 >**

Location	Hazard rating	Details
On site	**Negligible**	**Ground conditions predominantly non-plastic.**
On site	**Very low**	**Ground conditions predominantly low plasticity.**
4m N	Negligible	Ground conditions predominantly non-plastic.

Location	Hazard rating	Details
49m S	Negligible	Ground conditions predominantly non-plastic.

This data is sourced from the British Geological Survey.

Natural ground subsidence - Running sands



Site Outline

Search buffers in metres (m)

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

17.2 Running sands

Records within 50m	3

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

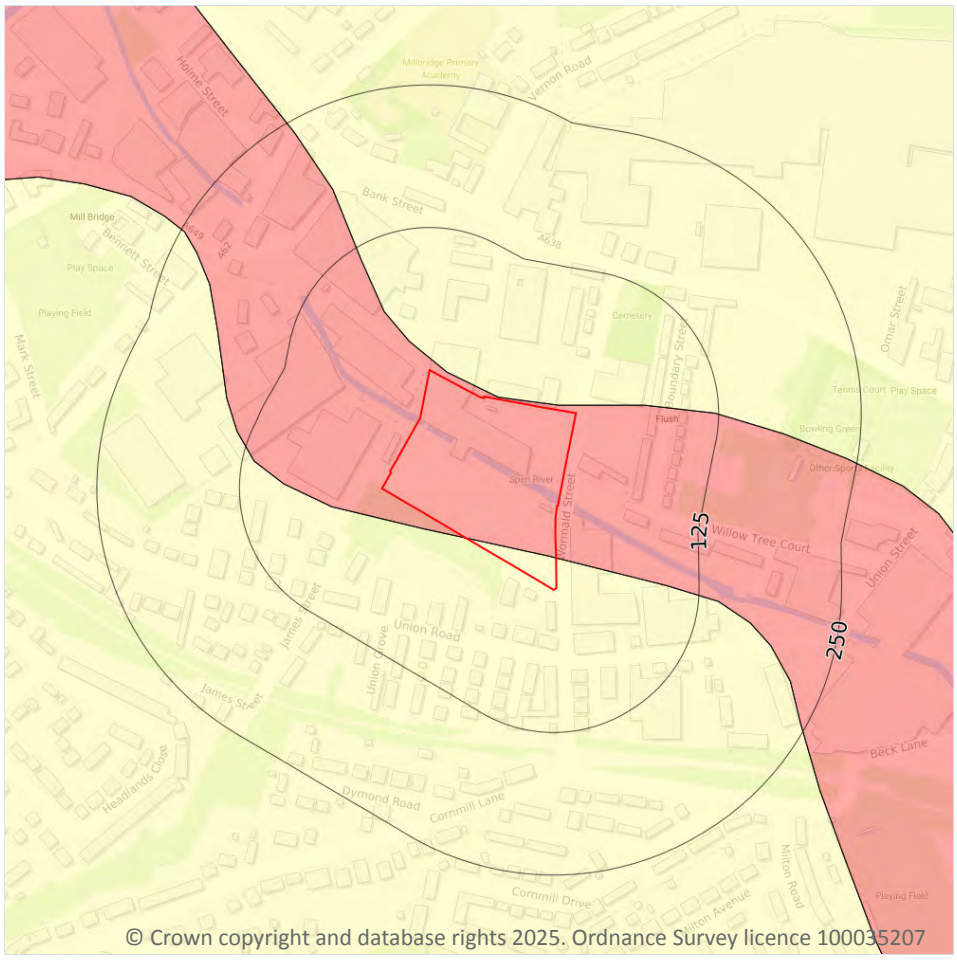
Features are displayed on the Natural ground subsidence - Running sands map on **page 134 >**

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

Location	Hazard rating	Details
On site	**Low**	**Running sand conditions may be present. Constraints may apply to land uses involving excavation or the addition or removal of water.**
2m N	Negligible	Running sand conditions are not thought to occur whatever the position of the water table. No identified constraints on lands use due to running conditions.

This data is sourced from the British Geological Survey.

Natural ground subsidence - Compressible deposits



Site Outline

Search buffers in metres (m)

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

17.3 Compressible deposits

Records within 50m	3

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

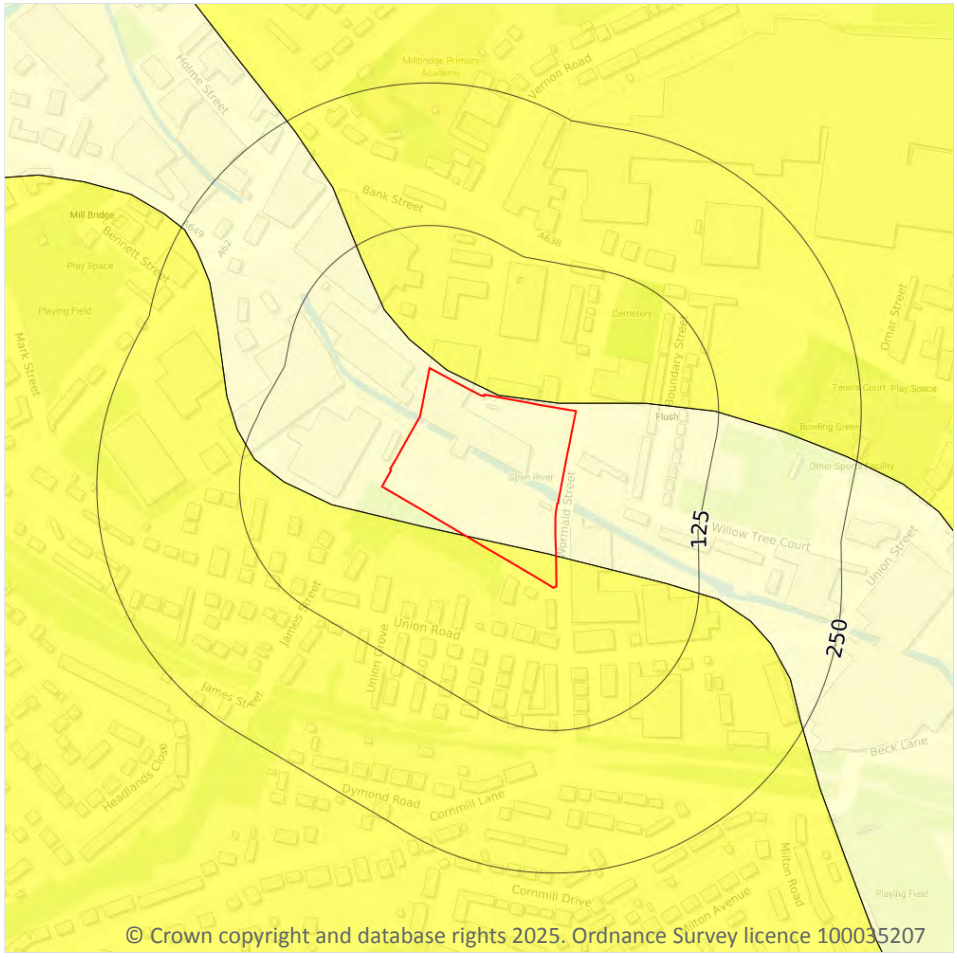
Features are displayed on the Natural ground subsidence - Compressible deposits map on **page 136 >**

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

Location	Hazard rating	Details
2m N	Negligible	Compressible strata are not thought to occur.

This data is sourced from the British Geological Survey.

Natural ground subsidence - Collapsible deposits



Site Outline

Search buffers in metres (m)

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

17.4 Collapsible deposits

Records within 50m	3

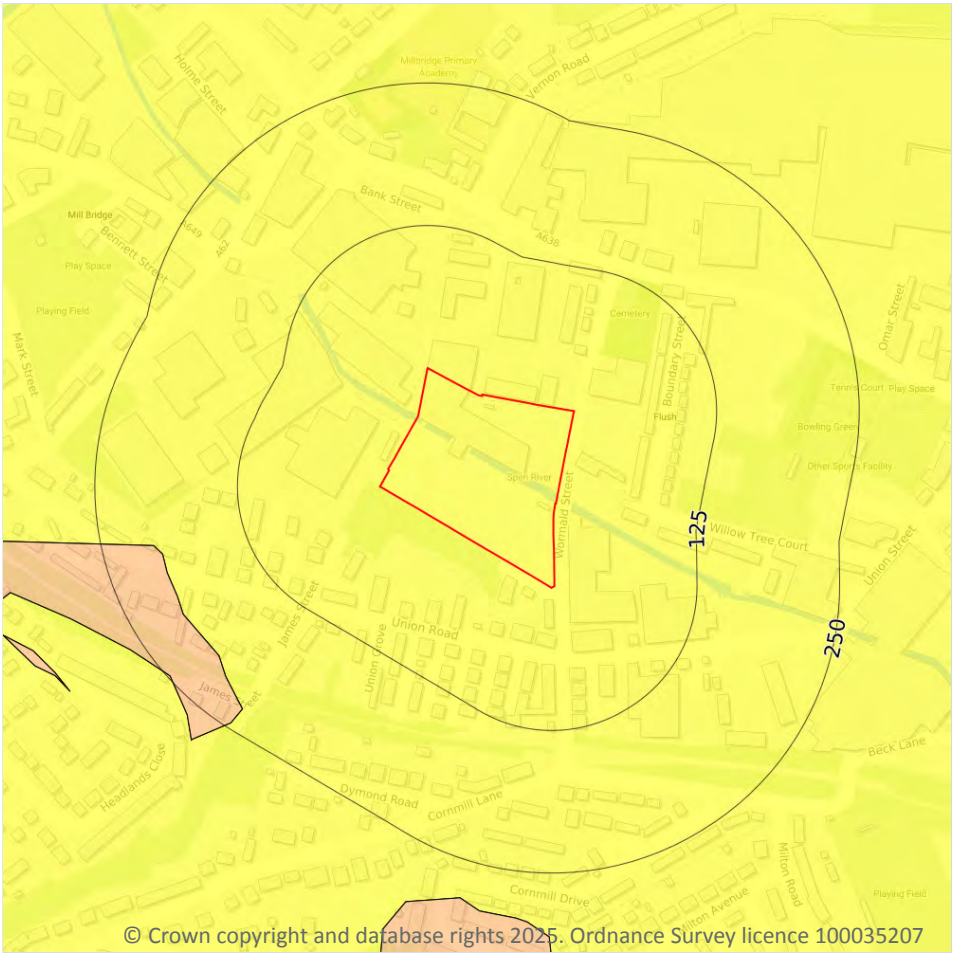
The potential hazard presented by natural deposits that could collapse when a load (such as a building) is placed on them or they become saturated with water.

Features are displayed on the Natural ground subsidence - Collapsible deposits map on **page 138 >**

Location	Hazard rating	Details
On site	**Negligible**	**Deposits with potential to collapse when loaded and saturated are believed not to be present.**
On site	**Very low**	**Deposits with potential to collapse when loaded and saturated are unlikely to be present.**
2m N	Very low	Deposits with potential to collapse when loaded and saturated are unlikely to be present.

This data is sourced from the British Geological Survey.

Natural ground subsidence - Landslides



Site Outline

Search buffers in metres (m)

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

17.5 Landslides

Records within 50m	1

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

Features are displayed on the Natural ground subsidence - Landslides map on **page 140 >**

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

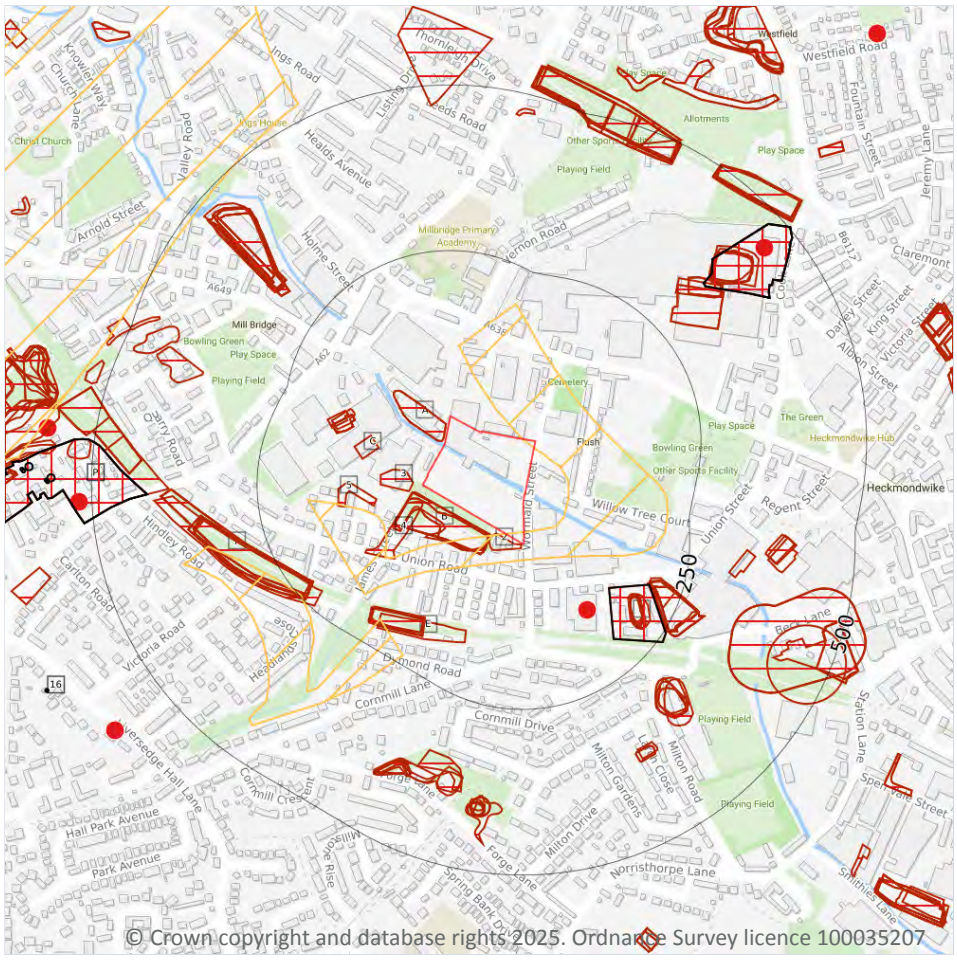
The potential hazard presented by ground dissolution, which occurs when water passing through soluble rocks produces underground cavities and cave systems. These cavities reduce support to the ground above and can cause localised collapse of the overlying rocks and deposits.

Features are displayed on the Natural ground subsidence - Ground dissolution of soluble rocks map on **page 141 >**

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



18.1 BritPits

Records within 500m	4

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 143 >**

ID	Location	Details	Description
6	139m SE	Name: Berry Hill Address: Liversedge, BATLEY, West Yorkshire Commodity: Coal, Deep Status: Ceased	Type: A surface mineral working. It may be termed Quarry, Delf, Delph, Gravel Pit, Sand Pit, Sand and Gravel Pit, Clay Pit, Pit, Opencast Coal Site or Surface Mine. It may be mapped as Worked Ground or Worked and Made Ground on BGS mapping. Status description: Site which has ceased to extract minerals. May be considered as 'Closed' by operator. May be considered to have 'Active', 'Dormant' or 'Expired' planning permissions by the Mineral Planning Authority.
G	452m NE	Name: Common Side Address: HECKMONDWIKE, West Yorkshire Commodity: Coal, Deep Status: Ceased	Type: A surface mineral working. It may be termed Quarry, Delf, Delph, Gravel Pit, Sand Pit, Sand and Gravel Pit, Clay Pit, Pit, Opencast Coal Site or Surface Mine. It may be mapped as Worked Ground or Worked and Made Ground on BGS mapping. Status description: Site which has ceased to extract minerals. May be considered as 'Closed' by operator. May be considered to have 'Active', 'Dormant' or 'Expired' planning permissions by the Mineral Planning Authority.
G	468m NE	Name: Common Side Address: HECKMONDWIKE, West Yorkshire Commodity: Coal, Deep Status: Ceased	Type: A surface mineral working. It may be termed Quarry, Delf, Delph, Gravel Pit, Sand Pit, Sand and Gravel Pit, Clay Pit, Pit, Opencast Coal Site or Surface Mine. It may be mapped as Worked Ground or Worked and Made Ground on BGS mapping. Status description: Site which has ceased to extract minerals. May be considered as 'Closed' by operator. May be considered to have 'Active', 'Dormant' or 'Expired' planning permissions by the Mineral Planning Authority.
G	477m NE	Name: Common Side Address: HECKMONDWIKE, West Yorkshire Commodity: Coal, Deep Status: Ceased	Type: A surface mineral working. It may be termed Quarry, Delf, Delph, Gravel Pit, Sand Pit, Sand and Gravel Pit, Clay Pit, Pit, Opencast Coal Site or Surface Mine. It may be mapped as Worked Ground or Worked and Made Ground on BGS mapping. Status description: Site which has ceased to extract minerals. May be considered as 'Closed' by operator. May be considered to have 'Active', 'Dormant' or 'Expired' planning permissions by the Mineral Planning Authority.

This data is sourced from the British Geological Survey.

18.2 Surface ground workings

Records within 250m	59

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 143 >**

ID	Location	Land Use	Year of mapping	Mapping scale
2	2m SW	Unspecified Ground Workings	1892	1:10560
A	4m W	Pond	1905	1:10560
A	4m W	Pond	1892	1:10560
B	13m SW	Unspecified Heap	1988	1:10000
B	13m SW	Unspecified Heap	1981	1:10000
B	13m SW	Unspecified Heap	1974	1:10000
B	13m SW	Unspecified Heap	1967	1:10560
B	13m SW	Refuse Heap	1955	1:10560
B	14m SW	Refuse Heap	1938	1:10560
3	15m W	Unspecified Heap	1967	1:10560
B	17m SW	Refuse Heap	1948	1:10560
B	17m SW	Refuse Heap	1931	1:10560
4	23m SW	Unspecified Ground Workings	1892	1:10560
5	73m W	Unspecified Ground Workings	1967	1:10560
C	84m NW	Pond	1892	1:10560
C	134m NW	Reservoir	1948	1:10560
C	134m NW	Reservoir	1931	1:10560
C	134m NW	Pond	1905	1:10560
C	134m NW	Pond	1892	1:10560
C	139m NW	Pond	1981	1:10000
D	145m SE	Disused Colliery	1905	1:10560
C	146m NW	Reservoir	1955	1:10560
E	156m SW	Cuttings	1892	1:10560

ID	Location	Land Use	Year of mapping	Mapping scale
E	171m SW	Cuttings	1931	1:10560
E	171m SW	Cuttings	1931	1:10560
E	173m SW	Cuttings	1938	1:10560
E	173m SW	Cuttings	1955	1:10560
E	174m SW	Cuttings	1948	1:10560
E	174m SW	Cuttings	1931	1:10560
E	174m SW	Cuttings	1905	1:10560
D	178m SE	Refuse Heap	1938	1:10560
D	178m SE	Refuse Heap	1955	1:10560
D	180m SE	Refuse Heap	1967	1:10560
D	181m SE	Refuse Heap	1948	1:10560
D	181m SE	Refuse Heap	1931	1:10560
D	181m SE	Refuse Heap	1905	1:10560
D	182m SE	Refuse Heap	1931	1:10560
D	182m SE	Refuse Heap	1931	1:10560
D	197m E	Reservoir	1938	1:10560
D	199m E	Reservoir	1967	1:10560
D	199m E	Reservoir	1931	1:10560
D	199m E	Reservoir	1931	1:10560
D	199m E	Reservoir	1955	1:10560
D	207m E	Reservoir	1948	1:10560
D	207m E	Reservoir	1931	1:10560
D	207m E	Mill Pond	1905	1:10560
D	207m E	Mill Pond	1892	1:10560
F	221m SW	Cuttings	1988	1:10000
F	221m SW	Cuttings	1981	1:10000
F	221m SW	Cuttings	1974	1:10000
F	221m SW	Cuttings	1967	1:10560

ID	Location	Land Use	Year of mapping	Mapping scale
F	221m SW	Cuttings	1892	1:10560
F	222m SW	Cuttings	1931	1:10560
F	222m SW	Cuttings	1931	1:10560
F	223m SW	Cuttings	1948	1:10560
F	223m SW	Cuttings	1931	1:10560
F	223m SW	Cuttings	1905	1:10560
F	223m SW	Cuttings	1938	1:10560
F	227m SW	Cuttings	1955	1:10560

This is data is sourced from Ordnance Survey/Groundsure.

18.3 Underground workings

Records within 1000m	**22**

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

Features are displayed on the Mining and ground workings map on **page 143 >**

ID	Location	Land Use	Year of mapping	Mapping scale
D	145m SE	Disused Colliery	1905	1:10560
G	347m NE	Colliery	1905	1:10560
G	347m NE	Colliery	1892	1:10560
P	416m W	Colliery	1905	1:10560
P	416m W	Colliery	1892	1:10560
P	556m W	Unspecified Disused Shafts	1967	1:10560
P	564m W	Unspecified Old Shafts	1948	1:10560
P	566m W	Unspecified Old Shafts	1955	1:10560
P	589m W	Unspecified Disused Shafts	1967	1:10560
P	600m W	Unspecified Old Shafts	1948	1:10560
P	603m W	Unspecified Old Shafts	1955	1:10560
16	644m SW	Air Shaft	1892	1:10560

ID	Location	Land Use	Year of mapping	Mapping scale
-	845m SW	Unspecified Old Shaft	1892	1:10560
-	854m W	Unspecified Shaft	1905	1:10560
-	854m W	Unspecified Shaft	1892	1:10560
-	869m W	Unspecified Shaft	1931	1:10560
-	869m W	Unspecified Shaft	1905	1:10560
-	869m W	Unspecified Shaft	1892	1:10560
-	891m SW	Colliery	1892	1:10560
-	947m SW	Colliery	1905	1:10560
-	947m SW	Colliery	1892	1:10560
-	991m SW	Unspecified Shaft	1892	1:10560

This is data is sourced from Ordnance Survey/Groundsure.

18.4 Underground mining extents

Records within 500m	0

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

This data is sourced from Groundsure.

18.5 Historical Mineral Planning Areas

Records within 500m	0

Boundaries of mineral planning permissions for England and Wales. This data was collated between the 1940s (and retrospectively to the 1930s) and the mid 1980s. The data includes permitted, withdrawn and refused permissions.

This data is sourced from the British Geological Survey.

18.6 Non-coal mining

Records within 1000m	4

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

Features are displayed on the Mining and ground workings map on **page 143 >**

ID	Location	Name	Commodity	Class	Likelihood
1	**On site**	**Leeds/Bradford area**	**Iron Ore (Bedded)**	**B**	**Underground mine workings may have occurred in the past or current mines may be working at significant depth to modern engineering standards. Potential for difficult ground conditions are unlikely and are at a level where they need not be considered.**
7	208m SW	Leeds/Bradford area	Iron Ore (Bedded)	B	Underground mine workings may have occurred in the past or current mines may be working at significant depth to modern engineering standards. Potential for difficult ground conditions are unlikely and are at a level where they need not be considered.
12	492m NW	Leeds/Bradford area	Iron Ore (Bedded)	B	Underground mine workings may have occurred in the past or current mines may be working at significant depth to modern engineering standards. Potential for difficult ground conditions are unlikely and are at a level where they need not be considered.
-	862m W	Leeds/Bradford area	Iron Ore (Bedded)	B	Underground mine workings may have occurred in the past or current mines may be working at significant depth to modern engineering standards. Potential for difficult ground conditions are unlikely and are at a level where they need not be considered.

This data is sourced from the British Geological Survey.

18.7 JPB mining areas

Records on site	0

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

This data is sourced from Johnson Poole and Bloomer.

18.8 The Coal Authority non-coal mining

Records within 500m	0

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

This data is sourced from The Coal Authority.

18.9 Researched mining

Records within 500m	0

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

This data is sourced from Groundsure.

18.10 Mining record office plans

Records within 500m	0

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

This data is sourced from Groundsure.

18.11 BGS mine plans

Records within 500m	0

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

This data is sourced from Groundsure.

18.12 Coal mining

Records on site	1

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

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

This data is sourced from the Coal Authority.

18.13 Brine areas

Records on site	0

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

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

18.14 Gypsum areas

Records on site	0

Generalised areas that may be affected by gypsum extraction.

This data is sourced from British Gypsum.

18.15 Tin mining

Records on site	0

Generalised areas that may be affected by historical tin mining.

This data is sourced from Groundsure.

18.16 Clay mining

Records on site	0

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

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

19 Ground cavities and sinkholes

19.1 Natural cavities

Records within 500m	0

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

This data is sourced from Stantec UK Ltd.

19.2 Mining cavities

Records within 1000m	0

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

This data is sourced from Stantec UK Ltd.

19.3 Reported recent incidents

Records within 500m	0

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

This data is sourced from Groundsure.

19.4 Historical incidents

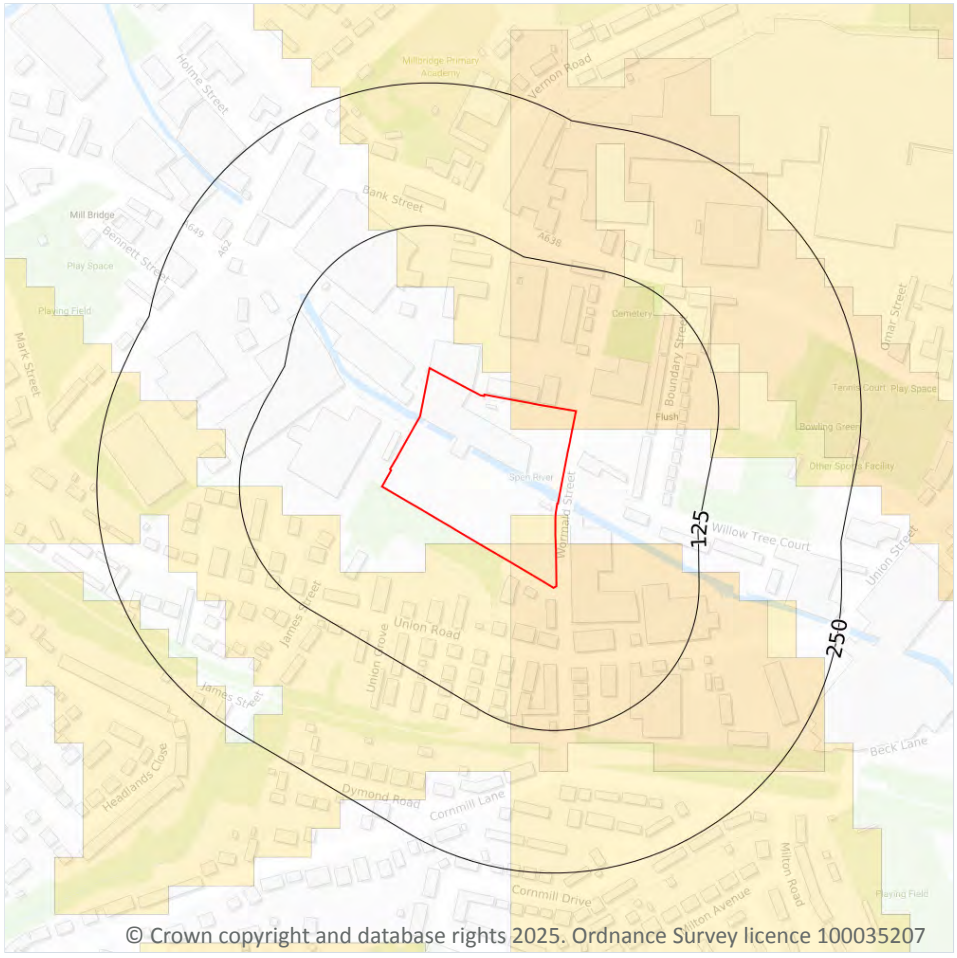
Records within 500m	0

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

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

This data is sourced from Groundsure.

20 Radon



Site Outline

Search buffers in metres (m)

- Greater than 30%
- Between 10% and 30%
- Between 5% and 10%
- Between 3% and 5%
- Between 1% and 3%
- Less than 1%

20.1 Radon

Records on site	3

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 154 >**

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	**Between 3% and 5%**	**Basic**
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	24

The estimated values provide the likely background concentration of the potentially harmful elements Arsenic, Cadmium, Chromium, Lead and Nickel in topsoil. The values are estimated primarily from rural topsoil data collected at a sample density of approximately 1 per 2 km^2. In areas where rural soil samples are not available, estimation is based on stream sediment data collected from small streams at a sampling density of 1 per 2.5 km^2; 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**	**90 - 120 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**	**90 - 120 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**	**120 - 180 mg/kg**	**30 - 45 mg/kg**
On site	**25 - 35 mg/kg**	**No data**	**100 - 200 mg/kg**	**60 - 120 mg/kg**	**1.8 mg/kg**	**120 - 180 mg/kg**	**30 - 45 mg/kg**
On site	**25 - 35 mg/kg**	**No data**	**100 - 200 mg/kg**	**60 - 120 mg/kg**	**1.8 mg/kg**	**120 - 180 mg/kg**	**30 - 45 mg/kg**
On site	**25 - 35 mg/kg**	**No data**	**100 - 200 mg/kg**	**60 - 120 mg/kg**	**1.8 mg/kg**	**120 - 180 mg/kg**	**30 - 45 mg/kg**
On site	**25 - 35 mg/kg**	**No data**	**100 - 200 mg/kg**	**60 - 120 mg/kg**	**1.8 mg/kg**	**120 - 180 mg/kg**	**30 - 45 mg/kg**
On site	**25 - 35 mg/kg**	**No data**	**100 - 200 mg/kg**	**60 - 120 mg/kg**	**1.8 mg/kg**	**120 - 180 mg/kg**	**30 - 45 mg/kg**
On site	**35 - 45 mg/kg**	**No data**	**100 - 200 mg/kg**	**60 - 120 mg/kg**	**1.8 mg/kg**	**90 - 120 mg/kg**	**30 - 45 mg/kg**
On site	**35 - 45 mg/kg**	**No data**	**100 - 200 mg/kg**	**60 - 120 mg/kg**	**1.8 mg/kg**	**90 - 120 mg/kg**	**30 - 45 mg/kg**
On site	**35 - 45 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	**35 - 45 mg/kg**	**No data**	**100 - 200 mg/kg**	**60 - 120 mg/kg**	**1.8 mg/kg**	**60 - 90 mg/kg**	**15 - 30 mg/kg**

Location	Arsenic	Bioaccessible Arsenic	Lead	Bioaccessible Lead	Cadmium	Chromium	Nickel
On site	**35 - 45 mg/kg**	**No data**	**100 - 200 mg/kg**	**60 - 120 mg/kg**	**1.8 mg/kg**	**90 - 120 mg/kg**	**15 - 30 mg/kg**
2m N	25 - 35 mg/kg	No data	100 - 200 mg/kg	60 - 120 mg/kg	1.8 mg/kg	90 - 120 mg/kg	15 - 30 mg/kg
4m N	25 - 35 mg/kg	No data	100 - 200 mg/kg	60 - 120 mg/kg	1.8 mg/kg	90 - 120 mg/kg	15 - 30 mg/kg
4m N	35 - 45 mg/kg	No data	100 - 200 mg/kg	60 - 120 mg/kg	1.8 mg/kg	90 - 120 mg/kg	30 - 45 mg/kg
4m N	35 - 45 mg/kg	No data	100 - 200 mg/kg	60 - 120 mg/kg	1.8 mg/kg	90 - 120 mg/kg	30 - 45 mg/kg
12m N	35 - 45 mg/kg	No data	100 - 200 mg/kg	60 - 120 mg/kg	1.8 mg/kg	60 - 90 mg/kg	15 - 30 mg/kg
12m N	35 - 45 mg/kg	No data	100 - 200 mg/kg	60 - 120 mg/kg	1.8 mg/kg	60 - 90 mg/kg	15 - 30 mg/kg
25m S	35 - 45 mg/kg	No data	100 - 200 mg/kg	60 - 120 mg/kg	1.8 mg/kg	90 - 120 mg/kg	30 - 45 mg/kg
26m E	35 - 45 mg/kg	No data	100 - 200 mg/kg	60 - 120 mg/kg	1.8 mg/kg	90 - 120 mg/kg	15 - 30 mg/kg
29m SW	25 - 35 mg/kg	No data	100 - 200 mg/kg	60 - 120 mg/kg	1.8 mg/kg	90 - 120 mg/kg	15 - 30 mg/kg
29m SW	25 - 35 mg/kg	No data	100 - 200 mg/kg	60 - 120 mg/kg	1.8 mg/kg	90 - 120 mg/kg	15 - 30 mg/kg
49m S	35 - 45 mg/kg	No data	100 - 200 mg/kg	60 - 120 mg/kg	1.8 mg/kg	90 - 120 mg/kg	30 - 45 mg/kg

This data is sourced from the British Geological Survey.

21.2 BGS Estimated Urban Soil Chemistry

Records within 50m	**0**

Estimated topsoil chemistry of Arsenic, Cadmium, Chromium, Copper, Nickel, Lead, Tin and Zinc and bioaccessible Arsenic and Lead in 23 urban centres across Great Britain. These estimates are derived from interpolation of the measured urban topsoil data referred to above and provide information across each city between the measured sample locations (4 per km^2).

This data is sourced from the British Geological Survey.

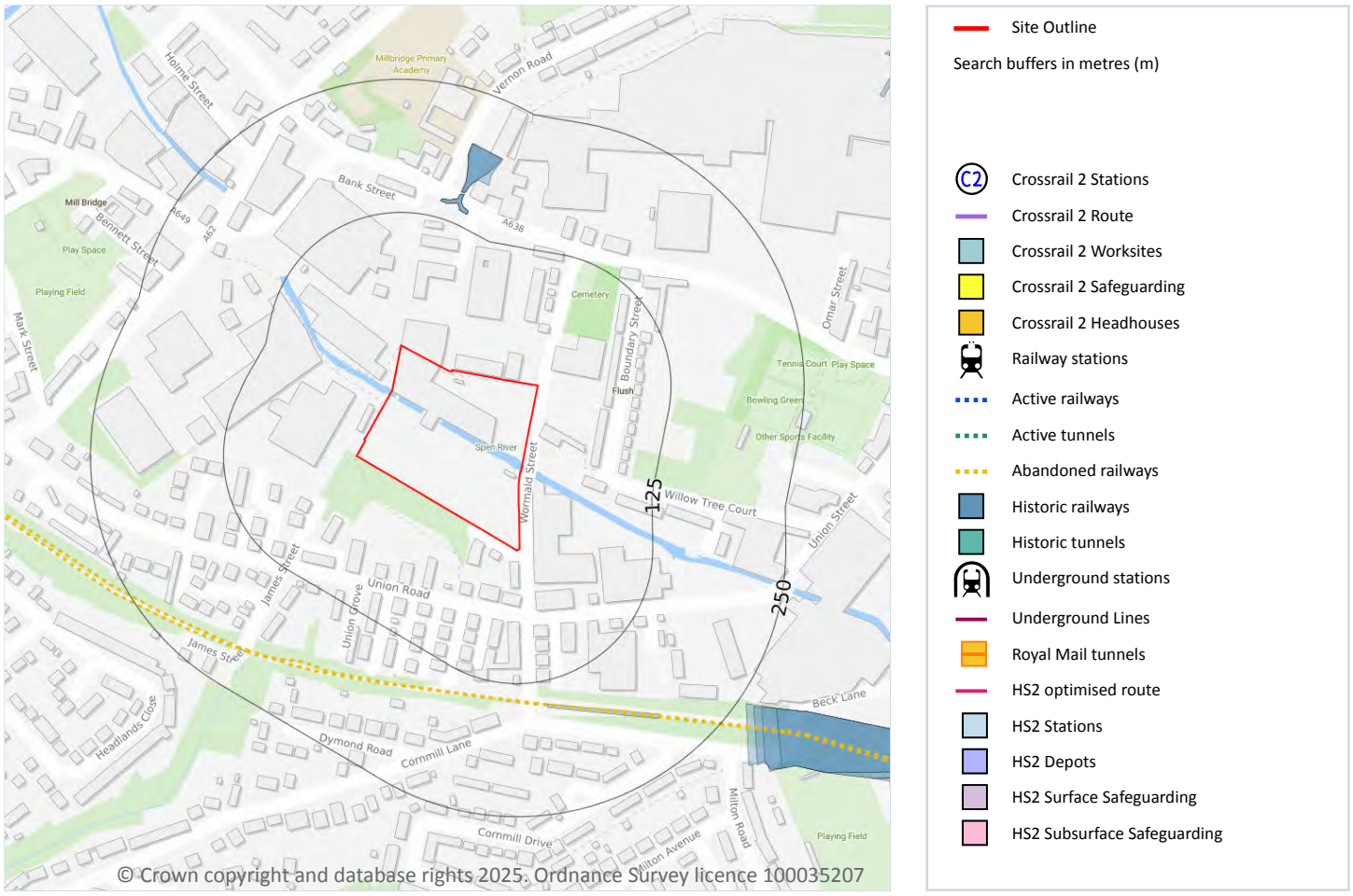
21.3 BGS Measured Urban Soil Chemistry

Records within 50m	0

The locations and measured total concentrations (mg/kg) of Arsenic, Cadmium, Chromium, Copper, Nickel, Lead, Tin and Zinc in urban topsoil samples from 23 urban centres across Great Britain. These are collected at a sample density of 4 per km^2.

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	7

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

Features are displayed on the Railway infrastructure and projects map on **page 159 >**

Location	Land Use	Year of mapping	Mapping scale
138m NE	Tramway Sidings	1907	2500
138m NE	Tramway Sidings	1922	2500
138m NE	Tramway Sidings	1933	2500
147m S	Railway Sidings	1956	2500
155m N	Tramway Sidings	1907	2500
155m N	Tramway Sidings	1922	2500
155m N	Tramway Sidings	1933	2500

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	10

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

Features are displayed on the Railway infrastructure and projects map on **page 159 >**

Location	Description
140m S	Historical OSM
141m S	Abandoned
142m S	Historical OSM
143m S	Abandoned
144m S	Historical OSM
145m S	Abandoned
209m SW	Historical OSM
211m SW	Abandoned
212m SW	Historical OSM
213m SW	Abandoned

This data is sourced from OpenStreetMap.

22.7 Railways

Records within 250m	0

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

This data is sourced from Ordnance Survey and OpenStreetMap.

22.8 Crossrail 2

Records within 500m	0

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

This data is sourced from publicly available information by Groundsure.

22.9 HS2

Records within 500m	0

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

This data is sourced from HS2 ltd.

Data providers

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

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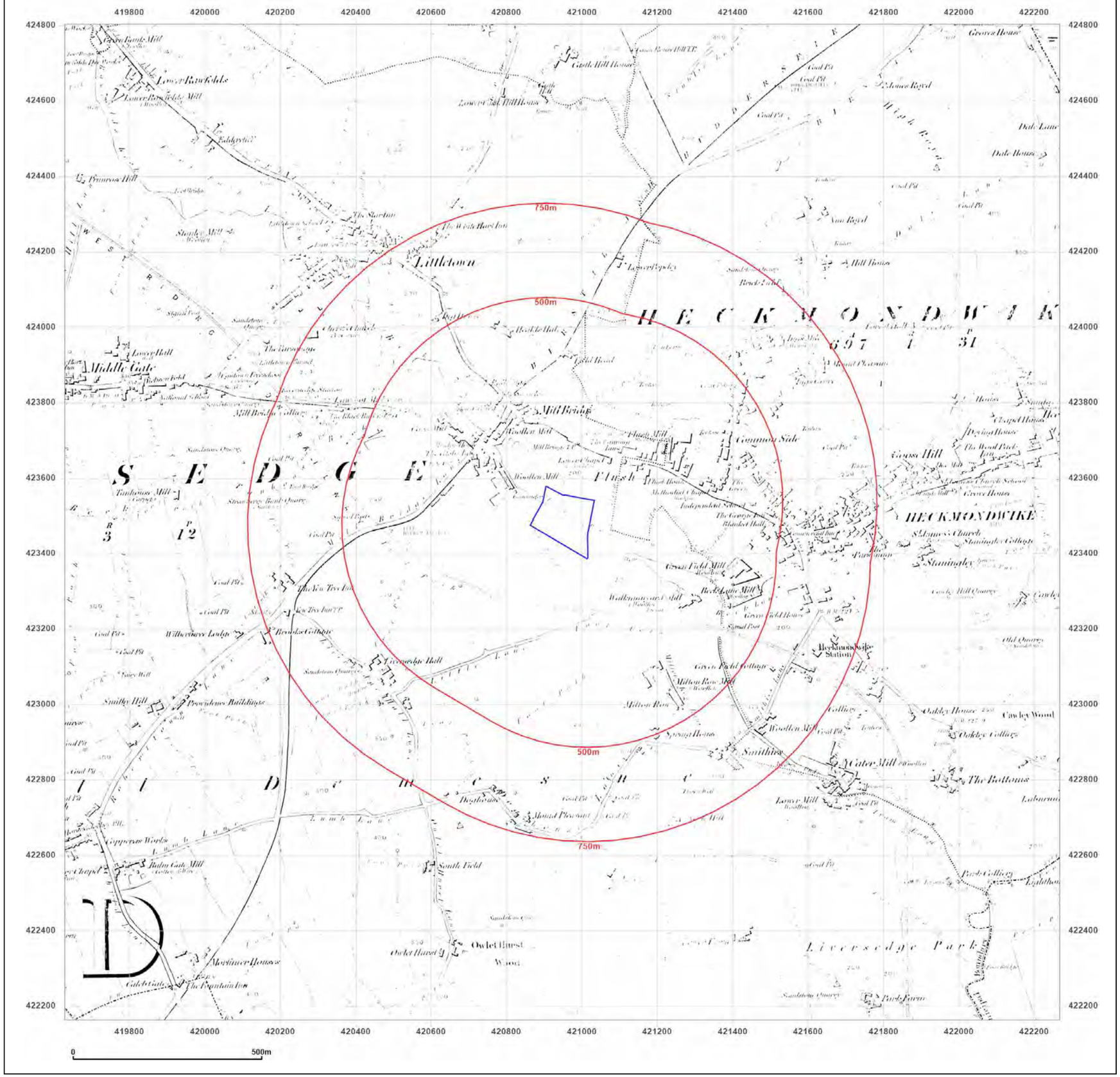
Appendix 3: Historical Map Selection



Groundsure INSIGHTS

Site Details:

Land Adjacent to Victoria Spring Business Park, Wormald Street, Liversedge, Kirklees WF15 6BU

Client Ref: Land Adj to Victoria Spring Business Park WF15 6
Report Ref: GS-VKX-UQP-NRT-CTH
Grid Ref: 420947, 423482

Map Name: County Series

Map date: **1854**

Scale: 1:10,560

Printed at: 1:10,560

N
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Surveyed 1847
Revised N/A
Edition 1854
Copyright N/A
Levelled N/A

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Production date: 08 July 2025

Map legend available at:
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Site Details:

Land Adjacent to Victoria Spring Business Park, Wormald Street, Liversedge, Kirklees WF15 6BU

Client Ref: Land Adj to Victoria Spring Business Park WF15 6
Report Ref: GS-VKX-UQP-NRT-CTH
Grid Ref: 420947, 423482

Map Name: County Series Town Plan

Map date: **1890**

Scale: 1:500

Printed at: 1:1,000

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

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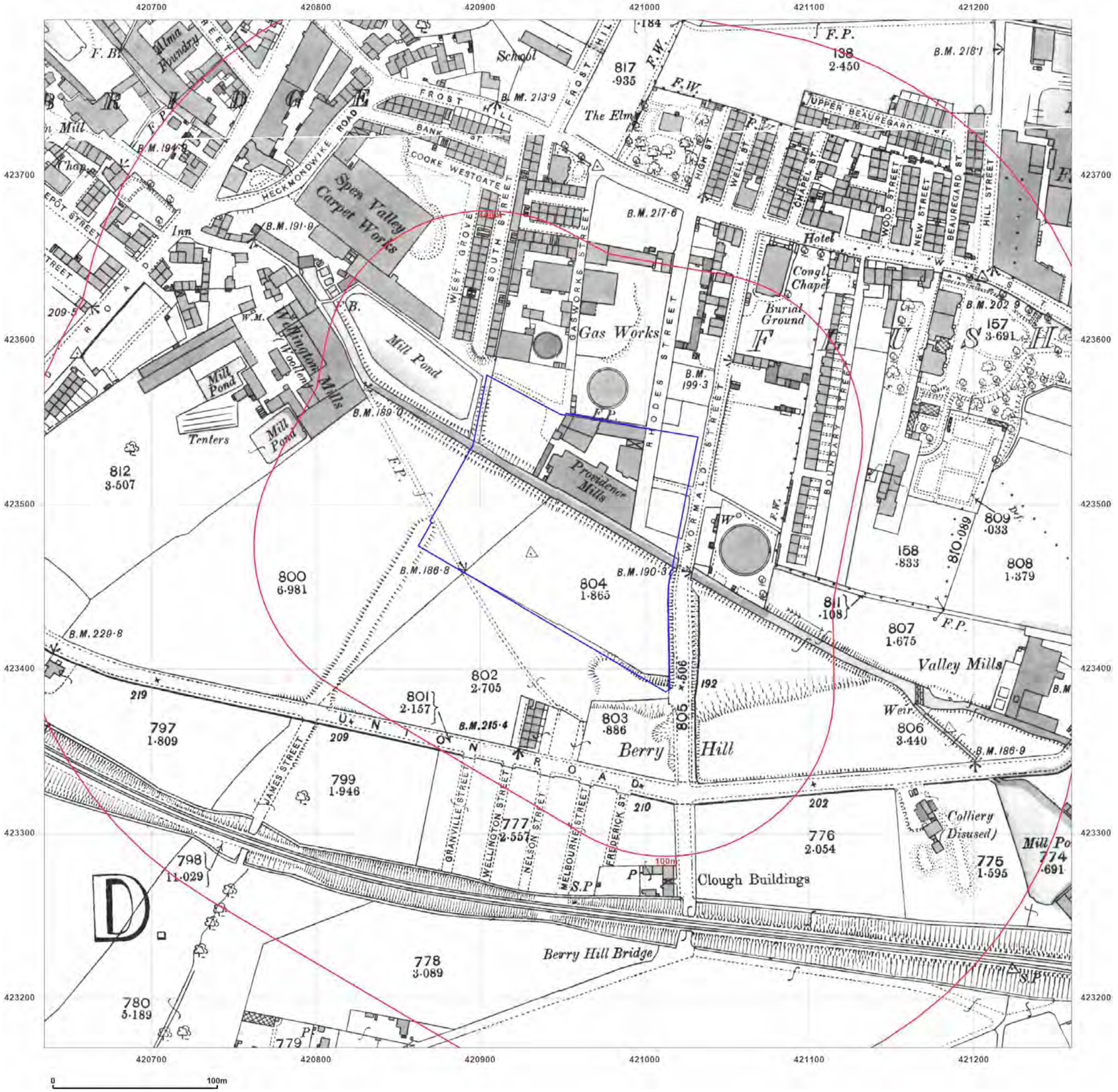

Groundsure INSIGHTS

Site Details:

Land Adjacent to Victoria Spring Business Park, Wormald Street, Liversedge, Kirklees WF15 6BU

Client Ref: Land Adj to Victoria Spring Business Park WF15 6B
Report Ref: GS-VKX-UQP-NRT-CTH
Grid Ref: 420947, 423482

Map Name: County Series

Map date: **1894**

Scale: 1:2,500

Printed at: 1:2,500

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Surveyed 1894
Revised 1894
Edition N/A
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Surveyed 1894
Revised 1894
Edition N/A
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Site Details:

Land Adjacent to Victoria Spring Business Park, Wormald Street, Liversedge, Kirklees WF15 6BU

Client Ref: Land Adj to Victoria Spring Business Park WF15 6B
Report Ref: GS-VKX-UQP-NRT-CTH
Grid Ref: 420947, 423482

Map Name: County Series

Map date: **1907**

Scale: 1:2,500

Printed at: 1:2,500

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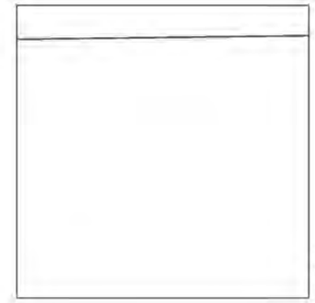
Surveyed 1907
Revised 1907
Edition N/A
Copyright N/A
Levelled N/A



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Revised 1907
Edition N/A
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Site Details:

Land Adjacent to Victoria Spring Business Park, Wormald Street, Liversedge, Kirklees WF15 6BU

Client Ref: Land Adj to Victoria Spring Business Park WF15 6I
Report Ref: GS-VKX-UQP-NRT-CTH
Grid Ref: 420947, 423482

Map Name: County Series

Map date: **1922**

Scale: 1:2,500

Printed at: 1:2,500

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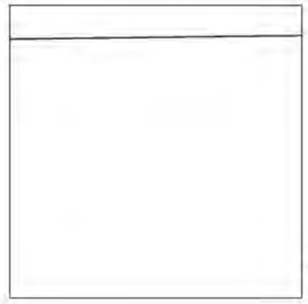
Surveyed 1922
Revised 1922
Edition N/A
Copyright N/A
Levelled N/A



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Revised 1922
Edition N/A
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Production date: 08 July 2025

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Site Details:

Land Adjacent to Victoria Spring Business Park, Wormald Street, Liversedge, Kirklees WF15 6BU

Client Ref: Land Adj to Victoria Spring Business Park WF15 6I
Report Ref: GS-VKX-UQP-NRT-CTH
Grid Ref: 420947, 423482

Map Name: County Series

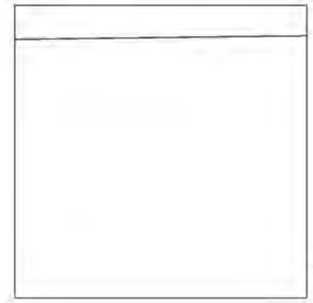
Map date: **1933**

Scale: 1:2,500

Printed at: 1:2,500

N W E S

Surveyed 1933
Revised 1933
Edition N/A
Copyright N/A
Levelled N/A



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Revised 1933
Edition N/A
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Site Details:

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Client Ref: Land Adj to Victoria Spring Business Park WF15 6B
Report Ref: GS-VKX-UQP-NRT-CTH
Grid Ref: 420947, 423482

Map Name: County Series

Map date: **1938**

Scale: 1:2,500

Printed at: 1:2,500

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Revised 1938
Edition N/A
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Levelled N/A

Surveyed 1938
Revised 1938
Edition N/A
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Production date: 08 July 2025

Map legend available at:
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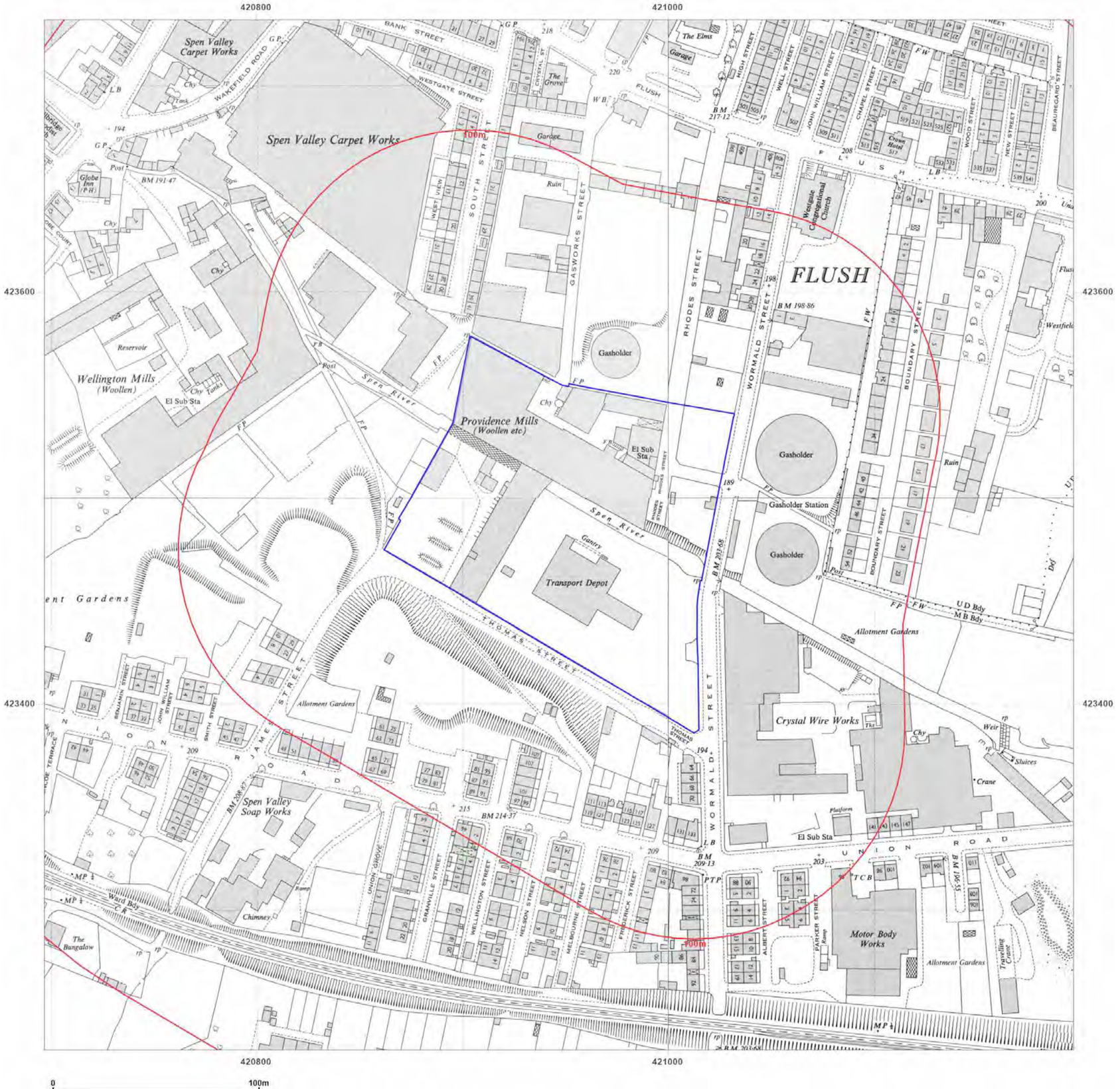

Groundsure INSIGHTS

Site Details:

Land Adjacent to Victoria Spring Business Park, Wormald Street, Liversedge, Kirklees WF15 6BU

Client Ref: Land Adj to Victoria Spring Business Park WF15 6B
Report Ref: GS-VKX-UQP-NRT-CTH
Grid Ref: 420947, 423482

Map Name: National Grid

Map date: **1955-1956**

Scale: 1:1,250

Printed at: 1:2,000

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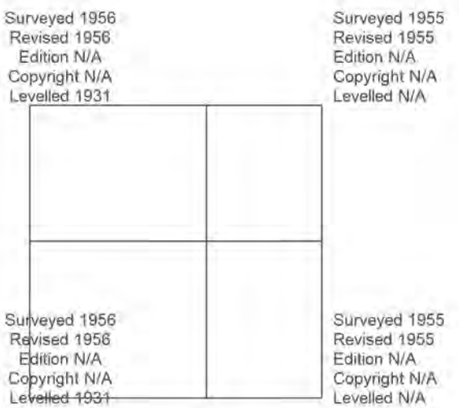

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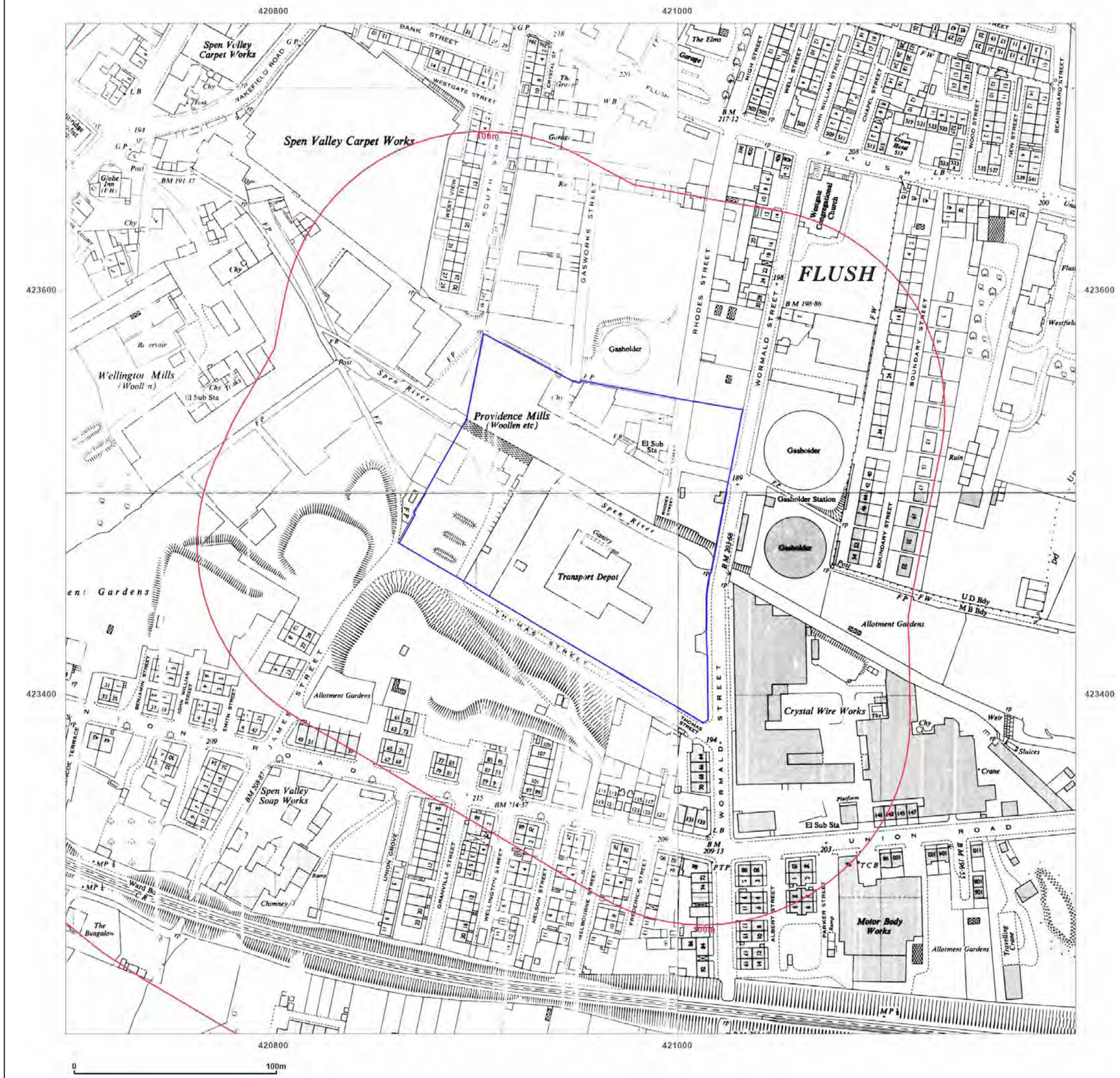

Groundsure INSIGHTS

Site Details:

Land Adjacent to Victoria Spring Business Park, Wormald Street, Liversedge, Kirklees WF15 6BU

Client Ref: Land Adj to Victoria Spring Business Park WF15 6B
Report Ref: GS-VKX-UQP-NRT-CTH
Grid Ref: 420947, 423482

Map Name: National Grid
Map date: **1956-1957**
Scale: 1:1,250
Printed at: 1:2,000

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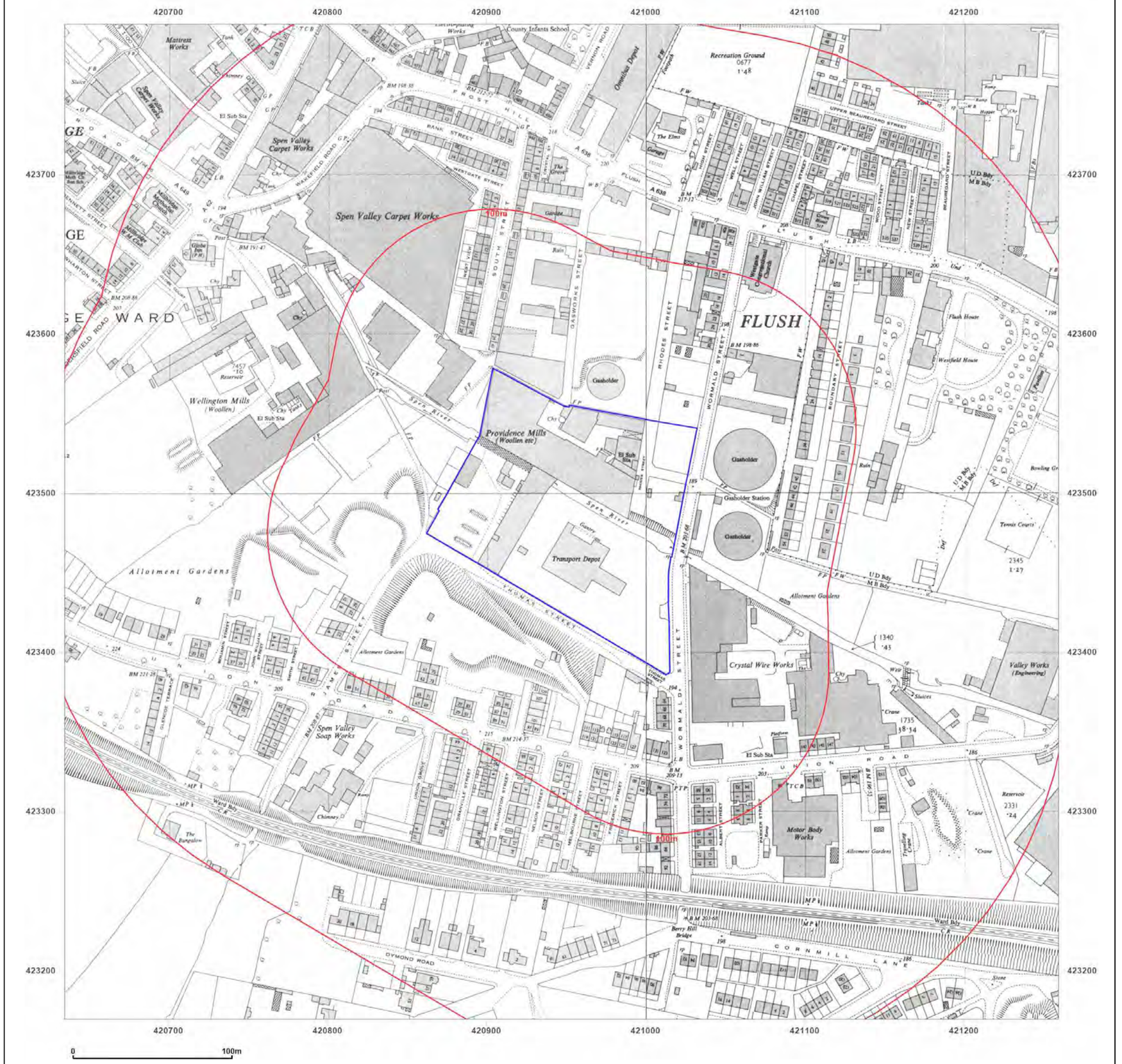

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Site Details:

Land Adjacent to Victoria Spring Business Park, Wormald Street, Liversedge, Kirklees WF15 6BU

Client Ref: Land Adj to Victoria Spring Business Park WF15 6B
Report Ref: GS-VKX-UQP-NRT-CTH
Grid Ref: 420947, 423482

Map Name: National Grid

Map date: **1956-1958**

Scale: 1:2,500

Printed at: 1:2,500

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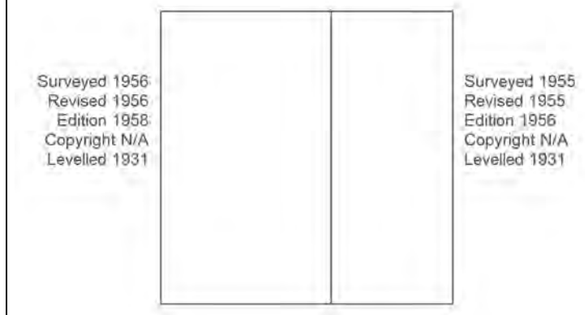

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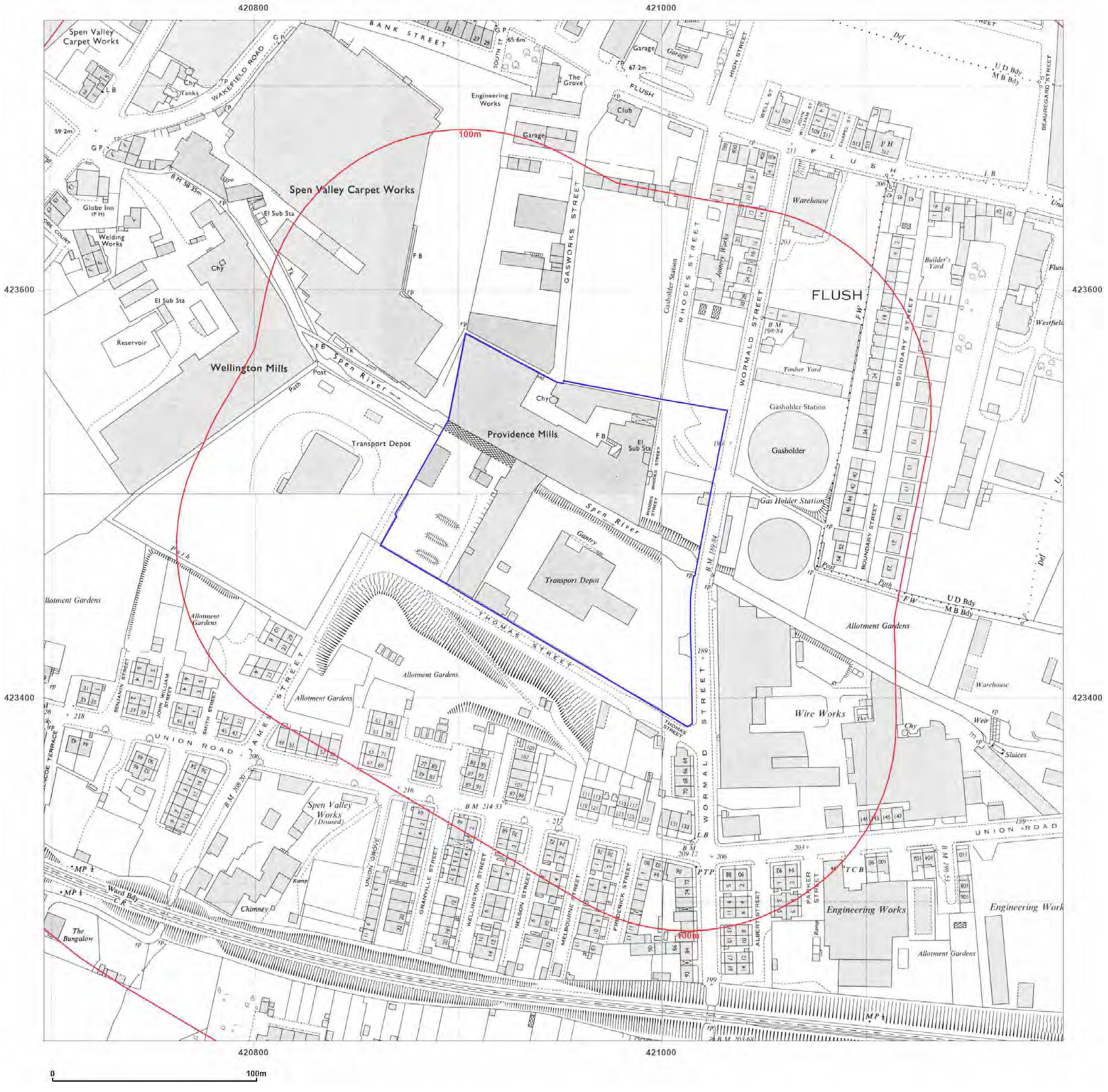

Groundsure INSIGHTS

Site Details:

Land Adjacent to Victoria Spring Business Park, Wormald Street, Liversedge, Kirklees WF15 6BU

Client Ref: Land Adj to Victoria Spring Business Park WF15 6I
Report Ref: GS-VKX-UQP-NRT-CTH
Grid Ref: 420947, 423482

Map Name: National Grid

Map date: **1965-1970**

Scale: 1:1,250

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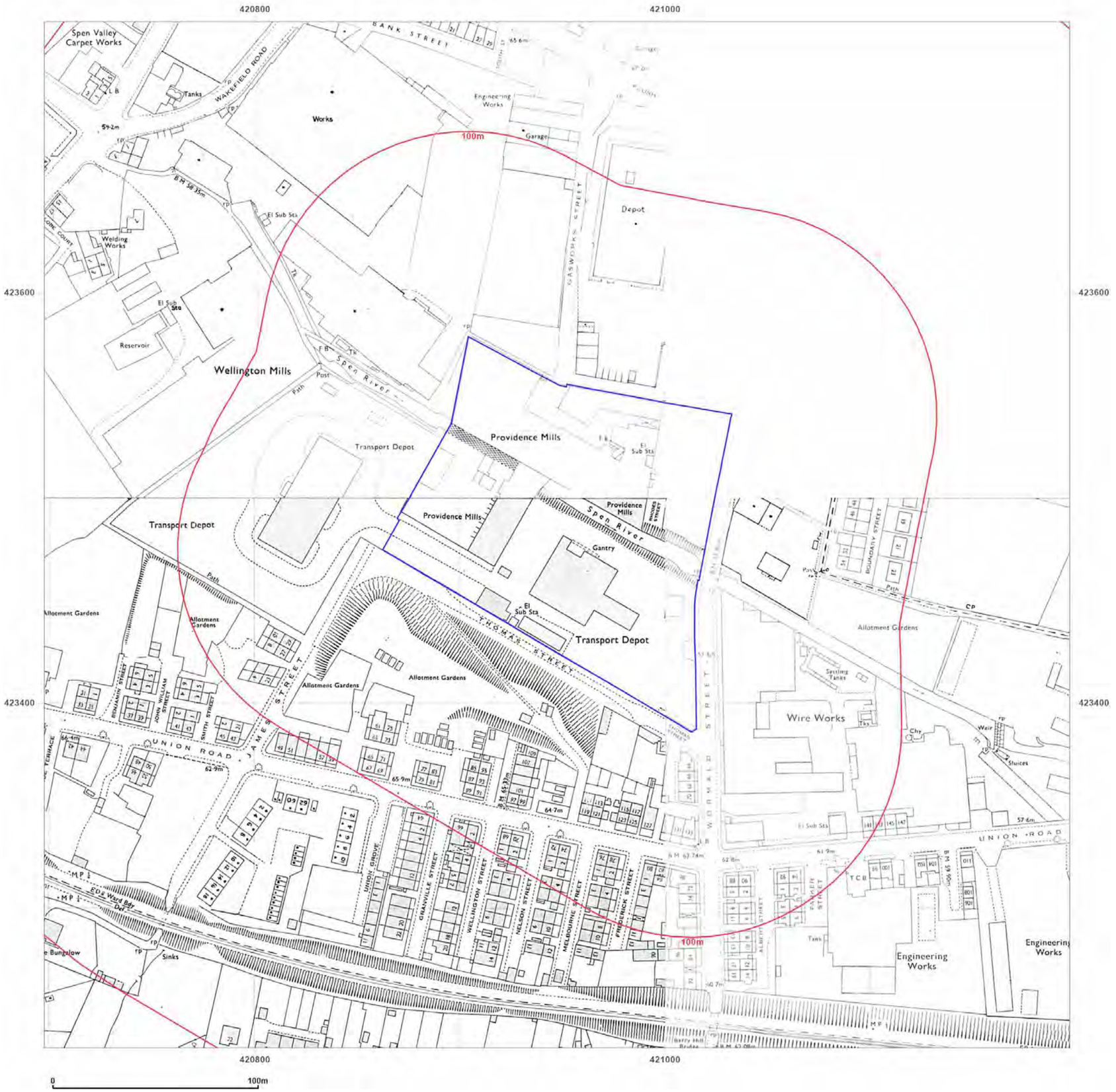

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Site Details:

Land Adjacent to Victoria Spring Business Park, Wormald Street, Liversedge, Kirklees WF15 6BU

Client Ref: Land Adj to Victoria Spring Business Park WF15 6
Report Ref: GS-VKX-UQP-NRT-CTH
Grid Ref: 420947, 423482

Map Name: National Grid

Map date: **1981-1985**

Scale: 1:1,250

Printed at: 1:2,000

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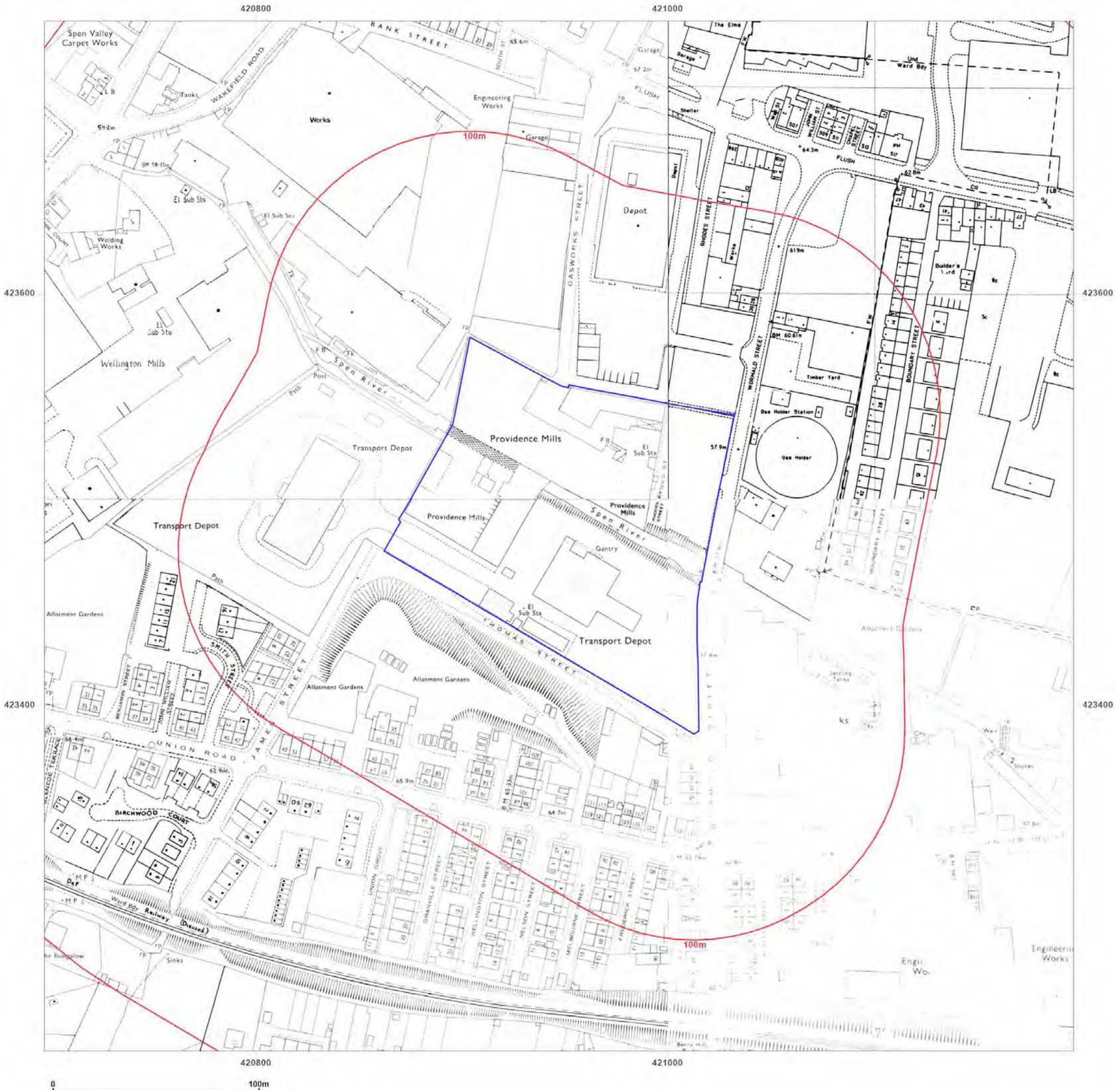

Site Details:

Land Adjacent to Victoria Spring Business Park, Wormald Street, Liversedge, Kirklees WF15 6BU

Client Ref: Land Adj to Victoria Spring Business Park WF15 6I
Report Ref: GS-VKX-UQP-NRT-CTH
Grid Ref: 420947, 423482

Map Name: National Grid

Map date: **1988-1992**

Scale: 1:1,250

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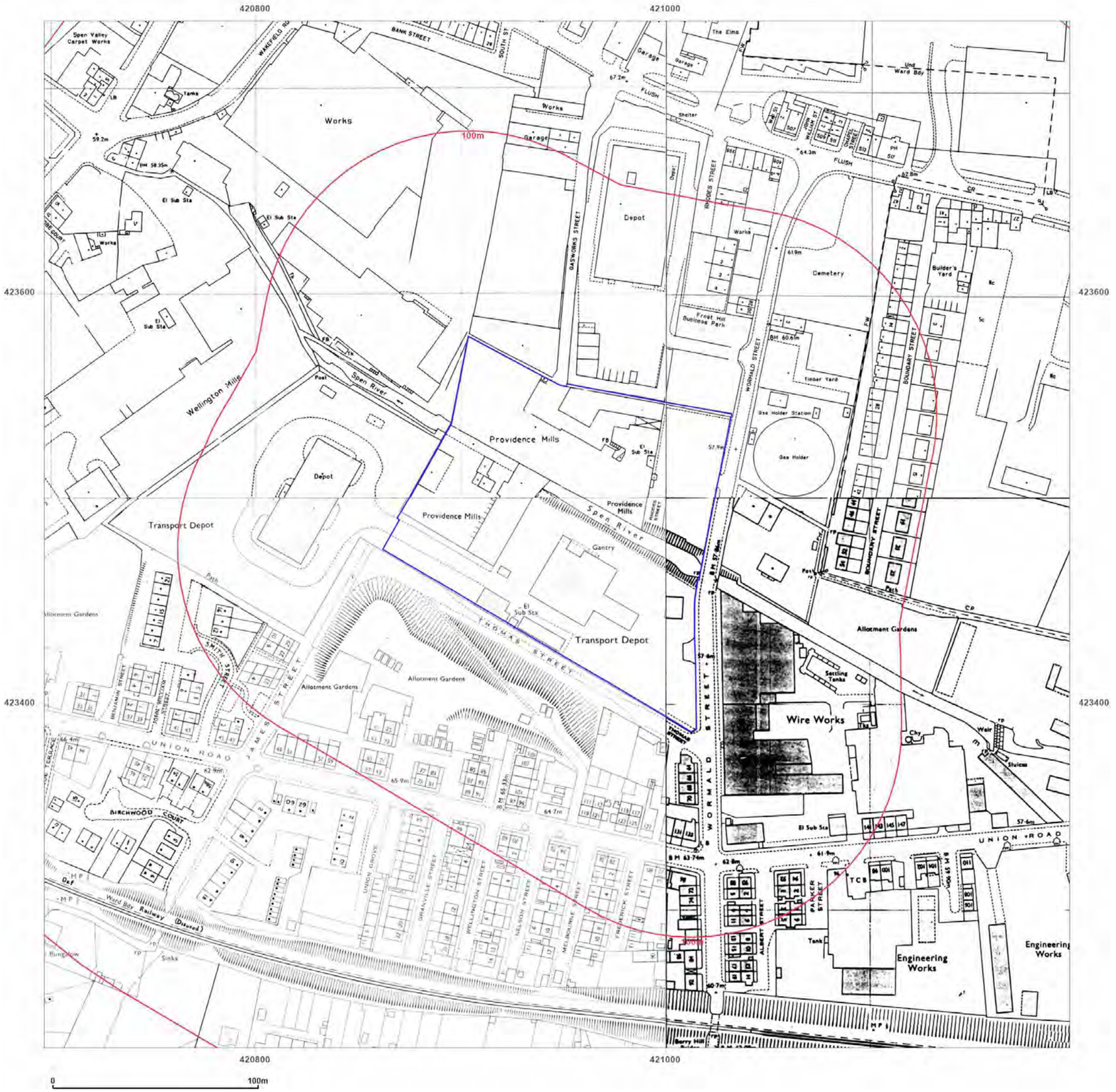

Groundsure INSIGHTS

Site Details:

Land Adjacent to Victoria Spring Business Park, Wormald Street, Liversedge, Kirklees WF15 6BU

Client Ref: Land Adj to Victoria Spring Business Park WF15 6
Report Ref: GS-VKX-UQP-NRT-CTH
Grid Ref: 420947, 423482

Map Name: National Grid

Map date: **1988-1993**

Scale: 1:1,250

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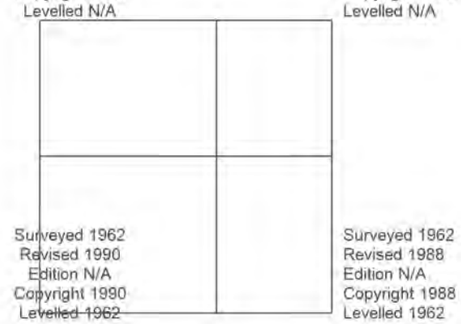

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Site Details:

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Client Ref: Land Adj to Victoria Spring Business Park WF15 6
Report Ref: GS-VKX-UQP-NRT-CTH
Grid Ref: 420947, 423482

Map Name: National Grid
Map date: **1992-1993**
Scale: 1:1,250
Printed at: 1:2,000

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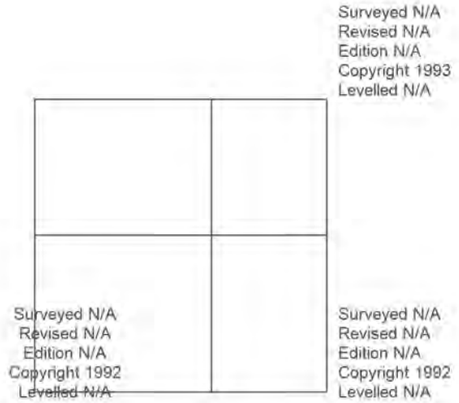

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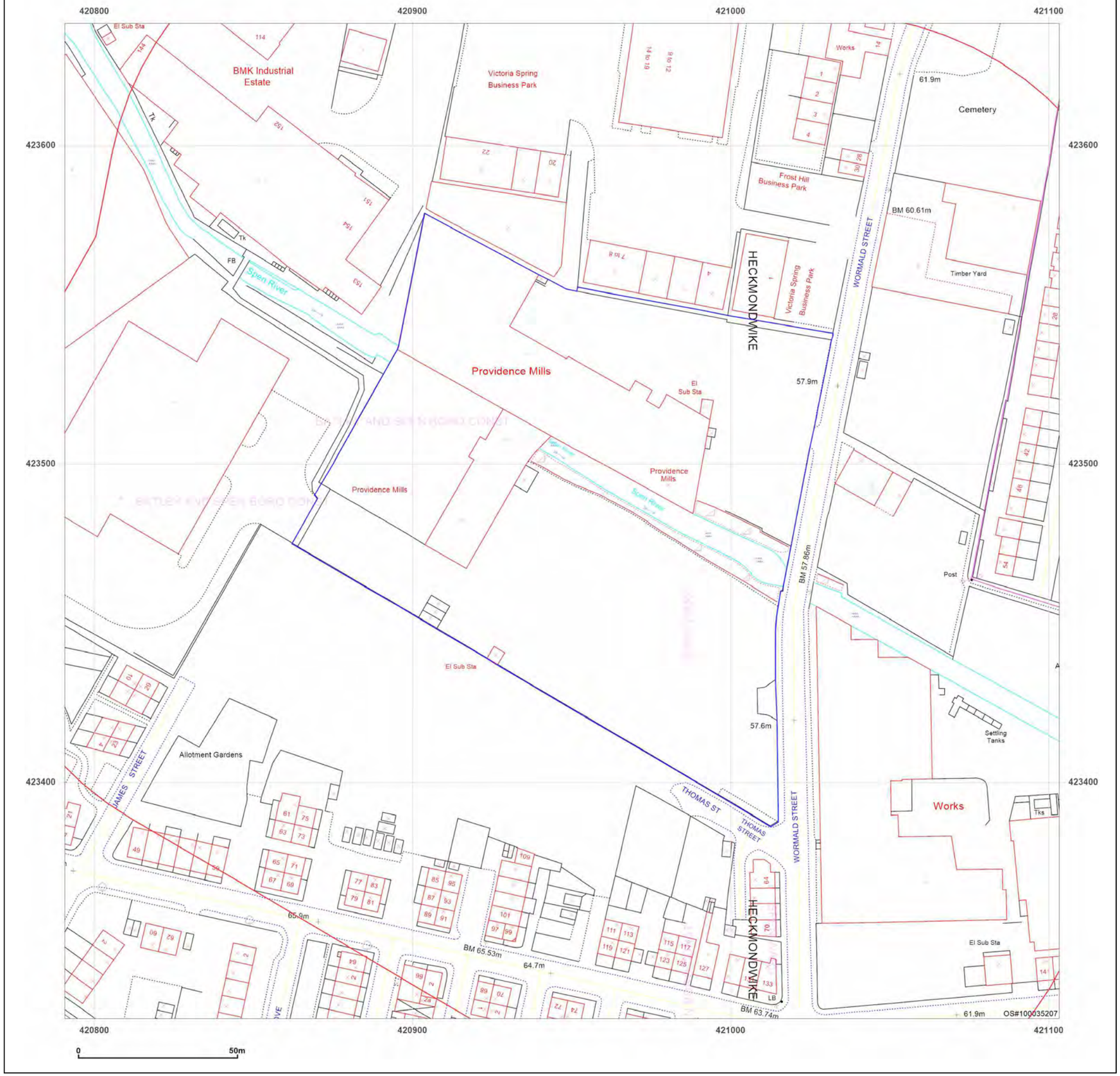

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Site Details:

Land Adjacent to Victoria Spring Business Park, Wormald Street, Liversedge, Kirklees WF15 6BU

Client Ref: Land Adj to Victoria Spring Business Park WF15 6I
Report Ref: GS-VKX-UQP-NRT-CTH
Grid Ref: 420947, 423482

Map Name: LandLine
Map date: **2003**
Scale: 1:1,250
Printed at: 1:1,250

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Map legend available at:
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Groundsure INSIGHTS

Site Details:

Land Adjacent to Victoria Spring Business Park, Wormald Street, Liversedge, Kirklees WF15 6BU

Client Ref: Land Adj to Victoria Spring Business Park WF15 6
Report Ref: GS-VKX-UQP-NRT-CTH
Grid Ref: 420947, 423482

Map Name: National Grid

Map date: **2010**

Scale: 1:10,000

Printed at: 1:10,000

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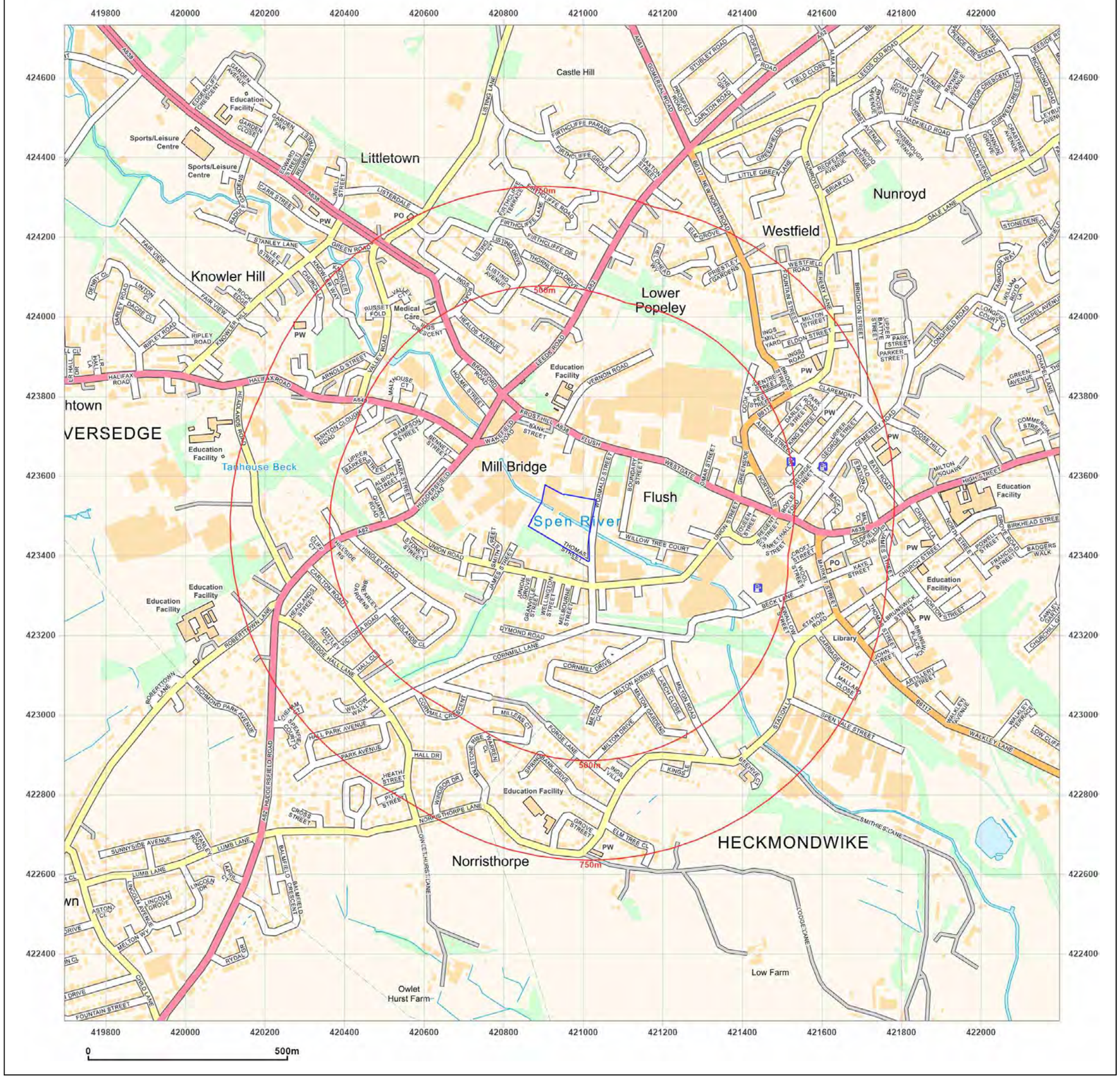

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Site Details:

Land Adjacent to Victoria Spring Business Park, Wormald Street, Liversedge, Kirklees WF15 6BU

Client Ref: Land Adj to Victoria Spring Business Park WF15 6I
Report Ref: GS-VKX-UQP-NRT-CTH
Grid Ref: 420947, 423482

Map Name: National Grid
Map date: **2025**
Scale: 1:10,000
Printed at: 1:10,000

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Appendix 4: Zetica UXO Mapping

UNEXPLODED BOMB RISK MAP

SITE LOCATION

Location: WF15 6BU,
Map Centre: 420986,423636

This map principally indicates a hazard from Unexploded Bombs (UXB) due to WWII bombardment. Other sources of Unexploded Ordnance (UXO) may be present. It should be noted that this map does not represent UXO risk and should not be reported as such when reproduced.

LEGEND

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

Miltary | **Industry** | **UXO find** | **Other**
Transport | **Docks** | **Luftwaffe targets**
Utilities | **Bombing decoy** | **Airfields**

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

This map indicates the potential for UXBs to be present because of World War Two (WWII) bombing. It can be incorporated into a technical report, such as a Phase 1 Desk Study, or similar document as an indication of the potential for UXO encounter on a Site. Other sources of UXO may also be indicated, although note that these are not comprehensive and more detailed research is required to confirm their presence.

What if my Site is in a moderate or high density area?

We typically recommend that a detailed UXO desk study and risk assessment is undertaken for sites in an area with a moderate or high bombing density.
Additionally, if your site is in close proximity to a strategic target, military establishment, airfield or bombing decoy, then additional detailed research is recommended.

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

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

If you are unsure whether other sources of UXO may be present, you can request one of our pre-desk study assessments (PDSA) by emailing a site boundary and location to pdsa@zetica.com.

You should never plan site work or undertake a risk assessment using these maps alone. More detail is required, to include an assessment of the likelihood of a source of UXO hazard from other military activity not reflected on these maps.

If I have any questions, who do I contact?

tel: +44 (0) 1993 886682 **email:** uxo@zetica.com **web:** www.zeticauxo.com

The information in this UXB risk map is derived from a range of sources and should be used with the accompanying notes on our website.

Appendix 5: Document Production Record

Document number	Author	Position	Editor	Position	Issue number	Date
Arbtech LQ-PRAWF156BUR1V0	Daisy Lee-Browne BSc Hons MSc (Research)	Graduate Consultant	C.A.Radiven Bsc Hons MiEnvSci, MIMMM	Geo-Environmental Manager	01	29/07/25

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