

Environmental
Geotechnical
Specialists



PHASE 1 ENVIRONMENTAL DESK STUDY & COAL MINING RISK ASSESSMENT REPORT

job number	C3637/23/E/5509	date	02/11/2023
site address	Land off Wood Lane, Colne Bridge, Huddersfield, HD5 0PX		
written by	S. Hale	checked by	R. Palmer
issued by	S. Hale		



Please consider the environment before printing this report.



Environmental
Geotechnical
Specialists

Rogers Geotechnical Services Ltd
Offices 1 & 2 Barncliffe Business Park, Near Bank, Shelley, Huddersfield, HD8 8LU
☎ 01484 604354 Company No. 5130864

<ENVIRONMENTAL> <GEOTECHNICAL>

Contents

		Page
1.	Introduction	1
2.	Review and Summary of Published Data	2
2.1	Historical Land Use	3
2.2	Published Geology and Geological Hazards	3
2.3	Construction Issues	4
2.3.1	Foundation Construction	4
2.3.2	Site Won Materials	5
2.3.3	Disposal of Site Materials	5
2.4	Coal Mining	5
2.5	Waste Management and Gas Monitoring	6
2.6	Hydrogeology, Hydrology	6
2.7	Sensitive Land Use	7
2.8	Industrial Land Use and Potential Sources of Contamination	7
3.	Preliminary Qualitative Risk Assessment	8
3.1	Conceptual Ground Model & Preliminary Qualitative Risk Assessment	9
4.	Coal Mining Risk Assessment	13
4.1	Geological Appraisal	13
4.2	Risk Assessment	14
4.3	Risks Posed by Shallow Coal Workings	14
4.4	Risks Posed by Coal Workings at Depth	15
4.5	Risks Posed by Mine Gas	15
4.6	Risks Posed by Mine Entries	15
5.	Intrusive Investigation	16
5.1	Site Investigation Philosophy	16
5.2	Site Specific Investigation	16
5.2.1	Contamination Assessment	17
5.2.2	Geotechnical Assessment	18
5.2.3	Reporting	19
6.	References	20



Appendices

1.	Site Plans
2.	Groundsure Reports
3.	Historical Maps
4.	Walkover Notes
5	Consultants Coal Mining Report



Report on a Phase One Desk Study and Coal Mining Risk Assessment

Location:	Land off Wood Lane Colne Bridge, Huddersfield, HD5 0PX		
For:	Steve Douthwaite		
Consultant:	Britannia Construction Yorkshire Ltd		
Report No.	C3637/23/E/5509	Report date:	November 2023

For and on behalf of **Rogers Geotechnical Services Ltd**

BSC
Geo-environmental Technician

MSC FGS ACIEM
Senior Geo-environmental Engineer

1. Introduction

The site comprises a plot of land that is occupied by a disused agricultural barn. The site is approximately 0.01 hectares in size and its National Grid reference is centred around 419026 420101.

It is understood that the development proposals currently comprise the alterations to the existing agricultural barn to form one residential dwelling. In order to assist with this decision-making process, and any planning and construction aspects of the development, a phase one environmental desk study has been commissioned and is the subject of this report.

In accordance with issued guidance, a site walkover was conducted on the 19th October 2023 and the following observations were made:

General site description/current site use

The site comprises a plot of land currently occupied by a disused agricultural barn of corrugated tin construction.

Site boundaries/access

Access to the site can be gained via a gate and a narrow lane off Wood Lane, Colne Bridge, Huddersfield, HD5 0PX.

Topography

The boundaries of the site lie predominantly flat.

Surface cover of site

Grass and gravel hardstanding provide surface cover to the external areas of the site.

Visible evidence of contamination/ contaminative sources

There were no visible signs of contamination present during the time of the walkover.

Presence of vegetation and wildlife

The site is overgrown with shrubs and weeds to the east and south of the barn. No other obvious signs of invasive flora, fauna, nesting birds, burrowing animals or edible plants observed during the time of the site walkover.

Services

The status of underground services is unknown. There were no overhead services present within the site at the time of the walkover.

Site neighbours

A railway is present to the north of the site that travels from the southeast to the northwest. Agricultural land is present in the remaining directions surrounding the site.

In order to ensure that the site is fully characterised and to comply with the Environment Act 1995¹, a Phase One Desk Study and Coal Mining Risk Assessment has been commissioned by Britannia Construction Yorkshire Ltd on behalf of the client, Steve Douthwaite. The desk study is intended to assess the environmental impact of historical, current and future factors on the development. This report will present the data obtained and provide a conceptual ground model and preliminary risk assessment as well as discussing the scope of any intrusive investigation that may be required. This report does not consider ecological impacts (e.g. bats) or botanical risks (e.g. Japanese Knotweed).

2. Review and Summary of Published Data

As a part of this desk study the following data has been considered.

- | | |
|-----------------------------|--------------|
| • Site Plans | - Appendix 1 |
| • Groundsure Reports | - Appendix 2 |
| • Historical maps | - Appendix 3 |
| • Walkover Notes | - Appendix 4 |
| • Consultants Mining Report | - Appendix 5 |

The data obtained from the above-mentioned sources has been summarised below².

¹S57 of the Environment Act 1995 inserted the contaminated land regime into the Environmental Protection Act 1990 (Part 2A). The regime 'provides a risk based approach to the identification and remediation of land where contamination poses an unacceptable risk to human health or the environment' See <http://www.environment-agency.gov.uk/research/planning/40405.aspx>. This places a duty on local authorities to inspect their areas for contaminated land and require its remediation using the 'suitable for use' approach. Much of this duty is discharged via the planning regime under the Town and Country Planning Act 1990 as historical land contamination is a 'material planning consideration.' The local authorities are required to secure the removal of unacceptable risks via remediation of the land, to therefore ensure the site is suitable for its new use. This is fulfilled via completion of a Phase One Environmental Desk Study, Phase Two Intrusive Investigation, Phase Three Remediation Strategy and Phase Four Validation Report. Therefore, as a minimum, once a site has been developed it should not be capable of being designated as 'contaminated land' under Part 2A of the Environmental Protection Act 1990, as inserted by the Environment Act 1995 (see also PPS 23 Planning and Pollution Control Section 8)

² This report is a summary only and reference must be made in full to the information provided in the Groundsure Report.

2.1 Historical Land Use

Table 1: Historical Land Use³

HISTORICAL MAPPING SUMMARY		
Map Dates	On site	Within 250m
1854 – 1855	The site currently spans a section of the Lower Helm Wood with no obvious developments present.	Manchester and Normanton Line – 50m NE Helm Colliery – 150m NW River Calder – 170m NE
1889 – 1893	The Lower Helm Wood is no longer labelled on the map and appears to have been cut down. The site now appears to encompass part of an empty field.	Sands Mill – 200m NE Wellington Mill – 230m NE
1904 – 1907	The site remains unchanged.	The Manchester & Normanton Line has been renamed the Lancashire & Yorkshire Railway. Heaton Lodge and Wortley Line – 105m NE
1922	A section of the Huddersfield Branch Railway line now passes through the northern edge of the site travelling south east to northwest. Earthworks also appear to be present on site associated with the railway and other embankments.	A small building is now present adjacent to the northern edge of the site.
1930 – 1933	The site remains unchanged.	The Helm Colliery appears to have been demolished.
1938 – 1948	The site remains unchanged.	The surrounding land use remains unchanged.
1951 – 1958	The Huddersfield Branch Railway Line has been dismantled.	The surrounding land use remains unchanged.
1965 – 1967	The site remains unchanged.	The surrounding land use remains unchanged.
1974 – 1975	The site remains unchanged.	The Heaton Lodge & Wortley Line has been dismantled.
1981 – 1986	The site remains unchanged.	The Sands Mill has been demolished.
1993 – 1994	The site remains unchanged.	Wellington Mill has now been demolished.
2001 – 2010	The site remains unchanged.	The surrounding land use remains unchanged.
2023	A building is now present to the centre of the site that is suggested to be the barn that is present at the time of this report being written.	The surrounding land use remains unchanged.

NB. All distances given are approximate only.

2.2 Published Geology and Geological Hazards

Table 2: Geological Data for the Site

BGS MAPPING DATA			
Strata Type	Strata Name ⁴	Previous Name ⁴	Description ⁵
Made Ground	Artificial Deposits	-	Made Ground is an area where the pre-existing (natural or artificial) land surface is raised by artificial deposits. The purpose of the made ground is unspecified.
Superficial Geology	None	-	-
Solid Geology	Pennine Lower Coal Measures Formation	-	Interbedded grey mudstone, siltstone and pale grey sandstone, commonly with mudstones containing marine

³ See Appendix 3

⁴ Sources: British Geological Survey (NERC) Map Sheets 77; Huddersfield; Solid and Drift Edition, and Geology of Britain Viewer [online resource from www.bgs.ac.uk]

⁵ Sources: British Geological Survey (NERC) Lexicon of Named Rock Units [online resource from www.bgs.ac.uk]

			fossils in the lower part, and more numerous and thicker coal seams in the upper part.
GEOLOGICAL FEATURES			
Type	Location	Features	Comments
Mining Activity	On site	Coal mining	The study site is located within a coal mining area as defined by the Coal Mining Authority.
Faults	21m NE, 187m SE & 229m S	Fault	None are anticipated to affect the proposed development
Landslip Deposits	No data	No data	Not indicated to present on site or within the surrounding area.
BGS BOREHOLE DATA			
Reference ⁶	Location	Strata Description	Depth
SE12SE174	20m S	Sandy CLAY	2.5m
NATURAL GROUND SUBSIDENCE & HAZARDS ⁷			
Type		Risk Rating	
Potential for shrinking or swelling clay ground stability		Very Low.	
Potential for running sand ground stability		Negligible to Very Low.	
Potential for compressible ground stability		Negligible to Very Low.	
Potential for collapsible ground stability hazards		Very Low.	
Potential for landslide ground stability		Very Low.	
Potential for ground dissolution stability		Negligible.	
Radon		The property is in a lower probability radon area (less than 1% of homes are estimated to be at or above the Action Level). No radon protective measures are necessary.	

2.3 Construction Issues

2.3.1 Foundation Construction

On the basis of the prevailing geology and assuming that the filled ground is not significant in thickness, it is anticipated that shallow strip or spread foundations could be utilised at this site. It should be appreciated that an intrusive investigation will be required to validate this opinion. Moreover, it is possible that undifferentiated strata within the Pennine Lower Coal Measures Formation may include very fine-grained rocks which are likely to have weathered to cohesive soils at or near the surface. Such soils could be sensitive to soil moisture variations and thus be susceptible to desiccation as result of tree root action. In light of this, it is possible that footings within the zone of influence of trees (existing or previously removed), may need to be founded at extended depths in excess of 1m.

⁶ <http://www.bgs.ac.uk/discoveringGeology/geologyOfBritain/viewer.html>

⁷ See Groundsure report

2.3.2 Site Won Materials

It would appear that residual cohesive soil is likely to be encountered at shallow depth over much of the site. This material is likely to be relatively difficult to re-engineer as a construction material. However, depending on the results of laboratory testing, it may be possible to modify/stabilise the soil using lime and/or cement to form a suitable sub-base replacement for pavements and hard standings.

2.3.3 Disposal of Site Materials

If made ground is present then contamination/WAC testing will be required to establish the nature of the underlying soil before disposal to a licensed landfill site. However, it is anticipated that the naturally occurring soils would not be significantly contaminated, thus would probably be accepted by a waste disposal site catering for inert material.

2.4. Coal Mining

The Groundsure Report states that the site is within an area that may be affected by coal mining. A Coal Authority Mining Report has therefore been obtained that is included in appendix 5 of this report and may be summarised as follows:

Table 3: Summary of the Consultant's Coal Mining Report

Has the report highlighted evidence or potential of:			
Ref	Mining Feature	Yes/No	Comments
1	Underground Coal Mining	Yes	One seam is indicated to have been worked beneath the site. This seam is identified as the Black Bed coal seam and was last worked in 1851 at a depth of 42m. Extraction thickness of 58cm.
2	Probable Unrecorded Shallow Workings	No	None.
3	Spine Roadways at Shallow Depth	No	No spine roadway recorded at shallow depth.
4	Mine Entries	No	None recorded within 100 metres of the site boundary.
5	Abandoned mine plans	Yes	Plans of abandoned mine workings below the site are suggested to be available by the Coal Authority.
6	Outcrops	No	No outcrops recorded.
7	Geological Faults	Yes	One geological fault is suggested to underlie the site from the northwest to the southeast.
8	Opencast Mines	Yes	One area of unlicensed opencast site is indicated 450m south of the site.
9	Coal Authority Managed Tips	No	None recorded within 500 metres of the enquiry boundary.
10	Site Investigations	No	None recorded within 50 metres of the enquiry boundary
11	Remediated Sites	No	None recorded within 50 metres of the enquiry boundary.
12	Coal Mining Subsidence	No	The Coal Authority has not received a damage notice or claim for the subject property, or any property within 50 metres of the enquiry boundary, since 31st October 1994. There is no current Stop Notice delaying the start of remedial works or repairs to the property. The Coal Authority is not aware of any request having been made to carry out preventive works before coal is worked under section 33 of the Coal Mining Subsidence Act 1991.
13	Mine Gas	No	None recorded within 500 metres of the enquiry boundary.
14	Mine Water Treatment Schemes	No	None recorded within 500 metres of the enquiry boundary.
15	Future underground mining	No	None recorded.

16	Coal mining licensing	No	
17	Court orders	No	
18	Section 46 notices	No	
19	Withdrawal of support notices	No	
20	Payments to owners of former copyhold land	No	

2.5 Waste Management and Gas Monitoring

Table 4: Landfill Data and Artificial Ground, Recorded and Anticipated

ENVIRONMENT AGENCY, LOCAL AUTHORITY, BGS & HISTORIC LANDFILLS			
Waste Type	Location	Comments	Monitoring Requirement
Active Landfill	156m N	British Waterways Board – Landfill taking other wastes	Y
Historic Landfill	-	None recorded within 250m	-
Historic waste sites	221m NE	Scrap Yard	N
Licensed waste sites	234m NW	Landfill taking other wastes	N
Waste Exemptions	-	None recorded within 250m	-
MADE GROUND & INFILLED GROUNDWORKINGS			
Description	Location	Comments	Monitoring Requirement
Records of Potentially Infilled Features	On site, 129m NW, 149m SE, 157m NE, 193m NW & 231m N	Made Ground (Undivided) – Artificial Deposits	Y
	120m E & 223m SE	Worked Ground (Undivided) – Artificial Deposits	Y
	150m NW	Helm Colliery (1854)	Y

2.6 Hydrogeology, Hydrology

Table 5: Ground/Controlled Water Sensitivity and Flooding

ENVIRONMENT AGENCY AQUIFER DESIGNATION ⁸		
Strata	Designation	Description
Solid Geology 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.

⁸ See Appendix 2

GROUNDWATER SENSITIVITY ⁹		
Description	Location	Details
Source Protection Zone ¹⁰	-	None recorded within 250m.
Abstraction Licences	-	None recorded within 250m.
Discharge Consents	143m NW	Sewage Discharges – Final/Treated Effluent
Records of Part A(2) and Part B Activities and Enforcements	215m NE	Coating Processes – Current permit, Permit Type: Part B
CONTROLLED WATERS ¹⁰		
Description	Location	Details
River Network Entries	170m NE	River Calder
Surface Water Features	Within 250m	There are 9 surface water features within 250m of the site. No further details given.

2.7 Sensitive Land Use

Table 6: Sensitive Land Uses within 250m

REGISTERED SENSITIVE LAND USES ¹¹		
Description	Location	Details
None identified within 250m of the proposed development		

2.8 Industrial Land Use and Potential Sources of Contamination

In order for a conceptual site model and preliminary risk assessment to be completed the historical maps and Groundsure data requires analysis to identify any past or present activities on the site and in the area that may have the potential to cause contamination on the site. Guidance has been issued by the Environment Agency, NHBC and Chartered Institute of Environmental Health.¹² Within this document, annex 3 provides examples of important contaminants that are associated with individual uses of land. This data assists in the formulation of any chemical testing regime.

Those that we consider potentially contaminative according to the guidance are given below:

Table 7: Potentially Contaminative Sources

HISTORICAL		
Land Use	Location	Classification
Historical construction	On site	Associated with the earthworks from the Huddersfield Branch Railway.
Helm Colliery	150m NW	Unspecified works/factories/features.
Sands Mill	200m NE	
Wellington Mill	230m NE	

⁹ See Appendix 2

¹⁰ See Appendix 2

¹³ See Appendix 2

¹⁴ Guidance for the Safe Development of Housing on Land Affected by Contamination, R&D Publication 66: 2008 Volume 1 and 2.

Heaton Lodge & Wortley Line	105m NE	Transport and haulage centres.
CURRENT		
Land Use	Location	Classification
Lancashire & Yorkshire Railway	50m NE	Transport and haulage centres.

3. Preliminary Qualitative Risk Assessment

The potential of contamination hazards on the land has been identified and the risks associated with them are assessed in the following preliminary risk assessment in accordance with industry practice and the 'suitable for use' approach. This has been conducted using the source-pathway-receptor approach. This method dictates that there must be a risk contaminant produced at a 'source' in sufficient concentration to cause harm and there must be a 'pathway' for the contaminant to reach an identifiable 'receptor' for the linkage to be proved and a contamination hazard to be considered present. Not all substances are contaminants and not all contaminants are considered to be a risk. Indeed, DEFRA and The Environment Agency state that **'a contaminant is a substance which has the potential to cause harm, while a risk itself is considered to exist if such a substance is present in sufficient concentration to cause harm and a pathway exists for a receptor to be exposed to the substance.'**

R&D Publication 66: 2008 states that the groups at risk of harm (receptors) can be identified by the following categorisation:

1. Humans: site personnel, end users, visitors and adjacent land users.
2. The water environment – receptors: groundwater, surface water, coastal waters and artificial drainage.
3. Ecosystems: plants and animals.
4. Construction/building materials/services

In order to complete a conceptual site model and therefore a preliminary risk assessment, an appraisal of the sources of contamination, potential and actual, on and in the area of the site has therefore been completed with reference to this pollution linkage.¹³

¹⁷This assessment has been based on the information as to the proposed development that has been provided by the client. If the plans should change, the assessment should be re-evaluated.

3.1 Conceptual Ground Model & Preliminary Qualitative Risk Assessment

It is understood that the development proposals currently comprise the alterations to the existing agricultural barn to form one residential dwelling. In view of the sensitivity of the end users it is considered that the soil screening values (SSVs) for a residential with plant uptake end use should be employed.

The preliminary risk assessment has been evaluated with reference to the following ratings and definitions:

- | | |
|-------------------|---|
| N/A - | A source-pathway-receptor linkage is not considered to exist and therefore a risk assessment is not required. |
| Low - | A pollution linkage is unlikely and/or the likelihood of harm occurring is low and of minor consequence. |
| Moderate - | The linkage exists but further field or laboratory data is required to confirm that the contaminant has reached the receptor and the levels of contaminant are harmful. |
| High - | The linkage exists and the available data indicates that significant harm may be caused and remedial action could be necessary. |

Table 8: Conceptual Site Model and Preliminary Qualitative Risk Assessment

CONCEPTUAL SITE MODEL			PRELIMINARY RISK ASSESSMENT	
Pathways	Receptor	Linkage Present?	Risk Rating	Notes
Direct contact/dermal absorption/soil ingestion	Operative	Yes – there is a potential for made ground associated with previous earthworks carried out on site. Potential off-site sources of contamination also identified.	Moderate	There is a potential for made ground related to the previous earthworks carried out on site. Any made ground found on site may be a potential source of contamination. Further testing required to reach a firm conclusion.
	End User		Moderate	
	Neighbours	No – there are no immediate neighbours present.	N/A	
Inhalation of Dust/Vapours	Operative	Yes – contact with soil likely during works and there is a potential for made ground related to previous earthworks on-site. Potential off-site sources of contamination also identified.	Moderate	There is a potential for made ground related to the previous earthworks carried out on site. Construction activities may create dust on and off site, which, if contaminated, could adversely affect operatives and end users. Further testing required to reach a firm conclusion.
	End User	Yes – end users may produce dust. Potential for made ground on-site and potential off-site source of contamination also identified.	Moderate	
	Neighbours	No – there are no immediate neighbours present.	N/A	
Ingestion of fruit/vegetables and/or waters	Operative	No – none identified during the time of the walkover.	N/A	There is a potential for made ground related to the previous earthworks carried out on site. Any made ground found on site may also be a potential source of contamination Further testing required to reach a firm conclusion.
	End User	Yes – soft landscaping proposed as part of the new development. There is a potential for made ground to be present. Potential off-site sources of contamination also identified.	Moderate	

	Neighbours	No – there are no immediate neighbours present.	N/A	
Migration of hazardous gases via permeable strata	Operative	Yes – there is a recorded landfill and infilled features within 250m of the site. Moreover, there is a potential for made ground related to the previous earthworks carried out on site.	Moderate	Should a significant thickness of made ground capable of producing gas be discovered, then a programme of monitoring is recommended.
	End User		Moderate	
	Neighbours	No – there are no immediate neighbours present	N/A	
Spillage/loss/run off direct to receiving water	Controlled Waters	Yes – River Calder is present 170m NE of the site	Low to moderate	Receiving waters within 250m and a Secondary A aquifer underlies the site. Permeability of underlying geology should be assessed. Further testing required to reach a firm conclusion.
Migration via permeable unsaturated strata	Controlled Waters	Yes – there is a Secondary A aquifer beneath the site.	Low to moderate	
Run off via drainage/sewers etc	Controlled Waters	Yes – possible source on-site	Low to moderate	
Direct contact with contaminated soils	Plants	Yes – some soft landscaping areas are present as part of the proposed development.	Moderate	Further testing required to reach a firm conclusion.
Uptake via root system			Moderate	
Direct contact with contaminated soils	Building Materials	Yes – there is a potential for made ground to be present.	Moderate	Further testing required to reach a firm conclusion.
Direct contact with contaminated groundwater				

Migration of mine gas via permeable strata	Operative	Yes – in an area affected by coal mining activity and where shallow worked seams may be present.	Moderate	Further knowledge required to reach a firm conclusion.
	End User			
Exposure to Radon	Operative	No – not in a radon affected area.	N/A	The property is in a lower probability radon area (less than 1% of homes are estimated to be at or above the Action Level). BR211 states that no radon protective measures are necessary.
	End User			
Mining Instability	End User	Yes – there is a possibility that unrecorded shallow mine could be present beneath the property.	Low	Please see section 4. For further information.
Unexploded Ordnance (UXO) Risk	Operative	Yes – the Zetica online maps indicate that the site is at low risk from UXO.	Low	No further action required.

Notes:

1. The above data and table is a qualitative assessment of the probable risks identified at this site, based on the information made available to us from the client, third party professional data and walkover survey.
2. Should any additional or new data come to light, the risk assessment should be revisited and any necessary changes made to any recommendations resulting from this study.
3. Where further testing is recommended as part of the risk assessment, this is in order to provide a quantitative assessment of any contamination issues. It should at all times be considered that uncertainties may remain, and therefore any testing regime and ground investigation philosophy should be ready to accommodate any necessary alterations should any data come to light or it become evident that it has not been previously considered.

4. Coal Mining Risk Assessment

4.1 Geological Appraisal

On the basis of the information revealed from the Geology of Britain Viewer¹⁵, it is noted that the site is situated upon undifferentiated strata of the Pennine Lower Coal Measures Formation, which is stratigraphically younger than the Clifton Rock. The regional solid geology shows a degree of dip of around 3° to 4° towards the east. In addition, it is noted that the topography of the local area generally slopes downwards towards the north east.

The Consultants Coal Mining Report (CCMR) highlights that the shallowest recorded worked seam is the Black Bed coal seam recorded at a depth of 42m below the surface of the site. From the Generalised Vertical Section (GVS) and the published geological records, there may exist additional coal seams at shallow depths beneath the site. With reference to the GVS, there are three potential shallow coal seams. It is of note that these seams are not shown to outcrop locally on the geological records given the complex structural geology and faulting in the immediate area.

Information regarding the above-mentioned seams are summarised as follows:

Table 9: Summary of Coal Seams Within the Vicinity of the Site

Seam Name	Seam Thickness ¹⁴	Outcrop Distance from Site	Anticipated Depth below Site
32 Yard Coal	0 to 0.3m	Doesn't outcrop locally due to faulting.	7m
22 Yard Coal	0 to 0.4m	Doesn't outcrop locally due to faulting.	15m
Crow Coal	0m to 1.2m	Doesn't outcrop locally due to faulting.	25m
Black Bed	0.2 to 1.8m	900m W	42m
Better Bed	0.1 to 0.9m	1150m W	85m

With reference to the published geological map and GVS, the 32 Yard Coal and 22 Yard Coal may be present within 15m of the site surface. However, these seams are recorded as being intermittent in nature. Indeed, if present, it would be expected for the 32 and 22 Yard Coal to outcrop locally. The omission of these seams on the geology map suggests that they will indeed be absent beneath the site.

It is anticipated that the Crow Coal will likely be encountered at 25m below the surface of the site. As per the Coal Authority report, it is known that the Black Bed coal was historically worked beneath the site at a depth of 42m below ground level (begl). Stratigraphically, the next seam within the sequence¹⁵ is the Better Bed coal seam. As such, this seam is expected approximately 43m beneath the Black Bed coal which would bring it to 85m begl beneath the site.

¹⁴ Sources: British Geological Survey (NERC) Map Sheets 77; Huddersfield; Solid and Drift Edition, and Geology of Britain Viewer [online resource from www.bgs.ac.uk]

¹⁵ In accordance within the Generalised vertical section

4.2 Risk Assessment

The risk to the stability of the proposed residential development has been evaluated from the data obtained and with reference to the following ratings and definitions:

- Low - The possibility of instability is unlikely therefore no further action is necessary.
- Moderate - The possibility of instability is likely and further investigation or remedial action may be required.
- High - The possibility of instability is highly likely and further investigation or remedial action will be necessary.

Table 10: Development Specific Risk Assessment

Item	Risk attributed to	Coal Seam(s) Considered	Risk Rating
4.3	Shallow coal workings	32 Yard 22 Yard Crow Coal	Low
4.4	Coal workings at depth	Black Bed	Low
4.5	Mine gas	Shallow coal workings	Moderate
4.6	Mine shafts	There are no mine shafts indicated within 100m of the site boundary	Low

4.3 Risks Posed by Shallow Coal Workings

On the basis of all of the information provided above, the Crow Coal could be present within 30m of the surface at the site. Whilst this seam may be of limited thickness, the possibility of the seam being worked below the site cannot be ruled out. Historic coal mining activity is evident in the nearby area, and therefore it is considered that if coal was known to be close to ground level it could have been removed illicitly via shallow mining methods with relative ease.

It may be noted that guidance available from both the NHBC and the CIRIA publication, SP32 - *construction over abandoned mine workings*, suggests that competent overburden thickness above a coal seam should be greater than 10 times the thickness of a seam plus seam thickness in order that the collapse of workings would pose a low risk to surface structures.

On this basis, assuming a maximum thickness of the coal seams, the table below suggests the thickness of competent overburden required above each seam to mitigate instability at the surface.

Table 11: Required Thickness of Competent Overburden

Seam Name	Seam thickness	Anticipated depth below site	Required thickness of competent overburden
32 Yard Coal	0 to 0.3m	7m	3.3m
22 Yard Coal	0 to 0.4m	15m	4.4m
Crow Coal	0 to 1.2m	25m	13.2m
Black Bed	0.1 to 1.8m	42m	19.8m

It is likely that sufficient cover will be present should the shallow seams have been worked. Therefore, a low risk rating has been assigned to the shallow seams, and further investigation is not considered to be required.

4.4 Risks Posed by Coal Workings at Depth

In regards to deeper mining which could affect the site, the Black Bed coal seam is recorded to have been worked at a depth of 42m beneath the site with a worked seam thickness of 0.58m. Any further coal seams which may have been worked are likely to be at a depth which is unlikely to influence developments on the surface of the site. In regards to deeper mining which could affect the site, the property is identified by the Coal Authority to be within a surface area that could be affected by past underground mining.

4.5 Risks Posed by Mine Gas

This assessment has identified that there is potential for shallow mine workings to be present beneath the proposed development as well as a historic colliery present 150m northwest of the site. Whilst the Consultants Coal Mining Report has not reported any incidents of mine gas within the vicinity of the development, shallow mining activity represents a credible source of ground gas. As such, a moderate risk rating has been assigned, and further assessment may be required. As such, it is recommended that a regime of gas monitoring be carried out.

4.6 Risks Posed by Mine Entries

The Consultants Coal Mining Report indicates that there are no mine entries recorded within 100m of the site boundary and as such there are negligible risks posed by any that may lie outside of this boundary.

5. Intrusive Investigation

5.1 Site Investigation Philosophy

The information from the Phase 1 Desk Study shows there are potential sources of contamination on the site and in the surrounding area. In view of the above, any intrusive investigation should be undertaken in accordance with the sampling strategies given in BS10175: 2011 +A1:2013 and CLR4:1994. These two sampling strategies may be classified as:

- Non Targeted – using a defined sampling pattern (BS10175)
- Targeted – based on prior knowledge and professional judgement (CLR4)

These sampling strategies are considered in more detail below. However, it is emphasised that they can be used individually or in combination depending on the depth of site knowledge.

Non Targeted Sampling.

If no obvious 'hot spots' of contamination have been identified on a site, it would be recommended that a stratified random pattern of sampling points be considered. This work should be undertaken with reference to BS10175: 2011 +A1: 2013 *Investigation of potentially contaminated sites – Code of practice: 7.6*, and BS 5930: 2015 +A1: 2020, *Code of practice for ground investigations*.

Targeted Sampling.

If a possible 'hot spot' of contamination has been identified on a site, it is recommended that a herringbone pattern of sampling points be considered in the immediate vicinity. If strong evidence of contamination has then been identified, it is recommended that sampling be highly focused to reflect that evidence and the investigator's experience. This work should be undertaken with reference to CLR4, *Sampling Strategies for Contaminated Land, 1994*.

The density of sampling required is defined in BS10175: 2011: +A1: 2013: 7.7.2.2.3, which indicates that an *exploratory* investigation usually requires a lower density sample spacing than does a *main* investigation. The BS goes on to state that *the actual density should depend upon the confidence and robustness required of decisions that will be based on the information obtained. Thus the area and depth of interest will be related to the contaminants present, the pathways and the receptors. Typical densities of sampling grids can vary from 25m to 50m centres for exploratory investigations, and 10m to 25m centres for main investigations.*

5.2 Site Specific Investigation

In view of the information provided above it is considered that an investigation of the site should include the following main elements.

5.2.1 Contamination Assessment

It may be appreciated that BS 10175 clause 7.7.2.2.3 suggests that the number of sampling points at the site should be based on a minimum of three testing locations or the size of the site with respect to the appropriate grid spacing, whichever the greater. On the basis of the site area being 0.01ha, the number of sampling points at the site should be considered with respect to the table below.

Table 12: Summary of Sampling Strategy					
NUMBER OF SAMPLING POINTS					
	Soil	Water	Asbestos	Standpipes	Standpipe Readings
Exploratory Investigation 50m x 50m grid	3	-	3	3	A minimum of 4 readings over 1 month would be required as per risk assessment, however any regime must consider the guidance detailed below.
Target Areas	Should be assessed during any investigation.				

Chemical testing should be undertaken on the above grid spacing and the following standard testing regime should be undertaken

- **Metals** – Cd, Cr, Cu, Hg, Ni, Pb, Zn, V.
- **Semi Metals and Non Metals** – As, Se, Free Cyanide and Phenols.
- **Hydrocarbons** – Polycyclic aromatic hydrocarbons (PAH EPA16), Total petroleum hydrocarbons (TPH CWG).
- **Others** – pH, Organic Content.
- **Asbestos**

Sampling Method

Investigation should include the installation of three gas monitoring standpipes for subsequent monitoring. Furthermore, soils should be obtained for chemical sampling. The sampling strategy should employ the non-targeted strategy given above in the first instance, i.e. at least three sampling points, if it is anticipated that made ground is significant across the site. However, if the made ground at the site is thought to be localised to specific areas, then the targeted strategy should be used. It should be possible to carry out the above work with a windowless sampling drilling rig.

Gas Monitoring

The final gas monitoring regime should be undertaken in accordance with Table 4.2 of CIRIA C665: 2007: *Assessing risks posed by hazardous ground gasses to buildings*. In that document guidance for the frequency of monitoring is provided on tables 5.5a and 5.5b *Typical/idealised frequency and period of monitoring* on page 60. For convenience, these tables have been combined and reproduced below.

Table 13: Typical/idealised Frequency and Period of Monitoring

Sensitivity of development	Generation potential of source				
	Very low	Low	Moderate	High	Very High
Low (commercial)	4/1	6/2	6/3	12/6	12/12
Moderate (flats)	6/2	6/3	9/6	12/12	24/24
High (residential + gardens)	6/3	9/6	12/6	24/12	24/24

Notes:

- The first number is the minimum number of readings and the second number is the minimum period in months, for example 4/1 – Four sets of readings over 1 month.
- At least two sets of readings must be at low and falling atmospheric pressure (but not restricted to periods below 1000mb) known as worst case conditions.
- The frequency and period stated are considered to represent typical minimum requirements. Depending on specific circumstances fewer or additional readings may be required (e.g. any such variation subject to site specific justification). The NHBC guidance is also recommending these periods/frequencies of monitoring.
- Historical data can be used as part of the data set.
- Not all sites will require gas monitoring. However, this would need to be confirmed with demonstrable evidence.
- Placing high sensitivity end use on a high hazard site is not normally acceptable unless the source is removed or treated to reduce its gassing potential. Under such circumstances long-term monitoring may not be appropriate or required.
- This guidance should be read in conjunction with BS 8576:2013 figure 6 which may justify fewer readings in the first instance, where the generation potential is considered to be very low to low. However, this should be undertaken pragmatically, and further readings obtained according to the above table, where a potentially significant source is identified and initial readings suggest that remedial measures are not necessary.

5.2.2 Geotechnical Assessment

In addition to the above contamination assessment which is likely to be required by planning authorities and insurance providers, the following investigation strategy could be considered:

Sampling Method

It is anticipated that a windowless sampling drilling rig will be able to gain sufficient data in regard to the near surface soils. Such equipment should be able to undertake Standard Penetration Testing (SPT) and/or Dynamic Probing. The latter may prove useful to identify the presence of any weak spots or obstructions left beneath the site as a consequence of the nearby earthworks activities. Should significant thickness of fill be revealed then deeper boreholes may be needed for sufficient foundation design. This could include a combination of cable percussive and rotary drilling techniques.

Soakaway Design

Should soakaway data be required for drainage design, trial pits could be excavated and infiltration tests conducted. Alternatively, these tests could be undertaken within boreholes. It should be appreciated however, should significant thicknesses of fill or contamination be revealed, then soakaways may be deemed to be an inappropriate form of surface water drainage.

Geotechnical Testing

It would be prudent for an allowance for geotechnical testing of the soils/rock as load is expected to increase with the conversion.

5.2.3 Reporting

The above data will need to be formulated into a formal assessment that should include the following:

- o Geotechnical recommendations.
- o Contamination assessment.
- o Contamination remediation strategy.
- o Any recommendations for further work, if required and including validation reports where site remediation is necessary.

As soon as is practicable, and prior to the above, this Phase 1 report should be forwarded to the relevant authorities, in order to ensure they have sufficient time to review and discuss any issues.

6. References

- British Standards Institution (2015 + A1: 2020), BS 5930: *Code of practice for ground investigations*, B.S.I., London.
- British Standards Institution (2011) +A1:2013, BS 10175: *Investigation of potentially contaminated sites – Code of Practice*, British Standards Institute.
- British Standards Institution (2013), BS 8576 Guidance on Investigations for Ground Gas – Permanent Gases and Volatile Organic Compounds.
- Department for Environment, Food and Rural Affairs and the Environment Agency, DEFRA R&D Publications, Environment Agency, Bristol.
- CLR 2, 1994, *Guidance on preliminary site inspection of contaminated land*, Volume 1.
- CLR 4, 1994, *Sampling Strategies for contaminated land*.
- R&D Publication 66: 2008 Guidance for the Safe Development of Housing on Land Affected by Contamination.
- CIRIA Report C665 (2007), Assessing risks posed by ground gasses in buildings.
- The Environment Agency: Groundwater source protection.

Appendix 1

Site Plans



Helm Ln

Wood Ln

Wood Ln

Wood Ln

Appendix 2

Groundsure Reports

Land Off Wood Lane, WOOD LANE, COLNE BRIDGE, HUDDERSFIELD, HD5 0PX

Order Details

Date: 18/10/2023
Your ref: C3637_23_E_5509_PO-2772
Our Ref: GS-PNV-JNC-DZT-MDO

Site Details

Location: 419026 420101
Area: 0.1 ha
Authority: [Kirklees Council](#) ↗



Summary of findings

[p. 2 >](#)

Aerial image

[p. 9 >](#)

OS MasterMap site plan

[p.13 >](#)

groundsure.com/insightuserguide ↗

Contact us with any questions at:

info@groundsure.com ↗

01273 257 755

Summary of findings

Page	Section	Past land use >	On site	0-50m	50-250m	250-500m	500-2000m
14 >	1.1 >	Historical industrial land uses >	2	14	30	49	-
18 >	1.2 >	Historical tanks >	0	0	0	7	-
19 >	1.3 >	Historical energy features >	0	0	0	4	-
19	1.4	Historical petrol stations	0	0	0	0	-
19 >	1.5 >	Historical garages >	0	0	0	2	-
20	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
21 >	2.1 >	Historical industrial land uses >	2	19	53	75	-
27 >	2.2 >	Historical tanks >	0	0	0	8	-
28 >	2.3 >	Historical energy features >	0	0	0	6	-
28	2.4	Historical petrol stations	0	0	0	0	-
28 >	2.5 >	Historical garages >	0	0	0	3	-
Page	Section	Waste and landfill >	On site	0-50m	50-250m	250-500m	500-2000m
30 >	3.1 >	Active or recent landfill >	0	0	1	0	-
31	3.2	Historical landfill (BGS records)	0	0	0	0	-
31	3.3	Historical landfill (LA/mapping records)	0	0	0	0	-
31 >	3.4 >	Historical landfill (EA/NRW records) >	0	0	0	2	-
32 >	3.5 >	Historical waste sites >	0	0	1	0	-
32 >	3.6 >	Licensed waste sites >	0	0	1	4	-
33 >	3.7 >	Waste exemptions >	0	0	0	26	-
Page	Section	Current industrial land use >	On site	0-50m	50-250m	250-500m	500-2000m
36 >	4.1 >	Recent industrial land uses >	0	0	1	-	-
37	4.2	Current or recent petrol stations	0	0	0	0	-
37	4.3	Electricity cables	0	0	0	0	-
37	4.4	Gas pipelines	0	0	0	0	-
37	4.5	Sites determined as Contaminated Land	0	0	0	0	-



37	4.6	Control of Major Accident Hazards (COMAH)	0	0	0	0	-
38	4.7	Regulated explosive sites	0	0	0	0	-
38	4.8	Hazardous substance storage/usage	0	0	0	0	-
38	4.9	Historical licensed industrial activities (IPC)	0	0	0	0	-
38	4.10	Licensed industrial activities (Part A(1))	0	0	0	0	-
38 >	4.11 >	<u>Licensed pollutant release (Part A(2)/B) ></u>	0	0	1	0	-
39	4.12	Radioactive Substance Authorisations	0	0	0	0	-
39 >	4.13 >	<u>Licensed Discharges to controlled waters ></u>	0	0	2	2	-
40	4.14	Pollutant release to surface waters (Red List)	0	0	0	0	-
40	4.15	Pollutant release to public sewer	0	0	0	0	-
40	4.16	List 1 Dangerous Substances	0	0	0	0	-
40 >	4.17 >	<u>List 2 Dangerous Substances ></u>	0	0	0	1	-
41 >	4.18 >	<u>Pollution Incidents (EA/NRW) ></u>	0	1	0	2	-
41	4.19	Pollution inventory substances	0	0	0	0	-
42	4.20	Pollution inventory waste transfers	0	0	0	0	-
42	4.21	Pollution inventory radioactive waste	0	0	0	0	-
Page	Section	<u>Hydrogeology ></u>	On site	0-50m	50-250m	250-500m	500-2000m
43 >	5.1 >	<u>Superficial aquifer ></u>	Identified (within 500m)				
45 >	5.2 >	<u>Bedrock aquifer ></u>	Identified (within 500m)				
47 >	5.3 >	<u>Groundwater vulnerability ></u>	Identified (within 50m)				
48	5.4	Groundwater vulnerability- soluble rock risk	None (within 0m)				
48	5.5	Groundwater vulnerability- local information	None (within 0m)				
49 >	5.6 >	<u>Groundwater abstractions ></u>	0	0	0	2	2
50 >	5.7 >	<u>Surface water abstractions ></u>	0	0	0	0	12
53 >	5.8 >	<u>Potable abstractions ></u>	0	0	0	0	1
54	5.9	Source Protection Zones	0	0	0	0	-
54	5.10	Source Protection Zones (confined aquifer)	0	0	0	0	-
Page	Section	<u>Hydrology ></u>	On site	0-50m	50-250m	250-500m	500-2000m
55 >	6.1 >	<u>Water Network (OS MasterMap) ></u>	0	2	13	-	-



57 >	6.2 >	Surface water features >	0	2	7	-	-
57 >	6.3 >	WFD Surface water body catchments >	1	-	-	-	-
57 >	6.4 >	WFD Surface water bodies >	0	0	2	-	-
58 >	6.5 >	WFD Groundwater bodies >	1	-	-	-	-
Page	Section	River and coastal flooding >	On site	0-50m	50-250m	250-500m	500-2000m
59	7.1	Risk of flooding from rivers and the sea	None (within 50m)				
60 >	7.2 >	Historical Flood Events >	0	0	5	-	-
60	7.3	Flood Defences	0	0	0	-	-
60	7.4	Areas Benefiting from Flood Defences	0	0	0	-	-
61 >	7.5 >	Flood Storage Areas >	0	0	2	-	-
62	7.6	Flood Zone 2	None (within 50m)				
62	7.7	Flood Zone 3	None (within 50m)				
Page	Section	Surface water flooding >					
63 >	8.1 >	Surface water flooding >	1 in 30 year, 0.3m - 1.0m (within 50m)				
Page	Section	Groundwater flooding >					
65 >	9.1 >	Groundwater flooding >	Negligible (within 50m)				
Page	Section	Environmental designations >	On site	0-50m	50-250m	250-500m	500-2000m
66	10.1	Sites of Special Scientific Interest (SSSI)	0	0	0	0	0
67	10.2	Conserved wetland sites (Ramsar sites)	0	0	0	0	0
67	10.3	Special Areas of Conservation (SAC)	0	0	0	0	0
67	10.4	Special Protection Areas (SPA)	0	0	0	0	0
67	10.5	National Nature Reserves (NNR)	0	0	0	0	0
68 >	10.6 >	Local Nature Reserves (LNR) >	0	0	0	0	2
68 >	10.7 >	Designated Ancient Woodland >	0	0	0	0	4
68	10.8	Biosphere Reserves	0	0	0	0	0
69	10.9	Forest Parks	0	0	0	0	0
69	10.10	Marine Conservation Zones	0	0	0	0	0
69 >	10.11 >	Green Belt >	1	0	0	0	3
69	10.12	Proposed Ramsar sites	0	0	0	0	0

70	10.13	Possible Special Areas of Conservation (pSAC)	0	0	0	0	0
70	10.14	Potential Special Protection Areas (pSPA)	0	0	0	0	0
70	10.15	Nitrate Sensitive Areas	0	0	0	0	0
70 >	10.16 >	Nitrate Vulnerable Zones >	0	0	0	0	1
72 >	10.17 >	SSSI Impact Risk Zones >	1	-	-	-	-
73	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
74	11.1	World Heritage Sites	0	0	0	-	-
74	11.2	Area of Outstanding Natural Beauty	0	0	0	-	-
74	11.3	National Parks	0	0	0	-	-
74	11.4	Listed Buildings	0	0	0	-	-
75	11.5	Conservation Areas	0	0	0	-	-
75	11.6	Scheduled Ancient Monuments	0	0	0	-	-
75	11.7	Registered Parks and Gardens	0	0	0	-	-
Page	Section	Agricultural designations >	On site	0-50m	50-250m	250-500m	500-2000m
76 >	12.1 >	Agricultural Land Classification >	Grade 2 (within 250m)				
77	12.2	Open Access Land	0	0	0	-	-
77	12.3	Tree Felling Licences	0	0	0	-	-
77	12.4	Environmental Stewardship Schemes	0	0	0	-	-
78	12.5	Countryside Stewardship Schemes	0	0	0	-	-
Page	Section	Habitat designations >	On site	0-50m	50-250m	250-500m	500-2000m
79 >	13.1 >	Priority Habitat Inventory >	0	0	6	-	-
80	13.2	Habitat Networks	0	0	0	-	-
80	13.3	Open Mosaic Habitat	0	0	0	-	-
80	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
81 >	14.1 >	10k Availability >	Identified (within 500m)				
82 >	14.2 >	Artificial and made ground (10k) >	1	0	7	14	-
84 >	14.3 >	Superficial geology (10k) >	0	0	1	2	-

85	14.4	Landslip (10k)	0	0	0	0	-
86 >	14.5 >	Bedrock geology (10k) >	1	2	6	7	-
87 >	14.6 >	Bedrock faults and other linear features (10k) >	0	1	2	4	-
Page	Section	Geology 1:50,000 scale >	On site	0-50m	50-250m	250-500m	500-2000m
89 >	15.1 >	50k Availability >	Identified (within 500m)				
90 >	15.2 >	Artificial and made ground (50k) >	1	0	0	4	-
91 >	15.3 >	Artificial ground permeability (50k) >	1	0	-	-	-
92 >	15.4 >	Superficial geology (50k) >	0	0	1	1	-
93	15.5	Superficial permeability (50k)	None (within 50m)				
93	15.6	Landslip (50k)	0	0	0	0	-
93	15.7	Landslip permeability (50k)	None (within 50m)				
94 >	15.8 >	Bedrock geology (50k) >	1	2	4	7	-
95 >	15.9 >	Bedrock permeability (50k) >	Identified (within 50m)				
96 >	15.10 >	Bedrock faults and other linear features (50k) >	0	1	1	5	-
Page	Section	Boreholes >	On site	0-50m	50-250m	250-500m	500-2000m
97 >	16.1 >	BGS Boreholes >	0	2	8	-	-
Page	Section	Natural ground subsidence >					
99 >	17.1 >	Shrink swell clays >	Very low (within 50m)				
100 >	17.2 >	Running sands >	Very low (within 50m)				
102 >	17.3 >	Compressible deposits >	Very low (within 50m)				
104 >	17.4 >	Collapsible deposits >	Very low (within 50m)				
105 >	17.5 >	Landslides >	Low (within 50m)				
107 >	17.6 >	Ground dissolution of soluble rocks >	Negligible (within 50m)				
Page	Section	Mining and ground workings >	On site	0-50m	50-250m	250-500m	500-2000m
109 >	18.1 >	BritPits >	0	0	0	2	-
110 >	18.2 >	Surface ground workings >	2	18	30	-	-
112 >	18.3 >	Underground workings >	0	0	2	0	9
113	18.4	Underground mining extents	0	0	0	0	-
113	18.5	Historical Mineral Planning Areas	0	0	0	0	-



113	18.6	Non-coal mining	0	0	0	0	0
113	18.7	JPB mining areas	None (within 0m)				
114	18.8	The Coal Authority non-coal mining	0	0	0	0	-
114	18.9	Researched mining	0	0	0	0	-
114	18.10	Mining record office plans	0	0	0	0	-
114 >	18.11 >	BGS mine plans >	0	0	0	1	-
115 >	18.12 >	Coal mining >	Identified (within 0m)				
115	18.13	Brine areas	None (within 0m)				
115	18.14	Gypsum areas	None (within 0m)				
115	18.15	Tin mining	None (within 0m)				
115	18.16	Clay mining	None (within 0m)				
Page	Section	Ground cavities and sinkholes	On site	0-50m	50-250m	250-500m	500-2000m
116	19.1	Natural cavities	0	0	0	0	-
116	19.2	Mining cavities	0	0	0	0	0
116	19.3	Reported recent incidents	0	0	0	0	-
116	19.4	Historical incidents	0	0	0	0	-
117	19.5	National karst database	0	0	0	0	-
Page	Section	Radon >					
118 >	20.1 >	Radon >	Less than 1% (within 0m)				
Page	Section	Soil chemistry >	On site	0-50m	50-250m	250-500m	500-2000m
120 >	21.1 >	BGS Estimated Background Soil Chemistry >	2	2	-	-	-
120	21.2	BGS Estimated Urban Soil Chemistry	0	0	-	-	-
121	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
122	22.1	Underground railways (London)	0	0	0	-	-
122	22.2	Underground railways (Non-London)	0	0	0	-	-
123	22.3	Railway tunnels	0	0	0	-	-
123 >	22.4 >	Historical railway and tunnel features >	0	0	9	-	-
123	22.5	Royal Mail tunnels	0	0	0	-	-

124 >	22.6 >	Historical railways >	0	1	3	-	-
124 >	22.7 >	Railways >	0	0	20	-	-
125	22.8	Crossrail 1	0	0	0	0	-
125	22.9	Crossrail 2	0	0	0	0	-
125	22.10	HS2	0	0	0	0	-

Recent aerial photograph



Capture Date: 30/05/2021

Site Area: 0.1ha



Recent site history - 1999 aerial photograph



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

Capture Date: 10/07/1999

Site Area: 0.1ha



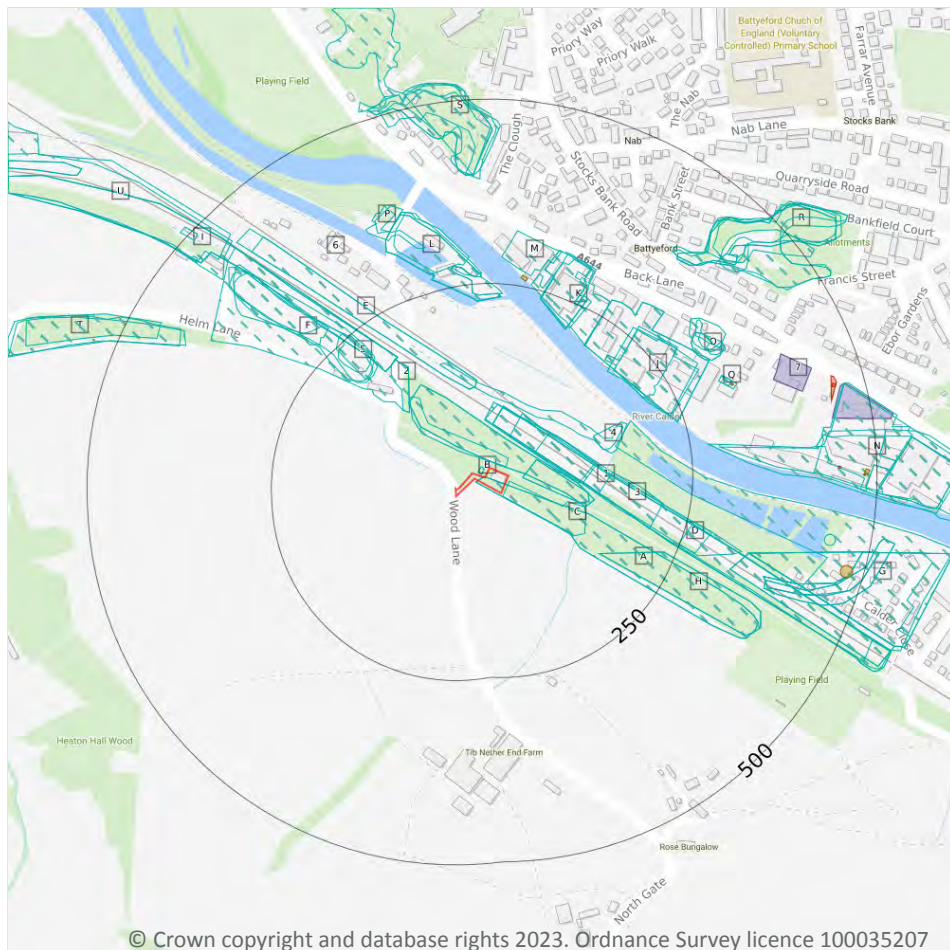
OS MasterMap site plan



Site Area: 0.1ha



1 Past land use



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

1.1 Historical industrial land uses

Records within 500m

95

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	Unspecified Heap	1948	1490867



ID	Location	Land use	Dates present	Group ID
A	On site	Unspecified Heap	1931	1517186
B	3m NW	Railway Building	1938	1429019
C	4m SE	Unspecified Heap	1966 - 1985	1495972
B	8m NE	Unspecified Heap	1985	1493535
B	8m NE	Unspecified Heap	1975	1540517
B	9m N	Unspecified Ground Workings	1951 - 1966	1479969
C	19m E	Unspecified Heap	1966	1505772
C	19m E	Unspecified Heap	1951	1528706
D	45m NE	Cuttings	1938	1507090
C	45m NE	Cuttings	1966	1533561
1	46m NE	Cuttings	1951	1515646
D	47m NE	Cuttings	1905 - 1931	1474232
D	47m NE	Cuttings	1948	1524299
D	47m NE	Cuttings	1892	1525174
C	49m NE	Cuttings	1975 - 1985	1510968
C	88m NE	Unspecified Ground Workings	1951	1412268
E	110m N	Unspecified Pit	1966	1493132
E	110m N	Unspecified Pit	1975 - 1985	1544852
2	118m NW	Refuse Heap	1892	1436664
F	118m NW	Colliery	1892 - 1905	1461420
3	125m E	Cuttings	1966 - 1985	1468941
4	127m E	Unspecified Heap	1975 - 1985	1541442
G	150m E	Unspecified Commercial/Industrial	1938	1493012
H	156m SE	Unspecified Heap	1975 - 1988	1464949
H	156m SE	Unspecified Heap	1956 - 1965	1478316
I	181m NW	Railway Sidings	1948	1478929
I	181m NW	Railway Sidings	1931	1517758
I	181m NW	Railway Sidings	1892 - 1905	1526217



ID	Location	Land use	Dates present	Group ID
F	188m NW	Unspecified Heap	1951	1495908
F	191m NW	Unspecified Heap	1931 - 1948	1491614
5	192m NW	Refuse Heap	1892 - 1905	1496738
J	195m NE	Sands Mill	1931 - 1938	1499397
F	200m NW	Unspecified Heaps	1966 - 1985	1475129
J	202m NE	Sands Mill	1948	1477489
J	202m NE	Unspecified Mills	1892 - 1905	1484182
J	202m NE	Sands Mill	1951	1511112
J	203m NE	Unspecified Mill	1966 - 1975	1478899
K	205m NE	Unspecified Mill	1966 - 1985	1480920
K	213m NE	Unspecified Mill	1948 - 1951	1460174
K	213m NE	Unspecified Mill	1931	1477885
K	215m NE	Unspecified Mill	1938	1471631
L	227m N	Unspecified Yard	1905	1458410
L	227m N	Unspecified Yard	1948	1517270
L	227m N	Boat Building Yard	1931 - 1938	1539730
D	249m E	Cuttings	1966 - 1985	1537804
M	266m N	Unspecified Mill	1966 - 1985	1533308
F	269m NW	Refuse Heap	1892 - 1905	1487802
N	274m E	Unspecified Mills	1975 - 1985	1550698
L	275m N	Boat Building Yard	1951	1505878
N	289m E	Unspecified Mill	1951	1421641
O	303m NE	Unspecified Heap	1966 - 1975	1510118
O	303m NE	Unspecified Heap	1985	1512861
O	309m NE	Unspecified Heap	1938	1485519
P	311m N	Unspecified Mill	1892	1421640
Q	312m NE	Unspecified Tank	1938	1519479
O	317m NE	Unspecified Ground Workings	1951	1412323



ID	Location	Land use	Dates present	Group ID
Q	318m NE	Unspecified Tank	1951	1515359
G	326m E	Cuttings	1956 - 1965	1482386
G	326m E	Cuttings	1975 - 1988	1556393
G	343m E	Unspecified Kiln	1956	1435438
G	343m E	Unspecified Commercial/Industrial	1988	1464025
G	343m E	Unspecified Commercial/Industrial	1975	1474238
P	347m N	Cuttings	1966	1409837
G	372m E	Railway Sidings	1975	1463162
G	372m E	Railway Sidings	1956	1503376
G	372m E	Railway Sidings	1965	1541762
R	372m NE	Unspecified Quarry	1948	1468206
R	372m NE	Unspecified Quarry	1905 - 1931	1476204
R	375m NE	Unspecified Quarry	1985	1531605
R	375m NE	Unspecified Disused Quarry	1966 - 1975	1551208
G	377m E	Railway Sidings	1948	1474518
G	377m E	Railway Sidings	1892 - 1931	1498539
S	392m N	Unspecified Ground Workings	1892	1412325
8	397m N	Unspecified Quarry	1951 - 1975	1530518
S	397m N	Unspecified Quarry	1985	1493824
S	398m N	Unspecified Quarry	1931 - 1948	1499997
S	398m N	Unspecified Quarry	1905	1515516
R	405m NE	Unspecified Quarry	1938	1540415
R	406m NE	Refuse Heap	1892	1436665
R	411m NE	Unspecified Ground Workings	1951	1412324
R	414m NE	Unspecified Quarry	1951	1522259
T	414m NW	Cuttings	1951 - 1966	1544799
N	415m E	Unspecified Mills	1892 - 1948	1502249
N	420m E	Unspecified Mills	1966	1509495



ID	Location	Land use	Dates present	Group ID
T	422m NW	Cuttings	1931 - 1948	1552109
U	424m NW	Railway Sidings	1951 - 1966	1540247
G	437m E	Malt Kiln	1938	1423565
U	447m NW	Railway Sidings	1938	1544921
T	454m NW	Cuttings	1975 - 1985	1511888
I	468m NW	Railway Building	1951	1429018
N	485m E	Unspecified Mills	1951	1462939
I	488m NW	Railway Building	1985	1429016
N	500m E	Unspecified Mills	1948	1472013
N	500m E	Unspecified Mills	1905 - 1931	1538082

This data is sourced from Ordnance Survey / Groundsure.

1.2 Historical tanks

Records within 500m

7

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

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

ID	Location	Land use	Dates present	Group ID
M	258m N	Tanks	1933	230754
Q	326m E	Unspecified Tank	1933	223709
6	357m NW	Unspecified Tank	1957	223711
G	468m E	Unspecified Tank	1989	223708
N	482m E	Unspecified Tank	1957	238887
N	482m E	Unspecified Tank	1957	234220
N	483m E	Tanks	1922 - 1933	249611

This data is sourced from Ordnance Survey / Groundsure.



1.3 Historical energy features

Records within 500m

4

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

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

ID	Location	Land use	Dates present	Group ID
N	447m E	Electricity Substation	1972 - 1996	141371
N	450m E	Electricity Substation	1996	135550
N	455m E	Electricity Substation	1983	132595
N	456m E	Electricity Substation	1972	145803

This data is sourced from Ordnance Survey / Groundsure.

1.4 Historical petrol stations

Records within 500m

0

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

This data is sourced from Ordnance Survey / Groundsure.

1.5 Historical garages

Records within 500m

2

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

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



ID	Location	Land use	Dates present	Group ID
7	382m E	Garage	1982	41106
N	447m E	Garage	1972 - 1983	44898

This data is sourced from Ordnance Survey / Groundsure.

1.6 Historical military land

Records within 500m

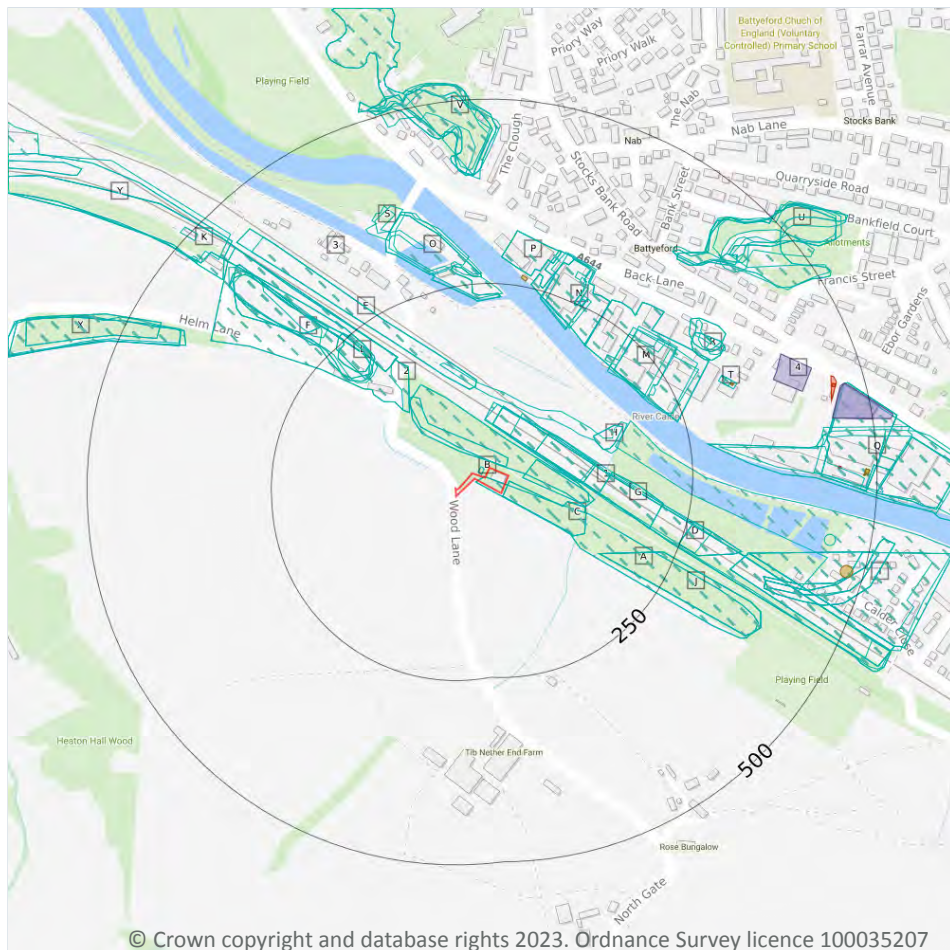
0

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

149

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 21](#) >

ID	Location	Land Use	Date	Group ID
A	On site	Unspecified Heap	1948	1490867
A	On site	Unspecified Heap	1931	1517186
B	3m NW	Railway Building	1938	1429019



ID	Location	Land Use	Date	Group ID
C	4m SE	Unspecified Heap	1966	1495972
C	4m SE	Unspecified Heap	1985	1495972
C	4m SE	Unspecified Heap	1975	1495972
B	8m NE	Unspecified Heap	1985	1493535
B	8m NE	Unspecified Heap	1975	1540517
B	9m N	Unspecified Ground Workings	1951	1479969
B	9m N	Unspecified Ground Workings	1966	1479969
C	19m E	Unspecified Heap	1951	1528706
C	19m E	Unspecified Heap	1966	1505772
D	45m NE	Cuttings	1938	1507090
C	45m NE	Cuttings	1966	1533561
1	46m NE	Cuttings	1951	1515646
D	47m NE	Cuttings	1948	1524299
D	47m NE	Cuttings	1905	1474232
D	47m NE	Cuttings	1892	1525174
D	47m NE	Cuttings	1931	1474232
C	49m NE	Cuttings	1985	1510968
C	49m NE	Cuttings	1975	1510968
C	88m NE	Unspecified Ground Workings	1951	1412268
E	110m N	Unspecified Pit	1966	1493132
E	110m N	Unspecified Pit	1985	1544852
E	110m N	Unspecified Pit	1975	1544852
2	118m NW	Refuse Heap	1892	1436664
F	118m NW	Colliery	1905	1461420
F	118m NW	Colliery	1892	1461420
G	125m E	Cuttings	1966	1468941
G	125m E	Cuttings	1985	1468941
G	125m E	Cuttings	1975	1468941



ID	Location	Land Use	Date	Group ID
H	127m E	Unspecified Heap	1985	1541442
H	127m E	Unspecified Heap	1975	1541442
I	150m E	Unspecified Commercial/Industrial	1938	1493012
J	156m SE	Unspecified Heap	1988	1464949
J	156m SE	Unspecified Heap	1965	1478316
J	156m SE	Unspecified Heap	1956	1478316
J	156m SE	Unspecified Heap	1975	1464949
K	181m NW	Railway Sidings	1948	1478929
K	181m NW	Railway Sidings	1905	1526217
K	181m NW	Railway Sidings	1892	1526217
K	181m NW	Railway Sidings	1931	1517758
F	188m NW	Unspecified Heap	1951	1495908
F	191m NW	Unspecified Heap	1948	1491614
F	191m NW	Unspecified Heap	1931	1491614
L	192m NW	Refuse Heap	1905	1496738
L	192m NW	Refuse Heap	1892	1496738
F	194m NW	Unspecified Heap	1938	1491614
F	194m NW	Unspecified Heap	1938	1491614
M	195m NE	Sands Mill	1931	1499397
M	199m NE	Sands Mill	1938	1499397
F	200m NW	Unspecified Heaps	1966	1475129
F	200m NW	Unspecified Heaps	1985	1475129
F	200m NW	Unspecified Heaps	1975	1475129
M	202m NE	Sands Mill	1948	1477489
M	202m NE	Unspecified Mills	1905	1484182
M	202m NE	Unspecified Mills	1892	1484182
M	202m NE	Sands Mill	1951	1511112
M	203m NE	Unspecified Mill	1966	1478899



ID	Location	Land Use	Date	Group ID
M	203m NE	Unspecified Mill	1975	1478899
N	205m NE	Unspecified Mill	1966	1480920
N	205m NE	Unspecified Mill	1985	1480920
N	205m NE	Unspecified Mill	1975	1480920
N	213m NE	Unspecified Mill	1948	1460174
N	213m NE	Unspecified Mill	1931	1477885
N	215m NE	Unspecified Mill	1938	1471631
N	216m NE	Unspecified Mill	1951	1460174
O	227m N	Unspecified Yard	1948	1517270
O	227m N	Unspecified Yard	1905	1458410
O	227m N	Boat Building Yard	1931	1539730
O	230m N	Boat Building Yard	1938	1539730
D	249m E	Cuttings	1966	1537804
D	249m E	Cuttings	1985	1537804
D	249m E	Cuttings	1975	1537804
P	266m N	Unspecified Mill	1966	1533308
P	266m N	Unspecified Mill	1985	1533308
P	266m N	Unspecified Mill	1975	1533308
F	269m NW	Refuse Heap	1905	1487802
F	272m NW	Refuse Heap	1892	1487802
Q	274m E	Unspecified Mills	1985	1550698
Q	274m E	Unspecified Mills	1975	1550698
O	275m N	Boat Building Yard	1951	1505878
Q	289m E	Unspecified Mill	1951	1421641
R	303m NE	Unspecified Heap	1966	1510118
R	303m NE	Unspecified Heap	1985	1512861
R	303m NE	Unspecified Heap	1975	1510118
R	309m NE	Unspecified Heap	1938	1485519

ID	Location	Land Use	Date	Group ID
R	309m NE	Unspecified Heap	1938	1485519
S	311m N	Unspecified Mill	1892	1421640
T	312m NE	Unspecified Tank	1938	1519479
R	317m NE	Unspecified Ground Workings	1951	1412323
T	318m NE	Unspecified Tank	1951	1515359
I	326m E	Cuttings	1988	1556393
I	326m E	Cuttings	1965	1482386
I	326m E	Cuttings	1956	1482386
I	326m E	Cuttings	1975	1556393
I	343m E	Unspecified Commercial/Industrial	1988	1464025
I	343m E	Unspecified Kiln	1956	1435438
I	343m E	Unspecified Commercial/Industrial	1975	1474238
S	347m N	Cuttings	1966	1409837
I	372m E	Railway Sidings	1965	1541762
I	372m E	Railway Sidings	1956	1503376
I	372m E	Railway Sidings	1975	1463162
U	372m NE	Unspecified Quarry	1948	1468206
U	372m NE	Unspecified Quarry	1905	1476204
U	372m NE	Unspecified Quarry	1931	1476204
U	375m NE	Unspecified Quarry	1985	1531605
U	375m NE	Unspecified Disused Quarry	1975	1551208
I	377m E	Railway Sidings	1948	1474518
I	377m E	Railway Sidings	1905	1498539
I	377m E	Railway Sidings	1892	1498539
I	377m E	Railway Sidings	1931	1498539
U	377m NE	Unspecified Disused Quarry	1966	1551208
V	392m N	Unspecified Ground Workings	1892	1412325
V	397m N	Unspecified Quarry	1985	1493824



ID	Location	Land Use	Date	Group ID
W	397m N	Unspecified Quarry	1951	1530518
W	397m N	Unspecified Quarry	1966	1530518
W	397m N	Unspecified Quarry	1975	1530518
V	398m N	Unspecified Quarry	1948	1499997
V	398m N	Unspecified Quarry	1905	1515516
V	398m N	Unspecified Quarry	1931	1499997
V	405m N	Unspecified Quarry	1938	1499997
U	405m NE	Unspecified Quarry	1938	1540415
U	406m NE	Refuse Heap	1892	1436665
U	411m NE	Unspecified Ground Workings	1951	1412324
U	414m NE	Unspecified Quarry	1951	1522259
X	414m NW	Cuttings	1951	1544799
X	414m NW	Cuttings	1966	1544799
Q	415m E	Unspecified Mills	1938	1502249
Q	420m E	Unspecified Mills	1966	1509495
X	422m NW	Cuttings	1948	1552109
X	422m NW	Cuttings	1931	1552109
Q	424m E	Unspecified Mills	1948	1502249
Q	424m E	Unspecified Mills	1905	1502249
Q	424m E	Unspecified Mills	1892	1502249
Q	424m E	Unspecified Mills	1931	1502249
X	424m NW	Cuttings	1938	1552109
Y	424m NW	Railway Sidings	1951	1540247
Y	424m NW	Railway Sidings	1966	1540247
I	437m E	Malt Kiln	1938	1423565
Y	447m NW	Railway Sidings	1938	1544921
X	454m NW	Cuttings	1985	1511888
X	454m NW	Cuttings	1975	1511888



ID	Location	Land Use	Date	Group ID
K	468m NW	Railway Building	1951	1429018
Q	485m E	Unspecified Mills	1951	1462939
K	488m NW	Railway Building	1985	1429016
Q	500m E	Unspecified Mills	1948	1472013
Q	500m E	Unspecified Mills	1905	1538082
Q	500m E	Unspecified Mills	1931	1538082

This data is sourced from Ordnance Survey / Groundsure.

2.2 Historical tanks

Records within 500m

8

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 21 >](#)

ID	Location	Land Use	Date	Group ID
P	258m N	Tanks	1933	230754
T	326m E	Unspecified Tank	1933	223709
3	357m NW	Unspecified Tank	1957	223711
I	468m E	Unspecified Tank	1989	223708
Q	482m E	Unspecified Tank	1957	238887
Q	482m E	Unspecified Tank	1957	234220
Q	483m E	Tanks	1922	249611
Q	483m E	Tanks	1933	249611

This data is sourced from Ordnance Survey / Groundsure.



2.3 Historical energy features

Records within 500m

6

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 21 >](#)

ID	Location	Land Use	Date	Group ID
Q	447m E	Electricity Substation	1983	141371
Q	448m E	Electricity Substation	1972	141371
Q	448m E	Electricity Substation	1996	141371
Q	450m E	Electricity Substation	1996	135550
Q	455m E	Electricity Substation	1983	132595
Q	456m E	Electricity Substation	1972	145803

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

3

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 21 >](#)

ID	Location	Land Use	Date	Group ID
4	382m E	Garage	1982	41106
Q	447m E	Garage	1983	44898

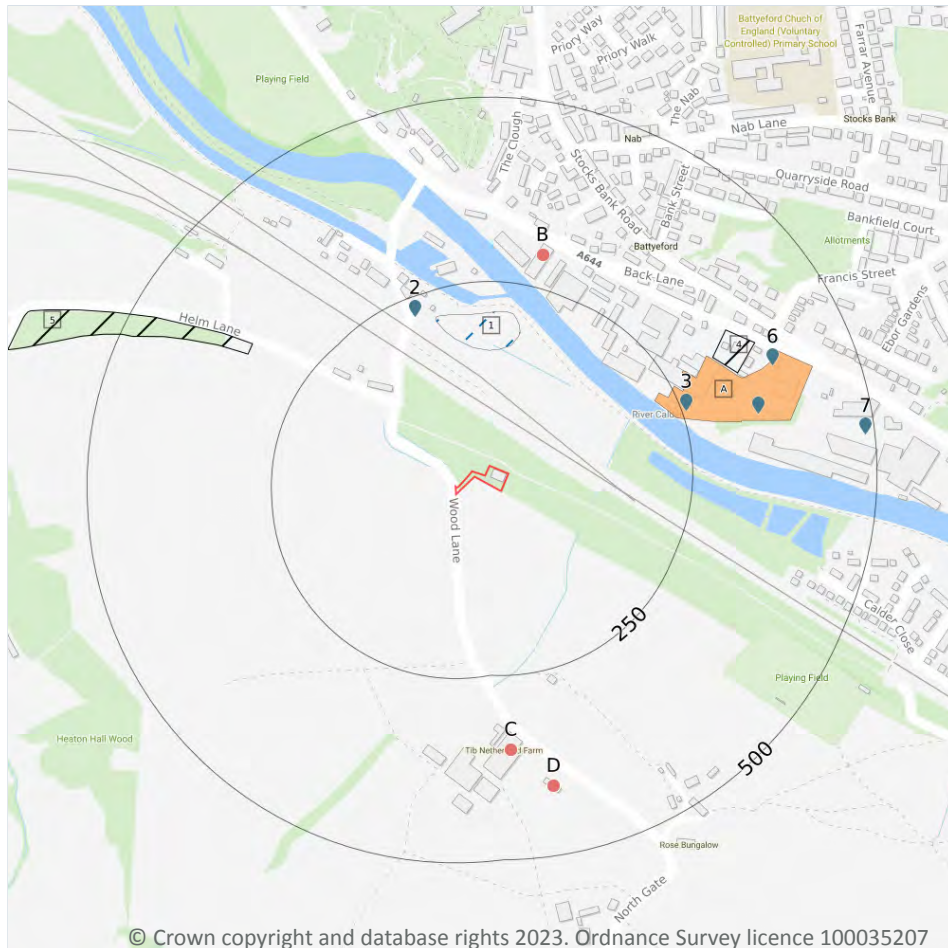


ID	Location	Land Use	Date	Group ID
Q	447m E	Garage	1972	44898

This data is sourced from Ordnance Survey / Groundsure.



3 Waste and landfill



- Site Outline
- Search buffers in metres (m)
- Active or recent landfill
- Historical landfill (EA/NRW)
- Historical waste sites
- Licensed waste sites
- Waste exemptions

3.1 Active or recent landfill

Records within 500m

1

Active or recently closed landfill sites under Environment Agency/Natural Resources Wales regulation. Features are displayed on the Waste and landfill map on [page 30](#) >

ID	Location	Details	
1	156m N	Operator: British Waterways Board Site Address: Land/premises At, Wood Lane, Battyford, Mirfield, Dewsbury, West Yorkshire, WF14 0ED	WML Number: 61005 EPR Reference: BRI013 Landfill type: A06: Landfill taking other wastes Status: Closure IPPC Reference: - EPR Number: EA/EPR/XP3195ZS/A001

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

2

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 30 >](#)

ID	Location	Details		
4	318m NE	Site Address: Sandsfield, Huddersfield Road, Battyeford Licence Holder Address: Meadow Bank, Mirfield	Waste Licence: - Site Reference: 4700/0181 Waste Type: Inert, Commercial Environmental Permitting Regulations (Waste) Reference: - Licence Issue: - Licence Surrender: -	Operator: - Licence Holder: Messrs J W Blackburn First Recorded 01/01/1944 Last Recorded: -
5	334m NW	Site Address: Colne Bridge Cutting, Helm Lane, Colnebridge Licence Holder Address: -	Waste Licence: Yes Site Reference: WDL/101 Waste Type: Industrial, Commercial, Household, Liquid sludge Environmental Permitting Regulations (Waste) Reference: - Licence Issue: 19/05/1982 Licence Surrender: 11/12/1992	Operator: - Licence Holder: - First Recorded 01/01/1983 Last Recorded: 31/12/1988

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

3.5 Historical waste sites

Records within 500m

1

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 30 >](#)

ID	Location	Address	Further Details	Date
A	221m NE	Site Address: N/A	Type of Site: Scrap Yard Planning application reference: N/A Description: N/A Data source: Historic Mapping Data Type: Polygon	1994

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

3.6 Licensed waste sites

Records within 500m

5

Active or recently closed waste sites under Environment Agency/Natural Resources Wales regulation. Features are displayed on the Waste and landfill map on [page 30 >](#)

ID	Location	Details		
2	234m NW	Site Name: Battysford Lock Site Address: British Waterways Board, Wood Lane, Mirfield, Dewsbury, West Yorkshire, WF14 0ED Correspondence Address: -	Type of Site: Landfill taking other wastes Size: 25000 tonnes Environmental Permitting Regulations (Waste) Licence Number: 651466 EPR reference: EA/EPR/XP3195ZS Operator: British Waterways Board Waste Management licence No: 61005 Annual Tonnage: 5000	Issue Date: 22/07/1991 Effective Date: 22/07/1991 Modified: - Surrendered Date: - Expiry Date: - Cancelled Date: 22/07/1991 Status: Closure
3	260m E	Site Name: Ss Components Ltd Site Address: S S Components Limited, Land/premises At, Huddersfield Road, Mirfield, Mirfield, West Yorkshire, WF14 9DQ Correspondence Address: -	Type of Site: Metal Recycling Site (Vehicle Dismantler) Size: 25000 tonnes Environmental Permitting Regulations (Waste) Licence Number: 647901 EPR reference: EA/EPR/EP3192ZB Operator: S S Components Limited Waste Management licence No: 65414 Annual Tonnage: 2500	Issue Date: 16/03/2005 Effective Date: 16/03/2005 Modified: - Surrendered Date: - Expiry Date: - Cancelled Date: 16/03/2005 Status: Issued



ID	Location	Details		
A	350m E	Site Name: Ss Components Ltd Site Address: Land/premises At, Huddersfield Road, Mirfield, Mirfield, West Yorkshire, WF14 9DQ Correspondence Address: -	Type of Site: ELV Facility Size: 25000 tonnes Environmental Permitting Regulations (Waste) Licence Number: 000219 EPR reference: EA/EPR/EP3192ZB/A001 Operator: Ss Components Ltd Waste Management licence No: 65414 Annual Tonnage: 2500	Issue Date: 16/03/2005 Effective Date: - Modified: - Surrendered Date: - Expiry Date: - Cancelled Date: - Status: Issued
6	391m NE	Site Name: S S Motor Spares Site Address: Charles W J Saunders, Land/premises At, Huddersfield Road, Mirfield, Dewsbury, West Yorkshire, WF14 9DQ Correspondence Address: -	Type of Site: Metal Recycling Site (Vehicle Dismantler) Size: 25000 tonnes Environmental Permitting Regulations (Waste) Licence Number: 628369 EPR reference: EA/EPR/XP3795ZN Operator: Charles W J Saunders Waste Management licence No: 61006 Annual Tonnage: 2500	Issue Date: 10/01/1991 Effective Date: 10/01/1991 Modified: - Surrendered Date: - Expiry Date: - Cancelled Date: 10/01/1991 Status: Expired
7	488m E	Site Name: Mirfield Motor Spares Ltd Site Address: Mirfield Motor Spares Limited, 157, Huddersfield Road, Mirfield, West Yorkshire, WF14 9DQ Correspondence Address: -	Type of Site: Metal Recycling Site (Vehicle Dismantler) Size: 25000 tonnes Environmental Permitting Regulations (Waste) Licence Number: 645251 EPR reference: EA/EPR/ZP3592ZX Operator: Mirfield Motor Spares Limited Waste Management licence No: 65376 Annual Tonnage: 2500	Issue Date: 23/06/2004 Effective Date: 23/06/2004 Modified: - Surrendered Date: - Expiry Date: - Cancelled Date: 23/06/2004 Status: Issued

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

3.7 Waste exemptions

Records within 500m	26
----------------------------	-----------

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 30 >](#)



ID	Location	Site	Reference	Category	Sub-Category	Description
B	295m N	PERSEVERANCE MILLS, HUDDERSFIELD ROAD, MIRFIELD, WF14 9DL	WEX086606	Using waste exemption	Not on a farm	Use of waste in construction
B	295m N	PERSEVERANCE MILLS, HUDDERSFIELD ROAD, MIRFIELD, WF14 9DL	WEX086606	Using waste exemption	Not on a farm	Incorporation of ash into soil
B	295m N	PERSEVERANCE MILLS, HUDDERSFIELD ROAD, MIRFIELD, WF14 9DL	WEX086606	Using waste exemption	Not on a farm	Use of waste to manufacture finished goods
C	351m S	Tib Netherend Farm HUDDERSFIELD HD5 OPX	EPR/HH0170LZ /A001	Disposing of waste exemption	Agricultural Waste Only	Deposit of waste from dredging of inland waters
C	351m S	Tib Netherend Farm HUDDERSFIELD HD5 OPX	EPR/HH0170LZ /A001	Disposing of waste exemption	Agricultural Waste Only	Deposit of agricultural waste consisting of plant tissue under a Plant Health notice
C	351m S	Tib Netherend Farm HUDDERSFIELD HD5 OPX	EPR/HH0170LZ /A001	Disposing of waste exemption	Agricultural Waste Only	Burning waste in the open
C	351m S	Tib Netherend Farm HUDDERSFIELD HD5 OPX	EPR/HH0170LZ /A001	Treating waste exemption	Agricultural Waste Only	Cleaning, washing, spraying or coating relevant waste
C	351m S	Tib Netherend Farm HUDDERSFIELD HD5 OPX	EPR/HH0170LZ /A001	Treating waste exemption	Agricultural Waste Only	Treatment of waste food
C	351m S	Tib Netherend Farm HUDDERSFIELD HD5 OPX	EPR/HH0170LZ /A001	Treating waste exemption	Agricultural Waste Only	Aerobic composting and associated prior treatment
C	351m S	Tib Netherend Farm HUDDERSFIELD HD5 OPX	EPR/HH0170LZ /A001	Treating waste exemption	Agricultural Waste Only	Screening and blending of waste
C	351m S	Tib Netherend Farm HUDDERSFIELD HD5 OPX	EPR/HH0170LZ /A001	Treating waste exemption	Agricultural Waste Only	Treatment of waste wood and waste plant matter by chipping, shredding, cutting or pulverising
C	351m S	Tib Netherend Farm HUDDERSFIELD HD5 OPX	EPR/HH0170LZ /A001	Using waste exemption	Agricultural Waste Only	Spreading waste on agricultural land to confer benefit
C	351m S	Tib Netherend Farm HUDDERSFIELD HD5 OPX	EPR/HH0170LZ /A001	Using waste exemption	Agricultural Waste Only	Use of waste for a specified purpose

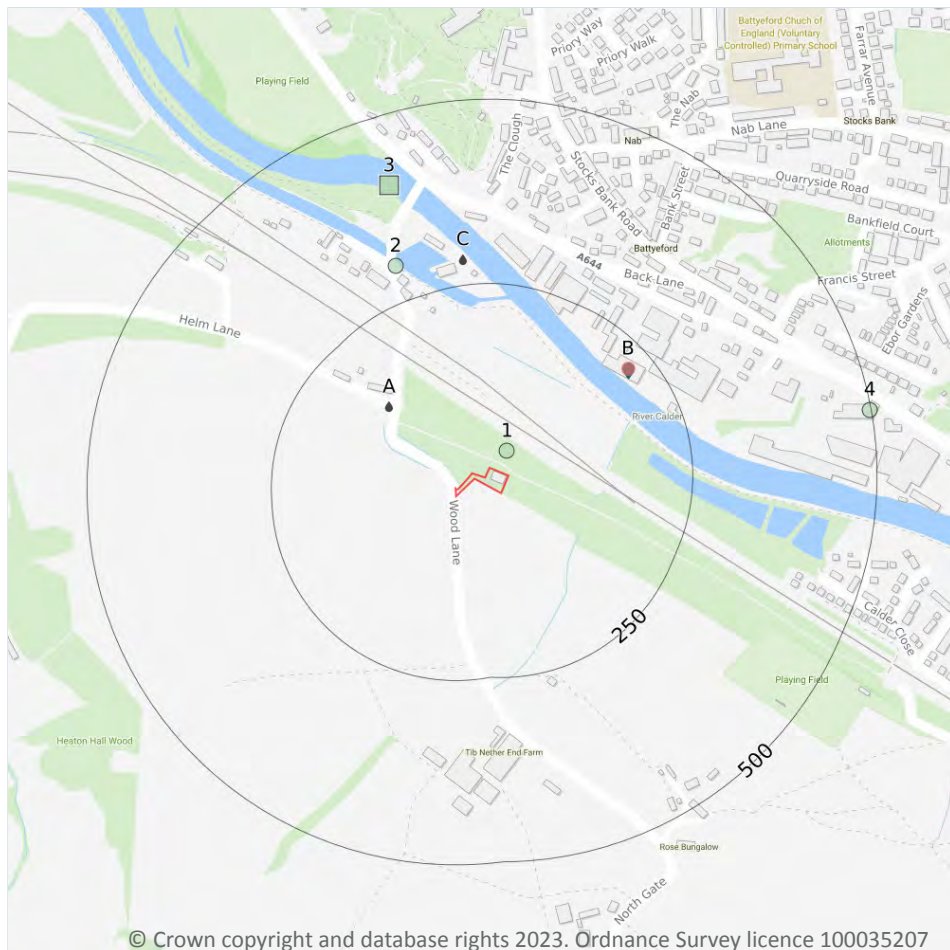


ID	Location	Site	Reference	Category	Sub-Category	Description
D	406m S	TIB NETHEREND FARM, COLNEBRIDGE, HUDDERSFIELD, HD5 OPX	WEX021281	Disposing of waste exemption	On a farm	Burning waste in the open
D	406m S	TIB NETHEREND FARM, COLNEBRIDGE, HUDDERSFIELD, HD5 OPX	WEX021281	Storing waste exemption	On a farm	Storage of waste in secure containers
D	406m S	TIB NETHEREND FARM, COLNEBRIDGE, HUDDERSFIELD, HD5 OPX	WEX021281	Storing waste exemption	On a farm	Storage of waste in a secure place
D	406m S	TIB NETHEREND FARM, COLNEBRIDGE, HUDDERSFIELD, HD5 OPX	WEX021281	Treating waste exemption	On a farm	Crushing and emptying waste vehicle oil filters
D	406m S	TIB NETHEREND FARM, COLNEBRIDGE, HUDDERSFIELD, HD5 OPX	WEX021281	Treating waste exemption	On a farm	Preparatory treatments (baling, sorting, shredding etc)
D	406m S	TIB NETHEREND FARM, COLNEBRIDGE, HUDDERSFIELD, HD5 OPX	WEX021281	Treating waste exemption	On a farm	Recovery of scrap metal
D	406m S	TIB NETHEREND FARM, COLNEBRIDGE, HUDDERSFIELD, HD5 OPX	WEX021281	Using waste exemption	On a farm	Use of waste in construction
D	406m S	TIB NETHEREND FARM, COLNEBRIDGE, HUDDERSFIELD, HD5 OPX	WEX021281	Using waste exemption	On a farm	Use of mulch
D	406m S	TIB NETHEREND FARM, COLNEBRIDGE, HUDDERSFIELD, HD5 OPX	WEX021281	Using waste exemption	On a farm	Spreading of plant matter to confer benefit
D	406m S	TIB NETHEREND FARM, COLNEBRIDGE, HUDDERSFIELD, HD5 OPX	WEX021281	Using waste exemption	On a farm	Use of sludge for the purposes of re-seeding a waste water treatment plant
D	406m S	TIB NETHEREND FARM, COLNEBRIDGE, HUDDERSFIELD, HD5 OPX	WEX021281	Using waste exemption	On a farm	Use of waste for a specified purpose
D	406m S	TIB NETHEREND FARM, COLNEBRIDGE, HUDDERSFIELD, HD5 OPX	WEX252532	Using waste exemption	On a farm	Spreading waste on agricultural land to confer benefit
D	406m S	TIB NETHEREND FARM, COLNEBRIDGE, HUDDERSFIELD, HD5 OPX	WEX252532	Disposing of waste exemption	On a farm	Burning waste in the open

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



4 Current industrial land use



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

4.1 Recent industrial land uses

Records within 250m

1

Current potentially contaminative industrial sites.

Features are displayed on the Current industrial land use map on [page 36](#) >

ID	Location	Company	Address	Activity	Category
B	217m NE	Caldercote Ltd	Unit 1 and 2 Sands Industrial Estate, Huddersfield Road, Mirfield, West Yorkshire, WF14 9DQ	Industrial Coatings and Finishings	Industrial Products

This data is sourced from Ordnance Survey.



4.2 Current or recent petrol stations

Records within 500m**0**

Open, closed, under development and obsolete petrol stations.

This data is sourced from Experian.

4.3 Electricity cables

Records within 500m**0**

High voltage underground electricity transmission cables.

This data is sourced from National Grid.

4.4 Gas pipelines

Records within 500m**0**

High pressure underground gas transmission pipelines.

This data is sourced from National Grid.

4.5 Sites determined as Contaminated Land

Records within 500m**0**

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

This data is sourced from Local Authority records.

4.6 Control of Major Accident Hazards (COMAH)

Records within 500m**0**

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

This data is sourced from the Health and Safety Executive.

4.7 Regulated explosive sites

Records within 500m**0**

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

This data is sourced from the Health and Safety Executive.

4.8 Hazardous substance storage/usage

Records within 500m**0**

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

This data is sourced from Local Authority records.

4.9 Historical licensed industrial activities (IPC)

Records within 500m**0**

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

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

4.10 Licensed industrial activities (Part A(1))

Records within 500m**0**

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

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

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

Records within 500m**1**

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

Features are displayed on the Current industrial land use map on [page 36](#) >

ID	Location	Address	Details	
B	215m NE	Caldercote Ltd, Unit 2, Sands Industrial Estate, Huddersfield Road, Mirfield, WF14 9DQ	Process: Coating Processes Status: Current Permit Permit Type: Part B	Enforcement: No Enforcements Notified Date of enforcement: No Enforcements Notified Comment: No Enforcements Notified

This data is sourced from Local Authority records.

4.12 Radioactive Substance Authorisations

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

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

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

4.13 Licensed Discharges to controlled waters

Records within 500m	4
----------------------------	----------

Discharges of treated or untreated effluent to controlled waters under the Water Resources Act 1991.

Features are displayed on the Current industrial land use map on [page 36 >](#)

ID	Location	Address	Details	
A	143m NW	THE OLD SMITHY, HELME LANE, MIRFIELD	Effluent Type: SEWAGE DISCHARGES - FINAL/TREATED EFFLUENT - NOT WATER COMPANY Permit Number: C5195 Permit Version: 1 Receiving Water: LAND ADJ TO PROPOSED DWELLING	Status: TRANSFERRED FROM COPA 1974 Issue date: 05/08/1988 Effective Date: 05/08/1988 Revocation Date: 25/07/2012
A	143m NW	THE OLD SMITHY, HELME LANE, MIRFIELD	Effluent Type: SEWAGE DISCHARGES - FINAL/TREATED EFFLUENT - NOT WATER COMPANY Permit Number: C5195 Permit Version: 2 Receiving Water: LAND ADJ TO PROPOSED DWELLING	Status: TRANSFERRED FROM COPA 1974 Issue date: 26/07/2012 Effective Date: 26/07/2012 Revocation Date: -
C	285m N	BATTYE CUT, WOOD LANE, BATTYEFORD, MIRFIELD	Effluent Type: SEWAGE DISCHARGES - FINAL/TREATED EFFLUENT - NOT WATER COMPANY Permit Number: C5171 Permit Version: 1 Receiving Water: LAND ADJACENT TO BATTYE CUT	Status: TRANSFERRED FROM COPA 1974 Issue date: 26/07/1988 Effective Date: 26/07/1988 Revocation Date: 25/07/2012



ID	Location	Address	Details	
C	285m N	BATTYE CUT, WOOD LANE, BATTYEFORD, MIRFIELD	Effluent Type: SEWAGE DISCHARGES - FINAL/TREATED EFFLUENT - NOT WATER COMPANY Permit Number: C5171 Permit Version: 2 Receiving Water: LAND ADJACENT TO BATTYE CUT	Status: TRANSFERRED FROM COPA 1974 Issue date: 26/07/2012 Effective Date: 26/07/2012 Revocation Date: -

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

4.14 Pollutant release to surface waters (Red List)

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

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

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

4.15 Pollutant release to public sewer

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

Discharges of Special Category Effluents to the public sewer.

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

4.16 List 1 Dangerous Substances

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

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

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

4.17 List 2 Dangerous Substances

Records within 500m	1
----------------------------	----------

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

Features are displayed on the Current industrial land use map on [page 36 >](#)

ID	Location	Name	Status	Receiving Water	Authorised Substances
3	406m N	New List 2 Water Site 12	Active	River Calder	Tributyltin

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

4.18 Pollution Incidents (EA/NRW)

Records within 500m	3
----------------------------	----------

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

Features are displayed on the Current industrial land use map on [page 36 >](#)

ID	Location	Details	
1	30m NE	Incident Date: 14/08/2001 Incident Identification: 24009 Pollutant: Inert Materials and Wastes Pollutant Description: Construction and Demolition Materials and Wastes	Water Impact: Category 3 (Minor) Land Impact: Category 2 (Significant) Air Impact: Category 4 (No Impact)
2	299m NW	Incident Date: 06/09/2002 Incident Identification: 105873 Pollutant: Atmospheric Pollutants and Effects Pollutant Description: Other Atmospheric Pollutant or Effect	Water Impact: Category 4 (No Impact) Land Impact: Category 4 (No Impact) Air Impact: Category 3 (Minor)
4	498m E	Incident Date: 13/08/2001 Incident Identification: 23883 Pollutant: General Biodegradable Materials and Wastes Pollutant Description: Other General Biodegradable Material or Waste	Water Impact: Category 4 (No Impact) Land Impact: Category 3 (Minor) Air Impact: Category 3 (Minor)

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

4.19 Pollution inventory substances

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

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

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



4.20 Pollution inventory waste transfers

Records within 500m

0

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

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

4.21 Pollution inventory radioactive waste

Records within 500m

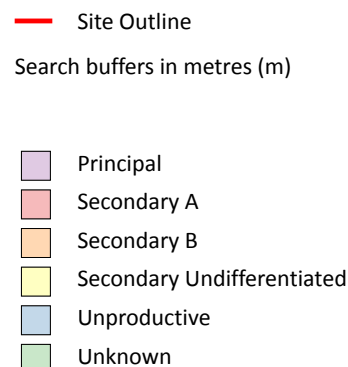
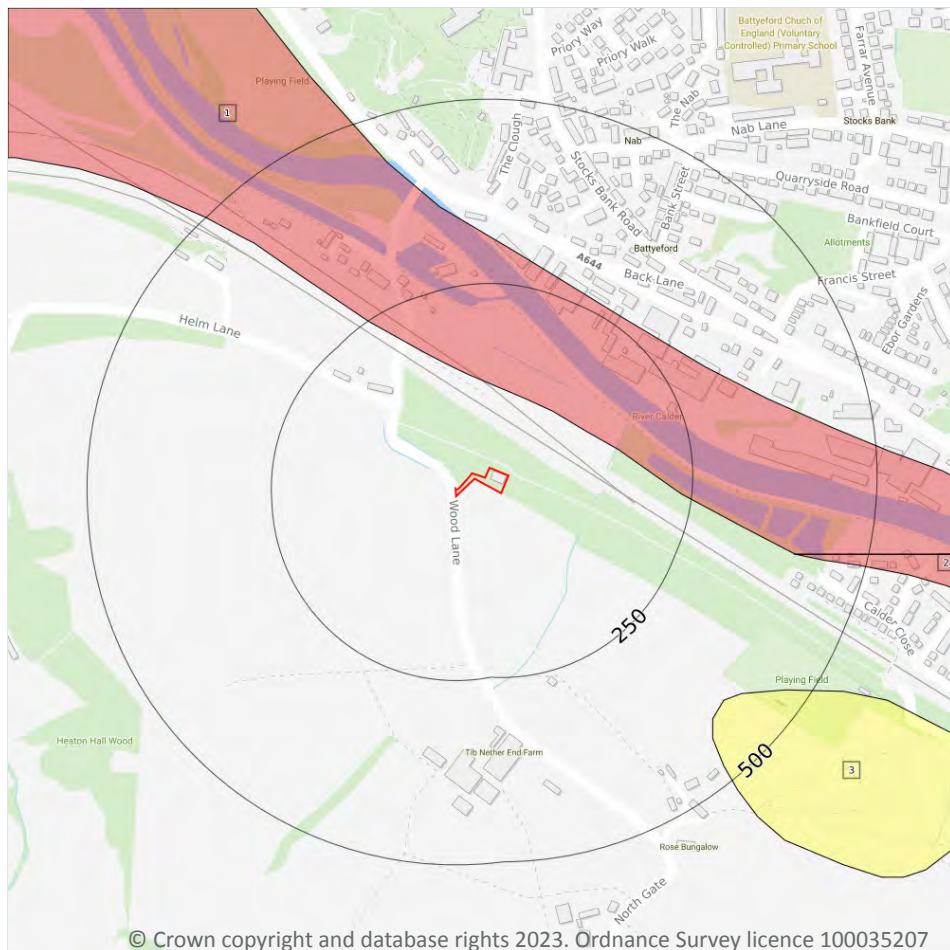
0

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

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



5 Hydrogeology - Superficial aquifer



5.1 Superficial aquifer

Records within 500m

3

Aquifer status of groundwater held within superficial geology.

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

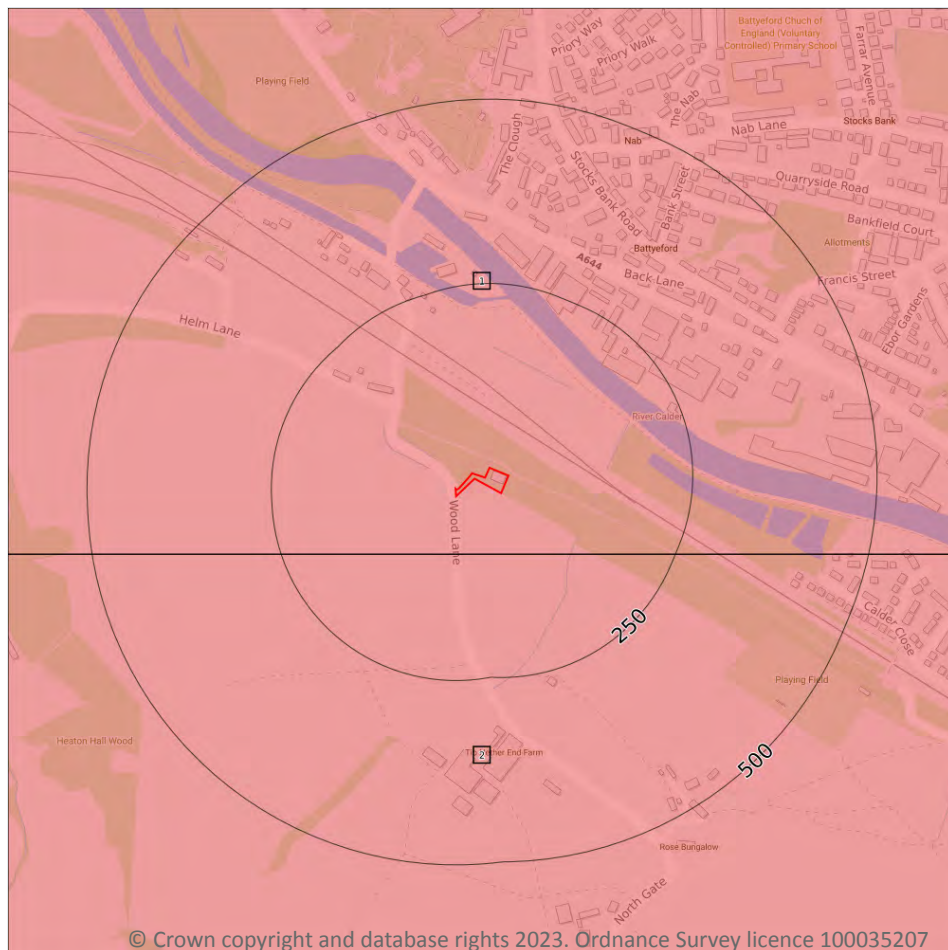
ID	Location	Designation	Description
1	104m NE	Secondary A	Permeable layers capable of supporting water supplies at a local rather than strategic scale, and in some cases forming an important source of base flow to rivers. These are generally aquifers formerly classified as minor aquifers
2	403m E	Secondary A	Permeable layers capable of supporting water supplies at a local rather than strategic scale, and in some cases forming an important source of base flow to rivers. These are generally aquifers formerly classified as minor aquifers

ID	Location	Designation	Description
3	412m SE	Secondary Undifferentiated	Assigned where it is not possible to attribute either category A or B to a rock type. In general these layers have previously been designated as both minor and non-aquifer in different locations due to the variable characteristics of the rock type

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



Bedrock aquifer



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

5.2 Bedrock aquifer

Records within 500m

2

Aquifer status of groundwater held within bedrock geology.

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

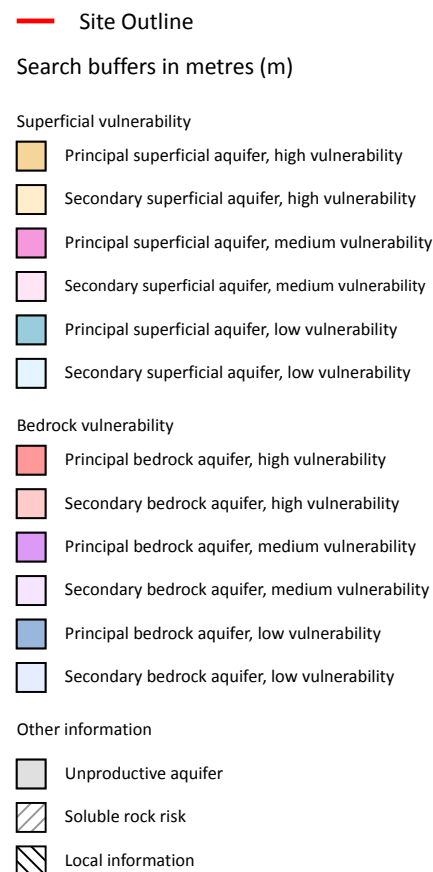
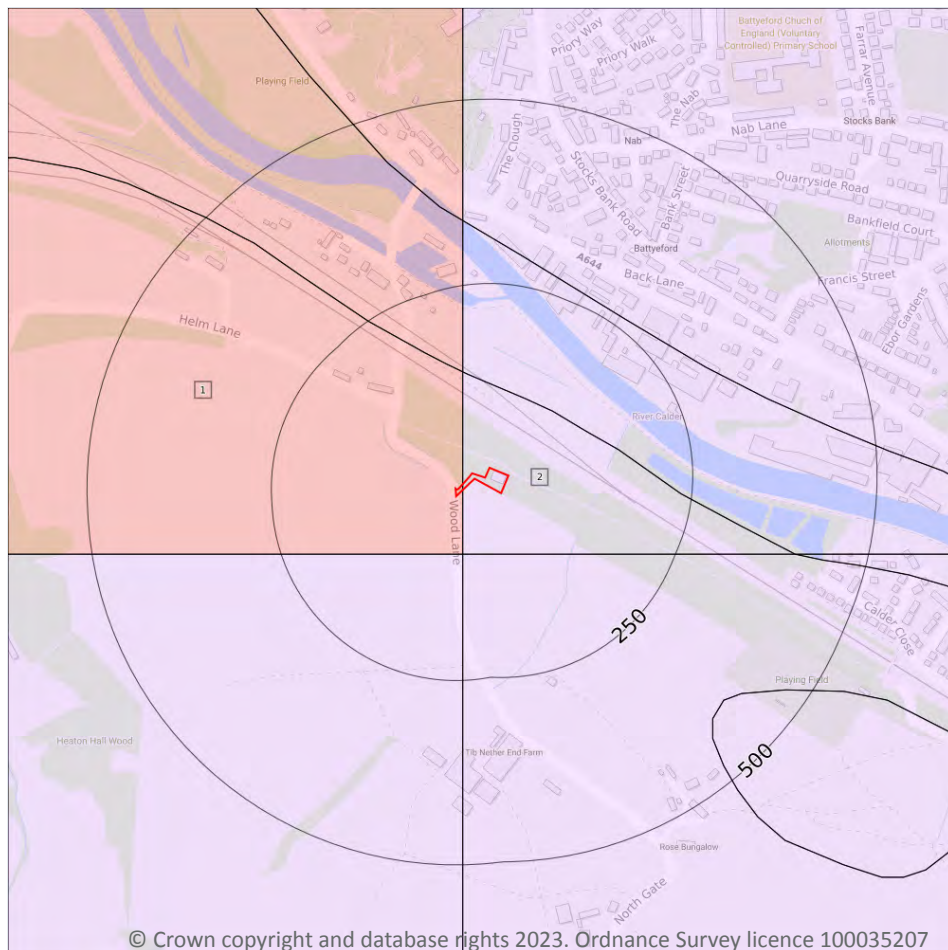
ID	Location	Designation	Description
1	On site	Secondary A	Permeable layers capable of supporting water supplies at a local rather than strategic scale, and in some cases forming an important source of base flow to rivers. These are generally aquifers formerly classified as minor aquifers
2	79m SW	Secondary A	Permeable layers capable of supporting water supplies at a local rather than strategic scale, and in some cases forming an important source of base flow to rivers. These are generally aquifers formerly classified as minor aquifers



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



Groundwater vulnerability



5.3 Groundwater vulnerability

Records within 50m

2

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

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

Features are displayed on the Groundwater vulnerability map on [page 47](#) >



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

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

5.4 Groundwater vulnerability- soluble rock risk

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

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

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

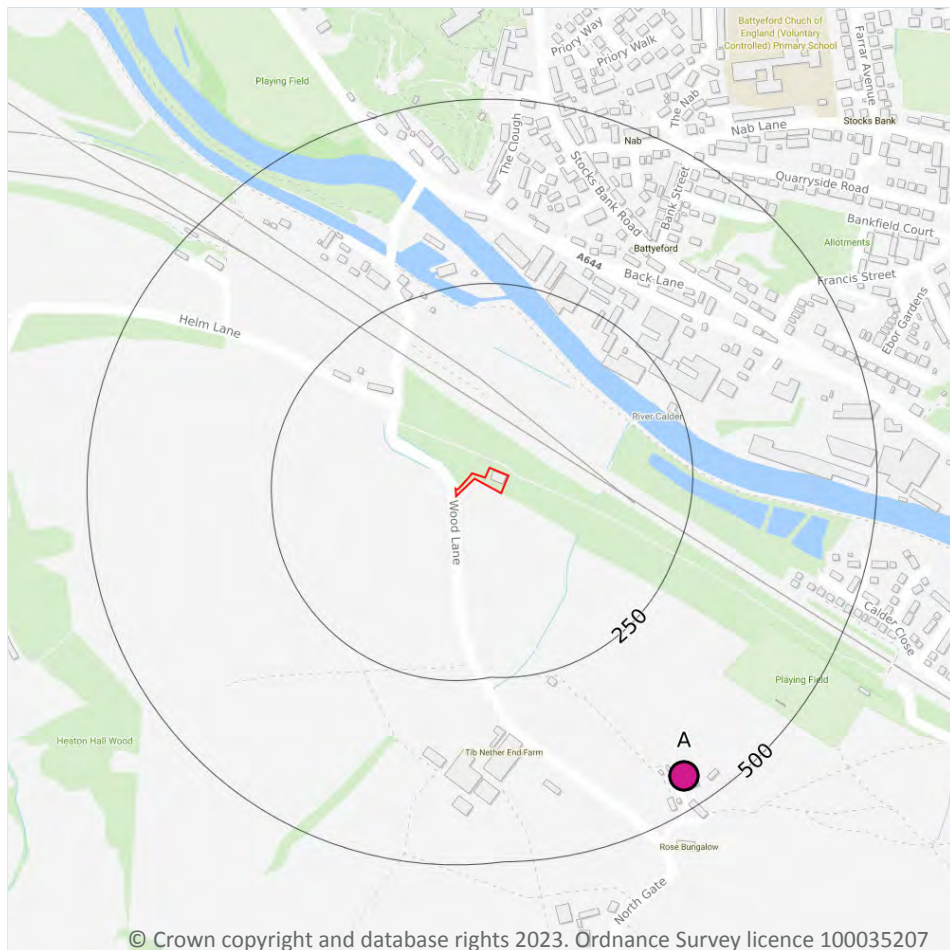
5.5 Groundwater vulnerability- local information

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

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

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

Abstractions and Source Protection Zones



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

5.6 Groundwater abstractions

Records within 2000m

4

Licensed groundwater abstractions for sites extracting more than 20 cubic metres of water a day and includes active and historical records. The data may be for a single abstraction point, between two points (line data) or a larger area.

Features are displayed on the Abstractions and Source Protection Zones map on [page 49 >](#)



ID	Location	Details	
A	456m SE	Status: Historical Licence No: 2/27/13/090 Details: General Farming & Domestic Direct Source: GROUNDWATERS Point: -- WELL Data Type: Point Name: DEWS Easting: 419300 Northing: 419700	Annual Volume (m ³): - Max Daily Volume (m ³): - Original Application No: - Original Start Date: 17/03/1966 Expiry Date: - Issue No: 100 Version Start Date: 26/03/1974 Version End Date: -
A	456m SE	Status: Historical Licence No: 2/27/13/090 Details: General Farming & Domestic Direct Source: GROUNDWATERS Point: WELL - COAL MEASURES - COLNSBRIDGE BRADLEY Data Type: Point Name: DEWS Easting: 419300 Northing: 419700	Annual Volume (m ³): - Max Daily Volume (m ³): - Original Application No: - Original Start Date: 17/03/1966 Expiry Date: - Issue No: 100 Version Start Date: 26/03/1974 Version End Date: -
-	1651m NW	Status: Active Licence No: 2/27/12/186 Details: Boiler Feed Direct Source: GROUNDWATERS Point: BOREHOLE - COAL MEASURES - BRADLEY Data Type: Point Name: E BOTTOMLEY & SONS LTD Easting: 417500 Northing: 420800	Annual Volume (m ³): 109090 Max Daily Volume (m ³): 1364 Original Application No: 4308(2) Original Start Date: 28/04/1966 Expiry Date: - Issue No: 102 Version Start Date: 03/03/2008 Version End Date: -
-	1651m NW	Status: Historical Licence No: 2/27/12/186 Details: Boiler Feed Direct Source: GROUNDWATERS Point: BOREHOLE Data Type: Point Name: BOTTOMLEY & SON LIMITED Easting: 417500 Northing: 420800	Annual Volume (m ³): - Max Daily Volume (m ³): - Original Application No: - Original Start Date: 28/04/1966 Expiry Date: - Issue No: 100 Version Start Date: 01/07/1998 Version End Date: -

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

5.7 Surface water abstractions

Records within 2000m

12

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



Features are displayed on the Abstractions and Source Protection Zones map on [page 49 >](#)

ID	Location	Details	
-	1064m NW	Status: Active Licence No: 2/27/13/049 Details: General Use Relating To Secondary Category (Medium Loss) Direct Source: SURFACE WATER Point: NUNBROOK BECK - MIRFIELD Data Type: Point Name: JOHN COTTON (MIRFIELD) LTD Easting: 418300 Northing: 420900	Annual Volume (m ³): 57825 Max Daily Volume (m ³): 327.31 Original Application No: 726 Original Start Date: 20/01/1966 Expiry Date: - Issue No: 100 Version Start Date: 20/01/1966 Version End Date: -
-	1064m NW	Status: Historical Licence No: 2/27/13/049 Details: General Use Relating To Secondary Category (Medium Loss) Direct Source: SURFACE WATER Point: NUNBROOK BECK Data Type: Point Name: JOHN COTTON (MIRFIELD) LTD Easting: 418300 Northing: 420900	Annual Volume (m ³): 57825 Max Daily Volume (m ³): 327.312 Original Application No: - Original Start Date: 20/01/1966 Expiry Date: - Issue No: 100 Version Start Date: 20/01/1966 Version End Date: -
-	1165m W	Status: Historical Licence No: 2/27/13/071 Details: General Cooling (Existing Licences Only) (Low Loss) Direct Source: SURFACE WATER Point: RIVER CALDER Data Type: Point Name: HOLLIDAY DYES & CHEMICALS LTD Easting: 417900 Northing: 420500	Annual Volume (m ³): - Max Daily Volume (m ³): - Original Application No: - Original Start Date: 17/03/1966 Expiry Date: - Issue No: 100 Version Start Date: 01/03/1982 Version End Date: -
-	1165m W	Status: Historical Licence No: 2/27/13/071 Details: General use relating to Secondary Category (Medium Loss) Direct Source: SURFACE WATER Point: RIVER CALDER Data Type: Point Name: HOLLIDAY DYES & CHEMICALS LTD Easting: 417900 Northing: 420500	Annual Volume (m ³): - Max Daily Volume (m ³): - Original Application No: - Original Start Date: 17/03/1966 Expiry Date: - Issue No: 100 Version Start Date: 01/03/1982 Version End Date: -

ID	Location	Details	
-	1354m W	Status: Active Licence No: 2/27/13/201 Details: Transfer Between Sources (Pre Water Act 2003) Direct Source: SURFACE WATER Point: RIVER CALDER - DALTON WORKS - HUDDERSFIELD Data Type: Point Name: SYNGENTA LTD Easting: 417700 Northing: 420500	Annual Volume (m ³): 1136500 Max Daily Volume (m ³): 27300 Original Application No: 5041 Original Start Date: 21/10/1999 Expiry Date: - Issue No: 102 Version Start Date: 01/04/2006 Version End Date: -
-	1354m W	Status: Historical Licence No: 2/27/12/267 Details: General Cooling (Existing Licences Only) (Low Loss) Direct Source: SURFACE WATER Point: RIVER CALDER - DALTON WORKS HUDDERSFIELD Data Type: Point Name: ZENECA FINE CHEMICAL MANUFACTURING ORGANISATION Easting: 417700 Northing: 420500	Annual Volume (m ³): - Max Daily Volume (m ³): - Original Application No: - Original Start Date: 24/02/1971 Expiry Date: - Issue No: 101 Version Start Date: 21/11/1999 Version End Date: -
-	1354m W	Status: Historical Licence No: 2/27/12/267 Details: General Cooling (Existing Licences Only) (Low Loss) Direct Source: SURFACE WATER Point: RIVER CALDER - DALTON WORKS - HUDDERSFIELD Data Type: Point Name: ZENECA FINE CHEMICAL MANUFACTURING ORGANISATION Easting: 417700 Northing: 420500	Annual Volume (m ³): - Max Daily Volume (m ³): - Original Application No: - Original Start Date: 24/02/1971 Expiry Date: - Issue No: 101 Version Start Date: 21/11/1999 Version End Date: -
-	1354m W	Status: Historical Licence No: 2/27/12/267 Details: Transfer between sources Direct Source: SURFACE WATER Point: RIVER CALDER - DALTON WORKS - HUDDERSFIELD Data Type: Point Name: ZENECA FINE CHEMICAL MANUFACTURING ORGANISATION Easting: 417700 Northing: 420500	Annual Volume (m ³): - Max Daily Volume (m ³): - Original Application No: - Original Start Date: 24/02/1971 Expiry Date: - Issue No: 101 Version Start Date: 21/11/1999 Version End Date: -



ID	Location	Details	
-	1651m NW	Status: Active Licence No: 2/27/12/185 Details: Boiler Feed Direct Source: SURFACE WATER Point: RIVER CALDER - BRADLEY Data Type: Point Name: E BOTTOMLEY & SONS LTD Easting: 417500 Northing: 420800	Annual Volume (m ³): 109090 Max Daily Volume (m ³): 1364 Original Application No: 4308 Original Start Date: 28/04/1966 Expiry Date: - Issue No: 102 Version Start Date: 03/03/2008 Version End Date: -
-	1651m NW	Status: Historical Licence No: 2/27/12/185 Details: Boiler Feed Direct Source: SURFACE WATER Point: RIVER CALDER Data Type: Point Name: E BOTTOMLEY & SON LTD Easting: 417500 Northing: 420800	Annual Volume (m ³): 109090 Max Daily Volume (m ³): 1364 Original Application No: - Original Start Date: 28/04/1966 Expiry Date: - Issue No: 101 Version Start Date: 16/01/2006 Version End Date: -
-	1958m SE	Status: Active Licence No: 2/27/13/050 Details: General Use Relating To Secondary Category (Medium Loss) Direct Source: SURFACE WATER Point: RIVER CALDER - HOLME BANK MILLS Data Type: Point Name: New Hall Properties (Hagg Lane) Limited Easting: 420800 Northing: 419200	Annual Volume (m ³): 36368 Max Daily Volume (m ³): 227.3 Original Application No: NPS/WR/038642 Original Start Date: 20/01/1966 Expiry Date: - Issue No: 102 Version Start Date: 21/03/2023 Version End Date: -
-	1994m SW	Status: Historical Licence No: 2/27/11/162 Details: Potable Water Supply - Direct Direct Source: SURFACE WATER Point: RIVER COLNE Data Type: Point Name: YORKSHIRE WATER SERVICES LTD Easting: 417200 Northing: 419200	Annual Volume (m ³): - Max Daily Volume (m ³): - Original Application No: - Original Start Date: 02/03/1977 Expiry Date: - Issue No: 100 Version Start Date: 02/03/1977 Version End Date: -

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

5.8 Potable abstractions

Records within 2000m

1

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



Features are displayed on the Abstractions and Source Protection Zones map on [page 49 >](#)

ID	Location	Details	
-	1994m SW	Status: Historical Licence No: 2/27/11/162 Details: Potable Water Supply - Direct Direct Source: SURFACE WATER Point: RIVER COLNE Data Type: Point Name: YORKSHIRE WATER SERVICES LTD Easting: 417200 Northing: 419200	Annual Volume (m³): - Max Daily Volume (m³): - Original Application No: - Original Start Date: 02/03/1977 Expiry Date: - Issue No: 100 Version Start Date: 02/03/1977 Version End Date: -

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.

ID	Location	Type of water feature	Ground level	Permanence	Name
B	44m W	Inland river not influenced by normal tidal action.	On ground surface	Watercourse contains water year round (in normal circumstances)	-
C	118m SE	Inland river not influenced by normal tidal action.	On ground surface	Watercourse contains water year round (in normal circumstances)	-
D	119m SE	Inland river not influenced by normal tidal action.	On ground surface	Watercourse contains water year round (in normal circumstances)	-
E	119m E	Inland river not influenced by normal tidal action.	On ground surface	Watercourse contains water year round (in normal circumstances)	-
F	145m NE	Inland river not influenced by normal tidal action.	On ground surface	Watercourse contains water year round (in normal circumstances)	-
1	183m NE	Inland river not influenced by normal tidal action.	On ground surface	Watercourse contains water year round (in normal circumstances)	River Calder
G	183m NE	Inland river not influenced by normal tidal action.	On ground surface	Watercourse contains water year round (in normal circumstances)	River Calder
4	198m NE	Inland river not influenced by normal tidal action.	On ground surface	Watercourse contains water year round (in normal circumstances)	River Calder
H	215m S	Inland river not influenced by normal tidal action.	Underground	Watercourse contains water year round (in normal circumstances)	-
H	218m S	Inland river not influenced by normal tidal action.	On ground surface	Watercourse contains water year round (in normal circumstances)	-
I	228m N	Lock or flight of locks. An enclosure in a canal or navigable river with gates and sluices at either end.	On ground surface	Watercourse contains water year round (in normal circumstances)	Calder and Hebble Navigation
J	228m N	Canal. A manmade watercourse for inland navigation.	On ground surface	Watercourse contains water year round (in normal circumstances)	Calder and Hebble Navigation
I	230m N	Canal. A manmade watercourse for inland navigation.	On ground surface	Watercourse contains water year round (in normal circumstances)	Calder and Hebble Navigation



ID	Location	Type of water feature	Ground level	Permanence	Name
6	238m N	Inland river not influenced by normal tidal action.	On ground surface	Watercourse contains water year round (in normal circumstances)	River Calder

This data is sourced from the Ordnance Survey.

6.2 Surface water features

Records within 250m	9
----------------------------	----------

Covering rivers, streams and lakes (some overlap with OS 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 55 >](#)

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 55 >](#)

ID	Location	Type	Water body catchment	Water body ID	Operational catchment	Management catchment
A	On site	River	Calder from River Colne to River Chald	GB104027062631	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	2
---------------------------	----------

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 55 >](#)

ID	Location	Type	Name	Water body ID	Overall rating	Chemical rating	Ecological rating	Year
2	189m NE	River	Calder from River Colne to River Chald	GB104027062631 ↗	Moderate	Fail	Moderate	2019
5	229m N	Canal	Calder and Hebble Navigation (river and canal sections)	GB70410521 ↗	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 55 >](#)

ID	Location	Name	Water body ID	Overall rating	Chemical rating	Quantitative	Year
A	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

0

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

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



7.2 Historical Flood Events

Records within 250m

5

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 59 >](#)

ID	Location	Event name	Date of flood	Flood source	Flood cause	Type of flood
A	127m N	December 2015 Flood Event	2015-12-25 2015-12-29	Main river	Channel capacity exceeded (no raised defences)	Fluvial
B	127m N	River Calder. Brighouse To Dewsbury	2002-02-10 2002-02-13	Main river	Channel capacity exceeded (no raised defences)	Fluvial
3	161m N	December 2015 Flood Event	2015-12-25 2015-12-29	Main river	Channel capacity exceeded (no raised defences)	Fluvial
4	166m NE	2020 February Flood Incident - Storm Ciara/dennis	2020-02-08 2020-03-19	Main river	Channel capacity exceeded (no raised defences)	Fluvial
8	221m N	2022 February Flood Incident -Storm Dudley, Eunice And Franklin	2022-02-20 2022-03-28	Main river	Channel capacity exceeded (no raised defences)	Fluvial

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

7.3 Flood Defences

Records within 250m

0

Records of flood defences owned, managed or inspected by the Environment Agency and Natural Resources Wales. Flood defences can be structures, buildings or parts of buildings. Typically these are earth banks, stone and concrete walls, or sheet-piling that is used to prevent or control the extent of flooding.

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

7.4 Areas Benefiting from Flood Defences

Records within 250m

0

Areas that would benefit from the presence of flood defences in a 1 in 100 (1%) chance of flooding each year from rivers or 1 in 200 (0.5%) chance of flooding each year from the sea.

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



7.5 Flood Storage Areas

Records within 250m

2

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.

Features are displayed on the River and coastal flooding map on [page 59](#) >

ID	Location	Update
B	128m N	Flood Storage Area
2	130m E	Flood Storage Area

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



River and coastal flooding - Flood Zones

7.6 Flood Zone 2

Records within 50m

0

Areas of land at risk of flooding, when the presence of flood defences are ignored. Covering land between Flood Zone 3 (see next section) and the extent of the flooding from rivers or the sea with a 1 in 1000 (0.1%) chance of flooding each year.

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

7.7 Flood Zone 3

Records within 50m

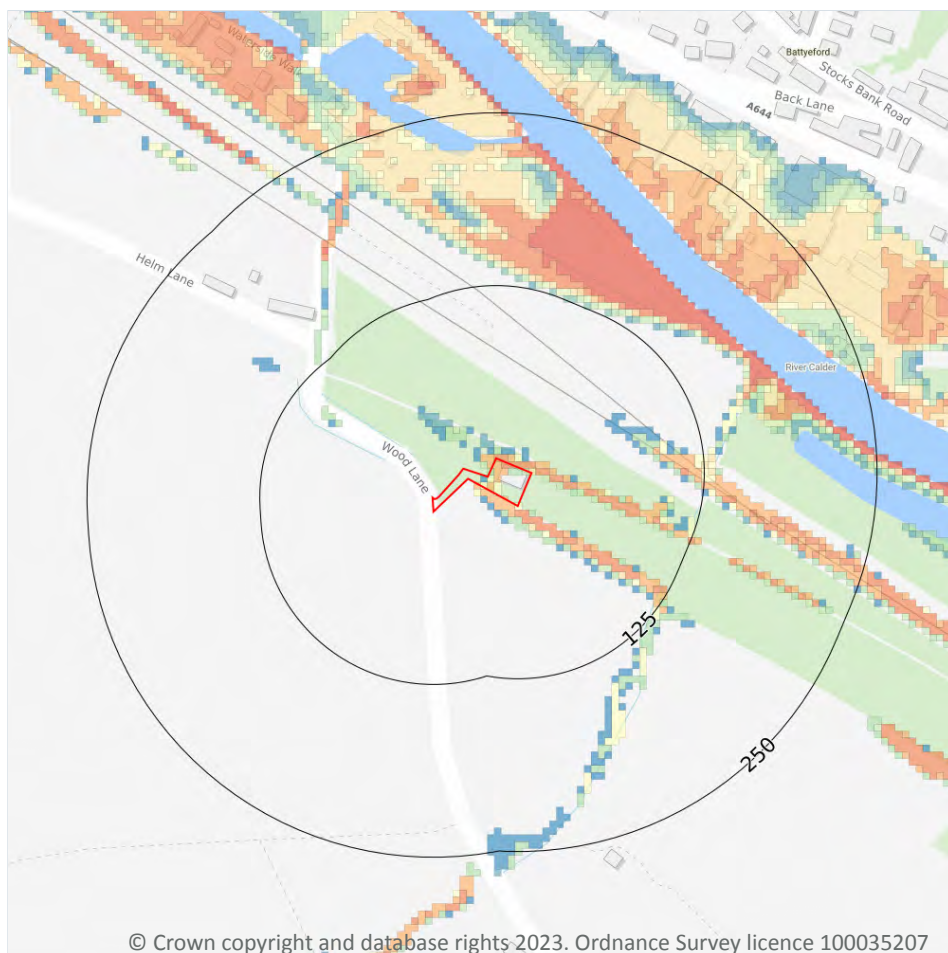
0

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

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



8 Surface water flooding



— 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, 0.3m - 1.0m

Highest risk within 50m

1 in 30 year, 0.3m - 1.0m

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

Features are displayed on the Surface water flooding map on [page 63 >](#)

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

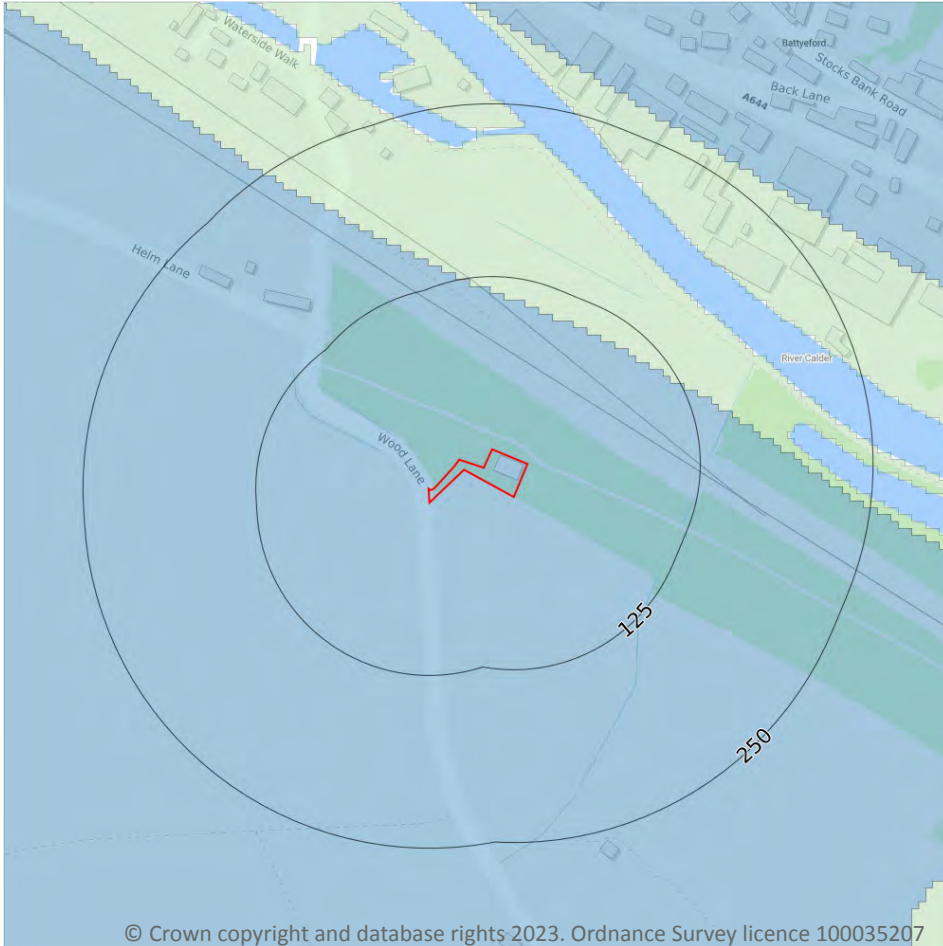
The table below shows the maximum flood depths for a range of return periods for the site.

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

This data is sourced from Ambiantal Risk Analytics.



9 Groundwater flooding



— Site Outline
Search buffers in metres (m)

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

9.1 Groundwater flooding

Highest risk on site

Negligible

Highest risk within 50m

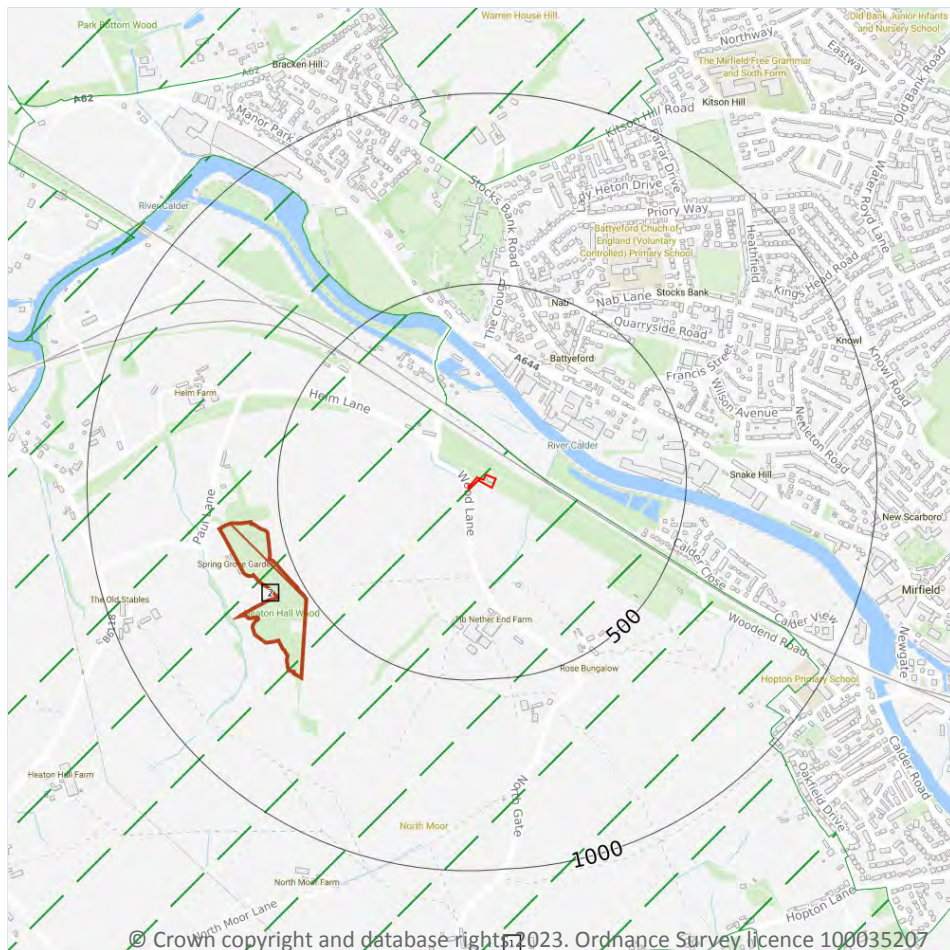
Negligible

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

Features are displayed on the Groundwater flooding map on [page 65 >](#)

This data is sourced from Ambiantal Risk Analytics.

10 Environmental designations



- Site Outline
- Search buffers in metres (m)
- + Local Nature Reserves (LNR)
- ▨ Designated Ancient Woodland
- ▨ Green Belt

10.1 Sites of Special Scientific Interest (SSSI)

Records within 2000m

0

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

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

10.2 Conserved wetland sites (Ramsar sites)

Records within 2000m**0**

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

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

10.3 Special Areas of Conservation (SAC)

Records within 2000m**0**

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

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

10.4 Special Protection Areas (SPA)

Records within 2000m**0**

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

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

10.5 National Nature Reserves (NNR)

Records within 2000m**0**

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

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

10.6 Local Nature Reserves (LNR)

Records within 2000m

2

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

Features are displayed on the Environmental designations map on [page 66 >](#)

ID	Location	Name	Data source
-	1727m NE	Sunny Bank Ponds	Natural England
-	1822m SW	Dalton Bank	Natural England

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

10.7 Designated Ancient Woodland

Records within 2000m

4

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

Features are displayed on the Environmental designations map on [page 66 >](#)

ID	Location	Name	Woodland Type
2	513m SW	Heaton Hall Wood	Ancient Replanted Woodland
-	1805m SE	Briery Bank	Ancient Replanted Woodland
-	1821m NW	Unknown	Ancient Replanted Woodland
-	1926m SE	Hepworth Wood	Ancient & Semi-Natural Woodland

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

10.8 Biosphere Reserves

Records within 2000m

0

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



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

10.9 Forest Parks

Records within 2000m

0

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

This data is sourced from the Forestry Commission.

10.10 Marine Conservation Zones

Records within 2000m

0

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

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

10.11 Green Belt

Records within 2000m

4

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

Features are displayed on the Environmental designations map on [page 66 >](#)

ID	Location	Name	Local Authority name
1	On site	South and West Yorkshire	Kirklees
3	761m N	South and West Yorkshire	Kirklees
4	1094m NW	South and West Yorkshire	Calderdale
-	1730m NW	South and West Yorkshire	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.

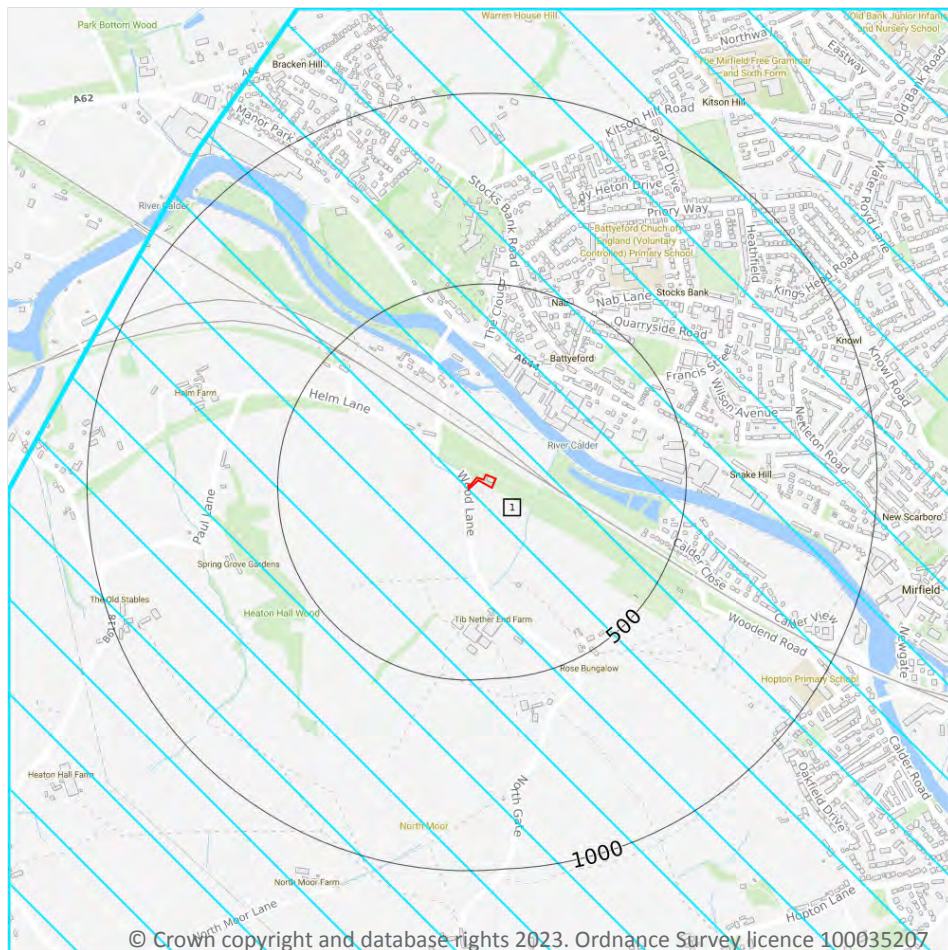
Location	Name	Type	NVZ ID	Status
1578m NE	Spenn Beck from Source to River Calder NVZ	Surface Water	271	Existing



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 72 >](#)

ID	Location	Type of developments requiring consultation
1	On site	Air pollution - Livestock & poultry units with floorspace > 500m ² , slurry lagoons & digestate stores > 4000m ² . Combustion - General combustion processes >50MW energy input. Incl: energy from waste incineration, other incineration, landfill gas generation plant, pyrolysis/gasification, anaerobic digestion, sewage treatment works, other incineration/ combustion



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

11.1 World Heritage Sites

Records within 250m

0

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

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

11.2 Area of Outstanding Natural Beauty

Records within 250m

0

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

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

11.3 National Parks

Records within 250m

0

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

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

11.4 Listed Buildings

Records within 250m

0

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



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

11.5 Conservation Areas

Records within 250m

0

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

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

11.6 Scheduled Ancient Monuments

Records within 250m

0

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

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

11.7 Registered Parks and Gardens

Records within 250m

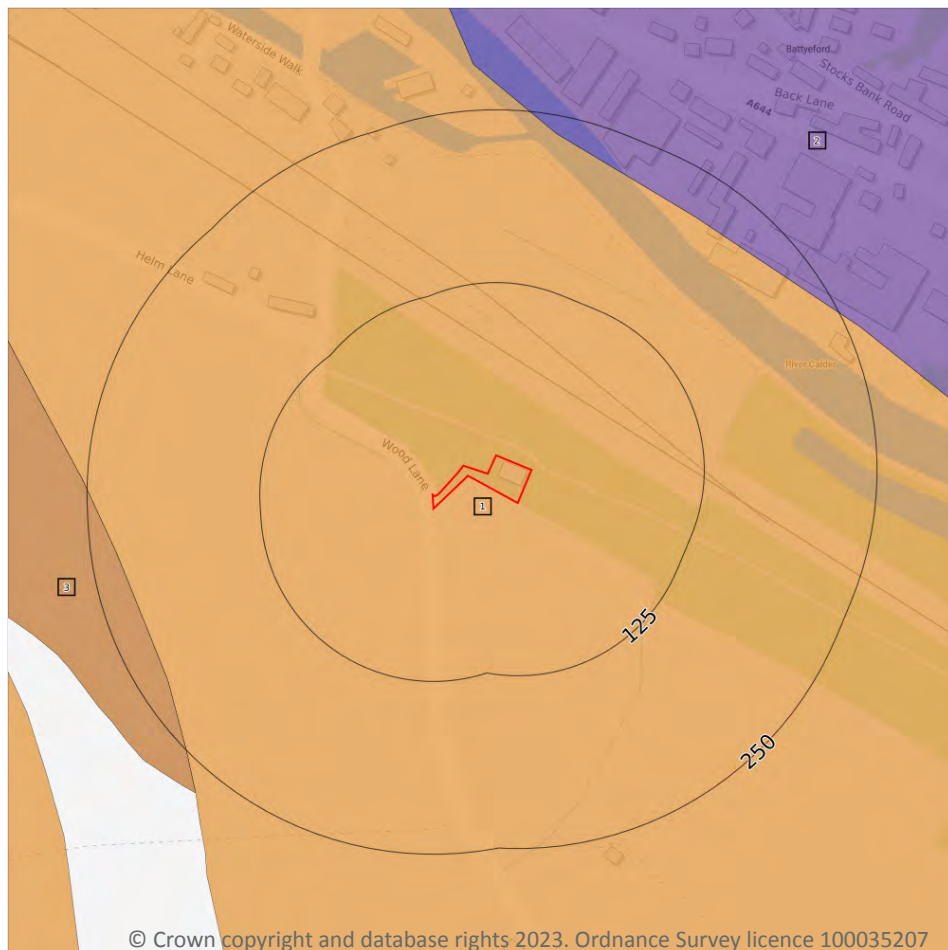
0

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

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



12 Agricultural designations



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

12.1 Agricultural Land Classification

Records within 250m

3

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

Features are displayed on the Agricultural designations map on [page 76](#) >

ID	Location	Classification	Description
1	On site	Grade 3	Good to moderate quality agricultural land. Land with moderate limitations which affect the choice of crops, timing and type of cultivation, harvesting or the level of yield. Where more demanding crops are grown yields are generally lower or more variable than on land in Grades 1 and 2.
2	218m NE	Urban	-



ID	Location	Classification	Description
3	225m SW	Grade 2	Very good quality agricultural land. Land with minor limitations which affect crop yield, cultivations or harvesting. A wide range of agricultural and horticultural crops can usually be grown but on some land in the grade there may be reduced flexibility due to difficulties with the production of the more demanding crops such as winter harvested vegetables and arable root crops. The level of yield is generally high but may be lower or more variable than Grade 1.

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

6

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 79 >](#)

ID	Location	Main Habitat	Other habitats
1	88m NE	Deciduous woodland	Main habitat: DWOOD (INV > 50%)
A	127m E	Deciduous woodland	Main habitat: DWOOD (INV > 50%)
2	131m N	No main habitat but additional habitats present	Additional: DWOOD (INV 50%)
A	135m E	Deciduous woodland	Main habitat: DWOOD (INV > 50%)



ID	Location	Main Habitat	Other habitats
3	154m E	Deciduous woodland	Main habitat: DWOOD (INV > 50%)
4	169m NE	Deciduous woodland	Main habitat: DWOOD (INV > 50%)

This data is sourced from Natural England.

13.2 Habitat Networks

Records within 250m

0

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

This data is sourced from Natural England.

13.3 Open Mosaic Habitat

Records within 250m

0

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

This data is sourced from Natural England.

13.4 Limestone Pavement Orders

Records within 250m

0

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

This data is sourced from Natural England.



14 Geology 1:10,000 scale - Availability



— Site Outline
Search buffers in metres (m)

- Full coverage
- Partial coverage
- No coverage

14.1 10k Availability

Records within 500m

2

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

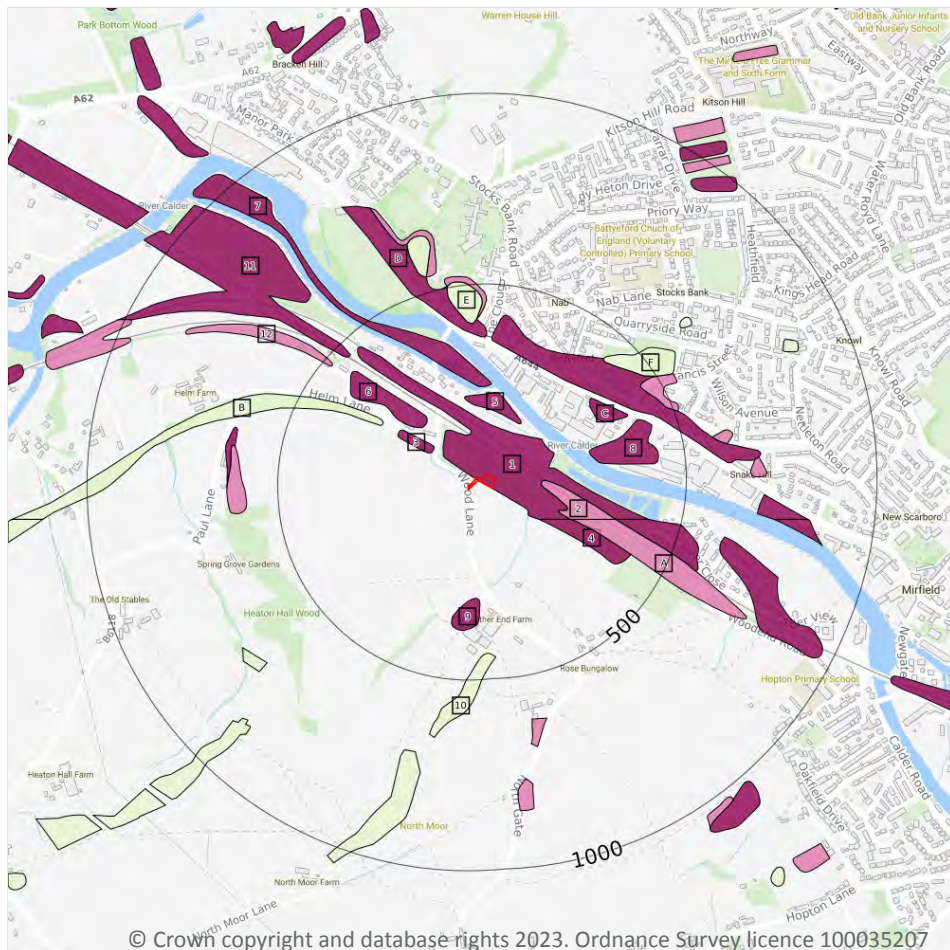
Features are displayed on the Geology 1:10,000 scale - Availability map on [page 81](#) >

ID	Location	Artificial	Superficial	Bedrock	Mass movement	Sheet No.
1	On site	Full	Full	Full	Full	SE12SE
2	79m SW	Full	Full	Full	Full	SE11NE

This data is sourced from the British Geological Survey.



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



— Site Outline
Search buffers in metres (m)

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

14.2 Artificial and made ground (10k)

Records within 500m

22

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 82](#) >

ID	Location	LEX Code	Description	Rock description
1	On site	MGR-ARTDP	Made Ground (Undivided)	Artificial Deposit
2	120m E	WGR-VOID	Worked Ground (Undivided)	Void
3	129m NW	MGR-ARTDP	Made Ground (Undivided)	Artificial Deposit
4	149m SE	MGR-ARTDP	Made Ground (Undivided)	Artificial Deposit

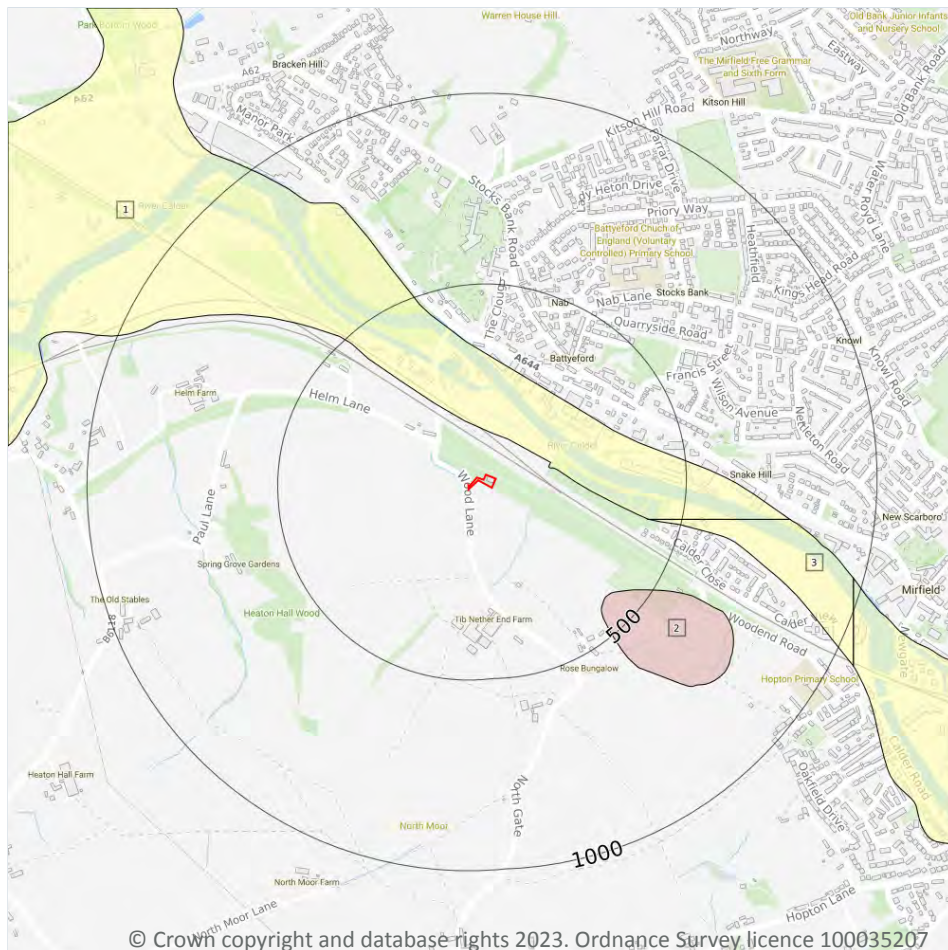


ID	Location	LEX Code	Description	Rock description
5	157m NE	MGR-ARTDP	Made Ground (Undivided)	Artificial Deposit
6	193m NW	MGR-ARTDP	Made Ground (Undivided)	Artificial Deposit
A	223m SE	WGR-VOID	Worked Ground (Undivided)	Void
7	231m N	MGR-ARTDP	Made Ground (Undivided)	Artificial Deposit
8	255m E	MGR-ARTDP	Made Ground (Undivided)	Artificial Deposit
B	276m NW	WMGR-ARTDP	Infilled Ground	Artificial Deposit
9	287m S	MGR-ARTDP	Made Ground (Undivided)	Artificial Deposit
C	308m NE	MGR-ARTDP	Made Ground (Undivided)	Artificial Deposit
C	313m NE	MGR-ARTDP	Made Ground (Undivided)	Artificial Deposit
A	332m E	MGR-ARTDP	Made Ground (Undivided)	Artificial Deposit
D	362m N	MGR-ARTDP	Made Ground (Undivided)	Artificial Deposit
E	398m N	WMGR-ARTDP	Infilled Ground	Artificial Deposit
E	408m N	WGR-VOID	Worked Ground (Undivided)	Void
F	419m NE	WMGR-ARTDP	Infilled Ground	Artificial Deposit
10	433m S	WMGR-ARTDP	Infilled Ground	Artificial Deposit
F	450m NE	WGR-VOID	Worked Ground (Undivided)	Void
11	461m NW	MGR-ARTDP	Made Ground (Undivided)	Artificial Deposit
12	475m NW	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

3

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 84](#) >

ID	Location	LEX Code	Description	Rock description
1	107m NE	ALV-XCSV	Alluvium - Clay, Sand And Gravel	Clay, Sand And Gravel
2	413m SE	HEAD-XCZSV	Head - Clay, Silt, Sand And Gravel	Clay, Silt, Sand And Gravel
3	415m E	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

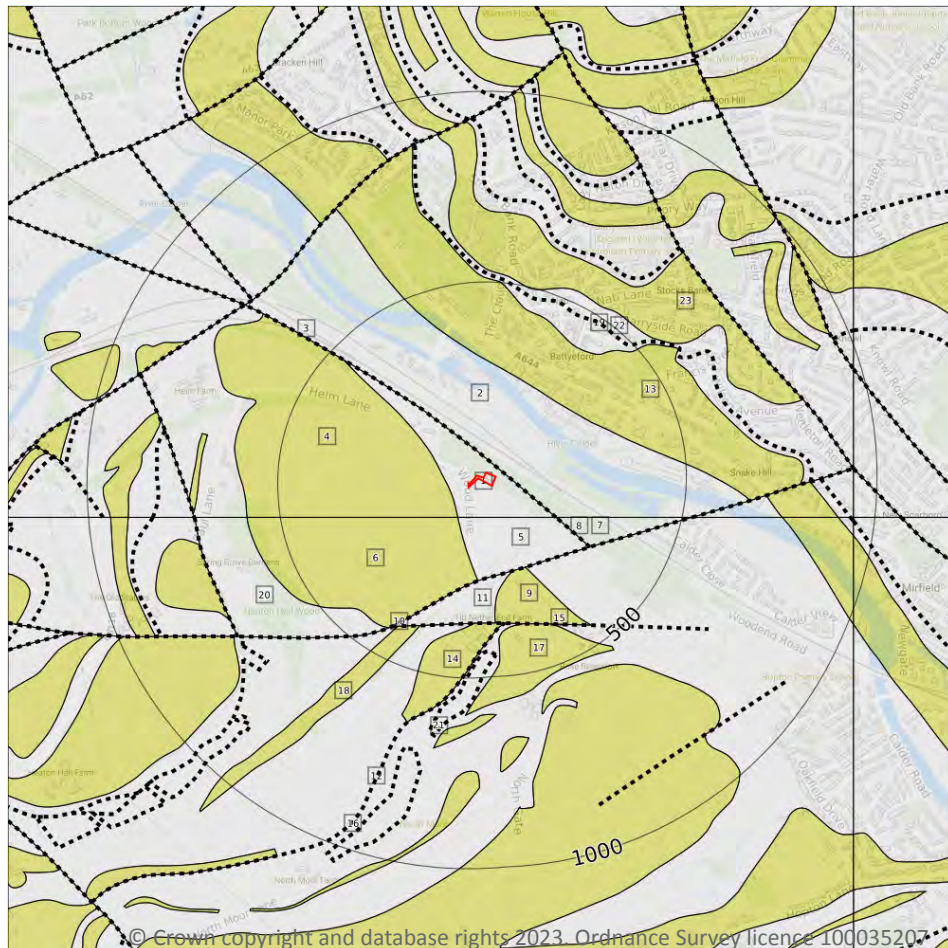
0

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

16

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 86](#) >

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	21m NE	PLCM-MDSS	Pennine Lower Coal Measures Formation - Mudstone, Siltstone And Sandstone	Langsettian Sub-age
4	48m SW	CLRK-SDST	Clifton Rock - Sandstone	Langsettian Sub-age



ID	Location	LEX Code	Description	Rock age
5	79m SW	PLCM-MDSS	Pennine Lower Coal Measures Formation - Mudstone, Siltstone And Sandstone	Langsettian Sub-age
6	84m SW	CLRK-SDST	Clifton Rock - Sandstone	Langsettian Sub-age
7	187m SE	PLCM-MDSS	Pennine Lower Coal Measures Formation - Mudstone, Siltstone And Sandstone	Langsettian Sub-age
9	229m S	CLRK-SDST	Clifton Rock - Sandstone	Langsettian Sub-age
11	229m S	PLCM-MDSS	Pennine Lower Coal Measures Formation - Mudstone, Siltstone And Sandstone	Langsettian Sub-age
12	231m SE	PLCM-MDSS	Pennine Lower Coal Measures Formation - Mudstone, Siltstone And Sandstone	Langsettian Sub-age
13	251m NE	CLRK-SDST	Clifton Rock - Sandstone	Langsettian Sub-age
14	357m S	TKS-SDST	Thick Stone - Sandstone	Langsettian Sub-age
17	371m S	PLCM-SDST	Pennine Lower Coal Measures Formation - Sandstone	Langsettian Sub-age
18	384m SW	PLCM-SDST	Pennine Lower Coal Measures Formation - Sandstone	Langsettian Sub-age
19	400m NE	PLCM-MDSS	Pennine Lower Coal Measures Formation - Mudstone, Siltstone And Sandstone	Langsettian Sub-age
20	424m SW	PLCM-MDSS	Pennine Lower Coal Measures Formation - Mudstone, Siltstone And Sandstone	Langsettian Sub-age
23	497m N	STNR-SDST	Stanningley Rock - 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

7

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 86](#) >

ID	Location	Category	Description
3	21m NE	FAULT	Normal fault, inferred; crossmarks on downthrow side
8	187m SE	FAULT	Normal fault, inferred; crossmarks on downthrow side
10	229m S	FAULT	Normal fault, inferred; crossmarks on downthrow side



ID	Location	Category	Description
15	357m S	FAULT	Normal fault, inferred; crossmarks on downthrow side
16	362m S	ROCK	Coal seam, inferred
21	433m S	ROCK	Coal seam, observed
22	473m N	ROCK	Coal seam, inferred

This data is sourced from the British Geological Survey.



15 Geology 1:50,000 scale - Availability



— Site Outline
Search buffers in metres (m)

☐ Geological map tile

15.1 50k Availability

Records within 500m

1

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

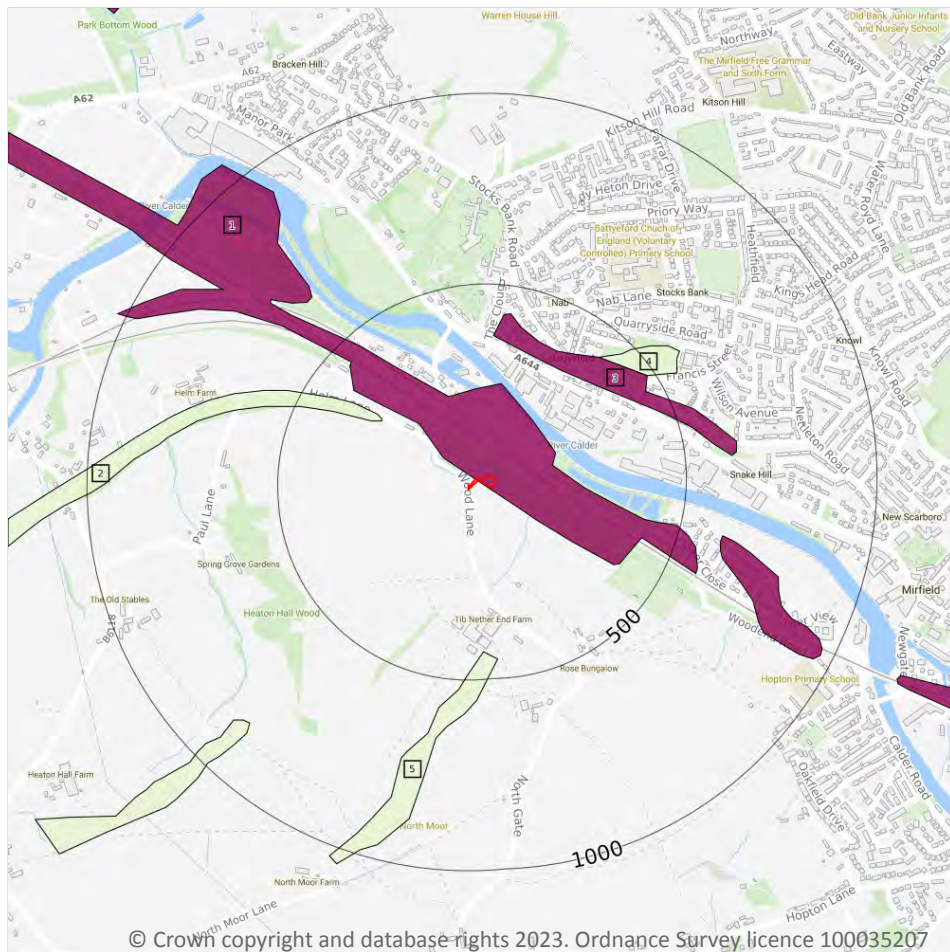
Features are displayed on the Geology 1:50,000 scale - Availability map on [page 89](#) >

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



- Site Outline
- Search buffers in metres (m)
- Made ground
 - Worked ground
 - Infilled ground
 - Disturbed ground
 - Landscaped ground

15.2 Artificial and made ground (50k)

Records within 500m

5

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

Features are displayed on the Geology 1:50,000 scale - Artificial and made ground map on [page 90](#) >

ID	Location	LEX Code	Description	Rock description
1	On site	MGR-ARTDP	MADE GROUND (UNDIVIDED)	ARTIFICIAL DEPOSIT
2	283m NW	WMGR-ARTDP	INFILLED GROUND	ARTIFICIAL DEPOSIT
3	331m NE	MGR-ARTDP	MADE GROUND (UNDIVIDED)	ARTIFICIAL DEPOSIT
4	418m NE	WMGR-ARTDP	INFILLED GROUND	ARTIFICIAL DEPOSIT



ID	Location	LEX Code	Description	Rock description
5	427m S	WMGR-ARTDP	INFILLED GROUND	ARTIFICIAL DEPOSIT

This data is sourced from the British Geological Survey.

15.3 Artificial ground permeability (50k)

Records within 50m	1
---------------------------	----------

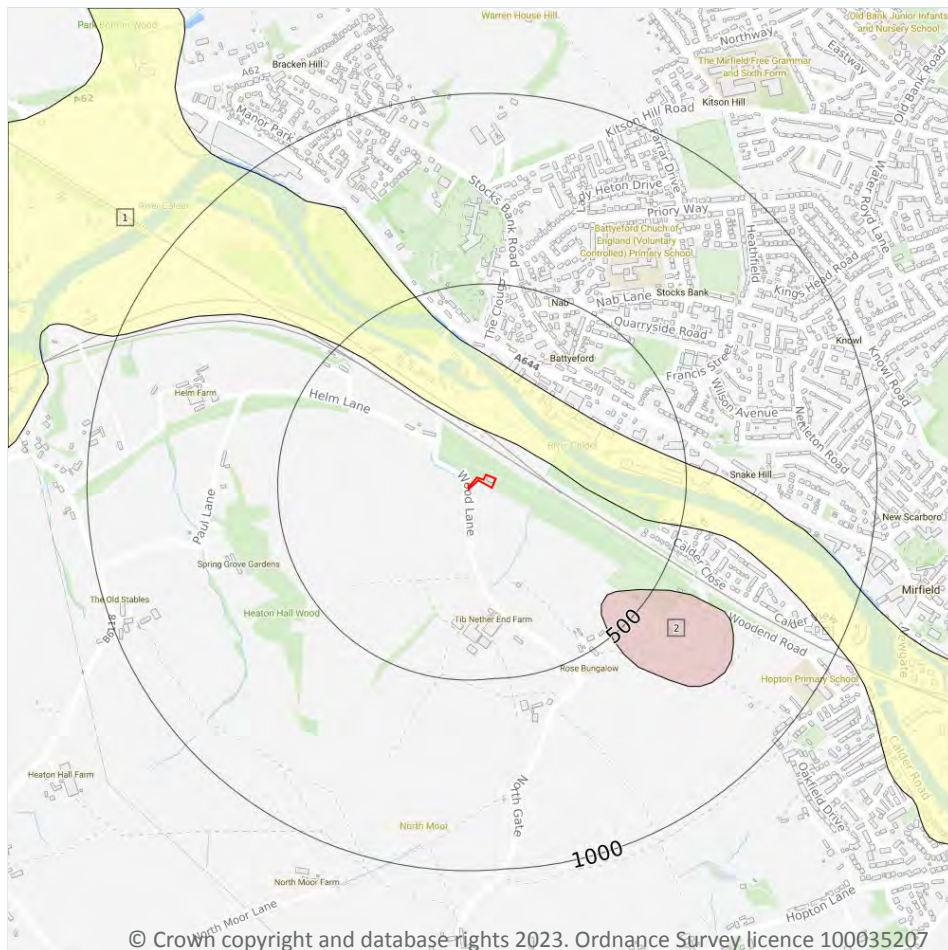
A qualitative classification of estimated rates of vertical movement of water from the ground surface through the unsaturated zone of any artificial deposits (the zone between the land surface and the water table).

Location	Flow type	Maximum permeability	Minimum permeability
On site	Mixed	Very High	Low

This data is sourced from the British Geological Survey.



Geology 1:50,000 scale - Superficial



Site Outline

Search buffers in metres (m)

Landslip (50k)

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

15.4 Superficial geology (50k)

Records within 500m

2

Superficial geological deposits at 1:50,000 scale. Also known as 'drift', these are the youngest geological deposits, formed during the Quaternary. They rest on older deposits or rocks referred to as bedrock.

Features are displayed on the Geology 1:50,000 scale - Superficial map on [page 92](#) >

ID	Location	LEX Code	Description	Rock description
1	104m NE	ALV-XCZSV	ALLUVIUM	CLAY, SILT, SAND AND GRAVEL
2	412m SE	HEAD-XCZSV	HEAD	CLAY, SILT, SAND AND GRAVEL

This data is sourced from the British Geological Survey.



15.5 Superficial 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 superficial deposits (the zone between the land surface and the water table).

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

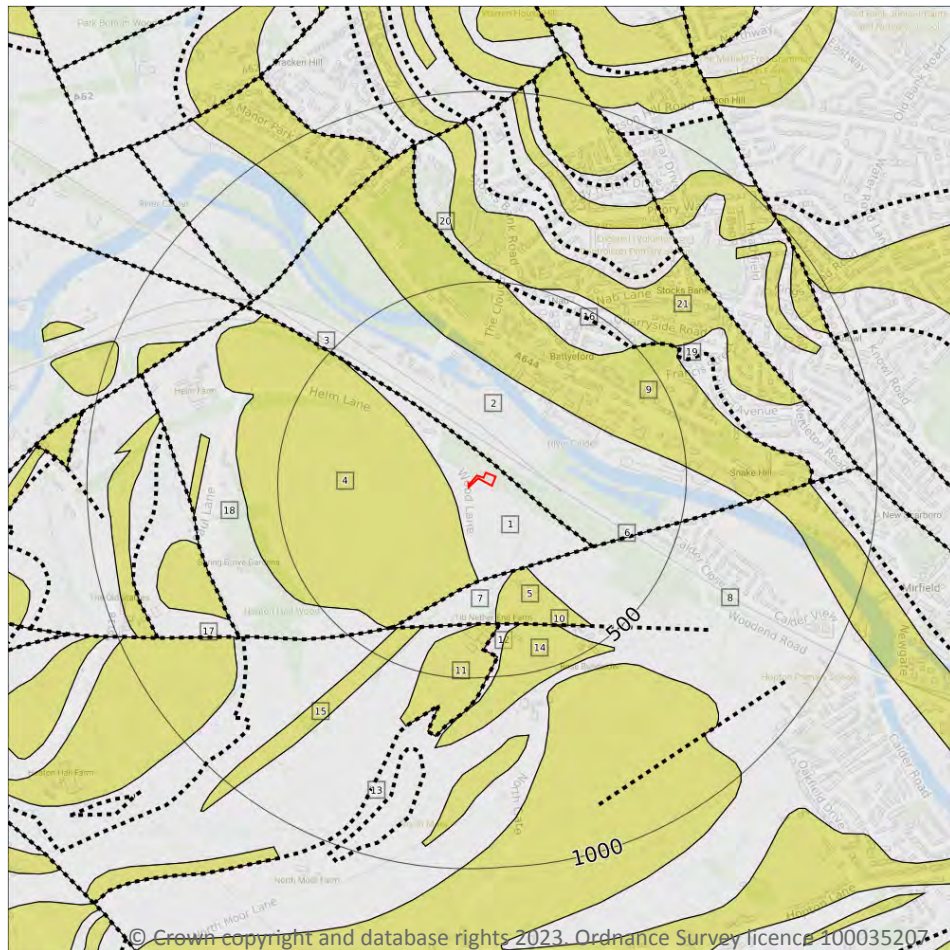
0

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

14

Bedrock geology at 1:50,000 scale. The main mass of rocks forming the Earth and present everywhere, whether exposed at the surface in outcrops or concealed beneath superficial deposits or water.

Features are displayed on the Geology 1:50,000 scale - Bedrock map on [page 94](#) >

ID	Location	LEX Code	Description	Rock age
1	On site	PLCM-MDSS	PENNINE LOWER COAL MEASURES FORMATION - MUDSTONE, SILTSTONE AND SANDSTONE	WESTPHALIAN
2	22m NE	PLCM-MDSS	PENNINE LOWER COAL MEASURES FORMATION - MUDSTONE, SILTSTONE AND SANDSTONE	WESTPHALIAN
4	44m SW	CLRK-SDST	CLIFTON ROCK - SANDSTONE	WESTPHALIAN



ID	Location	LEX Code	Description	Rock age
5	230m S	CLRK-SDST	CLIFTON ROCK - SANDSTONE	WESTPHALIAN
7	230m S	PLCM-MDSS	PENNINE LOWER COAL MEASURES FORMATION - MUDSTONE, SILTSTONE AND SANDSTONE	WESTPHALIAN
8	231m SE	PLCM-MDSS	PENNINE LOWER COAL MEASURES FORMATION - MUDSTONE, SILTSTONE AND SANDSTONE	WESTPHALIAN
9	244m NE	CLRK-SDST	CLIFTON ROCK - SANDSTONE	WESTPHALIAN
11	359m S	TKS-SDST	THICK STONE - SANDSTONE	WESTPHALIAN
12	362m S	PLCM-MDSS	PENNINE LOWER COAL MEASURES FORMATION - MUDSTONE, SILTSTONE AND SANDSTONE	WESTPHALIAN
14	369m S	PLCM-SDST	PENNINE LOWER COAL MEASURES FORMATION - SANDSTONE	WESTPHALIAN
15	385m SW	PLCM-SDST	PENNINE LOWER COAL MEASURES FORMATION - SANDSTONE	WESTPHALIAN
16	397m NE	PLCM-MDSS	PENNINE LOWER COAL MEASURES FORMATION - MUDSTONE, SILTSTONE AND SANDSTONE	WESTPHALIAN
18	426m SW	PLCM-MDSS	PENNINE LOWER COAL MEASURES FORMATION - MUDSTONE, SILTSTONE AND SANDSTONE	WESTPHALIAN
21	500m N	PLCM-SDST	PENNINE LOWER COAL MEASURES FORMATION - SANDSTONE	WESTPHALIAN

This data is sourced from the British Geological Survey.

15.9 Bedrock permeability (50k)

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

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

Location	Flow type	Maximum permeability	Minimum permeability
On site	Fracture	Moderate	Low
44m SW	Fracture	High	Moderate

This data is sourced from the British Geological Survey.



15.10 Bedrock faults and other linear features (50k)

Records within 500m

7

Linear features at the ground or bedrock surface at 1:50,000 scale of six main types; rock, fault, fold axis, mineral vein, alteration area or landform. Features are either observed or inferred, and relate primarily to bedrock.

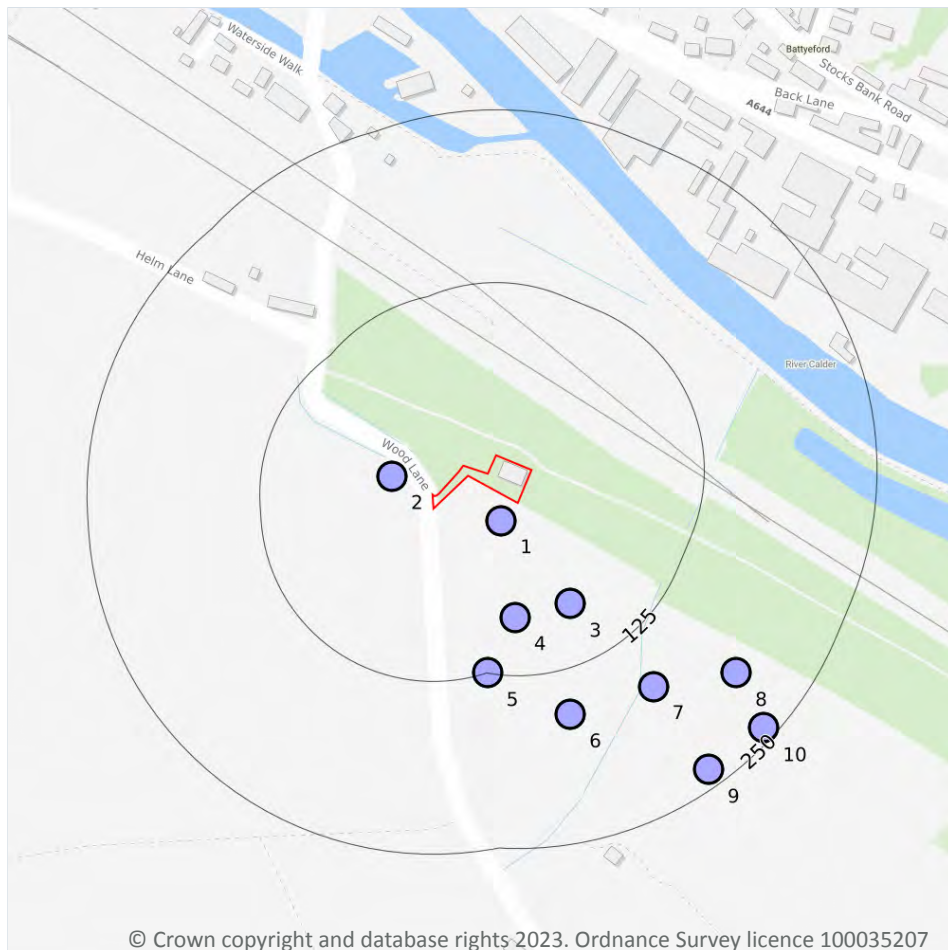
Features are displayed on the Geology 1:50,000 scale - Bedrock map on [page 94](#) >

ID	Location	Category	Description
3	22m NE	FAULT	Fault, inferred
6	230m S	FAULT	Fault, inferred
10	359m S	FAULT	Fault, inferred
13	362m S	ROCK	Coal seam, inferred
17	420m SW	FAULT	Fault, inferred
19	472m N	ROCK	Coal seam, inferred
20	497m N	ROCK	Coal seam, inferred

This data is sourced from the British Geological Survey.



16 Boreholes



— Site Outline
Search buffers in metres (m)

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

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

16.1 BGS Boreholes

Records within 250m

10

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

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

ID	Location	Grid reference	Name	Length	Confidential	Web link
1	17m S	419040 420070	WOOD LANE RAILWAY CUTTING TP11	3.0	N	43712 ↗
2	32m W	418961 420102	M1-M62 CLIFTON DURKER LINK BH2	2.1	N	43582 ↗
3	82m SE	419090 420010	WOOD LANE RAILWAY CUTTING TP10	3.0	N	43711 ↗

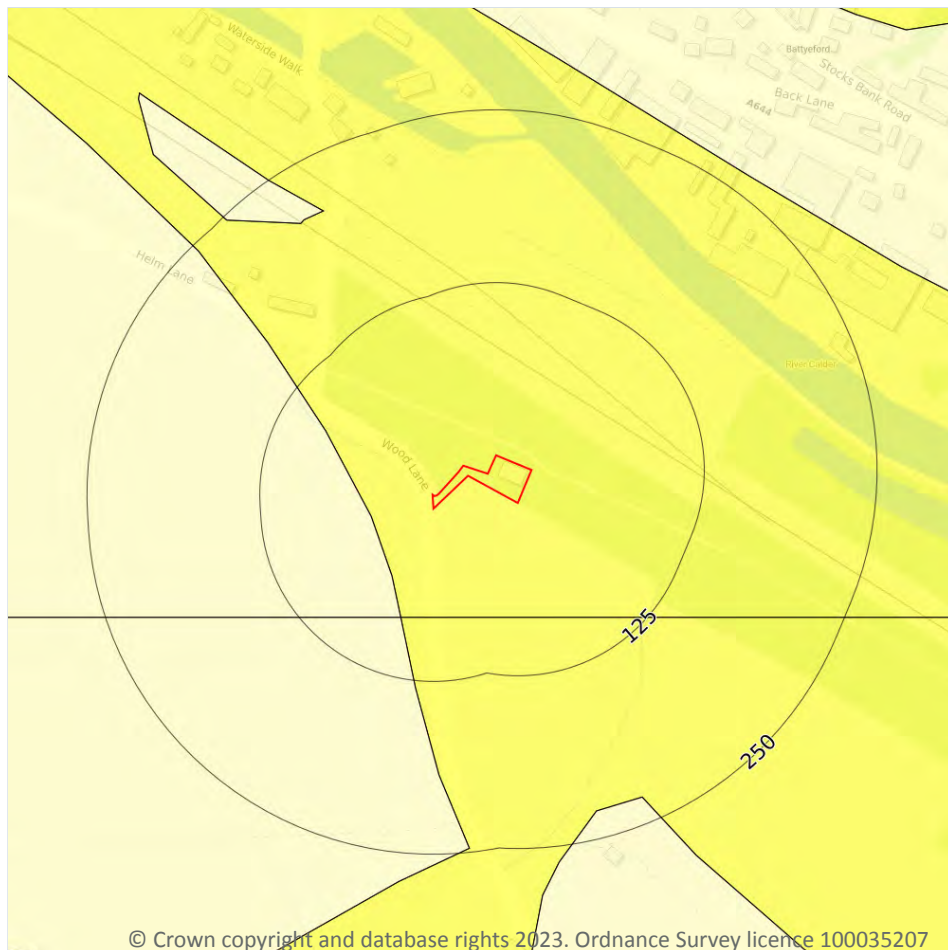


ID	Location	Grid reference	Name	Length	Confidential	Web link
4	83m S	419050 420000	WOOD LANE RAILWAY CUTTING TP12	2.0	N	43713 ↗
5	125m S	419030 419960	WOOD LANE RAILWAY CUTTING TP 1	1.85	N	40995 ↗
6	157m S	419090 419930	WOOD LANE RAILWAY CUTTING TP 2	3.0	N	40996 ↗
7	165m SE	419150 419950	WOOD LANE RAILWAY CUTTING TP 13	2.0	N	41004 ↗
8	200m SE	419210 419960	WOOD LANE RAILWAY CUTTING TP 9	2.7	N	41003 ↗
9	237m SE	419190 419890	WOOD LANE RAILWAY CUTTING TP 3	2.8	N	40997 ↗
10	241m SE	419230 419920	WOOD LANE RAILWAY CUTTING TP 7	3.0	N	41001 ↗

This data is sourced from the British Geological Survey.



17 Natural ground subsidence - Shrink swell clays



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

17.1 Shrink swell clays

Records within 50m

2

The potential hazard presented by soils that absorb water when wet (making them swell), and lose water as they dry (making them shrink). This shrink-swell behaviour is controlled by the type and amount of clay in the soil, and by seasonal changes in the soil moisture content (related to rainfall and local drainage).

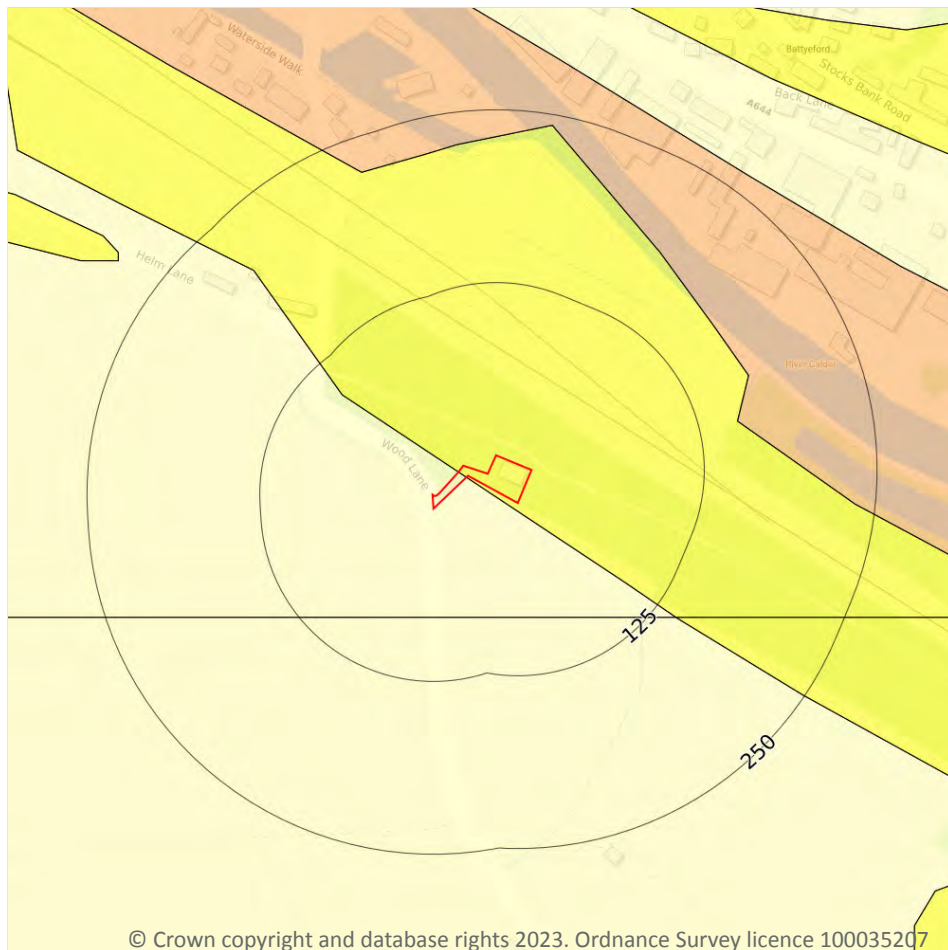
Features are displayed on the Natural ground subsidence - Shrink swell clays map on [page 99 >](#)

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

2

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

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

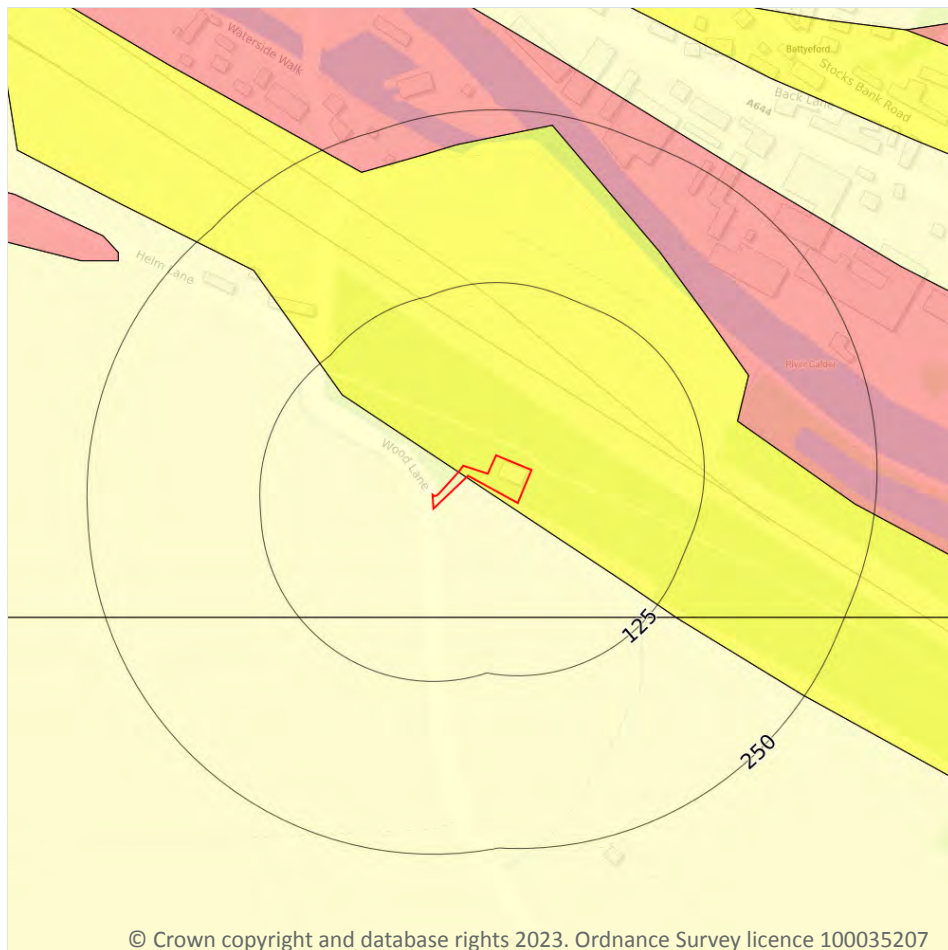
Location	Hazard rating	Details
On site	Negligible	Running sand conditions are not thought to occur whatever the position of the water table. No identified constraints on lands use due to running conditions.

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

This data is sourced from the British Geological Survey.



Natural ground subsidence - Compressible deposits



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

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

17.3 Compressible deposits

Records within 50m

2

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

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

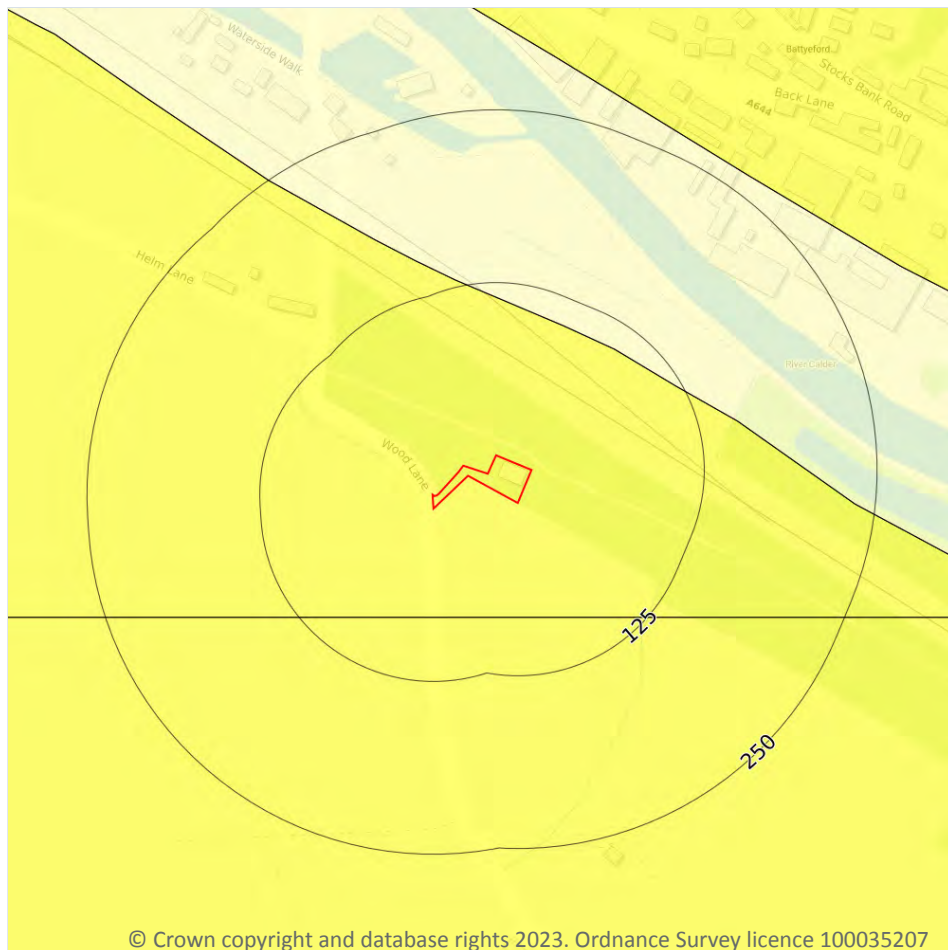
Location	Hazard rating	Details
On site	Negligible	Compressible strata are not thought to occur.
On site	Very low	Compressibility and uneven settlement problems are not likely to be significant on the site for most land uses.



This data is sourced from the British Geological Survey.



Natural ground subsidence - Collapsible deposits



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

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

17.4 Collapsible deposits

Records within 50m

1

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

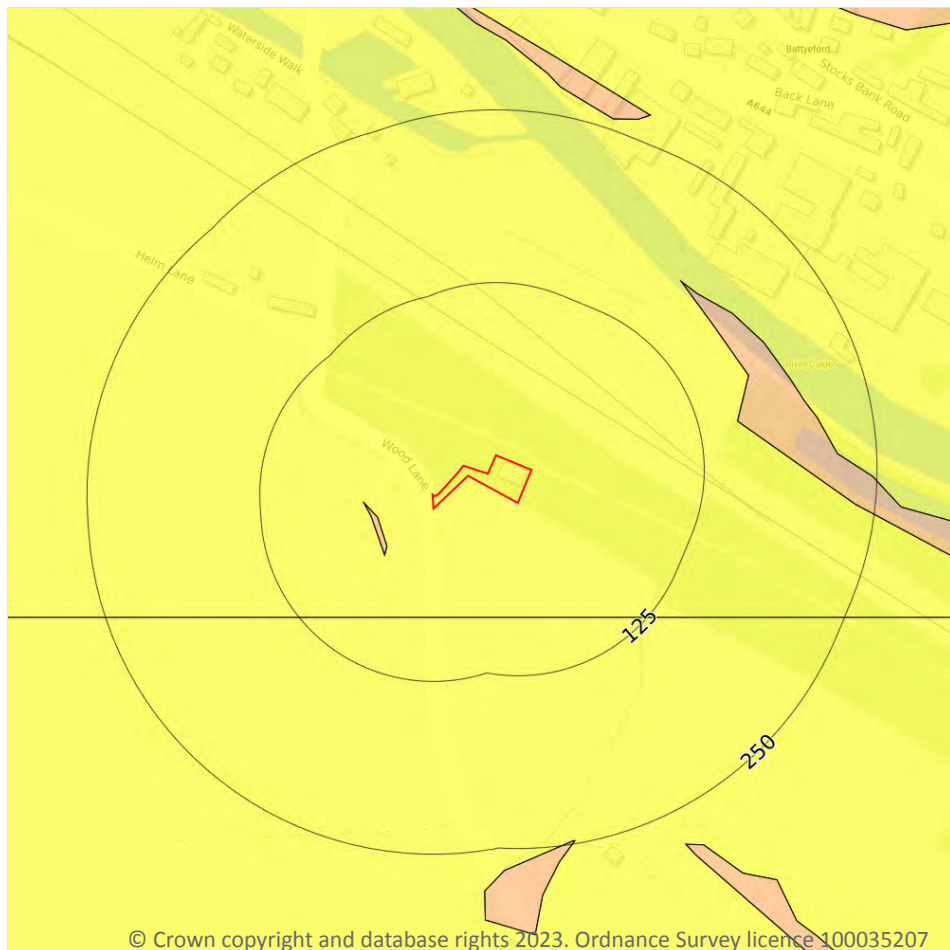
Features are displayed on the Natural ground subsidence - Collapsible deposits map on [page 104 >](#)

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

This data is sourced from the British Geological Survey.



Natural ground subsidence - Landslides



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

17.5 Landslides

Records within 50m

2

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

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

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

Location	Hazard rating	Details
40m W	Low	Slope instability problems may be present or anticipated. Site investigation should consider specifically the slope stability of the site.

This data is sourced from the British Geological Survey.



Natural ground subsidence - Ground dissolution of soluble rocks



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

17.6 Ground dissolution of soluble rocks

Records within 50m

1

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

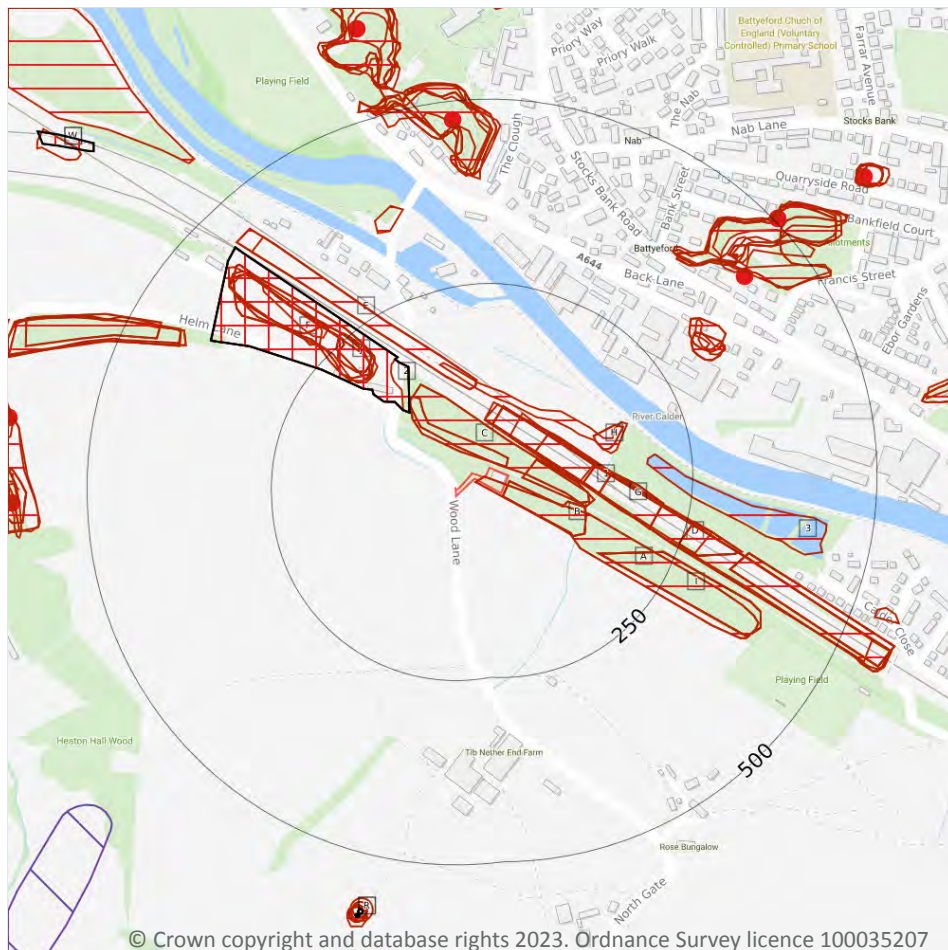
Features are displayed on the Natural ground subsidence - Ground dissolution of soluble rocks map on [page 107 >](#)

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

This data is sourced from the British Geological Survey.



18 Mining and ground workings



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

18.1 BritPits

Records within 500m

2

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

Features are displayed on the Mining and ground workings map on [page 109](#) >

ID	Location	Details	Description
M	419m NE	Name: Bank Quarry Address: Battysford, MIRFIELD, West Yorkshire Commodity: Sandstone Status: Ceased	Type: A surface mineral working. It may be termed Quarry, Sand Pit, Clay Pit or Opencast Coal Site Status description: Site which, at date of entry, has ceased to extract minerals. May be considered as Closed by operator. May be considered to have Active, Dormant or Expired planning permissions by Mineral Planning Authority
N	474m N	Name: Wards End Quarry Address: Battysford, MIRFIELD, West Yorkshire Commodity: Sandstone Status: Ceased	Type: A surface mineral working. It may be termed Quarry, Sand Pit, Clay Pit or Opencast Coal Site Status description: Site which, at date of entry, has ceased to extract minerals. May be considered as Closed by operator. May be considered to have Active, Dormant or Expired planning permissions by Mineral Planning Authority

This data is sourced from the British Geological Survey.

18.2 Surface ground workings

Records within 250m	50
----------------------------	-----------

Historical land uses identified from Ordnance Survey mapping that involved ground excavation at the surface. These features may or may not have been subsequently backfilled.

Features are displayed on the Mining and ground workings map on [page 109](#) >

ID	Location	Land Use	Year of mapping	Mapping scale
A	On site	Unspecified Heap	1948	1:10560
A	On site	Unspecified Heap	1931	1:10560
B	4m SE	Unspecified Heap	1966	1:10560
B	4m SE	Unspecified Heap	1985	1:10000
B	4m SE	Unspecified Heap	1975	1:10000
C	8m NE	Unspecified Heap	1985	1:10000
C	8m NE	Unspecified Heap	1975	1:10000
C	9m N	Unspecified Ground Workings	1951	1:10560
C	9m N	Unspecified Ground Workings	1966	1:10560
B	19m E	Unspecified Heap	1951	1:10560
B	19m E	Unspecified Heap	1966	1:10560
D	45m NE	Cuttings	1938	1:10560



ID	Location	Land Use	Year of mapping	Mapping scale
B	45m NE	Cuttings	1966	1:10560
1	46m NE	Cuttings	1951	1:10560
D	47m NE	Cuttings	1948	1:10560
D	47m NE	Cuttings	1905	1:10560
D	47m NE	Cuttings	1892	1:10560
D	47m NE	Cuttings	1931	1:10560
B	49m NE	Cuttings	1985	1:10000
B	49m NE	Cuttings	1975	1:10000
B	88m NE	Unspecified Ground Workings	1951	1:10560
E	110m N	Unspecified Pit	1966	1:10560
E	110m N	Unspecified Pit	1985	1:10000
E	110m N	Unspecified Pit	1975	1:10000
2	118m NW	Refuse Heap	1892	1:10560
F	118m NW	Colliery	1905	1:10560
F	118m NW	Colliery	1892	1:10560
G	125m E	Cuttings	1966	1:10560
G	125m E	Cuttings	1985	1:10000
G	125m E	Cuttings	1975	1:10000
H	127m E	Unspecified Heap	1985	1:10000
H	127m E	Unspecified Heap	1975	1:10000
I	156m SE	Unspecified Heap	1956	1:10560
I	156m SE	Unspecified Heap	1975	1:10000
I	156m SE	Unspecified Heap	1988	1:10000
I	156m SE	Unspecified Heap	1965	1:10560
F	188m NW	Unspecified Heap	1951	1:10560
3	189m E	Ponds	1985	1:10000
F	191m NW	Unspecified Heap	1948	1:10560
F	191m NW	Unspecified Heap	1931	1:10560



ID	Location	Land Use	Year of mapping	Mapping scale
J	192m NW	Refuse Heap	1905	1:10560
J	192m NW	Refuse Heap	1892	1:10560
F	194m NW	Unspecified Heap	1938	1:10560
F	194m NW	Unspecified Heap	1938	1:10560
F	200m NW	Unspecified Heaps	1966	1:10560
F	200m NW	Unspecified Heaps	1985	1:10000
F	200m NW	Unspecified Heaps	1975	1:10000
D	249m E	Cuttings	1966	1:10560
D	249m E	Cuttings	1985	1:10000
D	249m E	Cuttings	1975	1:10000

This data is sourced from Ordnance Survey/Groundsure.

18.3 Underground workings

Records within 1000m

11

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

Features are displayed on the Mining and ground workings map on [page 109](#) >

ID	Location	Land Use	Year of mapping	Mapping scale
F	118m NW	Colliery	1905	1:10560
F	118m NW	Colliery	1892	1:10560
R	575m S	Air Shaft	1988	1:10000
R	575m S	Air Shaft	1965	1:10560
R	575m S	Air Shaft	1951	1:10560
R	575m S	Air Shaft	1975	1:10000
R	582m S	Air Shaft	1905	1:10560
R	582m S	Air Shaft	1948	1:10560
R	582m S	Air Shaft	1931	1:10560
W	671m NW	Tunnels	1985	1:10000



ID	Location	Land Use	Year of mapping	Mapping scale
W	671m NW	Tunnels	1975	1:10000

This data is sourced from Ordnance Survey/Groundsure.

18.4 Underground mining extents

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

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

This data is sourced from Groundsure.

18.5 Historical Mineral Planning Areas

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

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

This data is sourced from the British Geological Survey.

18.6 Non-coal mining

Records within 1000m	0
-----------------------------	----------

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

This data is sourced from the British Geological Survey.

18.7 JPB mining areas

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

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

This data is sourced from Johnson Poole and Bloomer.



18.8 The Coal Authority non-coal mining

Records within 500m**0**

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

This data is sourced from The Coal Authority.

18.9 Researched mining

Records within 500m**0**

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

This data is sourced from Groundsure.

18.10 Mining record office plans

Records within 500m**0**

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

This data is sourced from Groundsure.

18.11 BGS mine plans

Records within 500m**1**

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.

Location	Mineral
400m NE	Fireclay

This data is sourced from Groundsure.



18.12 Coal mining

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

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

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

This data is sourced from the Coal Authority.

18.13 Brine areas

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

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

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

18.14 Gypsum areas

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

Generalised areas that may be affected by gypsum extraction.

This data is sourced from British Gypsum.

18.15 Tin mining

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

Generalised areas that may be affected by historical tin mining.

This data is sourced from Groundsure.

18.16 Clay mining

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

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

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



19 Ground cavities and sinkholes

19.1 Natural cavities

Records within 500m

0

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

This data is sourced from Stantec UK Ltd.

19.2 Mining cavities

Records within 1000m

0

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

This data is sourced from Stantec UK Ltd.

19.3 Reported recent incidents

Records within 500m

0

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

This data is sourced from Groundsure.

19.4 Historical incidents

Records within 500m

0

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

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



This data is sourced from Groundsure.

19.5 National karst database

Records within 500m

0

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

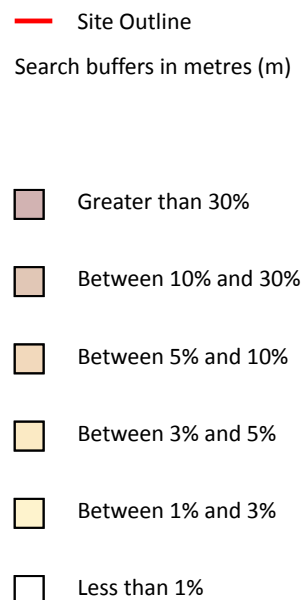
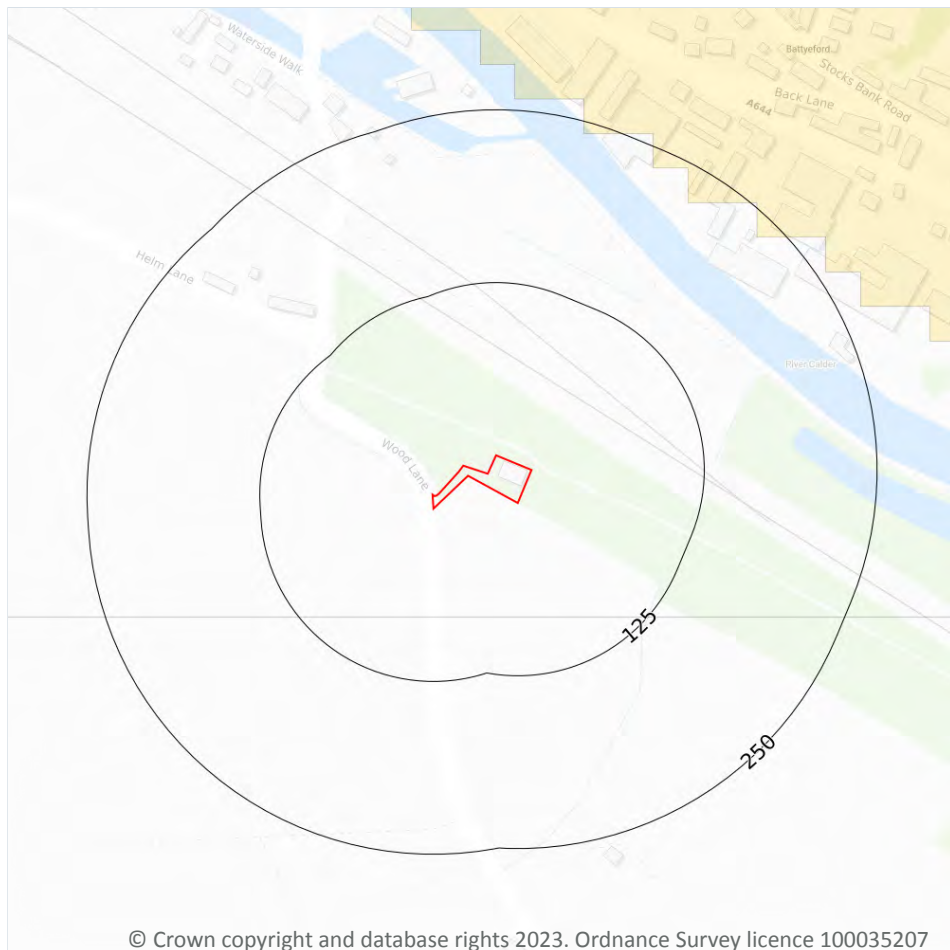
Since the database was set up in 2002 data covering most of the evaporite karst areas of the UK have now been added, along with data covering about 60% of the Chalk, and 35% of the Carboniferous Limestone outcrops. Many of the classic upland karst areas have yet to be included. Recorded so far are: Over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

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

This data is sourced from the British Geological Survey.



20 Radon



20.1 Radon

Records on site

1

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

Features are displayed on the Radon map on [page 118](#) >

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



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



21 Soil chemistry

21.1 BGS Estimated Background Soil Chemistry

Records within 50m

4

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

Location	Arsenic	Bioaccessible Arsenic	Lead	Bioaccessible Lead	Cadmium	Chromium	Nickel
On site	35 - 45 mg/kg	No data	100 mg/kg	60 mg/kg	1.8 mg/kg	90 - 120 mg/kg	15 - 30 mg/kg
On site	35 - 45 mg/kg	No data	100 mg/kg	60 mg/kg	1.8 mg/kg	120 - 180 mg/kg	15 - 30 mg/kg
22m NE	35 - 45 mg/kg	No data	100 mg/kg	60 mg/kg	1.8 mg/kg	90 - 120 mg/kg	15 - 30 mg/kg
44m SW	15 - 25 mg/kg	No data	100 mg/kg	60 mg/kg	1.8 mg/kg	60 - 90 mg/kg	15 - 30 mg/kg

This data is sourced from the British Geological Survey.

21.2 BGS Estimated Urban Soil Chemistry

Records within 50m

0

Estimated topsoil chemistry of Arsenic, Cadmium, Chromium, Copper, Nickel, Lead, Tin and Zinc and bioaccessible Arsenic and Lead in 23 urban centres across Great Britain. These estimates are derived from interpolation of the measured urban topsoil data referred to above and provide information across each city between the measured sample locations (4 per km²).

This data is sourced from the British Geological Survey.



21.3 BGS Measured Urban Soil Chemistry

Records within 50m

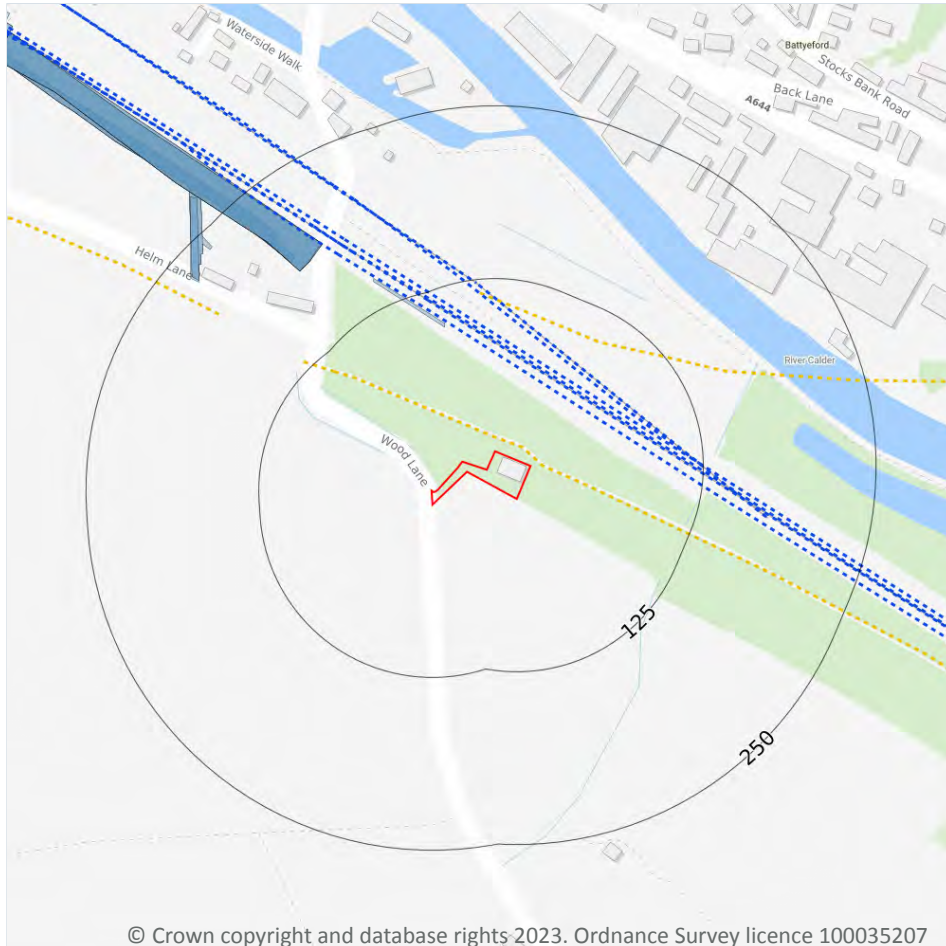
0

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

This data is sourced from the British Geological Survey.



22 Railway infrastructure and projects



- Site Outline
- Search buffers in metres (m)**
- C1 Crossrail 1 Stations
- C2 Crossrail 1 Route
- C2 Crossrail 2 Stations
- C2 Crossrail 2 Route
- C2 Crossrail 2 Worksites
- C2 Crossrail 2 Safeguarding
- C2 Crossrail 2 Headhouses
- Railway stations
- Active railways
- Active tunnels
- Abandoned railways
- Historic railways
- Historic tunnels
- Underground stations
- Underground Lines
- Royal Mail tunnels
- HS2 optimised route
- C2 HS2 Stations
- C2 HS2 Depots
- C2 HS2 Surface Safeguarding
- C2 HS2 Subsurface Safeguarding

22.1 Underground railways (London)

Records within 250m

0

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

This data is sourced from publicly available information by Groundsure.

22.2 Underground railways (Non-London)

Records within 250m

0

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



This data is sourced from publicly available information by Groundsure.

22.3 Railway tunnels

Records within 250m

0

Railway tunnels taken from contemporary Ordnance Survey mapping.

This data is sourced from the Ordnance Survey.

22.4 Historical railway and tunnel features

Records within 250m

9

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 122 >](#)

Location	Land Use	Year of mapping	Mapping scale
97m N	Railway Sidings	1957	1250
181m NW	Railway Sidings	1948	10560
181m NW	Railway Sidings	1905	10560
181m NW	Railway Sidings	1892	10560
181m NW	Railway Sidings	1931	10560
190m NW	Railway Sidings	1893	2500
190m NW	Railway Sidings	1907	2500
190m NW	Railway Sidings	1922	2500
226m NW	Railway Sidings	1922	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

4

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

Features are displayed on the Railway infrastructure and projects map on [page 122 >](#)

Location	Description
6m E	Dismantled
102m NE	Dismantled
111m NW	Dismantled
197m NW	Dismantled

This data is sourced from OpenStreetMap.

22.7 Railways

Records within 250m

20

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

Features are displayed on the Railway infrastructure and projects map on [page 122 >](#)

Location	Name	Type
55m NE	Huddersfield Line	rail
62m NE	Not given	Multi Track
64m NE	Huddersfield Line	rail
67m NE	Caldervale Line	rail
75m NE	Huddersfield Line	rail
78m NE	Not given	Single Track
119m N	Not given	Multi Track
122m E	Huddersfield Line	rail
123m N	Not given	Single Track
133m N	Huddersfield Line	rail
147m E	Not given	Single Track
171m NW	Not given	Multi Track



Location	Name	Type
175m NW	Huddersfield Line	rail
180m NW	Huddersfield Line	rail
182m NW	Caldervale Line	rail
198m NW	Huddersfield Line	rail
202m NW	Huddersfield Line	rail
204m NW	Caldervale Line	rail
205m NW	Huddersfield Line	rail
220m NW	Huddersfield Line	rail

This data is sourced from Ordnance Survey and OpenStreetMap.

22.8 Crossrail 1

Records within 500m

0

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

This data is sourced from publicly available information by Groundsure.

22.9 Crossrail 2

Records within 500m

0

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

This data is sourced from publicly available information by Groundsure.

22.10 HS2

Records within 500m

0

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

This data is sourced from HS2 Ltd.



Data providers

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

Terms and conditions

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



Appendix 3

Historical Maps

Site Details:

Land Off Wood Lane, WOOD
LANE, COLNE BRIDGE,
HUDDERSFIELD, HD5 0PX

Client Ref: C3637_23_E_5509_PO-2772
Report Ref: GS-WQ3-QC5-MWC-WNU
Grid Ref: 419026, 420097

Map Name: County Series

Map date: 1893

Scale: 1:2,500

Printed at: 1:2,500

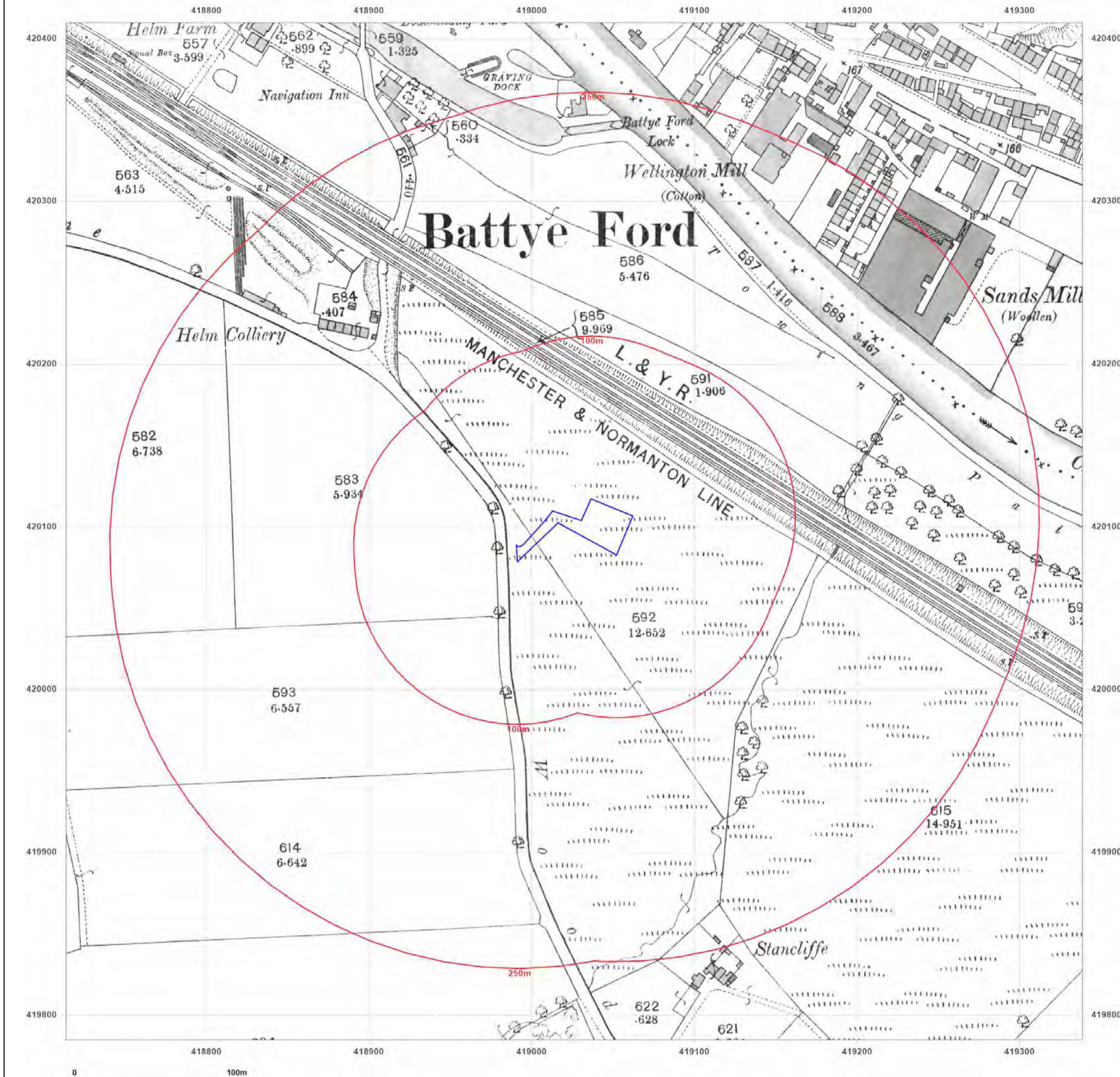


Produced by
Groundsure Insights
T: 08444 159000
E: info@groundsure.com
W: www.groundsure.com

© Crown copyright and database rights 2018 Ordnance Survey 100035207

Production date: 18 October 2023

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



Site Details:

Land Off Wood Lane, WOOD
LANE, COLNE BRIDGE,
HUDDERSFIELD, HD5 0PX

Client Ref: C3637_23_E_5509_PO-2772
Report Ref: GS-WQ3-QC5-MWC-WNU
Grid Ref: 419026, 420097

Map Name: County Series

Map date: 1907

Scale: 1:2,500

Printed at: 1:2,500

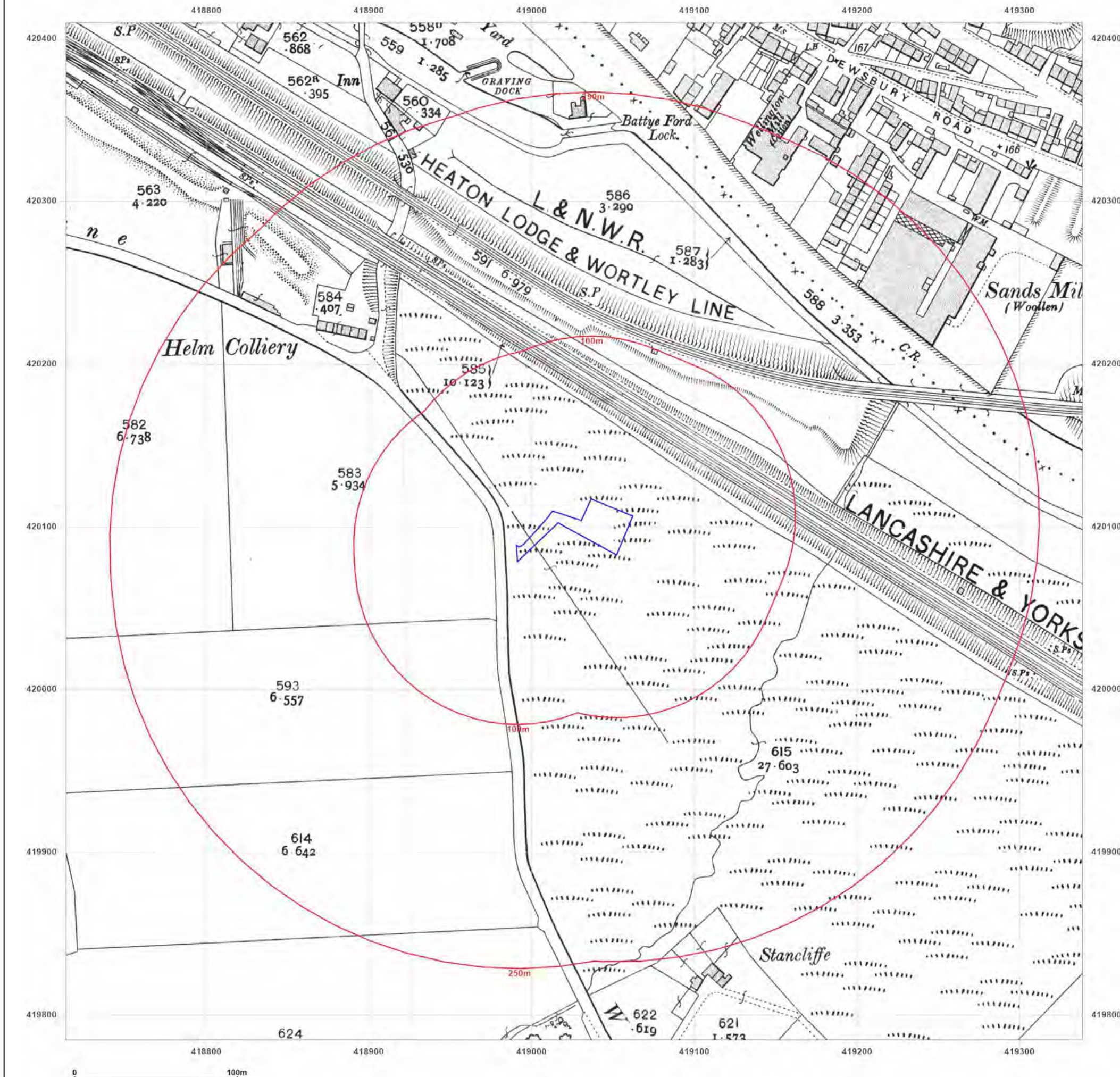


Produced by
Groundsure Insights
T: 08444 159000
E: info@groundsure.com
W: www.groundsure.com

© Crown copyright and database rights 2018 Ordnance Survey 100035207

Production date: 18 October 2023

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



Site Details:

Land Off Wood Lane, WOOD
LANE, COLNE BRIDGE,
HUDDERSFIELD, HD5 0PX

Client Ref: C3637_23_E_5509_PO-2772
Report Ref: GS-WQ3-QC5-MWC-WNU
Grid Ref: 419026, 420097

Map Name: County Series

Map date: 1922

Scale: 1:2,500

Printed at: 1:2,500



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

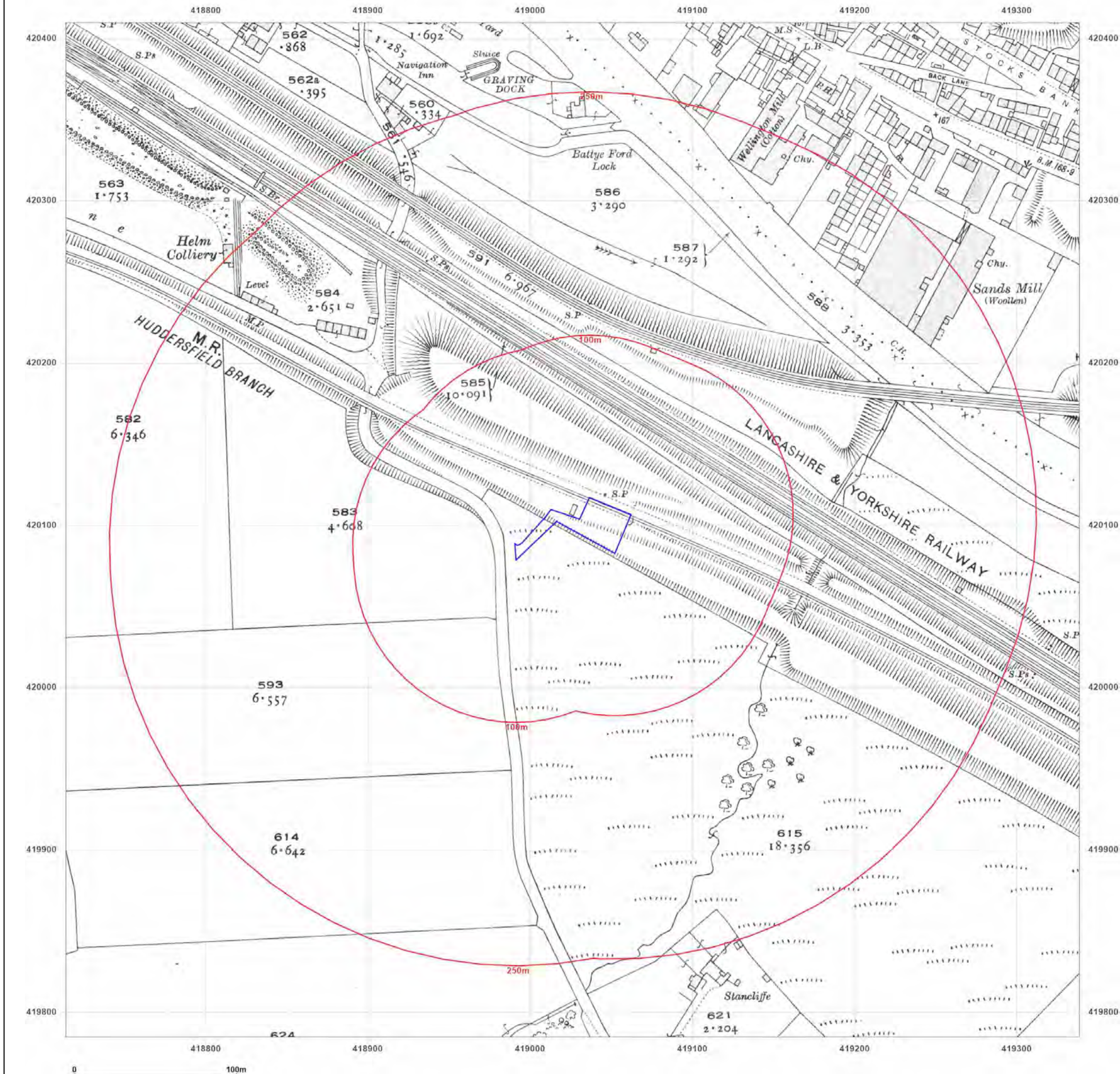


Produced by
Groundsure Insights
T: 08444 159000
E: info@groundsure.com
W: www.groundsure.com

© Crown copyright and database rights 2018 Ordnance Survey 100035207

Production date: 18 October 2023

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



Site Details:

Land Off Wood Lane, WOOD
LANE, COLNE BRIDGE,
HUDDERSFIELD, HD5 0PX

Client Ref: C3637_23_E_5509_PO-2772
Report Ref: GS-WQ3-QC5-MWC-WNU
Grid Ref: 419026, 420097

Map Name: County Series

Map date: 1933

Scale: 1:2,500

Printed at: 1:2,500



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

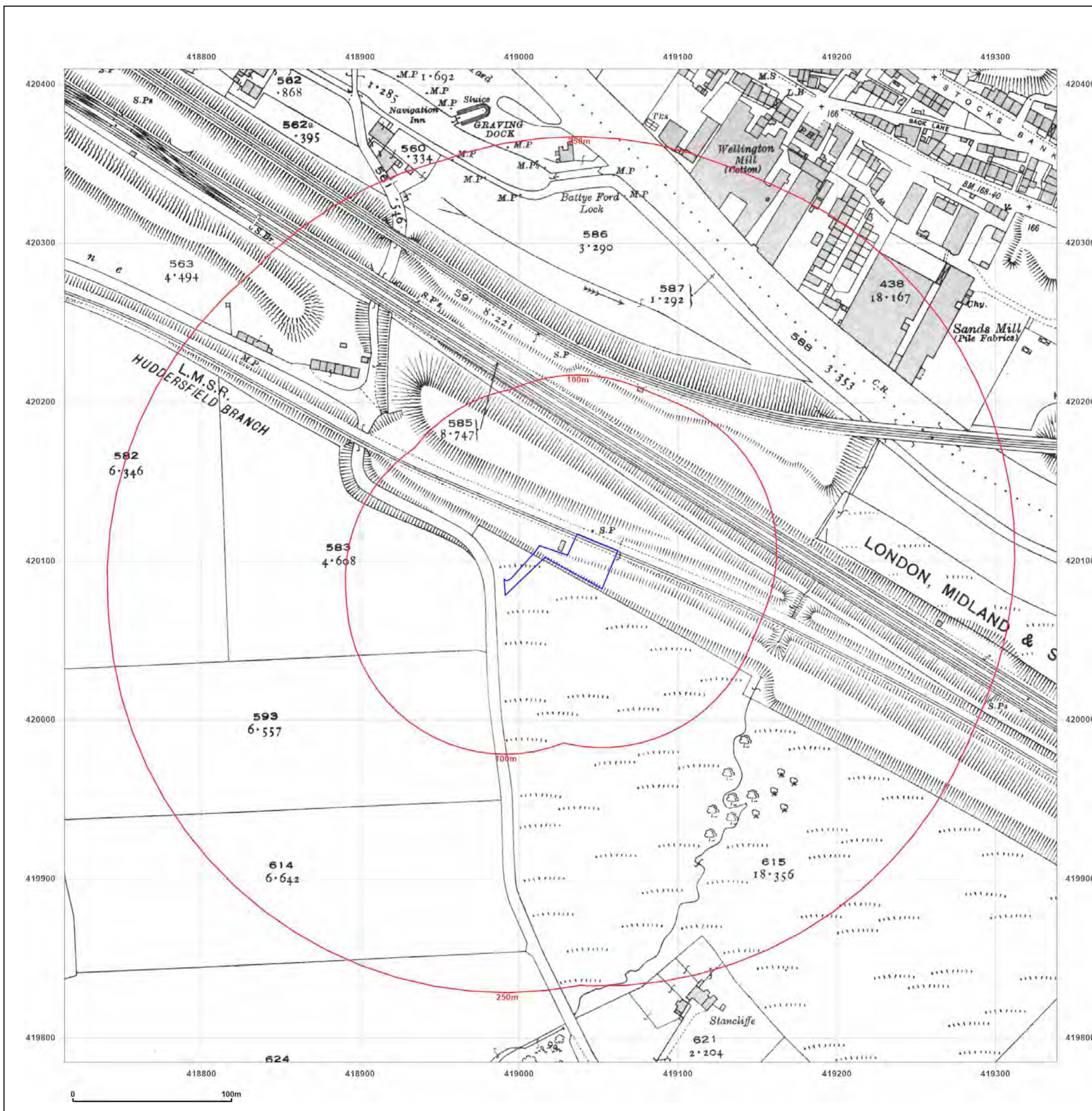


Produced by
Groundsure Insights
T: 08444 159000
E: info@groundsure.com
W: www.groundsure.com

© Crown copyright and database rights 2018 Ordnance Survey 100035207

Production date: 18 October 2023

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



Site Details:

Land Off Wood Lane, WOOD
LANE, COLNE BRIDGE,
HUDDERSFIELD, HD5 0PX

Client Ref: C3637_23_E_5509_PO-2772
Report Ref: GS-WQ3-QC5-MWC-WNU
Grid Ref: 419026, 420097

Map Name: National Grid

Map date: 1958

Scale: 1:1,250

Printed at: 1:2,000



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

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

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

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



Produced by
Groundsure Insights
T: 08444 159000
E: info@groundsure.com
W: www.groundsure.com

© Crown copyright and database rights 2018 Ordnance Survey 100035207

Production date: 18 October 2023

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



Site Details:

Land Off Wood Lane, WOOD
LANE, COLNE BRIDGE,
HUDDERSFIELD, HD5 0PX

Client Ref: C3637_23_E_5509_PO-2772
Report Ref: GS-WQ3-QC5-MWC-WNU
Grid Ref: 419026, 420097

Map Name: National Grid

Map date: 1982-1986

Scale: 1:1,250

Printed at: 1:2,000



Surveyed 1963
Revised 1986
Edition N/A
Copyright 1986
Levelled 1963

Surveyed 1962
Revised 1982
Edition N/A
Copyright 1982
Levelled 1962

Surveyed 1959
Revised 1985
Edition N/A
Copyright 1985
Levelled 1959

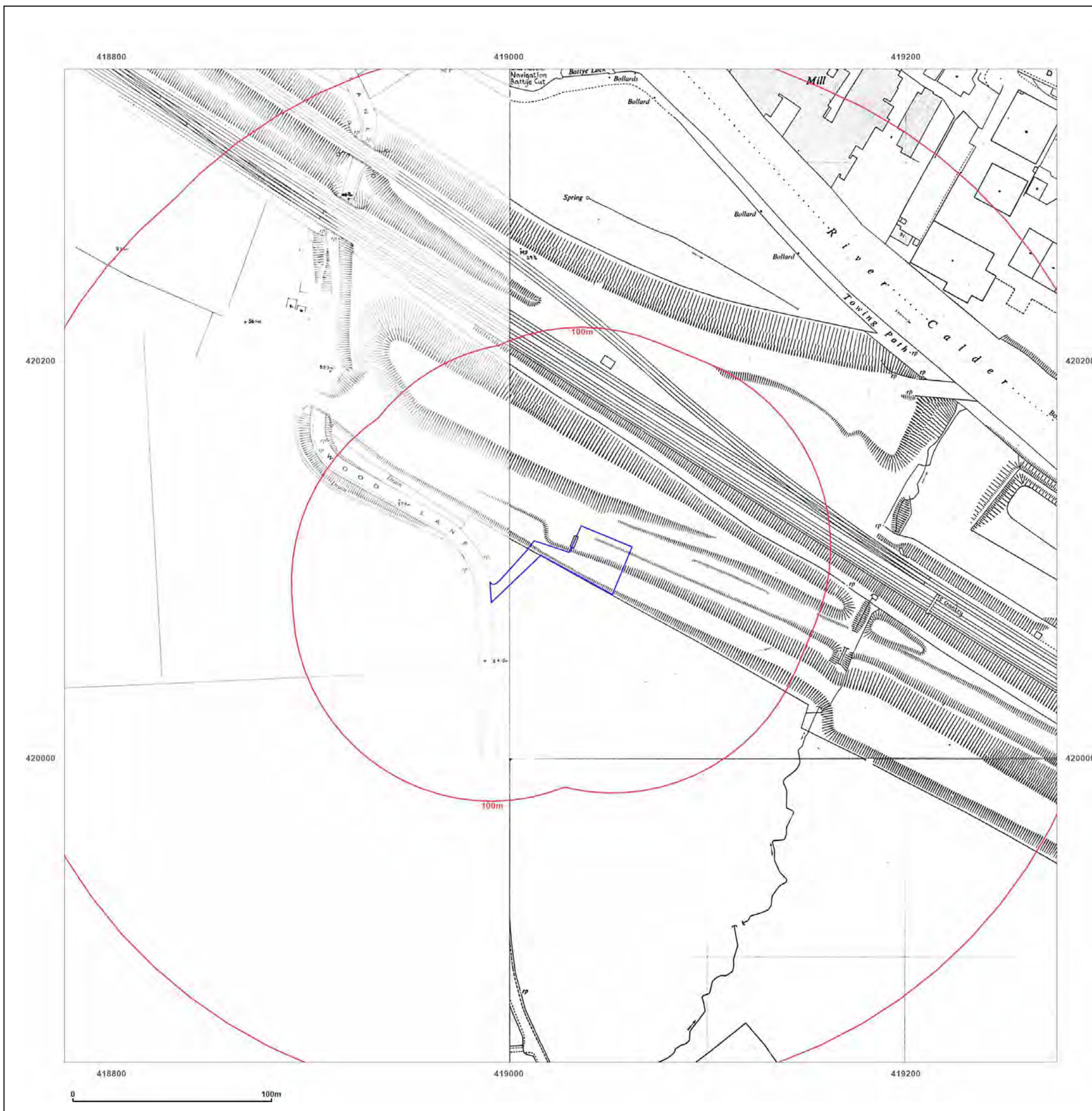


Produced by
Groundsure Insights
T: 08444 159000
E: info@groundsure.com
W: www.groundsure.com

© Crown copyright and database rights 2018 Ordnance Survey 100035207

Production date: 18 October 2023

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



Site Details:

Land Off Wood Lane, WOOD
LANE, COLNE BRIDGE,
HUDDERSFIELD, HD5 0PX

Client Ref: C3637_23_E_5509_PO-2772
Report Ref: GS-WQ3-QC5-MWC-WNU
Grid Ref: 419026, 420097

Map Name: National Grid

Map date: 1993

Scale: 1:1,250

Printed at: 1:2,000



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

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

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

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



Produced by
Groundsure Insights
T: 08444 159000
E: info@groundsure.com
W: www.groundsure.com

© Crown copyright and database rights 2018 Ordnance Survey 100035207

Production date: 18 October 2023

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



Site Details:

Land Off Wood Lane, WOOD
LANE, COLNE BRIDGE,
HUDDERSFIELD, HD5 0PX

Client Ref: C3637_23_E_5509_PO-2772
Report Ref: GS-WQ3-QC5-MWC-WNU
Grid Ref: 419026, 420097

Map Name: County Series

Map date: 1854-1855

Scale: 1:10,560

Printed at: 1:10,560



Surveyed 1850
Revised N/A
Edition 1854
Copyright N/A
Levelled 1853

Surveyed 1851
Revised N/A
Edition 1855
Copyright N/A
Levelled N/A

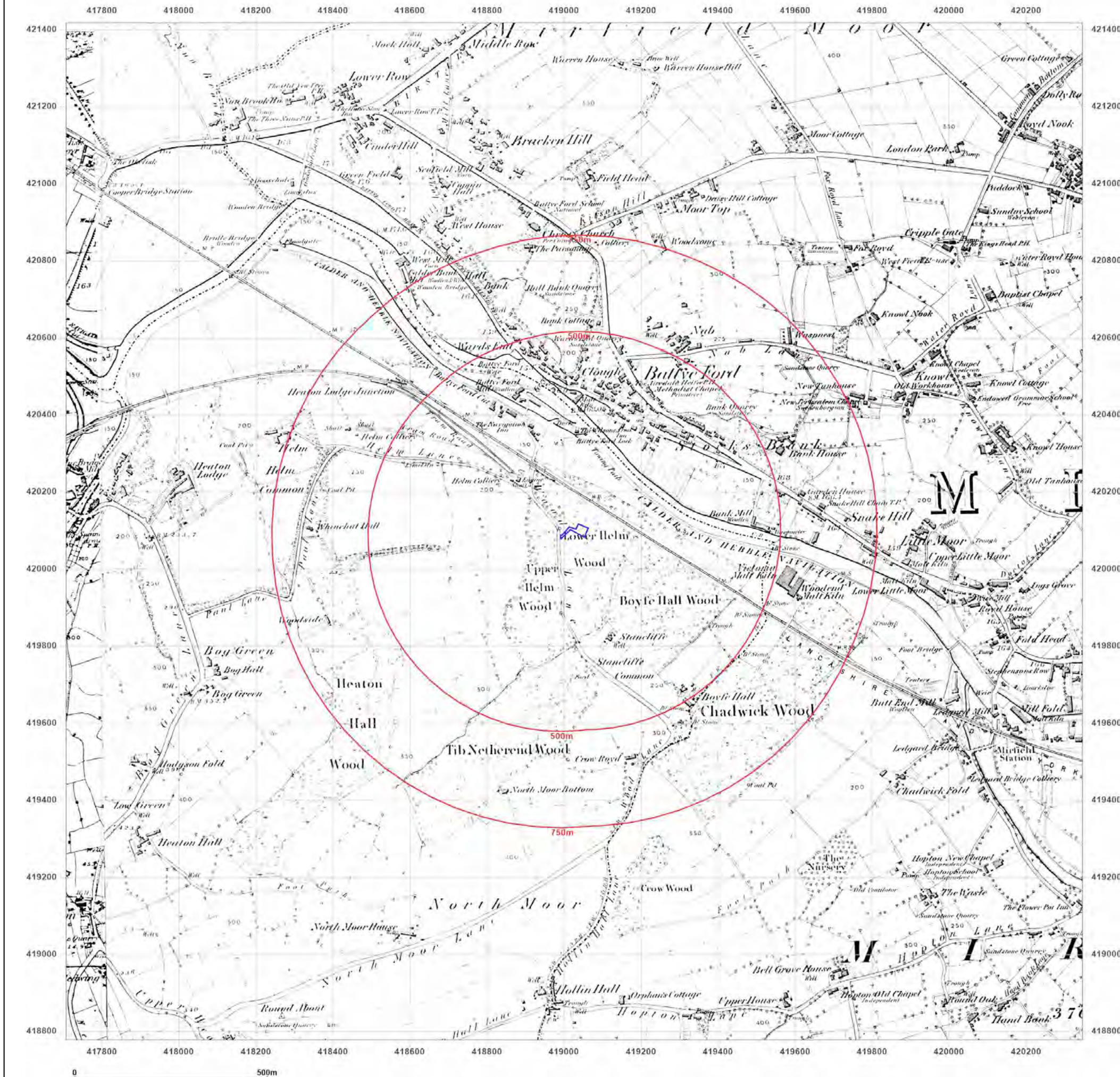


Produced by
Groundsure Insights
T: 08444 159000
E: info@groundsure.com
W: www.groundsure.com

© Crown copyright and database rights 2018 Ordnance Survey 100035207

Production date: 18 October 2023

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



Site Details:

Land Off Wood Lane, WOOD
LANE, COLNE BRIDGE,
HUDDERSFIELD, HD5 0PX

Client Ref: C3637_23_E_5509_PO-2772
Report Ref: GS-WQ3-QC5-MWC-WNU
Grid Ref: 419026, 420097

Map Name: County Series

Map date: 1889-1892

Scale: 1:10,560

Printed at: 1:10,560



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

Surveyed 1889
Revised 1889
Edition N/A
Copyright N/A
Levelled N/A

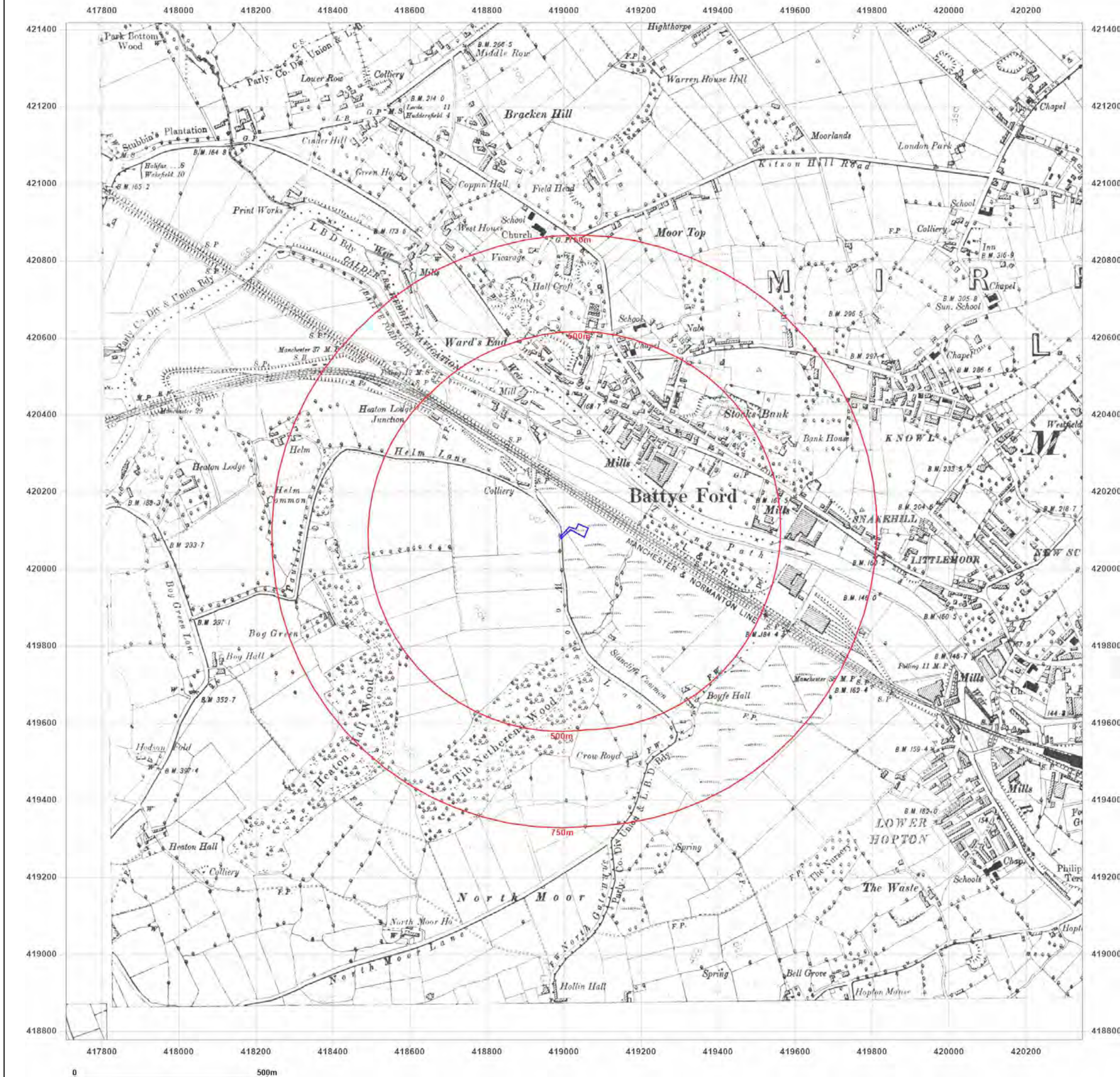


Produced by
Groundsure Insights
T: 08444 159000
E: info@groundsure.com
W: www.groundsure.com

© Crown copyright and database rights 2018 Ordnance Survey 100035207

Production date: 18 October 2023

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



Site Details:

Land Off Wood Lane, WOOD
LANE, COLNE BRIDGE,
HUDDERSFIELD, HD5 0PX

Client Ref: C3637_23_E_5509_PO-2772
Report Ref: GS-WQ3-QC5-MWC-WNU
Grid Ref: 419026, 420097

Map Name: County Series

Map date: 1930-1931

Scale: 1:10,560

Printed at: 1:10,560



Surveyed 1850
Revised 1930
Edition N/A
Copyright N/A
Levelled N/A

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

Surveyed 1851
Revised 1930
Edition 1930
Copyright N/A
Levelled 1931

Surveyed 1851
Revised 1930
Edition N/A
Copyright N/A
Levelled N/A

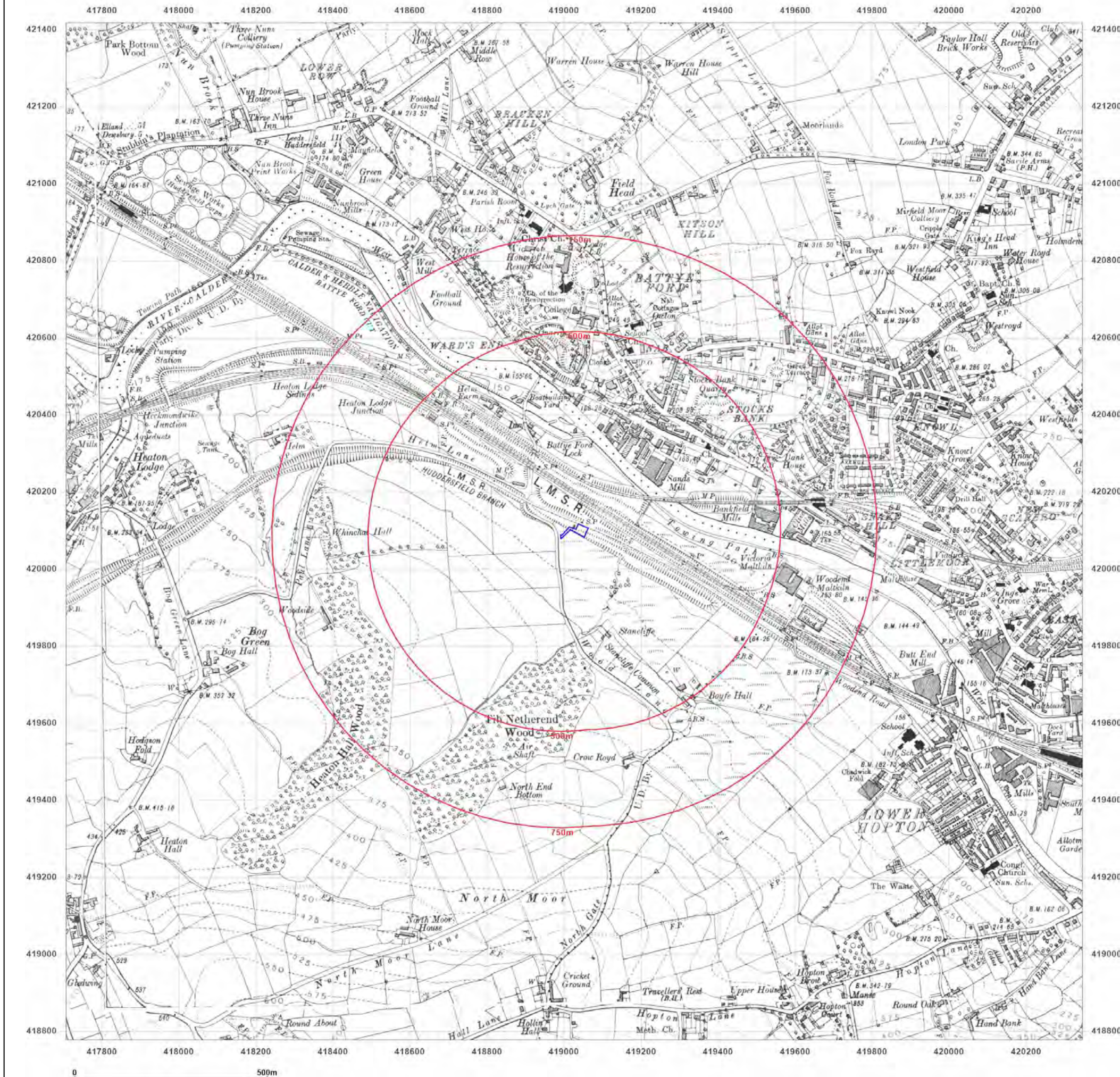


Produced by
Groundsure Insights
T: 08444 159000
E: info@groundsure.com
W: www.groundsure.com

© Crown copyright and database rights 2018 Ordnance Survey 100035207

Production date: 18 October 2023

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



Site Details:

Land Off Wood Lane, WOOD
LANE, COLNE BRIDGE,
HUDDERSFIELD, HD5 0PX

Client Ref: C3637_23_E_5509_PO-2772
Report Ref: GS-WQ3-QC5-MWC-WNU
Grid Ref: 419026, 420097

Map Name: County Series

Map date: 1938

Scale: 1:10,560

Printed at: 1:10,560



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

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

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

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

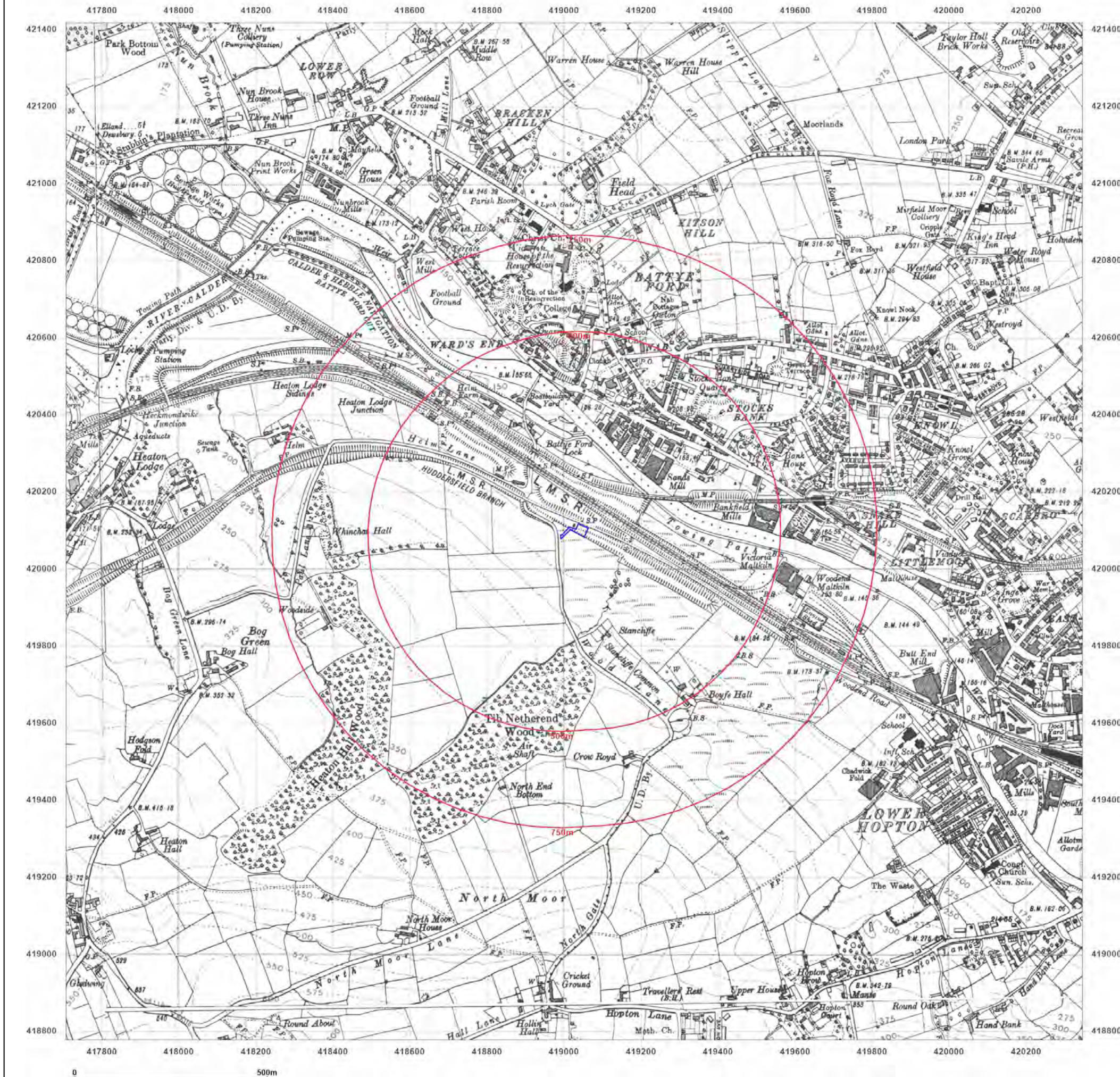


Produced by
Groundsure Insights
T: 08444 159000
E: info@groundsure.com
W: www.groundsure.com

© Crown copyright and database rights 2018 Ordnance Survey 100035207

Production date: 18 October 2023

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



Site Details:

Land Off Wood Lane, WOOD
LANE, COLNE BRIDGE,
HUDDERSFIELD, HD5 0PX

Client Ref: C3637_23_E_5509_PO-2772
Report Ref: GS-WQ3-QC5-MWC-WNU
Grid Ref: 419026, 420097

Map Name: County Series

Map date: 1948

Scale: 1:10,560

Printed at: 1:10,560



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

Surveyed 1850
Revised 1948
Edition N/A
Copyright N/A
Levelled N/A

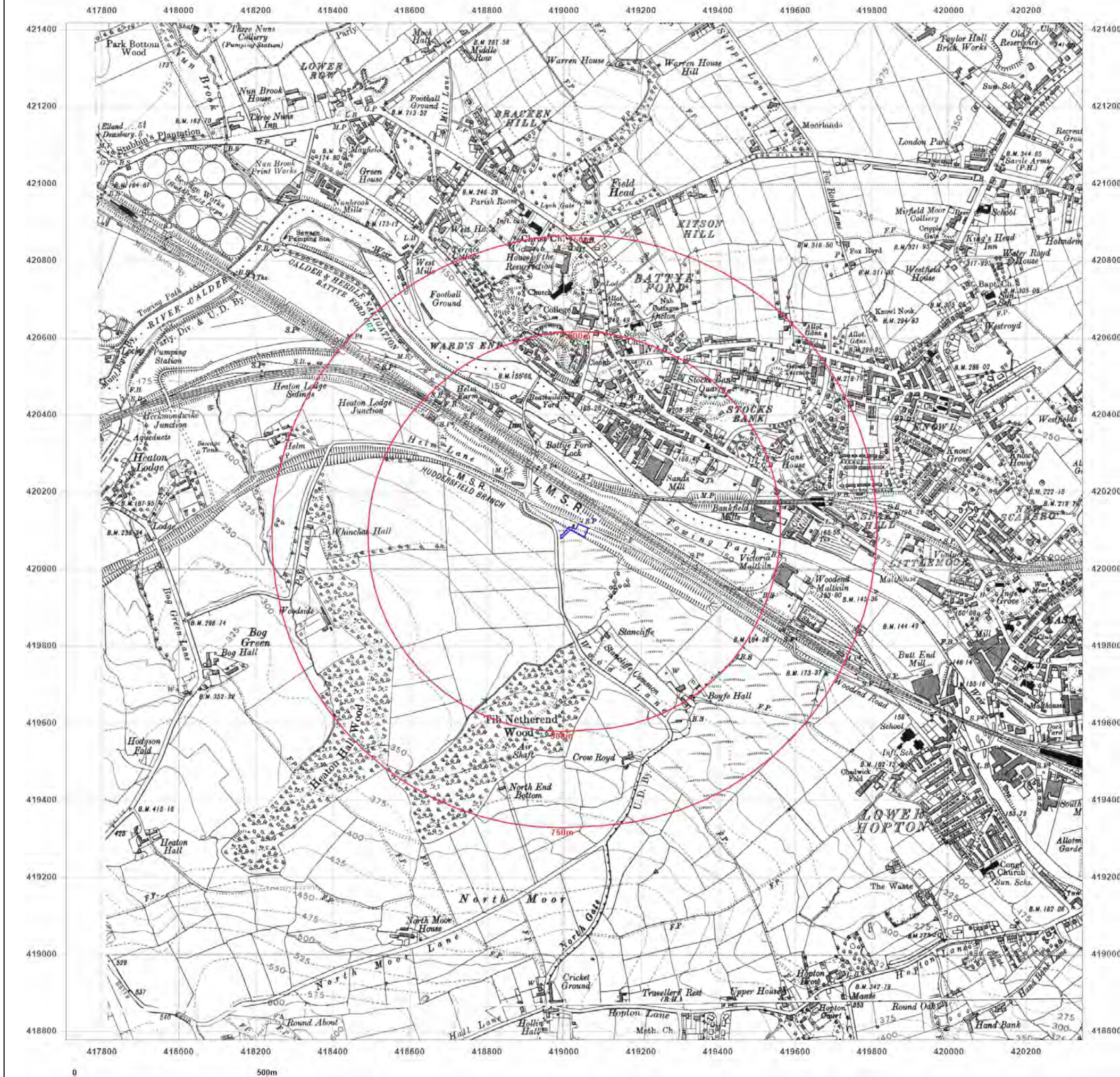


Produced by
Groundsure Insights
T: 08444 159000
E: info@groundsure.com
W: www.groundsure.com

© Crown copyright and database rights 2018 Ordnance Survey 100035207

Production date: 18 October 2023

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



Site Details:

Land Off Wood Lane, WOOD
LANE, COLNE BRIDGE,
HUDDERSFIELD, HD5 0PX

Client Ref: C3637_23_E_5509_PO-2772
Report Ref: GS-WQ3-QC5-MWC-WNU
Grid Ref: 419026, 420097

Map Name: Provisional

Map date: 1951-1956

Scale: 1:10,560

Printed at: 1:10,560



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

Surveyed 1951
Revised 1955
Edition N/A
Copyright N/A
Levelled N/A

Surveyed 1951
Revised 1951
Edition N/A
Copyright 1956
Levelled N/A

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

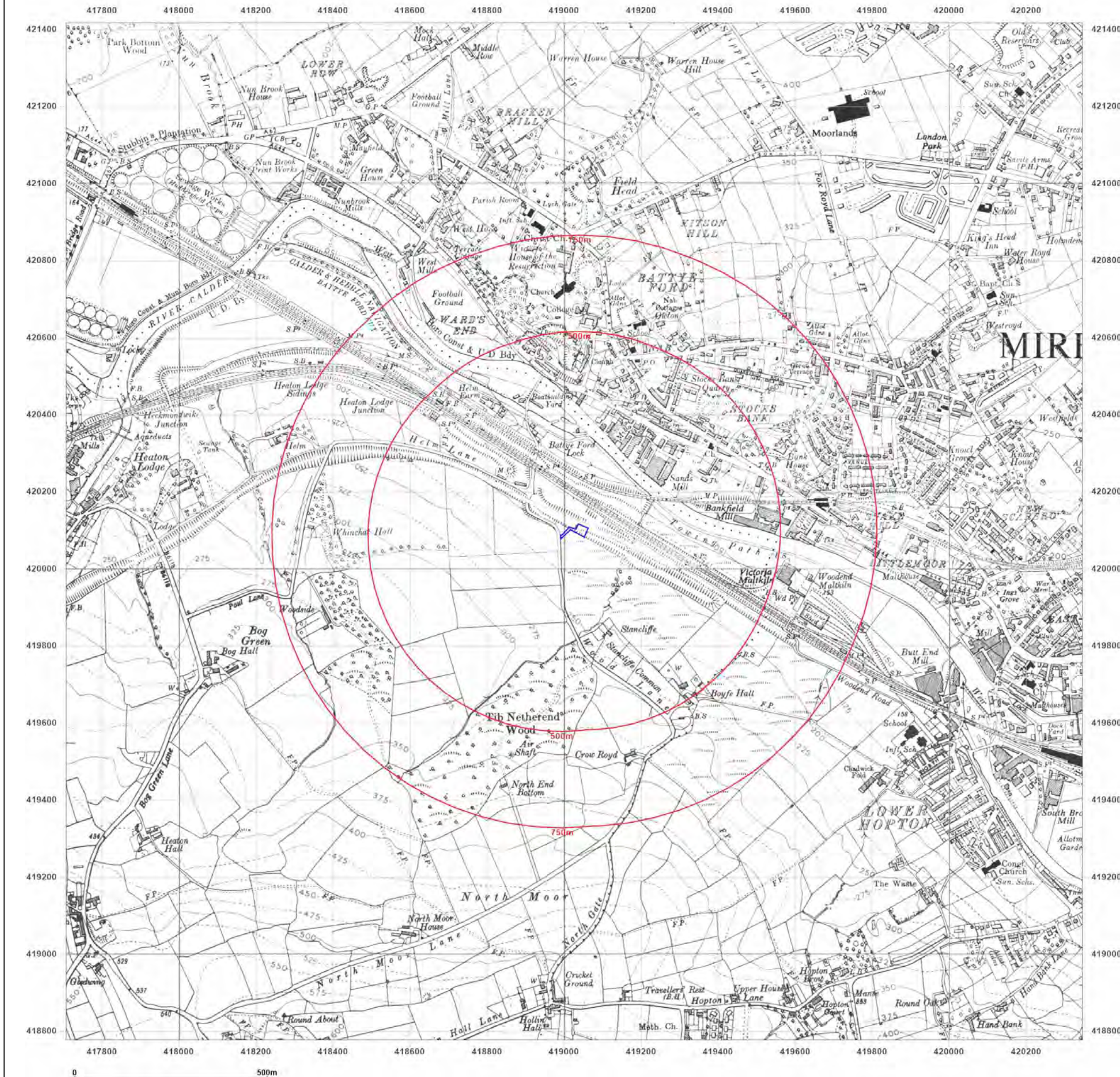


Produced by
Groundsure Insights
T: 08444 159000
E: info@groundsure.com
W: www.groundsure.com

© Crown copyright and database rights 2018 Ordnance Survey 100035207

Production date: 18 October 2023

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



Site Details:

Land Off Wood Lane, WOOD
LANE, COLNE BRIDGE,
HUDDERSFIELD, HD5 0PX

Client Ref: C3637_23_E_5509_PO-2772
Report Ref: GS-WQ3-QC5-MWC-WNU
Grid Ref: 419026, 420097

Map Name: Provisional

Map date: 1965-1967

Scale: 1:10,560

Printed at: 1:10,560



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

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

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

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

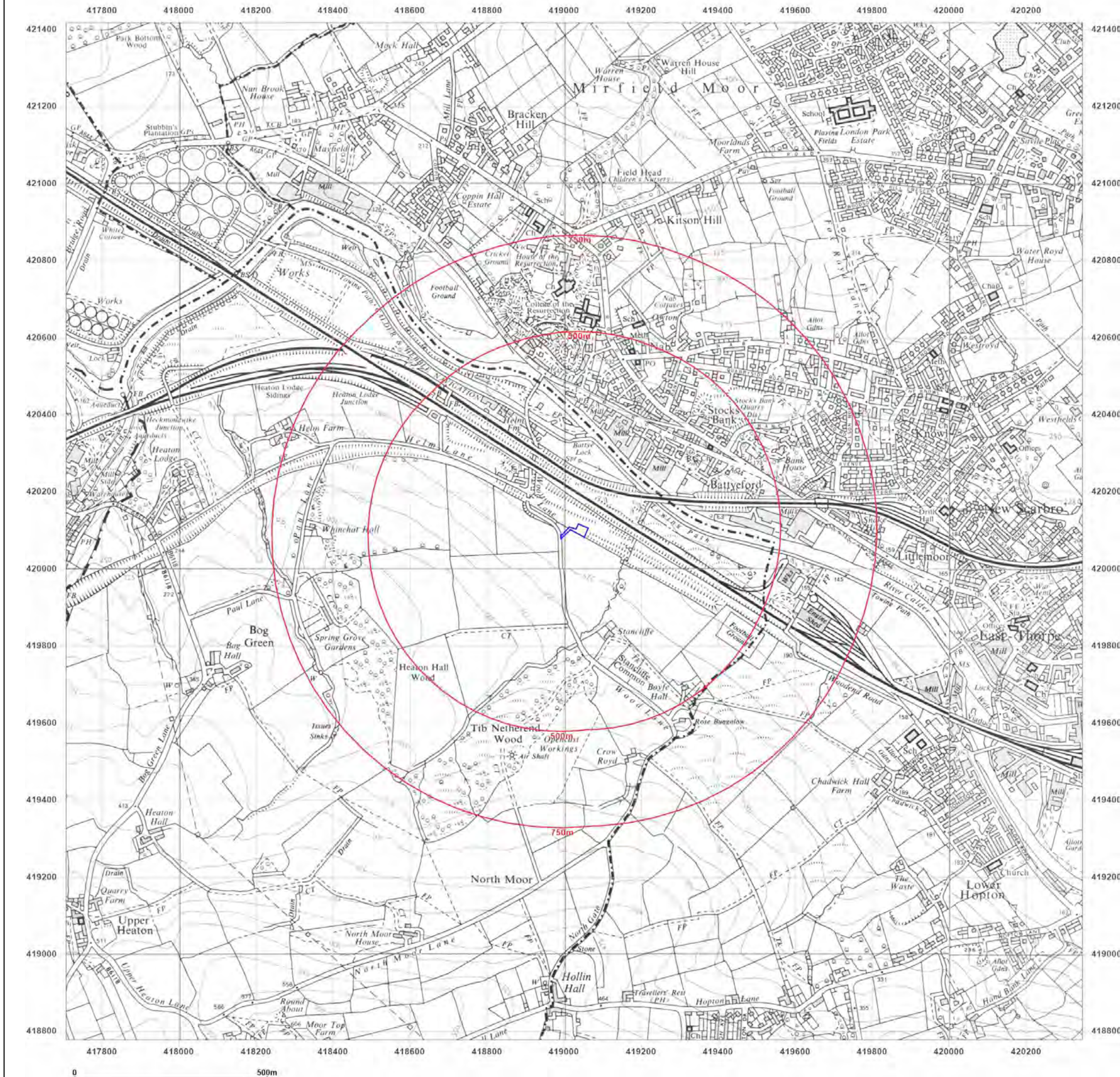


Produced by
Groundsure Insights
T: 08444 159000
E: info@groundsure.com
W: www.groundsure.com

© Crown copyright and database rights 2018 Ordnance Survey 100035207

Production date: 18 October 2023

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



Site Details:

Land Off Wood Lane, WOOD
LANE, COLNE BRIDGE,
HUDDERSFIELD, HD5 0PX

Client Ref: C3637_23_E_5509_PO-2772
Report Ref: GS-WQ3-QC5-MWC-WNU
Grid Ref: 419026, 420097

Map Name: National Grid

Map date: 1974-1975

Scale: 1:10,000

Printed at: 1:10,000



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

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

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

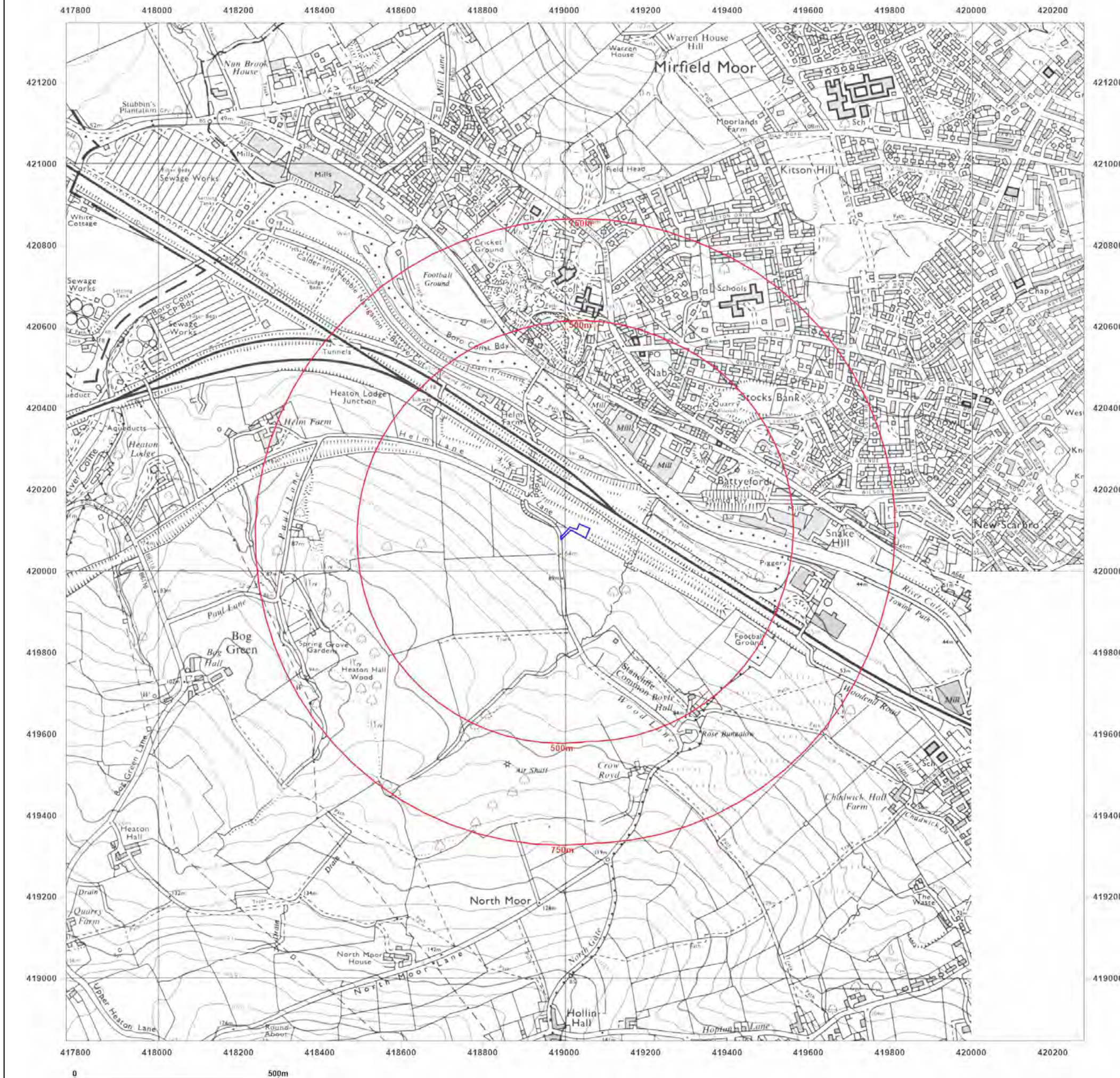


Produced by
Groundsure Insights
T: 08444 159000
E: info@groundsure.com
W: www.groundsure.com

© Crown copyright and database rights 2018 Ordnance Survey 100035207

Production date: 18 October 2023

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



Appendix 4

Walkover Notes



Details

Job Number

C3637/23/E/5509

Date

19/10/2023

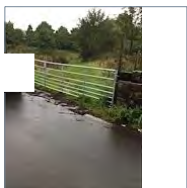
Site Address

Land off Wood Lane, Colne Bridge, Huddersfield, HD5 0PX

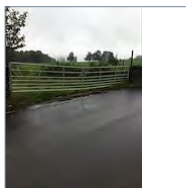
Site Walkover Sheet

Item	Comment
Take photos of the site in general and any specific issues you see e.g. access points, potentially asbestos containing materials, oil drums, spills etc.	See below
General site description/current site use	Agricultural barn of corrugated tin construction
Surface cover of site	Grass and gravel hardstanding
Topography	Flat
Services inc. manhole covers and overhead lines	The status of underground services is unknown
Vegetation/wildlife	Over grown grass trees bushes
Visible signs of contamination ie. oil drums, staining on ground, asbestos etc.	No visible signs of contamination
Controlled waters; rivers, ponds, ditches, lakes etc	N/A
Structures on site ie. Retaining walls, relic foundations, cracking in structures.	Corrugated tin shed
Rock faces and slopes; any spalling, signs of instability?	N/A
Adjacent/neighbouring slopes	Yes steep banking to railway
Neighbours; who are they ie. residential, factory etc	Railway to the north and agricultural land to all other directions
Other info	Access road, small and narrow

Additional Photos



Description



Description



Description



Description



Description



Description



Description



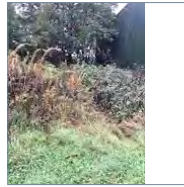
Description



Description



Description



Description



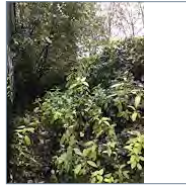
Description



Description



Description



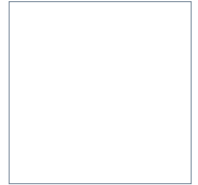
Description



Description



Description



Description

Sign Off

Inspected By

Adam Barwick

Signature

19 Oct 2023 12:50:04 +01:00

Submission details

Assigned User	Alan Gilleard
Assigned Email	Alan.Gilleard@rogersgeotech.co.uk
Started Date	Thursday, Oct 19 2023 12:34:57 +01:00
Submitted Date	Thursday, Oct 19 2023 11:50:23 +00:00
Reference	
Position (lat, lon)	53.59106, -1.687058









Appendix 5

Consultants Coal Mining Report



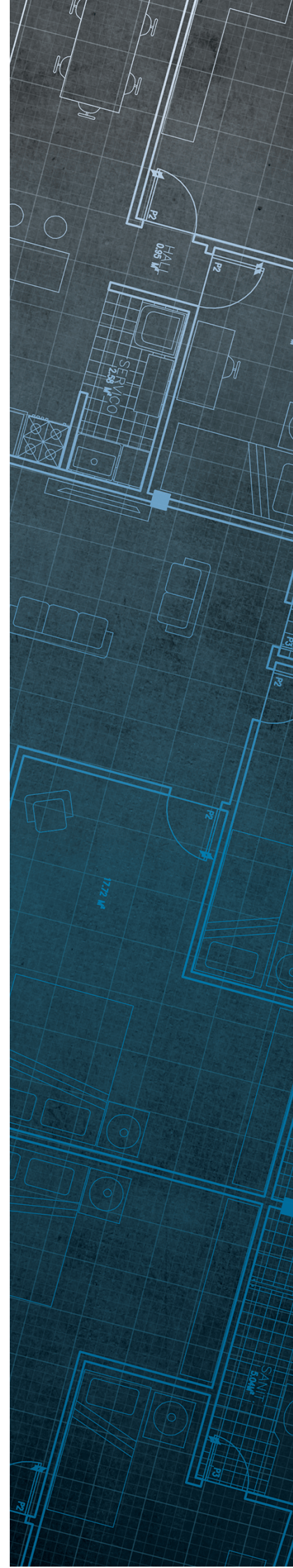
The Coal
Authority

Consultants Coal Mining Report

Land Off Wood Lane
Wood Lane
Colne Bridge
Huddersfield
Kirklees
HD5 0PX

Date of enquiry:	18 October 2023
Date enquiry received:	18 October 2023
Issue date:	18 October 2023

Our reference:	51003384120002
Your reference:	C/3637/23/E/5509



Consultants

Coal Mining Report

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

Client name

ROGERS GEOTECHNICAL SERVICES LTD

Enquiry address

Land Off Wood Lane
Wood Lane
Colne Bridge
Huddersfield
Kirklees
HD5 0PX

How to contact us

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

200 Lichfield Lane
Mansfield
Nottinghamshire
NG18 4RG

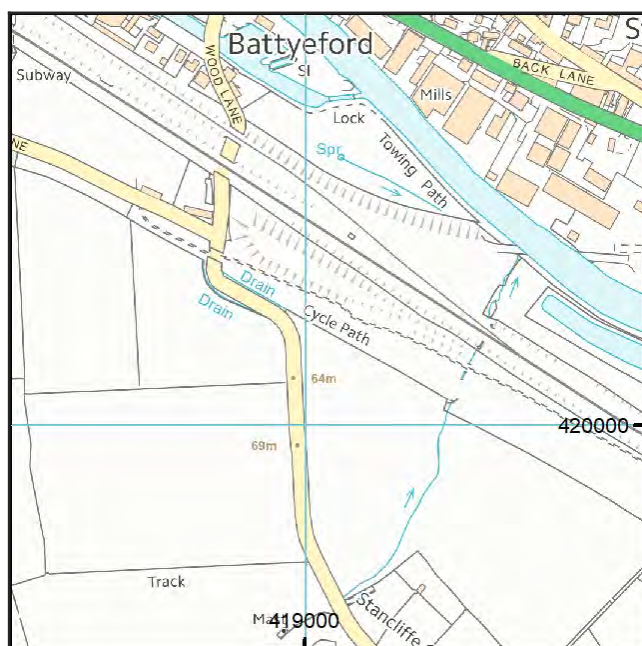
www.groundstability.com

 @coalauthority

 /company/the-coal-authority

 /thecoalauthority

 /thecoalauthority



Approximate position of property



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

Ordnance Survey Licence number: 100020315

Section 1 – Mining activity and geology

Past underground mining

Colliery	Seam	Mineral	Coal Authority reference	Depth (m)	Direction to working	Dipping rate of seam worked (degrees)	Dipped direction of seam worked	Extraction thickness (cm)	Year last mined
unnamed	BLACK BED	Coal	6077	42	Beneath Property	4.6	East	58	1851

Probable unrecorded shallow workings

None.

Spine roadways at shallow depth

No spine roadway recorded at shallow depth.

Mine entries

None recorded within 100 metres of the enquiry boundary.

Abandoned mine plan catalogue numbers

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

LF24	LF22	LF21
LF4	LF25	6787
11053	M235	

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

Outcrops

No outcrops recorded.

Geological faults, fissures and breaklines

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

Faults under or close to the property recorded.

Opencast mines

Please refer to the "Summary of findings" map (on separate sheet) for details of any opencast areas within 500 metres of the enquiry boundary.

Coal Authority managed tips

None recorded within 500 metres of the enquiry boundary.

Section 2 – Investigative or remedial activity

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

Site investigations

None recorded within 50 metres of the enquiry boundary.

Remediated sites

None recorded within 50 metres of the enquiry boundary.

Coal mining subsidence

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

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

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

Mine gas

None recorded within 500 metres of the enquiry boundary.

Mine water treatment schemes

None recorded within 500 metres of the enquiry boundary.

Section 3 – Licensing and future mining activity

Future underground mining

None recorded.

Coal mining licensing

None recorded within 200 metres of the enquiry boundary.

Court orders

None recorded.

Section 46 notices

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

Withdrawal of support notices

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

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

Payments to owners of former copyhold land

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

Section 4 – Further information

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

Future development

If development proposals are being considered, technical advice relating to both the investigation of coal and former coal mines and their treatment should be obtained before beginning work on site. All proposals should apply specialist engineering practice required for former mining areas. No development should be undertaken that intersects, disturbs or interferes with any coal or coal mines without first obtaining the permission of the Coal Authority.

MINE GAS: Please note, if there are no recorded instances of mine gas within 500m of the enquiry boundary, this does not mean that mine gas is not present within the vicinity. The Coal Authority Mine Gas data is limited to only those sites where a Mine Gas incident has been recorded. Developers should be aware that the investigation of coal seams, mine workings or mine entries may have the potential to generate and/or displace underground gases. Associated risks both to the development site and any neighbouring land or properties should be fully considered when undertaking any ground works. The need for effective measures to prevent gases migrating onto any land or into any properties, either during investigation or remediation work, or after development must also be assessed and properly addressed. In these instances, the Coal Authority recommends that a more detailed Gas Risk Assessment is undertaken by a competent assessor.

Development advice

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

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

Section 5 – Data definitions

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

Past underground coal mining

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

Probable unrecorded shallow workings

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

Spine roadways at shallow depth

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

Mine entries

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

Abandoned mine plan catalogue numbers

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

Outcrops

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

Geological faults, fissures and breaklines

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

Opencast mines

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

Coal Authority managed tips

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

Site investigations

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

Remediated sites

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

Coal mining subsidence

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

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

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

Mine gas

Reports of alleged mine gas emissions received by the Coal Authority, either within or within 500 metres of the enquiry boundary that subsequently required investigation and action by the Coal Authority to mitigate the effects of the mine gas emission. Please note, if there are no recorded instances of mine gas reported, this does not mean that mine gas is not present within the vicinity. The Coal Authority Mine Gas data is limited to only those sites where a Mine Gas incident has been recorded.

Mine water treatment schemes

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

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

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

Future underground mining

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

Coal mining licensing

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

Court orders

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

Section 46 notices

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

Withdrawal of support notices

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

Payment to owners of former copyhold land

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

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

Key

Approximate position of the enquiry boundary shown 

Geological faults 

Unlicensed opencast site 

How to contact us
0345 762 6848 (UK)
+44 (0)1623 637 000 (International)
www.groundstability.com

