Desktop Study Report

YEX3503 – 18b, Wells Road WF12 0LE

November 22

	Name	Position		Date
Prepared	Cathleen Cox	Geo-Environmental Engineer		17 November 2022
Responsible	Jonny Roberts	Principal Geo-Environmental Engineer		17 November 2022
Authorised	Matthew Blakey	Managing Director		17 November 2022

Issue	Date	Description	Contributors	Responsible	Authorised
00	10 October 2022	Final Report	CC	JR	MB
01	17 November 2022	Final Report - with revisions	CC	JR	MB

Contents

Appendices

Executive Summary

The below table shows a snapshot of the recommendations concerning contamination. It is advised that the report is read in its entirety to gain a better understanding of our findings.

	No Investigation	Investigation Required
Soil		✓
Ground Gas	✓	
Groundwater	✓	

Investigation Recommended

We have identified potential sources of contamination that may represent a risk of harm to receptors. Investigation of the site is required to enable an assessment of this risk to be made. Works should not take place until this investigation has been completed

Introduction

*Your*Environment was instructed by Faisal Building Solution to produce a Phase 1: Desktop Study and Preliminary Risk Assessment Report for the 18b, Wells Road, Thornhill, Dewsbury WF12 0LE.

Grid reference	425311, 418992
Size of study site	0.03Ha
Topography	79-80mAOD
Description of the study site and surrounding area	The site is characterised by unoccupied land within a residential setting, which is surrounded by fields and woodland.

It is understood plans for the redevelopment of the site comprise:

- Erection of a detached dwelling

The purpose of this report is to support the discharge of a planning condition (condition 11) attached to the planning application submitted to Kirklees Council (ref: 2021/62/90209).

The proposed plans can be viewed in Appendix A.

The objectives of this report are to:

- Establish the environmental setting, including sensitivity in relation to human health, surface water, groundwater and ecological receptors
- Review historical and recent uses to assess the potential for contamination to be present from past and current land-use
- Assess by qualitative means the potential nature and extent of contamination from those uses and the environmental risk and liabilities which may affect the site redevelopment
- Identify the prevalent source-pathway-receptor linkages present on site by means of a Tier 1 Contamination Risk Assessment which incorporates the formulation of a Conceptual Site Model (CSM)

During the production of this report the following information sources have been utilised:

- Data obtained from Groundsure
- Historical Ordnance Survey (OS) mapping
- Site walkover
- Zetica bomb risk maps
- Recent and most significant available planning history on the Kirklees Council Planning Portal

The full information from these sources can be reviewed within Appendices B & C.

Planning History

A review of the information available on the Kirklees Council Planning Portal indicates that there is a limited history of planning for the study site and the postcode 'WF12 0LE'.

Records pertaining to the study site include an application placed in 2008 for the erection of a single dwelling (ref: 2008/62/91750/E). While the decision notice did not stipulate a contaminated land condition, condition 5 outlines the requirement for a geotechnical investigation. A supplementary application to discharge condition 5 (and others) was submitted in 2008 (ref:2008/44/93516/E2). Further documentation from the local authority indicates that insufficient information was provided to discharge the relevant conditions.

An additional onsite application of significance includes that of a 2019 application for the erection of a single dwelling (ref:2019/62/91764/E). This application was refused in July 2019. An appeal on this decision was dismissed.

Offsite records of significance are limited. The most notable include a 2017 application for the erection of a detached dwelling at '1, Wells Road' (ref:2017/62/91029/E), which was granted conditional permission. None of the conditions attached to the May 2017 decision related to contaminated land. However, is noted that the Environmental Health Consultation Response (April 2017) indicated that a watching brief be undertaken for evidence of unexpected contamination. An additional application for the erection of a single storey rear extension and alternations to front balcony and roof (ref:2020/62/93130/E) at '26, Wells Road' was granted conditional permission. None of the conditions were for contaminated land.

All other records on the planning portal for this postcode were deemed irrelevant in the context of this report based on their age and status.

Environmental and Geological Setting

Information on the environmental and geological setting of the site is presented in Appendix B.

Site Geology

Site geology has been assessed using information from British Geological Survey (BGS) mapping and is summarised below:

Artificial/Made Ground	Made Ground (undivided artificial deposits) was identified within the study site (1:10,000 scale).
Superficial Ground and Drift Deposits	There are no superficial deposits underlying the study site.
Bedrock Geology	Underlying the superficial drift deposits is bedrock comprised of the Thornhill Rock (sandstone).
Landslips	There are no records within 250m of the study site.
Linear Features	There are seven (7no) records within 250m of the study site, the nearest of which refer to inferred normal faults 5m northeast, 24m north and 105m northwest. In addition, an inferred coal seam was identified 75m west. All further records are over 125m of the study site which refer to further inferred coal seams normal faults.

The following hazard ratings on site are:

Shrink swell clays	Very low
Running sands	Negligible
Compressible deposits	Negligible
Collapsible deposits	Very low
Landslides	Moderate
Ground dissolution	Negligible

Site Hydrogeology and Hydrology

These records are derived from Environment Agency and BGS data. Details of the source and coverage of specific records are provided in the Appendices.

Principal Aquifer	Layers with high intergranular and/or secondary permeability capable of supporting water supplies at strategic scale, and in some cases forming an important source of base flow to rivers. These are generally aquifers formerly classified as Major Aquifers
Secondary (A) Aquifer	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
Secondary (B) Aquifer	Predominantly lower permeability layers which may store/yield limited amounts of groundwater due to localised features such as fissures, thin permeable horizons and weathering. These are generally the water bearing parts of former Non-Aquifers
Secondary Undifferentiated Aquifer	Layers that cannot be attributed to a category A or B rock type. These layers could have previously been described as a minor or a non-aquifer due to their variable characteristics
Unproductive strata	Rock layers or drift deposits with low permeability that have negligible significance for water supply or river base flow

Aquifer and geological permeability are summarised below:

Aquifer within Superficial Deposits	There are no superficial deposits underlying the study site.
Permeability of Superficial Deposits	There are no superficial deposits underlying the study site.
Aquifer within Bedrock Geology	As a result of the bedrock geology on site, the Thornhill Rock is designated as being a Secondary (A) aquifer.
Water Framework Directive Groundwater Bodies	The site is within the Aire and Calder Carb/ Millstone Grit/ Coal Measures groundwater body.

Permeability of Bedrock Deposits	The minimum permeability is recorded as being moderate with the maximum permeability recorded as being high
Groundwater Vulnerability	The groundwater vulnerability in the vicinity of the site is classified as high due to the productive aquifer underlying the site.
Groundwater Abstraction Licences	There are no records of groundwater abstraction licenses within 1000m of the study site.
Surface Water Abstraction Licences	There are no records of surface water abstraction licenses within 1000m of the study site.
Potable Water Abstraction Licences	There are no records of potable water abstraction licenses within 1000m of the study site.
Source Protection Zones	There are no records within 250m of the study site.
OS Water Network	There are eight (8no) records of non-tidally influenced inland rivers within 250m of the study site, the nearest of which are 111m, 113m and 151m west. All further records are 155m and over from the study site.
Surface Water Features	There are three (3no) records within 250m of the study site, which appear to refer to narrow surface water features approximately 175m northwest of the study site and 250m west of the study site. A large lake or loch was identified northwest.
Water Framework Directive Surface Water Bodies and Catchments	The site is within the Calder from River Colne to River Chald (GB104027062631) river waterbody catchment. This is within the Calder Lower Operational Catchment.
Flood Risk	There are no records of river and coastal flooding within 250m of the study site. There is a negligible risk of onsite and offsite (within 50m) surface water flooding within 250m of the study site. There is a negligible risk of onsite and offsite (within 50m) groundwater flooding within 250m of the study site.

Environmentally Sensitive Areas

These records are derived from Environment Agency, Natural England, Historic England, English Heritage, Forestry Commission and UK Government data. Details of the source and coverage of specific records are provided in Appendices.

Environmental and Habitat Designations	The site is within an SSSI (Site of Special Scientific Interest) risk zone. This is vulnerable to developments such as aviation infrastructure, air pollution and general combustion processes. There are twelve (12no) records of Priority Habitat Inventories within 250m of the study site, the nearest of which refer to deciduous woodland 82m southeast, additional habitats 88m southeast and deciduous woodland 89m southeast (likely the same woodland). All further records are over 170m from the study site which refer to further deciduous woodland sites. An Open Mosaic Habitat was identified 43m west. The primary source is recorded as being previously developed land.
Visual and Cultural Designations	There are eight (8no) records of grade I to grade II listed buildings within 250m of the study site, the nearest of which are 58m southeast, 127m south and 134m southwest. All further records are over 140m from the study site. The Thornhill Conservation Area was identified 4m south of the study site and a Scheduled Ancient Monument was identified 172m east of the study site (Thornhill Hall).

Past Land Use and Potential Contaminant Sources

Information on past land use and potential contaminant sources is presented in Appendix B.

Land Use Records

These records are derived from historical mapping and each record corresponds to a particular map revision date.

Historical land use records are summarised below:

Land Use	Distance and Direction	Sources Summary
Colliery (5)	3m-63m northwest	Y
Unspecified depot	41m north	Y
Chimney	87m north	Y
Mineral railway sidings (3)	116m-129m north	Y
Tramway sidings	133m north	Y
Refuse heap (7)	137m-191m north	Y
Unspecified pit	163m north	Y
Unspecified heap (2)	165m-222m north	Y
Industrial school	203m southwest	Y

Additional significant records include eleven (11no) records of cuttings between 281m-301m northeast and 317m and 321m north of the study site.

Current land uses are summarised below:

Land Use	Distance and Direction	Sources Summary
Electrical substations (3)	91m southeast 115m east 116m north	Y
Pump	137m southwest	Y

Land Use	Distance and Direction
Historical Tanks	There is a single record of a historical tank within 250m of the study site, which is located 129m north and was present in 1953.
Historical Energy Features	There are six (6no) records of electrical substations within 250m of the study site. Five (5no) records likely refer to the same substation which was identified between 83m and 86m southeast. An additional record was identified 118m north.
Historical Petrol Stations	There are no records of historical petrol stations within 250m of the study site.
Historical Garages	There are no records of historical garages within 250m of the study site.
Historical Military Land	There are no records of historical military land within 250m
Current or Recent Petrol Stations	There are no records within 250m of the study site.
Electricity Cables	There are no records of high voltage underground electricity cables within 250m of the study site.
Gas Pipelines	There are no records of high-pressure underground gas pipelines within 250m of the study site
Railway Infrastructure	There are five (5no) records of historical sidings within 250m of the study site, which refer to mineral railway sidings 116m and 129m north, tramway sidings 133m north and railway sidings 139m north.

Environmental Permits, Incidents and Registers

These records are derived from local authority, Health and Safety Executive and Environment Agency data. Details of the source and coverage of specific records are provided in the Appendices.

These data are summarised below:

Sites Determined as Contaminated Land	There are no records of sites determined as contaminated land under Part 2A of the Environmental Protection Act 1990 within 250m of the study site.
Control of Major Accident Hazards (COMAH)	There are no records within 250m of the study site.
Regulated Explosive Sites	There are no records within 250m of the study site. Note that details of some sites may be redacted for security reasons
Planning Hazardous Substances Consents	There are no records within 250m of the study site.
Historic IPC Licensed Activities	There are no records within 250m of the study site.
Part A (1) Licensed Activities	There are no records within 250m of the study site.
Part A (2)/B Licensed Activities and Pollutant Release	There are no records within 250m of the study site.
Radioactive Substance Authorisations	There are no records within 250m of the study site.
Licensed Discharges to Controlled Waters	There are two (2no) records of sewage discharges (sewer storm overflow) within 250m of the study site, which are located 144m and 154m northwest. These are likely to be the same discharges.
Pollutant release to Surface Waters (Red List)	There are no records within 250m of the study site.
Pollutant Release to Public Sewer	There are no records within 250m of the study site.
List 1 and List 2 Dangerous Substances	There are no records within 250m of the study site.
Substantiated Pollution Incidents	A single record was identified within 250m of the study site, which refers to a 2018 incident located 223m west of the study site, involving crude sewage. This had a major impact to water. Further afield, a 2009 incident was identified 379m east. This involved slurry and dilute slurry of an agricultural nature and had a minor impact to land and significant impact to water.

Pollution Inventory Substances	There are no records within 250m of the study site.
Pollution Inventory Waste transfers	There are no records within 250m of the study site.
Pollution Inventory Radioactive Waste	There are no records within 250m of the study site.

Waste and Landfill

These records are derived from Environment Agency, BGS, OS and local authority data. Details of the source and coverage of specific records are provided in the Appendices.

Active or Recent Landfill	There are no records within 500m.
Historic Landfill	There are five (5no) records of historical landfill were identified within 500m of the study site: inert and commercial landfill 123m north (ceased 1990); commercial landfill 180m northwest (ceased 1970); inert, industrial and commercial landfill 287m northeast; and inert and commercial landfill 323m north and 451m east.
Non-Landfill Waste Records	There are three (3no) records of active or recent licensed waste located 129m northwest for a special waste transfer station. It is noted that this site is named 'Combs Depot Asbestos Store'.

Mining, Ground Workings and Natural Cavities

These records are derived by from BGS, OS, Coal Authority, Peter Brett Associates, Johnson Poole and Bloomer, Cheshire Brine Subsidence Compensation Board, British Gypsum, Mining Searches UK, Kaolin and Ball Clay Association and local authority data. Details of the source and coverage of specific records are provided in the Appendices. The data are summarised below:

Natural Cavities	There are no records within 250m of the study site.
Mining Cavities	There are no records within 250m of the study site.
BritPits Data (Surface and Underground Mineral Workings)	There are no records within 500m of the study site.
Historic Mineral Planning Areas	There are no records within 500m of the study site.
Surface Ground Workings	There are thirty (30no) records within 250m of the study site, the nearest of which refer to eight (8no) collieries between 3m and 63m northwest (inclusive). All further records are over 135m from the study site and refer to refused heaps, unspecified heaps, an unspecified pit, ponds and reservoirs.
Underground Workings	There are five (5no) records within 250m of the study site, all of which appear to refer to the same colliery identified at 54m and 61m northwest.
Coal Mining	The site is within a coal mining area as defined by the Coal Authority.
Non-Coal Mining	There are no non-coal mining records within 250m of the site. There are no records within 250m for brine extraction or gypsum, tin or clay mining.

Radon and Background Soil Chemistry

These records are derived by from BGS and Public Health England data. Details of the source and coverage of specific records are provided in the Appendices.

Radon

The study site is located within a Radon Affected Area, as between 3% and 5% of properties are above the Radon Action Level. Basic radon protective measures are necessary for new properties or extensions to existing ones as described in publication BR211 by the Building Research Establishment.

Background Soil Chemistry (estimated by BGS)

Arsenic	25-35 mg/kg
Bio-accessible arsenic	No data
Lead	100 mg/kg
Bio-accessible lead	60 mg/kg
Cadmium	1.8 mg/kg
Chromium	60-90 mg/kg
Nickel	15-30 mg/kg

Unexploded Ordnance (UXO)

The site is in an area considered to be at low risk from wartime unexploded ordnance. A utilities strategic target site was identified approximately 50m east. The Zetica bomb risk map is reproduced in Appendix E.

Historic Mapping

The object of this search is to report on the evidence of site history and redevelopment of the site and its environs from available County Series, OS Maps and aerial photography.

Year	On site	Off site
1855	The study site is undeveloped	The surrounding area comprises some detached properties in assumed residential use, as well as large undeveloped fields
1892 to 1893	Several unspecified buildings	More unspecified buildings Colliery 110m northeast Shafts 125m north Shaft 175m north
1894	Incomplete map- no discernible changes	Incomplete map- no relevant changes
1905	No discernible changes	No relevant changes
1907	No discernible changes	Allotment gardens 150m west Allotment gardens 250m northwest
1919 to 1931	No discernible changes	No relevant changes
1932 to 1933	No discernible changes	Colliery 75m north Allotment gardens 125m northeast Tramway 175m northeast
1937 to 1939	Incomplete map- no discernible changes	Incomplete map- no relevant changes
1948	No discernible changes	No relevant changes
1951 to 1955	Fewer buildings onsite	Allotment gardens 75m northeast Allotment gardens 150m northeast Colliery 125m north Tanks 125m north Surgery 250m southeast
1961	Incomplete map- no discernible changes	Incomplete map- no relevant changes
1965 to 1969	Incomplete map- no discernible changes	Incomplete map- surgery 25m southwest
1971 to 1974	Incomplete map- no discernible changes	Incomplete map- no relevant changes
1980 to 1983	Incomplete map- no discernible changes	Builder's yard 100m southwest

1988 to 1994	All buildings removed from the study site	Council depot 175m northeast
1999 to 2022	No discernible changes	No relevant changes

The Historical OS Maps are available in Appendix C.

Walkover Survey

Date	19 h October 2022
Weather	Dry
Current Use	Vacant land comprising unmade ground and overgrown with vegetation. Occasional pieces of waste metals and plastics were observed throughout the study site.
Access	The site is accessible from Wells Road. Access into the site is immediately west of the turning head on Wells Road down a steep slope.
Topography	The general groundslope in the area is towards the North. The site lies approximately 3m below the adjacent highway (Wells Road) and approximately 4m above the adjacent land (car park) to the north.
Structures	There are no intact buildings within the study site. Remnant structures are present along the southern boundary against the highway (Wells Road). The northern boundary of the site comprises an approximate 4m high sandstone masonry faced retaining wall that appears to be in generally good condition with a few notable cracks.
Ground Covering	While a significant proportion of the study site is comprised of vegetation, there appears to be widespread areas of surface Made Ground.
Vegetated Areas	Vegetated areas are laid to overgrowth of mixed vegetation and shrubbery.
Drainage	There is a surface raised drainage cover immediately behind the top of the retaining wall along the site's northern boundary. A plastic vertical drain is evident along the site's southern boundary.
Services	Drainage was noted on and adjacent to the site. Overhead cables and street lighting also fall within the boundary of the site.

Direction	Boundary
North	Retaining wall
East	2m wooden fence
South	Heras fencing
West	2m brick wall/2m wooden fencing/adjacent residential property

Direction	Surrounding Land Use
North	Car park/residential properties
East	Residential properties
South	Residential properties
Northwest/West	Residential properties and a restaurant

Potential on site sources

- Made Ground

Potential off-site sources

- None

Sources, Pathways and Receptors

Potential Sources

Source	Identified by	Location	Description
Made Ground on site and historic development.	Walkover/historical mapping/ Envirosearch report	On site	Made Ground may contain abroad spectrum of contaminants including TPH, PAH asbestos and heavy metals.
Historic landfills	Envirosearch report	On site 123m-180m north/northwest	Potential for ground gas, although considered unlikely due to age and nature of waste.
Radon	Envirosearch report	On site	This is a naturally occurring ground gas generated from the radioactive decay of rocks.
Railway Infrastructure	Envirosearch report	116m-139m north	The main contaminants associated with these sources are BTEX/MTBE, total petroleum and polycyclic aromatic hydrocarbons, volatile and semi-volatile organic compounds and heavy metals.
Tank	Envirosearch report	129m north	Depending on the materials involved, there could be a broad range of associated contaminants.
Allotment gardens	Historical mapping	75m-150m northeast 150m west 250m northwest	Agrochemicals are likely to be associated with these sources (herbicides, insecticides and pesticides) as well as metals and PAHs.

The following contaminants are potentially associated with the on-site sources:

- Heavy Metals
- Potential Asbestos Containing Material (PACM's)
- Polycyclic Aromatic Hydrocarbons (PAH)
- Total Petroleum Hydrocarbons (TPH)
- Benzene, toluene, ethylbenzene and xylene (BTEX)

The following contaminants are potentially associated with off-site sources:

- Heavy Metals
- Polycyclic Aromatic Hydrocarbons (PAH)

- Total Petroleum Hydrocarbons (TPH)
- Volatile Organic Compounds (VOC)
- Semi Volatile Organic Compounds (sVOC's)
- Benzene, toluene, ethylbenzene and xylene (BTEX)
- Agrochemicals (herbicides, pesticides and insecticides)

Pathways

Pathway	Medium	Properties
Direct Contact	Dust, solid and liquid phase	There may be direct contact with potentially impacted soil and Made Ground across the site. There is a possibility of dust fumes being produced during earthworks in the construction phase. Dermal contact and ingestion of potentially contaminated soils during construction or operational phase of the site through areas of proposed soft landscaping.
Leaching through Made Ground	Unsaturated flow	Potential for leaching and migration of potential contaminants along preferential flow paths in the ground.
Foundations and Underground Infrastructure and Obstructions	Preferential flow	Contaminants will flow the path of least resistance which can be gaps around foundations, services, and floor construction
Migration of Ground Gas and Radon	Gaseous flow	Infilled land material is likely to be variable in composition. Migration through granular material within superficial deposits is possible.

Receptors

Category	Receptor	Properties
Humans	End users (such as residents and visitors)	Potential contact with contaminated soils in areas of proposed soft landscaping.
	Construction workers	Reworking of contaminant impacted materials in underlying soil during construction works can expose workers to contamination.
Property	Materials and site structures	Foundations and site services may be damaged by potentially aggressive compounds present in soils.
Controlled Waters	Underlying superficial / bedrock Aquifer and surface water	The site is recorded as having a Secondary (A) aquifer in the bedrock deposits underlying the site.
Plant (species and uptake) and Wildlife	Various	Attributes will be influenced by factors such as relative quality, scale, rarity and substitutability.

Preliminary Conceptual Site Model (CSM)

The assessment is undertaken based on the current proposals for the site.

Proposed Land use Assessment Criteria

Residential with consumption of homegrown produce

Any change in the development proposals for the site involving a change in end use class will result in a requirement for this assessment to be revised.

On Site						
Source	*Pathways*	*Receptor*	*Severity*	*Probability*	*Risk*	*Justification*
Made Ground possibly containing metals, TPH, PAH	Ingestion, dermal contact, inhalation of dusts and vapours	Future end users and site visitors	Medium	Likely	Moderate	Due to the development history on site, contamination of onsite soils may be possible. In addition, contact may be possible between future end users and shallow soils and the consumption of homegrown produce.
		Construction Workers	Medium	Likely	Moderate	Construction workers are likely to come into direct contact with soils during groundworks. Safe working practices should be implemented, and appropriate personal protective equipment (PPE) should be used to mitigate any potential risk from contact with soils and shallow/perched groundwater
	Leaching through soils and migration via groundwater or soil pores	Controlled Waters	Medium	Likely	Moderate to Low	A productive aquifer underlies the study site with moderate to high permeability and a high groundwater vulnerability. A watercourse is present 111m west and there are no recorded nearby abstraction licences. However, the elevated position of the site would discount the presence of free shallow groundwater. Hence, a low to moderate risk rating has been assessed.

On Site						
Source	*Pathways*	*Receptor*	*Severity*	*Probability*	*Risk*	*Justification*
	Permeation of water pipes	Construction materials, future end users and site visitors	Medium	Likely	Moderate	Hydrocarbons, especially aromatics are known to permeate plastic pipes. Provision of water supply pipes and proprietary barrier pipes may be required by the water supply company
	Uptake	Plants	Medium	Likely	Moderate to Low	Uptake may be possible in areas of proposed soft landscaping.

On Site						
Source	*Pathways*	*Receptor*	*Severity*	*Probability*	*Risk*	*Justification*
Asbestos at/near ground surface in Made Ground	Inhalation of fibres in airborne dust	Future end users and site visitors	Severe	Low likelihood	Moderate	Anticipated Made Ground and onsite historical development equates to a moderate risk rating.
		Construction Workers	Severe	Low likelihood	Moderate	A moderate risk rating has been assessed due to the historic development on site. Construction workers are likely to come into direct contact with soils. During subsequent normal groundworks, safe working practices should be implemented, and appropriate personal protective equipment (PPE) should be used to mitigate any potential risk from residual asbestos in soils.
Ground Gases: Radon	Gas migration and build up within buildings (explosion/ asphyxiation risk)	Future end users and building structures	Medium	Likely	Moderate	The site lies in a radon affected area.

Off Site						
Source	*Pathways*	*Receptor*	*Severity*	*Probability*	*Risk*	*Justification*
Land uses in the vicinity possibly containing metals, TPH, PAH, VOC's and sVOCs	Leaching through soils and migration via groundwater or soil pore moisture	Future end users and site visitors	Medium	Likely	Moderate	Given the variable permeability of the underlying geology and hydrogeology, there is a likelihood for the leaching and migration of contaminants. This combined with the various potentially contaminative sources identified within the vicinity of the site creates a moderate risk.
	Ingestion, dermal contact, inhalation of dusts/vapours	Future end users and site visitors	Medium	Low likelihood	Moderate to Low	A moderate to low-risk rating has been assessed, as while there are potentially contaminative land uses in the surrounding area, the likeliness of upheaval and resultant endangerment to future site users is deemed a low likelihood.

Off Site						
Source	*Pathways*	*Receptor*	*Severity*	*Probability*	*Risk*	*Justification*
Ground Gases: From Made Ground: H, CH_4, CO, CO_2 and H_2S	Gas migration and build up within buildings (explosion/ asphyxiation risk)	Future end users and building structures	Medium	Low likelihood	Low	Nearby historic landfills are recorded, however, given their age and waste status there is a low risk from ground gas migration impacting the study site.

Recommendations

The potential contaminant linkages are outlined with the Preliminary CSM in line with LCRM 2021. The risk with respect to Human Health ranges between a Low a Moderate risk. The risk with respect to Controlled Waters is considered to be Low to Moderate.

Based on the information assessed in this report and the proposed development plans provided in Appendix A, we would recommend that a Site Investigation (SI) is undertaken. The completion of SI will be required to inform the sign off of any relevant planning conditions, following the submission of this report to the CLO to support the current planning application. The following recommendation are provided below:

- Confirmation of the final masterplan, finished levels and regulatory status is required.
- It may be prudent to contact the local authority and enquire regarding the Part 2A status of the site and surrounding areas. The correspondence will assist in informing the scope and targeting of the SI.
- Consultation with the regulator/building control should be undertaken to inform design.
- The SI and subsequent risk assessment will provide an update to the PCSM and identify next steps (if any). The ground investigation scope should include the assessment of soil, groundwater, and gas regime at the site.
- The intrusive SI may reveal on-site sources of contamination that were not established in this report. Therefore, the CSM will be updated with contamination data obtained from the SI and used to inform next steps (if any).
- The requirement for and verification of any remedial action may be required prior to the commencement of any works following the SI, dependent on the decision notice for the site which is yet to have been approved for the current planning application.
- During future groundworks, safe working practices should be implemented, and appropriate personal protective equipment (PPE) should be used to mitigate any potential risk from residual asbestos in soils.

Scope of Proposed Investigation

Sampling Strategy and Soil Analysis

Intrusive SI is recommended with at least four mechanically excavated trial pits to a maximum depth of 3mbgl or refusal. All trial pits should be logged and soil samples collected. Possible analytes YE would suggest undertaking analysis for would include:

- Heavy metals
- Potential Asbestos Containing Materials (PACM's)
- Total Petroleum Hydrocarbons – Criteria Working Group TPH (CWG)
- Speciated Polycyclic Aromatic Hydrocarbons (PAH)
- Soil Organic Matter (SOM) and Total Organic Carbon (TOC)
- pH
- Sulphate

Guidance

The results from the proposed intrusive SI shall be compared against standards, such as the revised LQM/CIEH S4UL criteria .

Consultees

This report must be sent to the relevant Local Authority (LA) to seek their comments and subsequent approval. Works may be delayed, or additional intrusive SI required should the LA not be able to provide comment, or the works are commenced prior to obtaining comment.

Groundworks Watching Brief

If during construction works any material is noted to show visual and/or olfactory signs of contamination, *Your*Environment must be contacted for advice.

If any landscaping materials are to be imported on site, they must be tested to check that they are suitable for the intended use.

Notes and Limitations

The following table details the applicable distances relevant to sections to focus on the information directly relevant to the site. Information from outside these radii will be referenced when relevant.

Section	*Reference Distance*
Geology	50m (underlying geology) or 250m (structural features, borehole records)
Hydrogeology	250m (aquifers, surface water) or 1,000m (abstractions)
Environmentally Sensitive Areas	500m (environmental designations) or 250m (habitat, visual and cultural designations)
Land Use Records	250m. Several records may refer to the same feature where it is present over time. Differences in distances quoted from the study site may be due to geolocation errors
Environmental Permits, Incidents and Registers	250m
Waste and Landfill	500m (landfills) or 250m (non-landfill waste operations)
Mining, Ground Working and Natural Cavities	250m
Radon and Background Soil Chemistry	50m
Historic Mapping	100m. Each map represents a snapshot of the site and its environs at the date of the survey. Changes that had occurred at other times may not have been recorded on the maps and could represent an unidentified hazard to the site. The information reported might not represent all pertinent information that could be obtained. The interpretation of the maps and other data commented on in this report is subjective

Framework for Assessment

Risks are assessed within the risk management framework established in Part IIA of the Environmental Protection Act (EPA) 1990 introduced by Section 57 of the Environment Act 1995 which provides a statutory definition of contaminated land. To fall within this definition it is necessary that, as a result of the condition of the land, substances may be present on or under the land such that:

"Significant harm is being caused or there is a significant possibility of such harm being caused; or Pollution of controlled water is being or is likely to be caused."

Risk from contamination is assessed in accordance with the Land Contamination Risk Management Framework (LCRM) prepared by the Environment Agency on 8 October 2020. This considers possible linkages between contaminant sources and potential receptors which could be harmed or polluted.

The key aspect of the framework is the development of a Conceptual Site Model (CSM) which considers the potential contaminant linkages between potential contaminant sources, the receptors, and the pathways by which the receptors could be exposed to the contaminants.

For a risk of environmental harm to occur due to of ground contamination, ***all*** the following elements must be present:

Source	A substance that can cause pollution or harm
Pathway	A route by which the contaminant can reach the receptor
Receptor	Something which could be adversely affected by the contaminant

If all are present then the risk is a function of the magnitude and mobility of the source, the sensitivity of the receptor and the nature of the migration pathway.

The qualitative risk assessment (QRA) and conceptual site model (CSM) has been undertaken in accordance with Annex 4 of the R&D publication 66, Guidance for the Safe Development of Housing on Land Affected by Contamination (NHBC/EA/CIEH, 2008) which updates and supersedes CIRIA C552: Contaminated Land Risk Assessment, A Guide to Good Practice (Rudland et al., 2001).

Where it is considered that there is no credible linkage, this is indicated in the table. In accordance with the R&D66 guidance, if there is no pollution linkage then there is no requirement to apply tests for probability and consequence.

Flood Risk

This report does not replace a hydrogeological survey or Flood Risk Assessment and specialist studies may need to be undertaken to ascertain the risks posed from flooding.

Limitations and Uncertainties

This report has been prepared by Your Environment with all reasonable skill, care and diligence. The work undertaken to provide the basis of this report comprised a study of available documented information from a variety of sources, together with a site walkover of the site.

The opinions given in this report have been dictated by the finite data on which are they based and are relevant only to the purpose for which the report was commissioned.

Information reviewed should not be considered exhaustive and should be accepted in good faith as providing true and representative data with respect to site conditions. Should additional information become available which may influence the opinion expressed in this report, Your Environment reserves the right to review such information and, if warranted, to alter the opinions accordingly.

It should be noted that any risks identified in this report are perceived risks based on the information reviewed; actual risks can only be assessed following a physical investigation of the site. This report is an environmental phase 1 report and does not consider the geotechnical implications.

YEX3503
18b Wells Road, WF12 0LE
November 22

Appendix A- Existing and Proposed Redevelopment Plans

425300E

Station	Easting	Northing	Level
ST01	425320.835	418993.330	89.044
ST02	425307.064	419009.731	81.387

419000N

419000N

425300E

SURVEY NOT TO BE MOVED OR ROTATED
ALL SERVICES TO BE FIELD VERIFIED

THE COORDINATE SYSTEM USED FOR THE PRIMARY CONTROL IS OSGB36(15)
GRID CENTRE POINT: ST02

ELLAM LAND SURVEYS
Land, Engineering & Building Surveys

ANCHOR HOUSE, DEWSBURY MILLS
THORNHILL ROAD, DEWSBURY, WF12 9QE
TEL . (01924) 467621 FAX . (01924) 459970
E - MAIL : els@elbane.com
WEB SITE : ellamlandsurveys.com

LOCATION
20 WELLS ROAD,
THORNHILL

CLIENT
FAISAL YAQOOB

LEGEND

AV	AIR VALVE	CC	CONCRETE COVER	FWS	FOUL WATER SEWER	LP	LAMP POST	ST	STOP TAP
B	BOLLARD	CM	CABLE MARKER	G	GULLY	MC	METAL COVER	SV	STOP VALVE
BH	BOREHOLE	CP	CATCH PIT	GV	GAS VALVE	MH	MANHOLE	SWS	SURFACE WATER SEWER
BS	BUS STOP	CTV	CABLE TV I.C	HV	HIGH VOLTAGE	MV	MEDIUM VOLTAGE	TL	TRAFFIC LIGHTS
BT	BRITISH TELECOM	DP	DOWN PIPE	IC	INSPECTION COVER	P	POST / POLE	TP	TELEGRAPH POLE
		ECP	ELEC. CABLE PIT	JB	JUNCTION BOX	RE	RODDING EYE	TH	THRESHOLD
		EP	ELEC. POLE/PYLON	KW	KERB WEIR	RS	ROAD SIGN	VP	VENT PIPE
		ER	EARTH ROD	LB	LITTER BIN	S	STAY	WM	WATER METER
		FH	FIRE HYDRANT	LH	LAMP HOLE	SC	STOP COCK	WO	WASH OUT

SHEET 1 OF 1
SCALE 1 : 100
DRAWN NEIL SYKES
CHECKED BY SE
DATE JAN 2018

LEVEL DATUM GPS
GRID DATUM GPS
DATUM USED GPS STN: ST02
Value 81.387m

DRAWING NO. 7613/1

18B Wells Road - WF12 0LE

ReQuestaPlan

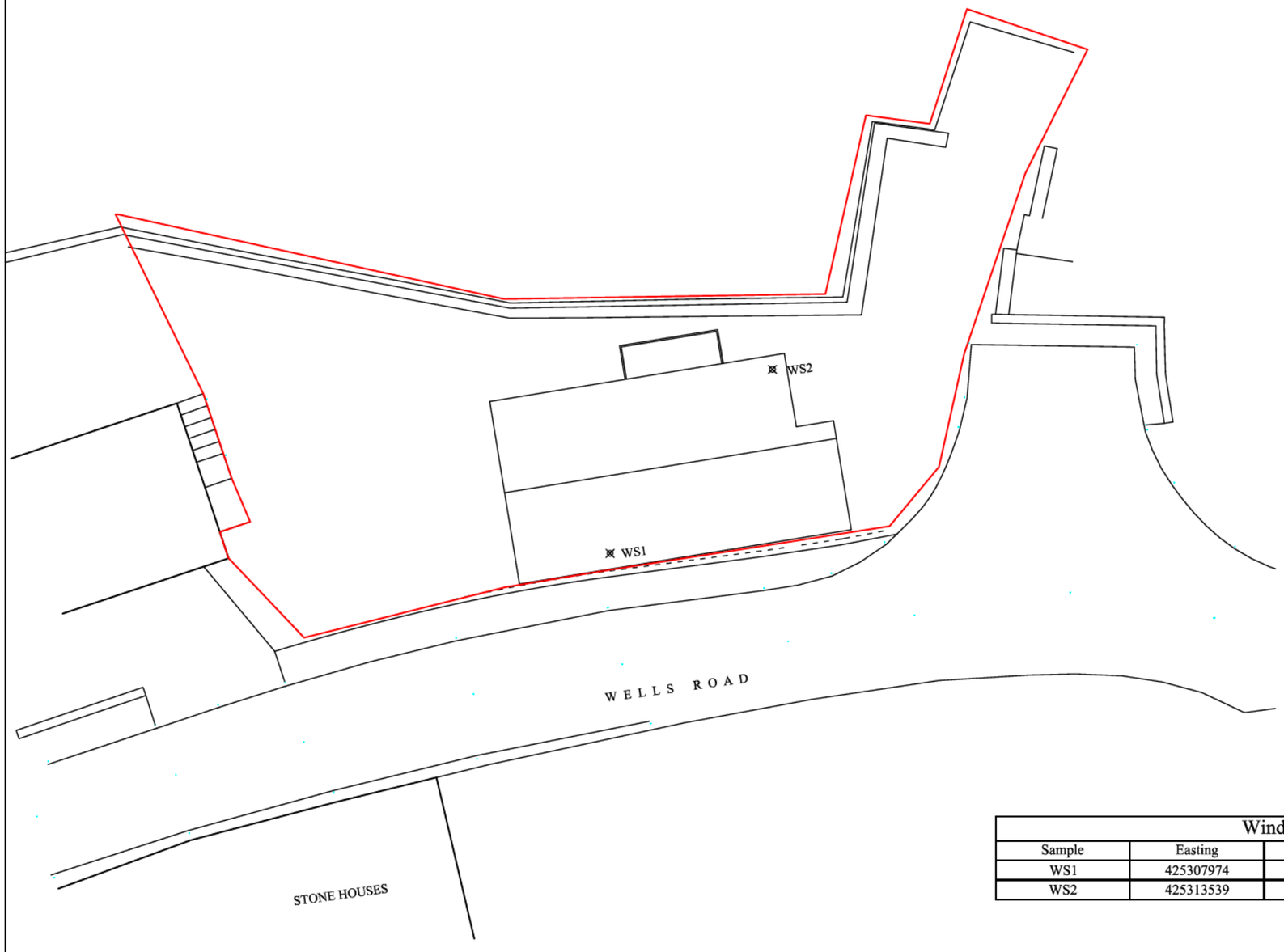
Plan Produced for:	**Planning Officer**
Date Produced:	04 Jun 2019
Plan Number/Project ID:	TQRQM19155200424164
Scale:	1:1250 @ A4

CDM Regulations - The client and the contractor must be abide by the construction design and management regulation 2015 which relate to any building works
which: (a) Last longer than 30 working days and has more than 20 workers working simultaneously at any point in the project. or: (b) Exceeds 500 persons a day.

Please refer to http://www.hse.gov.uk/pubns/indg411.htm for guidance and compliance. for the cdm regulation the client will be employing one contractor and fbs responsibility for the project will be for the design only and does not include any project management.

NOTES :

1. Do not scale the drawings.
2. All the dimensions should be verified on the site.
3. This drawing and the design is the copyright of FBS and is not to be used for any purpose without their consent.



Windowless Sampling				
Sample	Easting	Northing	Elevation	Depth
WS1	425307974	418986875	88.5	5m
WS2	425313539	418993183	87	8m

REV.No.	Date	Description

CLIENT

FAISAL BUILDING SOLUTION

PROJECT NAME
18 Wells Road - WF12 0LE

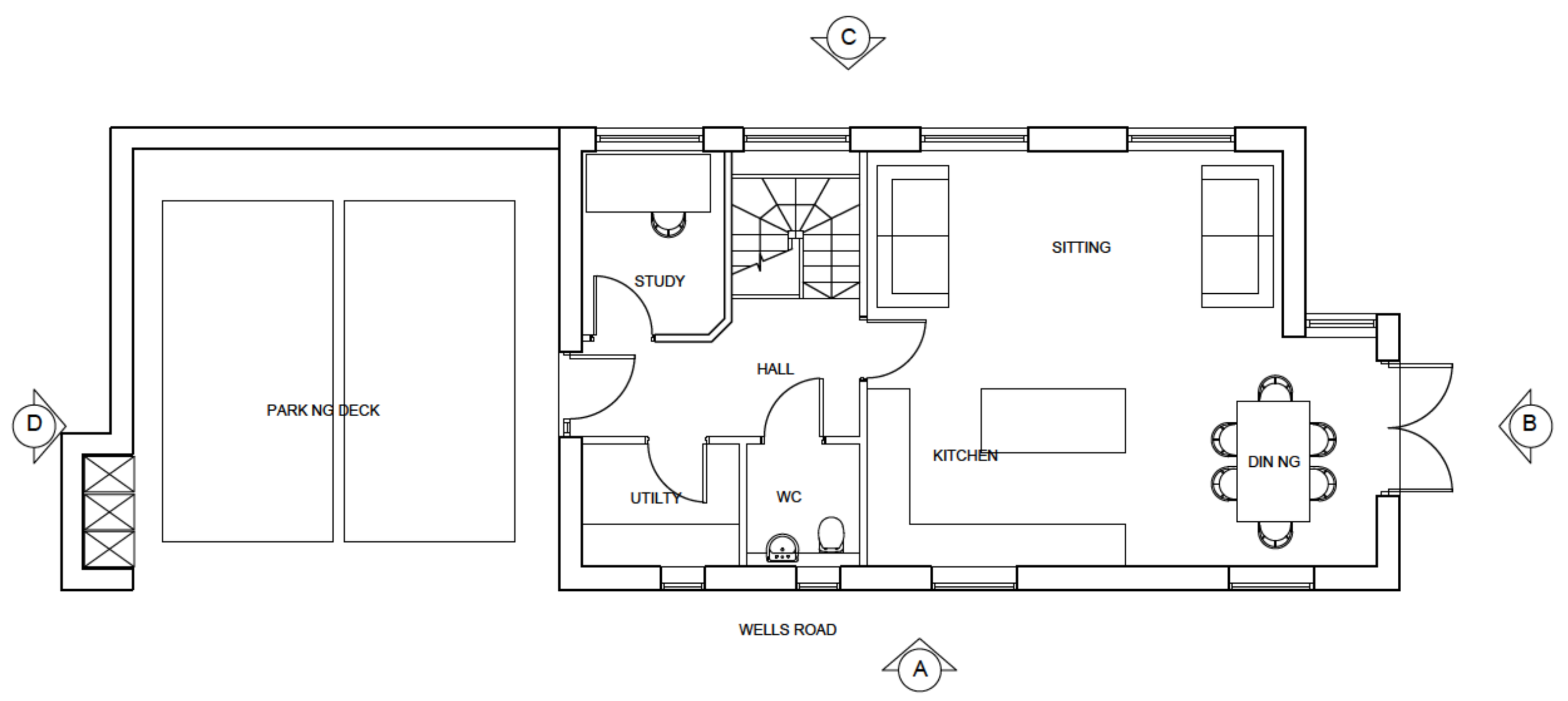
DRAWING TITLE	DRAWN BY/ CHECKED BY
Borehole Locations	AH/FY

PHASE	SCALE	SHEET NO.	PROJ.NO.
Building Regulation	Varies	ST--01	E20054

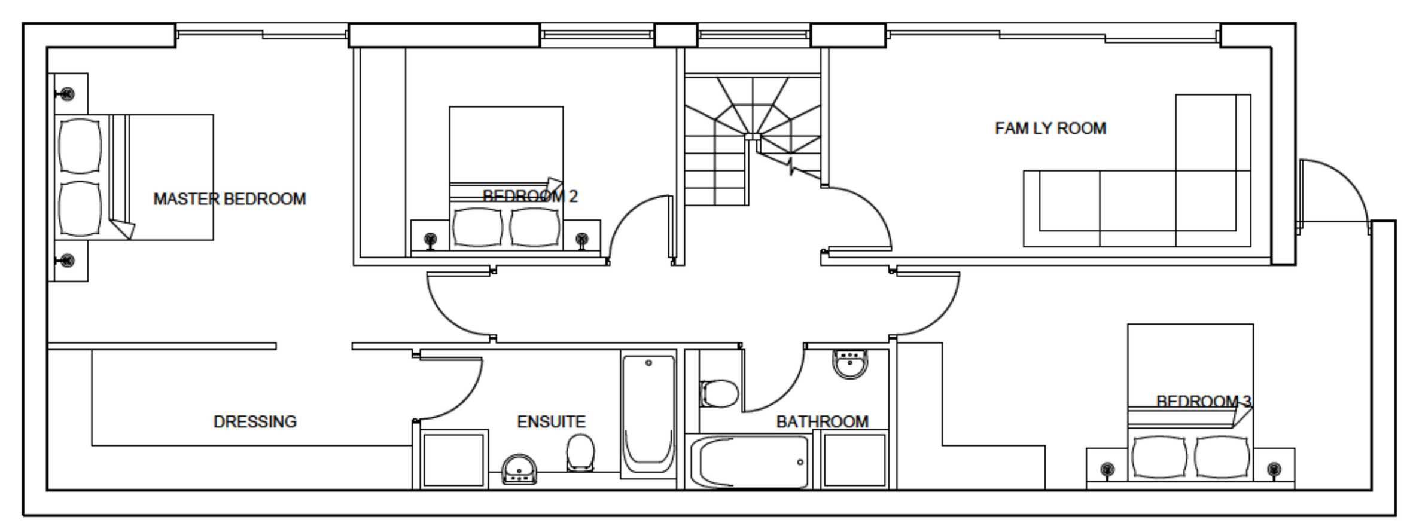
PRODUCED BY AN AUTODESK STUDENT VERSION

Only figured dimensions should be used.

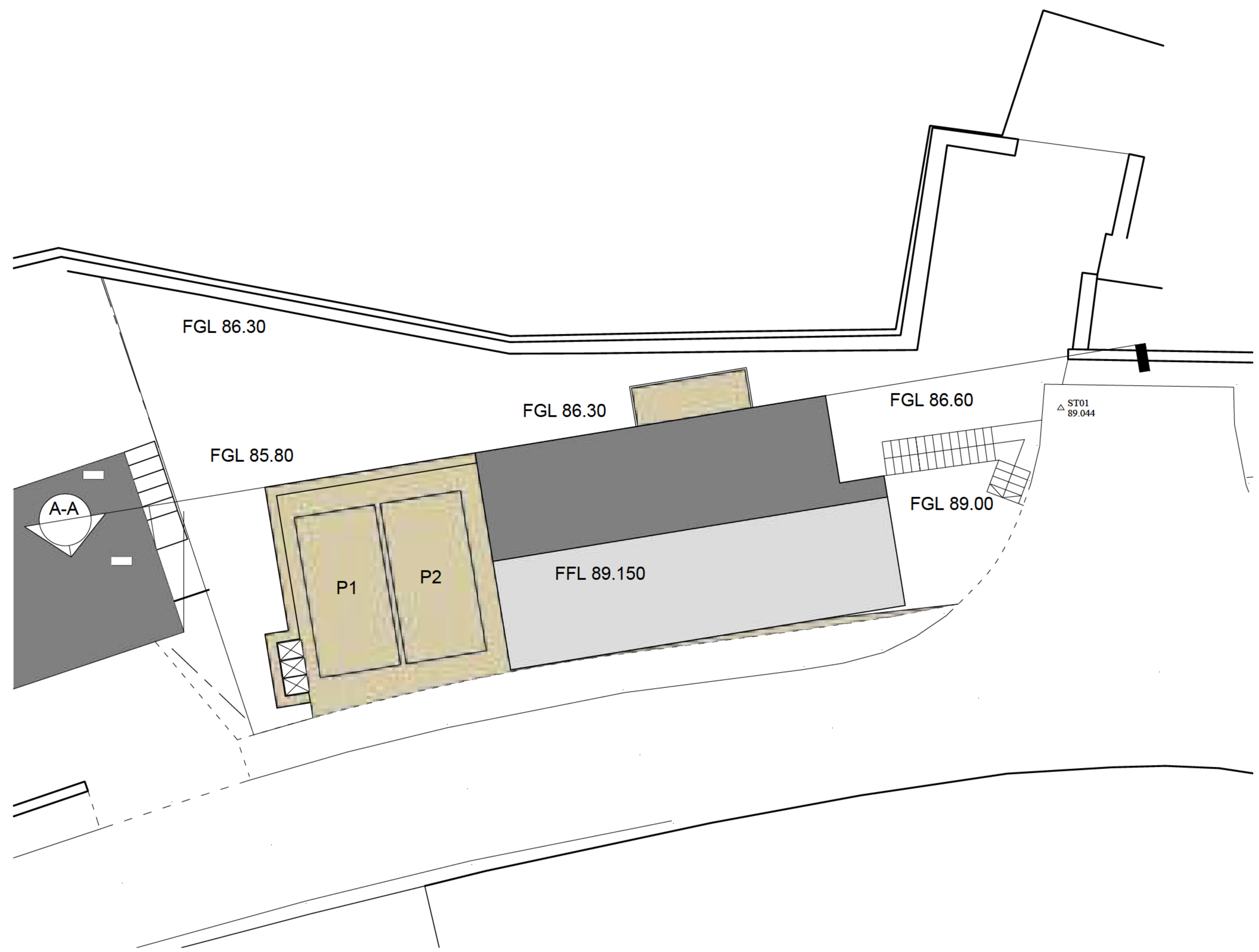
Scaled dimensions should be checked with the Architect.



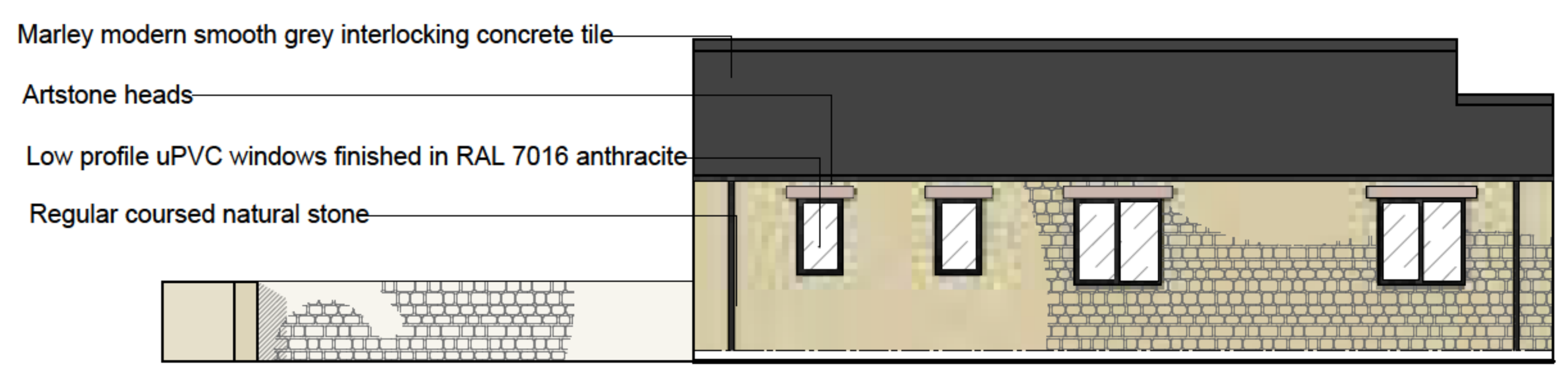
GROUND FLOOR PLAN



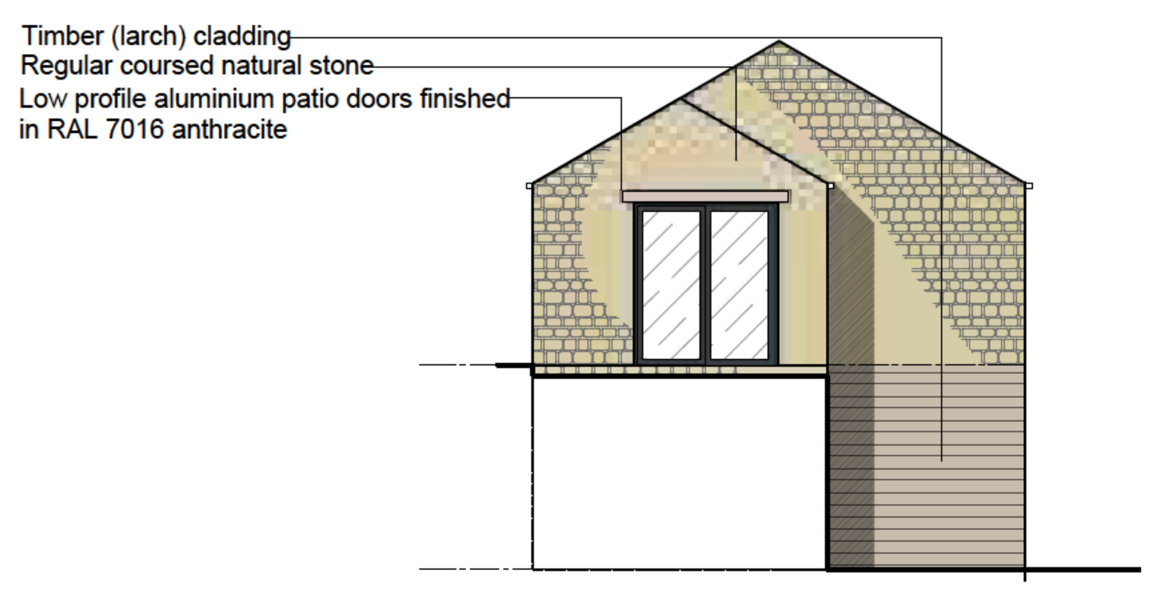
LOWER GROUND FLOOR PLAN



SITE PLAN



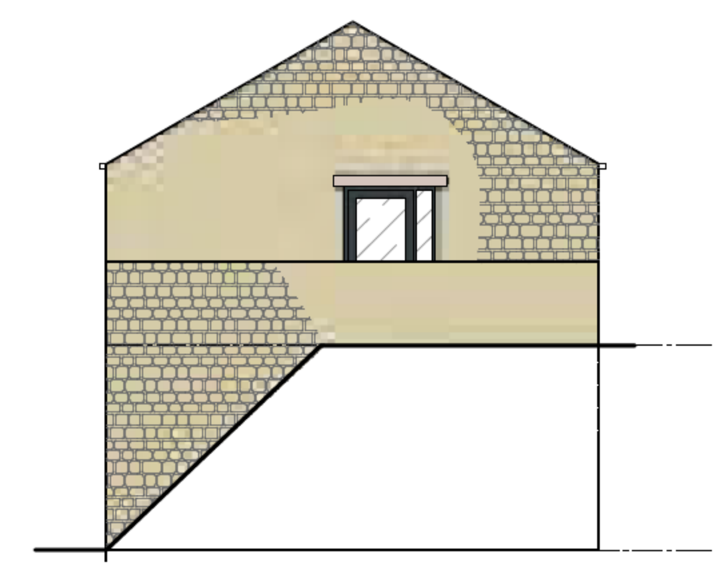
ELEVATION A



ELEVATION B

SECTION A-A

ELEVATION C



ELEVATION D

rev	description	drwn	auth	date
B	Rear elevation amended following LPA comment	JF	JC	17.05.2021
A	Areas of glazing on rear elevation reduced following LPA comment	JF	JC	16.04.2021

DO NOT SCALE OFF THIS DRAWING

ACUMEN
DESIGNERS & ARCHITECTS

acumenarchitects.co.uk 01484 546 000
Headrow House, Old Leeds Road, Huddersfield, HD1 1SG

Client
MR F. YAQOOB

Project
LAND ADJACENT 18 WELLS ROAD, COMBS, DEWSBURY

Project No	Drawing No	Rev
2672	02	B

Description
PROPOSED PLANS, SECTION & ELEVATIONS

Scale	Date Drawn	Drawn By	Authorised By
1:100@ A1	JAN'21	JF	JC

Purpose of Issue
Planning ● Building Regs ○ Tender ○ Construction ○ Comment ○ Info ○

YEX3503
18b Wells Road, WF12 0LE
November 22

Appendix B- Groundsure Enviro and Geo-Insight Report

Groundsure LOCATION INTELLIGENCE

Enviro+Geo Insight

18, WELLS ROAD, THORNHILL, DEWSBURY, WF12 0LE

Order Details

Date: 06/10/2022

Your ref: YEX3503

Our Ref: GS-9107506

Site Details

Location: 425311 418992

Area: 0.03 ha

Authority: Kirklees Council

Contact us with any questions at:
info@groundsure.com
08444 159 000

Summary of findings

Page	Section	Past land use	On site	0-50m	50-250m	250-500m	500-2000m
13	1.1	Historical industrial land uses	0	2	20	33	-
16	1.2	Historical tanks	0	0	1	2	-
16	1.3	Historical energy features	0	0	6	1	-
17	1.4	Historical petrol stations	0	0	0	0	-
17	1.5	Historical garages	0	0	0	2	-
17	1.6	Historical military land	0	0	0	0	-
Page	**Section**	**Past land use - un-grouped**	**On site**	**0-50m**	**50-250m**	**250-500m**	**500-2000m**
18	2.1	Historical industrial land uses	0	3	28	45	-
21	2.2	Historical tanks	0	0	1	5	-
22	2.3	Historical energy features	0	0	8	3	-
23	2.4	Historical petrol stations	0	0	0	0	-
23	2.5	Historical garages	0	0	0	3	-
Page	**Section**	**Waste and landfill**	**On site**	**0-50m**	**50-250m**	**250-500m**	**500-2000m**
24	3.1	Active or recent landfill	0	0	0	0	-
24	3.2	Historical landfill (BGS records)	0	0	0	0	-
25	3.3	Historical landfill (LA/mapping records)	0	0	0	1	-
25	3.4	Historical landfill (EA/NRW records)	0	0	2	3	-
26	3.5	Historical waste sites	0	0	0	0	-
26	3.6	Licensed waste sites	0	0	3	0	-
27	3.7	Waste exemptions	0	0	0	58	-
Page	**Section**	**Current industrial land use**	**On site**	**0-50m**	**50-250m**	**250-500m**	**500-2000m**
34	4.1	Recent industrial land uses	0	0	4	-	-
35	4.2	Current or recent petrol stations	0	0	0	0	-
35	4.3	Electricity cables	0	0	0	0	-
35	4.4	Gas pipelines	0	0	0	0	-
35	4.5	Sites determined as Contaminated Land	0	0	0	0	-

35	4.6	Control of Major Accident Hazards (COMAH)	0	0	0	0	-
36	4.7	Regulated explosive sites	0	0	0	0	-
36	4.8	Hazardous substance storage/usage	0	0	0	0	-
36	4.9	Historical licensed industrial activities (IPC)	0	0	0	0	-
36	4.10	Licensed industrial activities (Part A(1))	0	0	0	0	-
36	4.11	Licensed pollutant release (Part A(2)/B)	0	0	0	0	-
37	4.12	Radioactive Substance Authorisations	0	0	0	0	-
37	**4.13**	**Licensed Discharges to controlled waters**	0	0	2	0	-
37	4.14	Pollutant release to surface waters (Red List)	0	0	0	0	-
38	4.15	Pollutant release to public sewer	0	0	0	0	-
38	4.16	List 1 Dangerous Substances	0	0	0	0	-
38	4.17	List 2 Dangerous Substances	0	0	0	0	-
38	**4.18**	**Pollution Incidents (EA/NRW)**	0	0	1	1	-
39	4.19	Pollution inventory substances	0	0	0	0	-
39	4.20	Pollution inventory waste transfers	0	0	0	0	-
39	4.21	Pollution inventory radioactive waste	0	0	0	0	-

Page	Section	Hydrogeology	On site	0-50m	50-250m	250-500m	500-2000m
40	**5.1**	**Superficial aquifer**	Identified (within 500m)				
41	**5.2**	**Bedrock aquifer**	Identified (within 500m)				
43	**5.3**	**Groundwater vulnerability**	Identified (within 50m)				
44	5.4	Groundwater vulnerability- soluble rock risk	None (within 0m)				
44	5.5	Groundwater vulnerability- local information	None (within 0m)				
45	**5.6**	**Groundwater abstractions**	0	0	0	0	3
46	**5.7**	**Surface water abstractions**	0	0	0	0	2
47	5.8	Potable abstractions	0	0	0	0	0
47	5.9	Source Protection Zones	0	0	0	0	-
47	5.10	Source Protection Zones (confined aquifer)	0	0	0	0	-

Page	Section	Hydrology	On site	0-50m	50-250m	250-500m	500-2000m
48	**6.1**	**Water Network (OS MasterMap)**	0	0	8	-	-

49	6.2	Surface water features	0	0	3	-	-
49	6.3	WFD Surface water body catchments	1	-	-	-	-
50	6.4	WFD Surface water bodies	0	0	0	-	-
50	6.5	WFD Groundwater bodies	1	-	-	-	-

Page	Section	River and coastal flooding	On site	0-50m	50-250m	250-500m	500-2000m
52	7.1	Risk of flooding from rivers and the sea	None (within 50m)				
52	7.2	Historical Flood Events	0	0	0	-	-
52	7.3	Flood Defences	0	0	0	-	-
53	7.4	Areas Benefiting from Flood Defences	0	0	0	-	-
53	7.5	Flood Storage Areas	0	0	0	-	-
54	7.6	Flood Zone 2	None (within 50m)				
54	7.7	Flood Zone 3	None (within 50m)				

Page	Section	Surface water flooding	
55	8.1	Surface water flooding	Negligible (within 50m)

Page	Section	Groundwater flooding	
56	9.1	Groundwater flooding	Negligible (within 50m)

Page	Section	Environmental designations	On site	0-50m	50-250m	250-500m	500-2000m
57	10.1	Sites of Special Scientific Interest (SSSI)	0	0	0	0	0
58	10.2	Conserved wetland sites (Ramsar sites)	0	0	0	0	0
58	10.3	Special Areas of Conservation (SAC)	0	0	0	0	0
58	10.4	Special Protection Areas (SPA)	0	0	0	0	0
58	10.5	National Nature Reserves (NNR)	0	0	0	0	0
59	10.6	Local Nature Reserves (LNR)	0	0	0	0	1
59	10.7	Designated Ancient Woodland	0	0	0	0	1
59	10.8	Biosphere Reserves	0	0	0	0	0
60	10.9	Forest Parks	0	0	0	0	0
60	10.10	Marine Conservation Zones	0	0	0	0	0
60	10.11	Green Belt	0	0	1	0	1
60	10.12	Proposed Ramsar sites	0	0	0	0	0

61	10.13	Possible Special Areas of Conservation (pSAC)	0	0	0	0	0
61	10.14	Potential Special Protection Areas (pSPA)	0	0	0	0	0
61	10.15	Nitrate Sensitive Areas	0	0	0	0	0
61	10.16	Nitrate Vulnerable Zones	0	0	0	0	0
62	**10.17**	**SSSI Impact Risk Zones**	1	-	-	-	-
63	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
64	11.1	World Heritage Sites	0	0	0	-	-
65	11.2	Area of Outstanding Natural Beauty	0	0	0	-	-
65	11.3	National Parks	0	0	0	-	-
65	**11.4**	**Listed Buildings**	0	0	8	-	-
66	**11.5**	**Conservation Areas**	0	1	0	-	-
66	**11.6**	**Scheduled Ancient Monuments**	0	0	1	-	-
67	11.7	Registered Parks and Gardens	0	0	0	-	-
Page	Section	Agricultural designations	On site	0-50m	50-250m	250-500m	500-2000m
68	**12.1**	**Agricultural Land Classification**	Grade 3 (within 250m)				
69	12.2	Open Access Land	0	0	0	-	-
69	12.3	Tree Felling Licences	0	0	0	-	-
69	12.4	Environmental Stewardship Schemes	0	0	0	-	-
69	12.5	Countryside Stewardship Schemes	0	0	0	-	-
Page	Section	Habitat designations	On site	0-50m	50-250m	250-500m	500-2000m
70	**13.1**	**Priority Habitat Inventory**	0	0	12	-	-
71	13.2	Habitat Networks	0	0	0	-	-
71	**13.3**	**Open Mosaic Habitat**	0	1	0	-	-
72	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
73	**14.1**	**10k Availability**	Identified (within 500m)				
74	**14.2**	**Artificial and made ground (10k)**	1	0	4	7	-
76	**14.3**	**Superficial geology (10k)**	0	0	0	1	-

77	14.4	Landslip (10k)	0	0	0	1	-
78	14.5	Bedrock geology (10k)	1	2	9	26	-
80	14.6	Bedrock faults and other linear features (10k)	0	2	5	16	-
Page	Section	Geology 1:50,000 scale	On site	0-50m	50-250m	250-500m	500-2000m
82	15.1	50k Availability	Identified (within 500m)				
83	15.2	Artificial and made ground (50k)	0	0	0	2	-
84	15.3	Artificial ground permeability (50k)	0	0	-	-	-
85	15.4	Superficial geology (50k)	0	0	0	1	-
86	15.5	Superficial permeability (50k)	None (within 50m)				
86	15.6	Landslip (50k)	0	0	0	0	-
86	15.7	Landslip permeability (50k)	None (within 50m)				
87	15.8	Bedrock geology (50k)	1	2	8	15	-
89	15.9	Bedrock permeability (50k)	Identified (within 50m)				
89	15.10	Bedrock faults and other linear features (50k)	0	2	4	9	-
Page	Section	Boreholes	On site	0-50m	50-250m	250-500m	500-2000m
91	16.1	BGS Boreholes	0	0	1	-	-
Page	Section	Natural ground subsidence					
92	17.1	Shrink swell clays	Very low (within 50m)				
93	17.2	Running sands	Negligible (within 50m)				
94	17.3	Compressible deposits	Negligible (within 50m)				
95	17.4	Collapsible deposits	Very low (within 50m)				
96	17.5	Landslides	Moderate (within 50m)				
98	17.6	Ground dissolution of soluble rocks	Negligible (within 50m)				
Page	Section	Mining, ground workings and natural cavities	On site	0-50m	50-250m	250-500m	500-2000m
99	18.1	Natural cavities	0	0	0	0	-
100	18.2	BritPits	0	0	0	0	-
100	18.3	Surface ground workings	0	1	29	-	-
101	18.4	Underground workings	0	0	5	0	7
102	18.5	Historical Mineral Planning Areas	0	0	0	0	-

102	18.6	Non-coal mining	0	0	0	0	0
102	18.7	Mining cavities	0	0	0	0	0
103	18.8	JPB mining areas	None (within 0m)				
103	**18.9**	**Coal mining**	Identified (within 0m)				
103	18.10	Brine areas	None (within 0m)				
103	18.11	Gypsum areas	None (within 0m)				
103	18.12	Tin mining	None (within 0m)				
104	18.13	Clay mining	None (within 0m)				

Page	Section	Radon	
105	**19.1**	**Radon**	Between 3% and 5% (within 0m)

Page	Section	Soil chemistry	On site	0-50m	50-250m	250-500m	500-2000m
106	**20.1**	**BGS Estimated Background Soil Chemistry**	2	3	-	-	-
106	20.2	BGS Estimated Urban Soil Chemistry	0	0	-	-	-
107	20.3	BGS Measured Urban Soil Chemistry	0	0	-	-	-

Page	Section	Railway infrastructure and projects	On site	0-50m	50-250m	250-500m	500-2000m
108	21.1	Underground railways (London)	0	0	0	-	-
108	21.2	Underground railways (Non-London)	0	0	0	-	-
109	21.3	Railway tunnels	0	0	0	-	-
109	**21.4**	**Historical railway and tunnel features**	0	0	5	-	-
109	21.5	Royal Mail tunnels	0	0	0	-	-
110	21.6	Historical railways	0	0	0	-	-
110	21.7	Railways	0	0	0	-	-
110	21.8	Crossrail 1	0	0	0	0	-
110	21.9	Crossrail 2	0	0	0	0	-
110	21.10	HS2	0	0	0	0	-

Recent aerial photograph

Capture Date: 30/05/2021

Site Area: 0.03ha

Recent site history - 2018 aerial photograph

Capture Date: 01/07/2018

Site Area: 0.03ha

Recent site history - 2012 aerial photograph

Capture Date: 26/03/2012

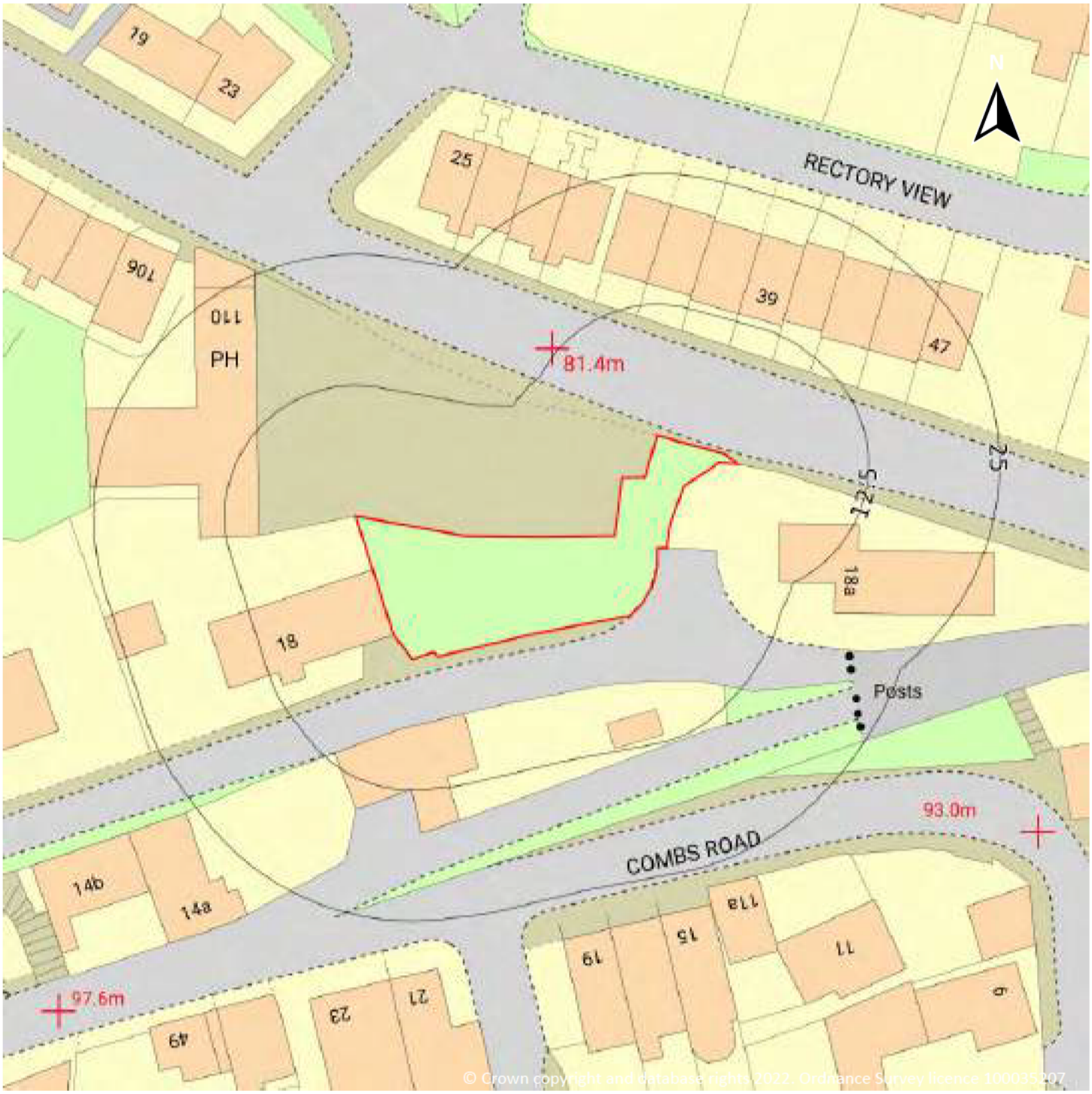
Site Area: 0.03ha

Recent site history - 1999 aerial photograph

Capture Date: 10/07/1999

Site Area: 0.03ha

OS MasterMap site plan



Site Area: 0.03ha

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	55

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 13**

ID	Location	Land use	Dates present	Group ID
A	3m NW	Colliery	1905	1557784

ID	Location	Land use	Dates present	Group ID
A	41m N	Unspecified Depot	1983 - 1992	1554804
A	54m NW	Colliery	1892	1524097
A	54m NW	Colliery	1955 - 1973	1482833
A	61m NW	Colliery	1948	1550075
A	63m NW	Colliery	1938	1491149
A	87m N	Chimney	1966 - 1983	1521392
A	116m N	Mineral Railway Sidings	1892	1554915
A	129m N	Mineral Railway Sidings	1948	1472688
A	129m N	Mineral Railway Sidings	1905	1503778
A	133m N	Tramway Sidings	1938	1430802
A	137m N	Refuse Heap	1955	1502626
A	137m N	Refuse Heap	1966	1516468
A	139m N	Refuse Heap	1905	1489447
C	144m N	Refuse Heap	1892	1517094
A	154m N	Refuse Heap	1948	1527975
A	162m N	Refuse Heap	1938	1526802
A	163m N	Unspecified Pit	1973	1452050
A	165m N	Unspecified Heap	1973	1417500
A	191m N	Refuse Heap	1966	1464915
1	203m SW	Industrial School	1938	1441704
A	222m N	Unspecified Heap	1955 - 1973	1505290
C	281m NE	Cuttings	1938 - 1948	1461097
C	281m NE	Cuttings	1905	1541917
D	285m NE	Cuttings	1948 - 1966	1547411
D	287m NE	Cuttings	1905	1529766
C	290m NE	Cuttings	1966	1528859
D	293m NE	Cuttings	1938	1518268
D	297m NE	Cuttings	1983	1537351

ID	Location	Land use	Dates present	Group ID
D	301m NE	Cuttings	1973	1538083
E	317m N	Cuttings	1955 - 1973	1507182
E	321m N	Cuttings	1905	1472988
E	321m N	Cuttings	1948	1540324
D	326m NE	Refuse Heap	1983 - 1992	1467023
E	327m N	Cuttings	1938	1524716
2	340m N	Cuttings	1955 - 1973	1518728
F	348m N	Cuttings	1905	1469554
F	348m N	Cuttings	1938 - 1948	1498713
F	354m N	Refuse Heap	1983	1436642
F	354m N	Cuttings	1983	1481652
3	355m NE	Refuse Heap	1973 - 1983	1473203
G	380m W	Unspecified Heap	1966	1480706
G	385m W	Unspecified Heap	1948	1505802
G	386m W	Unspecified Heap	1951	1548466
G	388m W	Unspecified Heap	1938	1499672
5	417m NE	Mineral Railway Sidings	1905	1443035
H	444m N	Cuttings	1948	1489436
H	444m N	Cuttings	1905	1530838
I	447m E	Cuttings	1966	1504835
I	447m E	Cuttings	1948 - 1955	1508336
I	449m E	Cuttings	1905	1516837
6	454m N	Cuttings	1938	1538800
J	485m NE	Unspecified Disused Quarry	1948	1481610
J	485m NE	Unspecified Disused Quarry	1905	1490435
L	493m W	Garage	1966	1457806

This data is sourced from Ordnance Survey / Groundsure.

1.2 Historical tanks

Records within 500m	3

Tank features digitised from historical Ordnance Survey mapping at high-detail 1:1,250 and 1:2,500 scale, intelligently grouped into contiguous features. To prevent misrepresentation of the size of historical features at any given time, features are only grouped if they have similar geometries within immediately preceding or succeeding map editions. See section 2 for a breakdown of grouping if required. Grouped and the original 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 13**

ID	Location	Land use	Dates present	Group ID
A	129m N	Tanks	1953	230522
K	486m W	Unspecified Tank	1954 - 1966	247953
K	487m W	Unspecified Tank	1984	240871

This data is sourced from Ordnance Survey / Groundsure.

1.3 Historical energy features

Records within 500m	7

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

Features are displayed on the Past land use map on **page 13**

ID	Location	Land use	Dates present	Group ID
B	83m SE	Electricity Substation	1990	133687
B	84m SE	Electricity Substation	1980	132218
B	85m SE	Electricity Substation	1994	133296
B	86m SE	Electricity Substation	1953	134094
B	86m SE	Electricity Substation	1953	133979
A	118m N	Electricity Substation	1972 - 1994	136760
4	372m S	Electricity Substation	1980 - 1994	142260

This data is sourced from Ordnance Survey / Groundsure.

1.4 Historical petrol stations

Records within 500m	0

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

This data is sourced from Ordnance Survey / Groundsure.

1.5 Historical garages

Records within 500m	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 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 13**

ID	Location	Land use	Dates present	Group ID
L	491m W	Garage	1960 - 1990	45425
L	492m W	Garage	1984	41730

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	76

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

Features are displayed on the Past land use - un-grouped map on **page 18**

ID	Location	Land Use	Date	Group ID
A	3m NW	Colliery	1905	1557784
A	41m N	Unspecified Depot	1983	1554804
A	44m N	Unspecified Depot	1992	1554804

ID	Location	Land Use	Date	Group ID
A	54m NW	Colliery	1892	1524097
A	54m NW	Colliery	1955	1482833
A	54m NW	Colliery	1966	1482833
A	54m NW	Colliery	1973	1482833
A	61m NW	Colliery	1948	1550075
A	63m NW	Colliery	1938	1491149
A	63m NW	Colliery	1938	1491149
A	87m N	Chimney	1983	1521392
A	87m N	Chimney	1966	1521392
A	89m N	Chimney	1973	1521392
A	116m N	Mineral Railway Sidings	1892	1554915
A	129m N	Mineral Railway Sidings	1948	1472688
A	129m N	Mineral Railway Sidings	1905	1503778
A	133m N	Tramway Sidings	1938	1430802
A	137m N	Refuse Heap	1955	1502626
A	137m N	Refuse Heap	1966	1516468
A	139m N	Refuse Heap	1905	1489447
C	144m N	Refuse Heap	1892	1517094
A	154m N	Refuse Heap	1948	1527975
A	162m N	Refuse Heap	1938	1526802
A	162m N	Refuse Heap	1938	1526802
A	163m N	Unspecified Pit	1973	1452050
A	165m N	Unspecified Heap	1973	1417500
A	191m N	Refuse Heap	1966	1464915
1	203m SW	Industrial School	1938	1441704
A	222m N	Unspecified Heap	1955	1505290
A	222m N	Unspecified Heap	1966	1505290
A	222m N	Unspecified Heap	1973	1505290

ID	Location	Land Use	Date	Group ID
C	281m NE	Cuttings	1948	1461097
C	281m NE	Cuttings	1905	1541917
D	285m NE	Cuttings	1955	1547411
D	285m NE	Cuttings	1966	1547411
C	285m NE	Cuttings	1938	1461097
D	287m NE	Cuttings	1948	1547411
D	287m NE	Cuttings	1905	1529766
C	290m NE	Cuttings	1966	1528859
D	293m NE	Cuttings	1938	1518268
D	297m NE	Cuttings	1983	1537351
D	301m NE	Cuttings	1973	1538083
E	317m N	Cuttings	1955	1507182
E	317m N	Cuttings	1966	1507182
E	317m N	Cuttings	1973	1507182
E	321m N	Cuttings	1948	1540324
E	321m N	Cuttings	1905	1472988
D	326m NE	Refuse Heap	1992	1467023
E	327m N	Cuttings	1938	1524716
F	340m N	Cuttings	1955	1518728
F	340m N	Cuttings	1966	1518728
F	340m N	Cuttings	1973	1518728
G	348m N	Cuttings	1948	1498713
G	348m N	Cuttings	1905	1469554
G	354m N	Cuttings	1983	1481652
G	354m N	Refuse Heap	1983	1436642
G	355m N	Cuttings	1938	1498713
H	355m NE	Refuse Heap	1983	1473203
H	355m NE	Refuse Heap	1973	1473203

ID	Location	Land Use	Date	Group ID
D	364m NE	Refuse Heap	1983	1467023
J	380m W	Unspecified Heap	1966	1480706
J	385m W	Unspecified Heap	1948	1505802
J	386m W	Unspecified Heap	1951	1548466
J	388m W	Unspecified Heap	1938	1499672
J	388m W	Unspecified Heap	1938	1499672
2	417m NE	Mineral Railway Sidings	1905	1443035
K	444m N	Cuttings	1948	1489436
K	444m N	Cuttings	1905	1530838
L	447m E	Cuttings	1955	1508336
L	447m E	Cuttings	1966	1504835
L	449m E	Cuttings	1948	1508336
L	449m E	Cuttings	1905	1516837
3	454m N	Cuttings	1938	1538800
M	485m NE	Unspecified Disused Quarry	1948	1481610
M	485m NE	Unspecified Disused Quarry	1905	1490435
O	493m W	Garage	1966	1457806

This data is sourced from Ordnance Survey / Groundsure.

2.2 Historical tanks

Records within 500m	6

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

Features are displayed on the Past land use - un-grouped map on **page 18**

ID	Location	Land Use	Date	Group ID
A	129m N	Tanks	1953	230522
N	486m W	Unspecified Tank	1960	247953
N	486m W	Unspecified Tank	1954	247953

ID	Location	Land Use	Date	Group ID
N	486m W	Unspecified Tank	1954	247953
N	486m W	Unspecified Tank	1966	247953
N	487m W	Unspecified Tank	1984	240871

This data is sourced from Ordnance Survey / Groundsure.

2.3 Historical energy features

Records within 500m	11

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

Features are displayed on the Past land use - un-grouped map on **page 18**

ID	Location	Land Use	Date	Group ID
B	83m SE	Electricity Substation	1990	133687
B	84m SE	Electricity Substation	1980	132218
B	85m SE	Electricity Substation	1994	133296
B	86m SE	Electricity Substation	1953	134094
B	86m SE	Electricity Substation	1953	133979
A	118m N	Electricity Substation	1989	136760
A	118m N	Electricity Substation	1972	136760
A	118m N	Electricity Substation	1994	136760
I	372m S	Electricity Substation	1990	142260
I	373m S	Electricity Substation	1980	142260
I	373m S	Electricity Substation	1994	142260

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 18**

ID	Location	Land Use	Date	Group ID
O	491m W	Garage	1960	45425
O	492m W	Garage	1990	45425
O	492m W	Garage	1984	41730

This data is sourced from Ordnance Survey / Groundsure.

3 Waste and landfill

Site Outline

Search buffers in metres (m)

Historical landfill (EA/NRW)

Historical landfill (LA/OS)

Licensed waste sites

Waste exemptions

3.1 Active or recent landfill

Records within 500m	0

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

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

3.2 Historical landfill (BGS records)

Records within 500m	0

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

This data is sourced from the British Geological Survey.

3.3 Historical landfill (LA/mapping records)

Records within 500m	1

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

Features are displayed on the Waste and landfill map on **page 24**

ID	Location	Site address	Source	Data type
6	457m E	Refuse Tip	1972 mapping	Polygon

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

3.4 Historical landfill (EA/NRW records)

Records within 500m	5

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 24**

ID	Location	Details		
1	123m N	Site Address: The Combs, Thornhill, Dewsbury Licence Holder Address: PO Box B95, Civic Centre, Huddersfield	Waste Licence: Yes Site Reference: 118, 672 Waste Type: Inert, Commercial Environmental Permitting Regulations (Waste) Reference: - Licence Issue: 18/07/1978 Licence Surrender: 27/07/1990	Operator: - Licence Holder: Director of Technical Services, Kirklees Metropolitan Borough Council First Recorded 01/08/1974 Last Recorded: 31/12/1990
2	180m NW	Site Address: The Common, Thornhill, Dewsbury Licence Holder Address: Thornhill, Dewsbury	Waste Licence: - Site Reference: 4700/0163 Waste Type: Commercial Environmental Permitting Regulations (Waste) Reference: - Licence Issue: - Licence Surrender: -	Operator: Savile Estate Licence Holder: Savile Estate First Recorded - Last Recorded: -
3	287m NE	Site Address: Disused Railway Cutting, Hall Lane, Thornhill, Near Dewsbury Licence Holder Address: Milner Way, Ossett, Wakefield	Waste Licence: Yes Site Reference: 4700/0196 Waste Type: Inert, Industrial, Commercial Environmental Permitting Regulations (Waste) Reference: - Licence Issue: 01/05/1979 Licence Surrender: 26/04/1994	Operator: - Licence Holder: Harlow and Milner Limited First Recorded 31/05/1979 Last Recorded: 26/05/1994

ID	Location	Details		
4	323m N	Site Address: Disused Railway Cutting and Gully at Parkhouse Farm, Thornhill, Dewsbury Licence Holder Address: Ravenswharfe Road, Scour Hill, Dewsbury	Waste Licence: Yes Site Reference: 4700/0365, 97 Waste Type: Inert, Commercial Environmental Permitting Regulations (Waste) Reference: - Licence Issue: 24/09/1979 Licence Surrender: 09/05/1989	Operator: - Licence Holder: L Hinchcliffe and Sons First Recorded 31/12/1983 Last Recorded: 15/02/1989
5	451m E	Site Address: Hall Lane Railway Cutting, Hall Lane, Thornhill, Dewsbury Licence Holder Address: Thornhill, Dewsbury	Waste Licence: Yes Site Reference: 4700/0089 Waste Type: Inert, Commercial Environmental Permitting Regulations (Waste) Reference: - Licence Issue: 05/06/1978 Licence Surrender: 19/03/1980	Operator: - Licence Holder: Savile Estate First Recorded 30/06/1978 Last Recorded: 28/02/1980

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

3.5 Historical waste sites

Records within 500m	0

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

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

3.6 Licensed waste sites

Records within 500m	3

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

Features are displayed on the Waste and landfill map on **page 24**

ID	Location	Details		
A	129m NW	Site Name: Combs Depot Asbestos Store Site Address: The Combs, Thornhill, Dewsbury, HD1 6LS Correspondence Address: Flint Street, Fartown, Huddersfield, HD1 6LS	Type of Site: Special Waste Transfer Station Size: 25000 tonnes Environmental Permitting Regulations (Waste) Licence Number: KIR004 EPR reference: - Operator: Kirklees Met Council Waste Management licence No: 61001 Annual Tonnage: 0	Issue Date: 20/10/1988 Effective Date: - Modified: - Surrendered Date: - Expiry Date: - Cancelled Date: - Status: Issued

ID	Location	Details		
A	129m NW	Site Name: Combs Depot Asbestos Store Site Address: Land/premises At, The Combs, Thornhill, Dewsbury, West Yorkshire, WF12 0SH Correspondence Address: -	Type of Site: Special Waste Transfer Station Size: 25000 tonnes Environmental Permitting Regulations (Waste) Licence Number: KIR004 EPR reference: EA/EPR/XP3895ZV/A001 Operator: Kirklees Council Waste Management licence No: 61001 Annual Tonnage: 4999	Issue Date: 20/10/1988 Effective Date: - Modified: - Surrendered Date: - Expiry Date: - Cancelled Date: - Status: Issued
A	129m NW	Site Name: Combs Depot Asbestos Store Site Address: Land/premises At, The Combs, Thornhill, Dewsbury, West Yorkshire, WF12 0SH Correspondence Address: -	Type of Site: Special Waste Transfer Station Size: 25000 tonnes Environmental Permitting Regulations (Waste) Licence Number: KIR004 EPR reference: EA/EPR/XP3895ZV/S002 Operator: Kirklees Metropolitan Council Waste Management licence No: 61001 Annual Tonnage: 0	Issue Date: 20/10/1988 Effective Date: - Modified: - Surrendered Date: Nov 10 2015 12:00AM Expiry Date: - Cancelled Date: - Status: Surrendered

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

3.7 Waste exemptions

Records within 500m **58**

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 24**

ID	Location	Site	Reference	Category	Sub-Category	Description
B	315m E	Thornhill Hall Farm Hall Lane DEWSBURY West Yorkshire WF12 0QL	EPR/VH0174SA/A001	Disposing of waste exemption	Both agricultural and non-agricultural waste	Deposit of waste from dredging of inland waters

ID	Location	Site	Reference	Category	Sub-Category	Description
B	315m E	Thornhill Hall Farm Hall Lane DEWSBURY West Yorkshire WF12 0QL	EPR/VH0174SA/A001	Disposing of waste exemption	Both agricultural and non-agricultural waste	Burning waste in the open
B	315m E	Thornhill Hall Farm Hall Lane DEWSBURY West Yorkshire WF12 0QL	EPR/VH0174SA/A001	Storing waste exemption	Both agricultural and non-agricultural waste	Storage of waste in a secure place
B	315m E	Thornhill Hall Farm Hall Lane DEWSBURY West Yorkshire WF12 0QL	EPR/VH0174SA/A001	Treating waste exemption	Both agricultural and non-agricultural waste	Treatment of waste wood and waste plant matter by chipping, shredding, cutting or pulverising
B	315m E	Thornhill Hall Farm Hall Lane DEWSBURY West Yorkshire WF12 0QL	EPR/VH0174SA/A001	Using waste exemption	Both agricultural and non-agricultural waste	Spreading waste on agricultural land to confer benefit
B	315m E	Thornhill Hall Farm Hall Lane DEWSBURY West Yorkshire WF12 0QL	EPR/VH0174SA/A001	Using waste exemption	Both agricultural and non-agricultural waste	Use of waste for a specified purpose
C	352m N	Calderview Farm The Common Dewsbury West Yorkshire WF12 0LJ	EPR/ZE5181KK/A001	Disposing of waste exemption	Agricultural Waste Only	Deposit of waste from dredging of inland waters
C	352m N	Calderview Farm The Common Dewsbury West Yorkshire WF12 0LJ	EPR/ZE5181KK/A001	Disposing of waste exemption	Agricultural Waste Only	Deposit of waste from a portable sanitary convenience
C	352m N	Calderview Farm The Common Dewsbury West Yorkshire WF12 0LJ	EPR/ZE5181KK/A001	Disposing of waste exemption	Agricultural Waste Only	Deposit of agricultural waste consisting of plant tissue under a Plant Health notice
C	352m N	Calderview Farm The Common Dewsbury West Yorkshire WF12 0LJ	EPR/ZE5181KK/A001	Disposing of waste exemption	Agricultural Waste Only	Burning waste in the open
C	352m N	Calderview Farm The Common Dewsbury West Yorkshire WF12 0LJ	EPR/ZE5181KK/A001	Storing waste exemption	Agricultural Waste Only	Storage of waste in secure containers
C	352m N	Calderview Farm The Common Dewsbury West Yorkshire WF12 0LJ	EPR/ZE5181KK/A001	Storing waste exemption	Agricultural Waste Only	Storage of waste in a secure place

ID	Location	Site	Reference	Category	Sub-Category	Description
C	352m N	Calderview Farm The Common Dewsbury West Yorkshire WF12 0LJ	EPR/ZE5181KK/A001	Using waste exemption	Agricultural Waste Only	Pig and poultry ash
C	352m N	Calderview Farm The Common Dewsbury West Yorkshire WF12 0LJ	EPR/ZE5181KK/A001	Disposing of waste exemption	Both agricultural and non-agricultural waste	Disposal by incineration
C	352m N	Calderview Farm The Common Dewsbury West Yorkshire WF12 0LJ	EPR/ZE5181KK/A001	Treating waste exemption	Both agricultural and non-agricultural waste	Cleaning, washing, spraying or coating relevant waste
C	352m N	Calderview Farm The Common Dewsbury West Yorkshire WF12 0LJ	EPR/ZE5181KK/A001	Treating waste exemption	Both agricultural and non-agricultural waste	Treatment of waste food
C	352m N	Calderview Farm The Common Dewsbury West Yorkshire WF12 0LJ	EPR/ZE5181KK/A001	Treating waste exemption	Both agricultural and non-agricultural waste	Aerobic composting and associated prior treatment
C	352m N	Calderview Farm The Common Dewsbury West Yorkshire WF12 0LJ	EPR/ZE5181KK/A001	Treating waste exemption	Both agricultural and non-agricultural waste	Anaerobic digestion at premises used for agriculture and burning of resultant biogas
C	352m N	Calderview Farm The Common Dewsbury West Yorkshire WF12 0LJ	EPR/ZE5181KK/A001	Treating waste exemption	Both agricultural and non-agricultural waste	Preparatory treatments (baling, sorting, shredding etc)
C	352m N	Calderview Farm The Common Dewsbury West Yorkshire WF12 0LJ	EPR/ZE5181KK/A001	Treating waste exemption	Both agricultural and non-agricultural waste	Screening and blending of waste
C	352m N	Calderview Farm The Common Dewsbury West Yorkshire WF12 0LJ	EPR/ZE5181KK/A001	Treating waste exemption	Both agricultural and non-agricultural waste	Treatment of waste wood and waste plant matter by chipping, shredding, cutting or pulverising

ID	Location	Site	Reference	Category	Sub-Category	Description
C	352m N	Calderview Farm The Common Dewsbury West Yorkshire WF12 0LJ	EPR/ZE5181KK/A001	Using waste exemption	Both agricultural and non-agricultural waste	Use of waste in construction
C	352m N	Calderview Farm The Common Dewsbury West Yorkshire WF12 0LJ	EPR/ZE5181KK/A001	Using waste exemption	Both agricultural and non-agricultural waste	Spreading waste on agricultural land to confer benefit
C	352m N	Calderview Farm The Common Dewsbury West Yorkshire WF12 0LJ	EPR/ZE5181KK/A001	Using waste exemption	Both agricultural and non-agricultural waste	Use of mulch
C	352m N	Calderview Farm The Common Dewsbury West Yorkshire WF12 0LJ	EPR/ZE5181KK/A001	Using waste exemption	Both agricultural and non-agricultural waste	Spreading of plant matter to confer benefit
C	352m N	Calderview Farm The Common Dewsbury West Yorkshire WF12 0LJ	EPR/ZE5181KK/A001	Using waste exemption	Both agricultural and non-agricultural waste	Incorporation of ash into soil
C	352m N	Calderview Farm The Common Dewsbury West Yorkshire WF12 0LJ	EPR/ZE5181KK/A001	Using waste exemption	Both agricultural and non-agricultural waste	Use of baled end-of-life tyres in construction
C	352m N	Calderview Farm The Common Dewsbury West Yorkshire WF12 0LJ	EPR/ZE5181KK/A001	Using waste exemption	Both agricultural and non-agricultural waste	Burning of waste as a fuel in a small appliance
C	352m N	Calderview Farm The Common Dewsbury West Yorkshire WF12 0LJ	EPR/ZE5181KK/A001	Using waste exemption	Both agricultural and non-agricultural waste	Use of waste derived biodiesel as fuel
C	352m N	Calderview Farm The Common Dewsbury West Yorkshire WF12 0LJ	EPR/ZE5181KK/A001	Using waste exemption	Both agricultural and non-agricultural waste	Use of waste for a specified purpose

ID	Location	Site	Reference	Category	Sub-Category	Description
C	352m N	Calderview Farm The Common Dewsbury West Yorkshire WF12 0LJ	EPR/ZE5181KK/A001	Using waste exemption	Both agricultural and non-agricultural waste	Use of waste to manufacture finished goods
C	352m N	Calderview Farm The Common Dewsbury West Yorkshire WF12 0LJ	EPR/ZE5181KK/A001	Storing waste exemption	Non-Agricultural Waste Only	Storage of sludge
D	438m NW	37 The Common Dewsbury Kirklees WF12 0LJ	EPR/GF0803CC/A001	Storing waste exemption	Non-Agricultural Waste Only	Storage of waste in a secure place
D	438m NW	Calderview Farm, The common, Thornhill, Dewsbury, WF12 0LJ	WEX055563	Disposing of waste exemption	On a farm	Deposit of waste from dredging of inland waters
D	438m NW	Calderview Farm, The common, Thornhill, Dewsbury, WF12 0LJ	WEX055563	Disposing of waste exemption	On a farm	Deposit of waste from a portable sanitary convenience
D	438m NW	Calderview Farm, The common, Thornhill, Dewsbury, WF12 0LJ	WEX055563	Disposing of waste exemption	On a farm	Deposit of agricultural waste consisting of plant tissue under a Plant Health notice
D	438m NW	Calderview Farm, The common, Thornhill, Dewsbury, WF12 0LJ	WEX055563	Disposing of waste exemption	On a farm	Disposal by incineration
D	438m NW	Calderview Farm, The common, Thornhill, Dewsbury, WF12 0LJ	WEX055563	Disposing of waste exemption	On a farm	Burning waste in the open
D	438m NW	Calderview Farm, The common, Thornhill, Dewsbury, WF12 0LJ	WEX055563	Storing waste exemption	On a farm	Storage of waste in secure containers
D	438m NW	Calderview Farm, The common, Thornhill, Dewsbury, WF12 0LJ	WEX055563	Storing waste exemption	On a farm	Storage of waste in a secure place
D	438m NW	Calderview Farm, The common, Thornhill, Dewsbury, WF12 0LJ	WEX055563	Storing waste exemption	On a farm	Storage of sludge
D	438m NW	Calderview Farm, The common, Thornhill, Dewsbury, WF12 0LJ	WEX055563	Treating waste exemption	On a farm	Cleaning, washing, spraying or coating relevant waste
D	438m NW	Calderview Farm, The common, Thornhill, Dewsbury, WF12 0LJ	WEX055563	Treating waste exemption	On a farm	Treatment of waste food

ID	Location	Site	Reference	Category	Sub-Category	Description
D	438m NW	Calderview Farm, The common, Thornhill, Dewsbury, WF12 0LJ	WEX055563	Treating waste exemption	On a farm	Aerobic composting and associated prior treatment
D	438m NW	Calderview Farm, The common, Thornhill, Dewsbury, WF12 0LJ	WEX055563	Treating waste exemption	On a farm	Anaerobic digestion at premises used for agriculture and burning of resultant biogas
D	438m NW	Calderview Farm, The common, Thornhill, Dewsbury, WF12 0LJ	WEX055563	Treating waste exemption	On a farm	Preparatory treatments (baling, sorting, shredding etc)
D	438m NW	Calderview Farm, The common, Thornhill, Dewsbury, WF12 0LJ	WEX055563	Treating waste exemption	On a farm	Screening and blending of waste
D	438m NW	Calderview Farm, The common, Thornhill, Dewsbury, WF12 0LJ	WEX055563	Treating waste exemption	On a farm	Treatment of waste wood and waste plant matter by chipping, shredding, cutting or pulverising
D	438m NW	Calderview Farm, The common, Thornhill, Dewsbury, WF12 0LJ	WEX055563	Using waste exemption	On a farm	Use of waste in construction
D	438m NW	Calderview Farm, The common, Thornhill, Dewsbury, WF12 0LJ	WEX055563	Using waste exemption	On a farm	Spreading waste on agricultural land to confer benefit
D	438m NW	Calderview Farm, The common, Thornhill, Dewsbury, WF12 0LJ	WEX055563	Using waste exemption	On a farm	Use of mulch
D	438m NW	Calderview Farm, The common, Thornhill, Dewsbury, WF12 0LJ	WEX055563	Using waste exemption	On a farm	Spreading of plant matter to confer benefit
D	438m NW	Calderview Farm, The common, Thornhill, Dewsbury, WF12 0LJ	WEX055563	Using waste exemption	On a farm	Use of baled end-of-life tyres in construction
D	438m NW	Calderview Farm, The common, Thornhill, Dewsbury, WF12 0LJ	WEX055563	Using waste exemption	On a farm	Burning of waste as a fuel in a small appliance
D	438m NW	Calderview Farm, The common, Thornhill, Dewsbury, WF12 0LJ	WEX055563	Using waste exemption	On a farm	Use of waste derived biodiesel as fuel
D	438m NW	Calderview Farm, The common, Thornhill, Dewsbury, WF12 0LJ	WEX055563	Using waste exemption	On a farm	Use of waste for a specified purpose

ID	Location	Site	Reference	Category	Sub-Category	Description
D	438m NW	Calderview Farm, The common, Thornhill, Dewsbury, WF12 0LJ	WEX055563	Using waste exemption	On a farm	Use of waste to manufacture finished goods
7	471m SW	THORNHILL PHARMACY, 30 THE TOWN, THORNHILL, DEWSBURY, WF12 0RB	WEX316524	Treating waste exemption	Not on a Farm	Sorting and de-naturing of controlled drugs for disposal

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

4 Current industrial land use

Site Outline

Search buffers in metres (m)

Recent industrial land uses

Licensed Discharges to controlled waters

Pollution Incidents (EA/NRW)

4.1 Recent industrial land uses

Records within 250m	4

Current potentially contaminative industrial sites.

Features are displayed on the Current industrial land use map on **page 34**

ID	Location	Company	Address	Activity	Category
A	91m SE	Electricity Sub Station	West Yorkshire, WF12	Electrical Features	Infrastructure and Facilities
A	115m E	Electricity Sub Station	West Yorkshire, WF12	Electrical Features	Infrastructure and Facilities
1	116m N	Electricity Sub Station	West Yorkshire, WF12	Electrical Features	Infrastructure and Facilities

ID	Location	Company	Address	Activity	Category
2	137m SW	Pump	West Yorkshire, WF12	Water Pumping Stations	Industrial Features

This data is sourced from Ordnance Survey.

4.2 Current or recent petrol stations

Records within 500m	0

Open, closed, under development and obsolete petrol stations.

This data is sourced from Experian.

4.3 Electricity cables

Records within 500m	0

High voltage underground electricity transmission cables.

This data is sourced from National Grid.

4.4 Gas pipelines

Records within 500m	0

High pressure underground gas transmission pipelines.

This data is sourced from National Grid.

4.5 Sites determined as Contaminated Land

Records within 500m	0

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

This data is sourced from Local Authority records.

4.6 Control of Major Accident Hazards (COMAH)

Records within 500m	0

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

This data is sourced from the Health and Safety Executive.

4.7 Regulated explosive sites

Records within 500m	0

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

This data is sourced from the Health and Safety Executive.

4.8 Hazardous substance storage/usage

Records within 500m	0

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

This data is sourced from Local Authority records.

4.9 Historical licensed industrial activities (IPC)

Records within 500m	0

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

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

4.10 Licensed industrial activities (Part A(1))

Records within 500m	0

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

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

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

Records within 500m	0

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

This data is sourced from Local Authority records.

4.12 Radioactive Substance Authorisations

Records within 500m	0

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

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

4.13 Licensed Discharges to controlled waters

Records within 500m	2

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 34**

ID	Location	Address	Details	
B	144m NW	COMBS HILL, THORNHILL, NR DEWSBURY, WEST YORKSHIRE	Effluent Type: SEWAGE DISCHARGES - SEWER STORM OVERFLOW - WATER COMPANY Permit Number: WADC840 Permit Version: 1 Receiving Water: RIVER CALDER	Status: REVOKED (WRA 91, S88 & SCHED 10 AS AMENDED BY ENV ACT 1995) Issue date: 18/09/1989 Effective Date: 18/09/1989 Revocation Date: 14/05/2004
B	152m NW	COMBS HILL CSO, THE COMBS (OPP NO 16), DEWSBURY, WEST YORKSHIRE	Effluent Type: SEWAGE DISCHARGES - SEWER STORM OVERFLOW - WATER COMPANY Permit Number: WRA8228 Permit Version: 1 Receiving Water: TRIB OF CALDER & HEBBLE NAV.	Status: NEW CONSENT (WRA 91, S88 & SCHED 10 AS AMENDED BY ENV ACT 1995) Issue date: 10/02/2004 Effective Date: 31/03/2004 Revocation Date: -

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

4.14 Pollutant release to surface waters (Red List)

Records within 500m	0

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

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

4.15 Pollutant release to public sewer

Records within 500m	0

Discharges of Special Category Effluents to the public sewer.

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

4.16 List 1 Dangerous Substances

Records within 500m	0

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

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

4.17 List 2 Dangerous Substances

Records within 500m	0

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

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

4.18 Pollution Incidents (EA/NRW)

Records within 500m	2

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 34**

ID	Location	Details	
3	223m W	Incident Date: 31/05/2018 Incident Identification: 1618128 Pollutant: Sewage Materials Pollutant Description: Crude Sewage	Water Impact: Category 1 (Major) Land Impact: Category 4 (No Impact) Air Impact: Category 4 (No Impact)
4	379m E	Incident Date: 06/02/2009 Incident Identification: 651093 Pollutant: Agricultural Materials and Wastes Pollutant Description: Slurry and Dilute Slurry	Water Impact: Category 2 (Significant) Land Impact: Category 3 (Minor) Air Impact: Category 4 (No Impact)

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

4.19 Pollution inventory substances

Records within 500m	0

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

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

4.20 Pollution inventory waste transfers

Records within 500m	0

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

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

4.21 Pollution inventory radioactive waste

Records within 500m	0

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

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

5 Hydrogeology - Superficial aquifer

Site Outline

Search buffers in metres (m)

- Principal
- Secondary A
- Secondary B
- Secondary Undifferentiated
- Unproductive
- Unknown

5.1 Superficial aquifer

Records within 500m	1

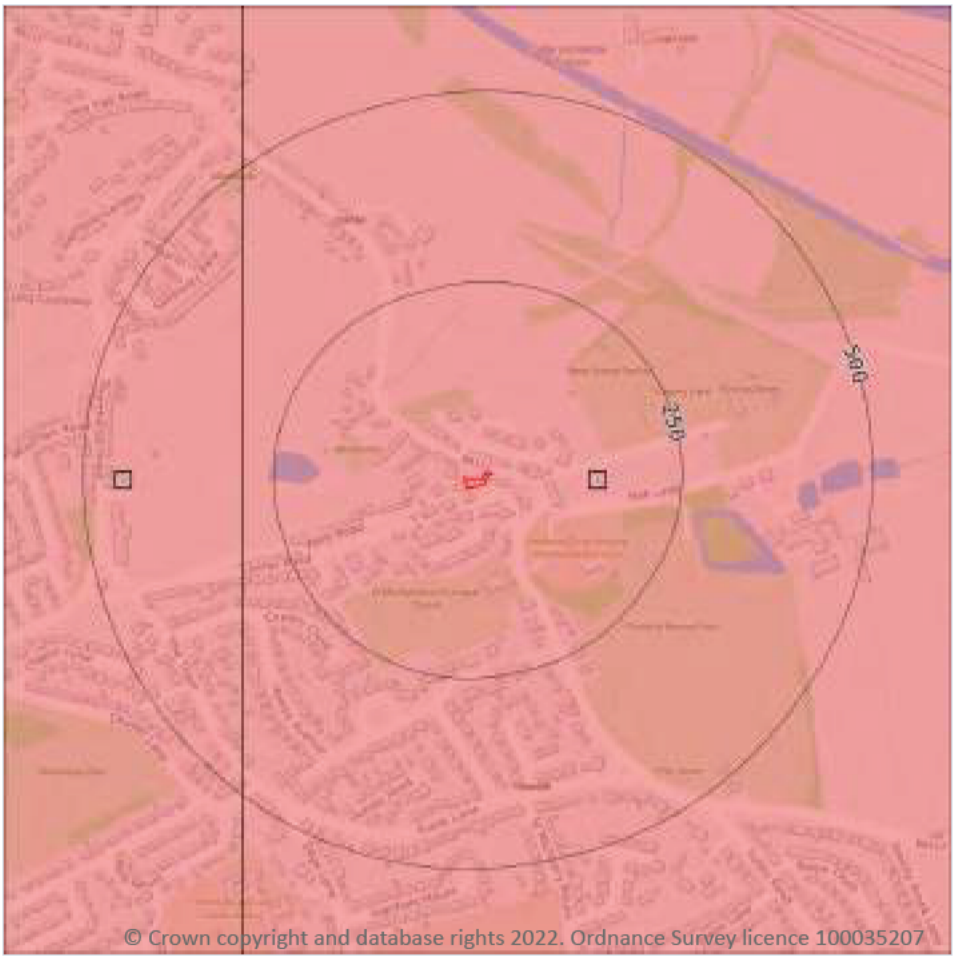
Aquifer status of groundwater held within superficial geology.

Features are displayed on the Hydrogeology map on **page 40**

ID	Location	Designation	Description
1	369m 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

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

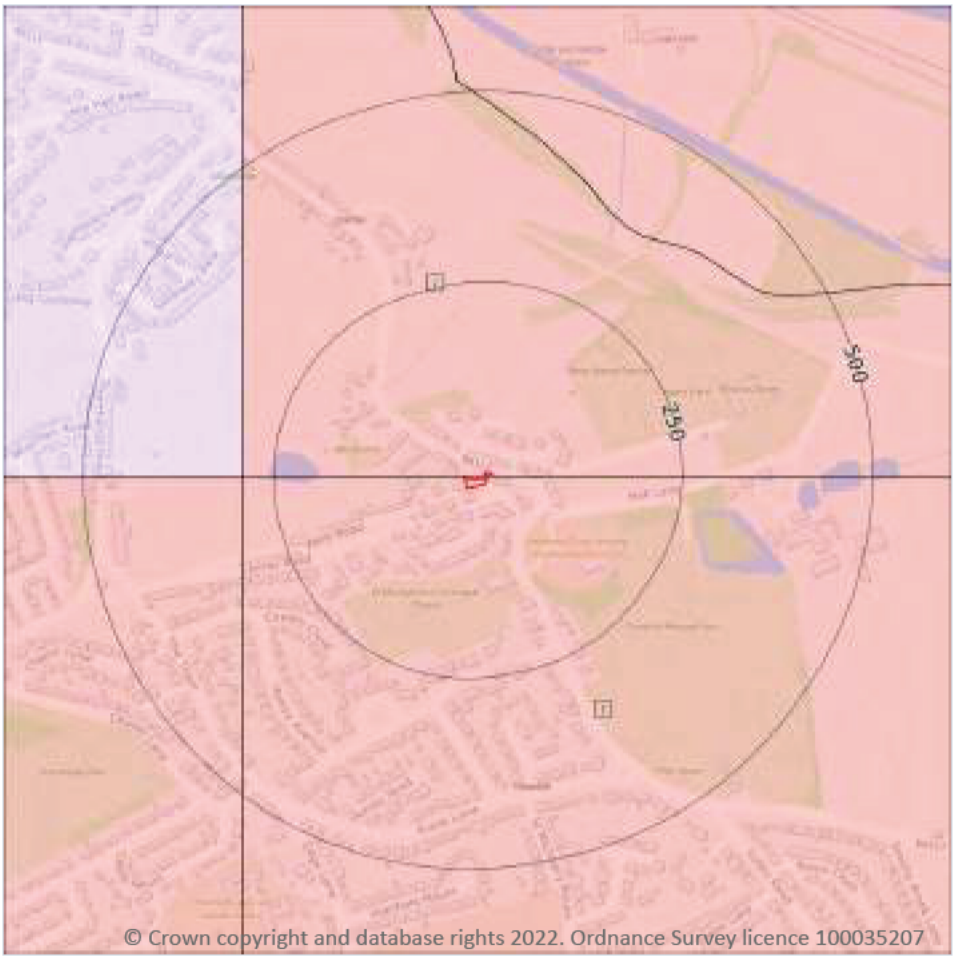
Aquifer status of groundwater held within bedrock geology.

Features are displayed on the Bedrock aquifer map on **page 41**

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	292m W	Secondary A	Permeable layers capable of supporting water supplies at a local rather than strategic scale, and in some cases forming an important source of base flow to rivers. These are generally aquifers formerly classified as minor aquifers

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

Groundwater vulnerability



Site Outline

Search buffers in metres (m)

Superficial vulnerability

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

Bedrock vulnerability

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

Other information

- Unproductive aquifer
- Soluble rock risk
- Local information

5.3 Groundwater vulnerability

Records within 50m	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 43**

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: >70% Dilution value: 300-550mm/year	Vulnerability: - Aquifer type: - Thickness: <3m Patchiness value: <90% Recharge potential: No Data	Vulnerability: High Aquifer type: Secondary Flow mechanism: Well connected fractures
2	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: 3-10m Patchiness value: <90% Recharge potential: High	Vulnerability: High Aquifer type: Secondary Flow mechanism: Well connected fractures

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

5.4 Groundwater vulnerability- soluble rock risk

Records on site	0

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

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

5.5 Groundwater vulnerability- local information

Records on site	0

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

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

Abstractions and Source Protection Zones

Site Outline

Search buffers in metres (m)

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

5.6 Groundwater abstractions

Records within 2000m	3

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 45**

ID	Location	Details	
-	1883m NW	Status: Active Licence No: 2/27/13/226/R01 Details: General Use Relating To Secondary Category (Medium Loss) Direct Source: GROUNDWATERS Point: BOREHOLE - COAL MEASURES - DEWSBURY Data Type: Point Name: CALDER DYEING LTD Easting: 424093 Northing: 420451	Annual Volume (m^3): 115,000 Max Daily Volume (m^3): 500 Original Application No: NPS/WR/033441 Original Start Date: 01/04/2015 Expiry Date: 31/03/2027 Issue No: 2 Version Start Date: 15/05/2020 Version End Date: -
-	1892m NW	Status: Historical Licence No: 2/27/13/226 Details: General Use Relating To Secondary Category (Medium Loss) Direct Source: GROUNDWATERS Point: BOREHOLE - COAL MEASURES - DEWSBURY Data Type: Point Name: CALDER DYEING LTD Easting: 424090 Northing: 420460	Annual Volume (m^3): 75000 Max Daily Volume (m^3): 330 Original Application No: - Original Start Date: 19/10/2007 Expiry Date: 31/03/2015 Issue No: 1 Version Start Date: 19/10/2007 Version End Date: -
-	1892m NW	Status: Historical Licence No: 2/27/13/226/R01 Details: General Use Relating To Secondary Category (Medium Loss) Direct Source: GROUNDWATERS Point: BOREHOLE - COAL MEASURES - DEWSBURY Data Type: Point Name: CALDER DYEING LTD Easting: 424090 Northing: 420460	Annual Volume (m^3): 75,000 Max Daily Volume (m^3): 330 Original Application No: - Original Start Date: 01/04/2015 Expiry Date: 31/03/2027 Issue No: 1 Version Start Date: 01/04/2015 Version End Date: -

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

5.7 Surface water abstractions

Records within 2000m	2

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 45**

ID	Location	Details	
-	1872m NW	Status: Historical Licence No: 2/27/13/230 Details: Mineral Washing Direct Source: SURFACE WATER Point: RIVER CALDER - DEWSBURY Data Type: Point Name: LAFARGE AGGREGATES LTD Easting: 423890 Northing: 420240	Annual Volume (m^3): 680000 Max Daily Volume (m^3): 2520 Original Application No: - Original Start Date: 07/07/2008 Expiry Date: 31/03/2015 Issue No: 2 Version Start Date: 26/09/2013 Version End Date: -
-	1872m NW	Status: Historical Licence No: 2/27/13/230 Details: Dust Suppression Direct Source: SURFACE WATER Point: RIVER CALDER - DEWSBURY Data Type: Point Name: LAFARGE AGGREGATES LTD Easting: 423890 Northing: 420240	Annual Volume (m^3): 680000 Max Daily Volume (m^3): 2520 Original Application No: - Original Start Date: 07/07/2008 Expiry Date: 31/03/2015 Issue No: 2 Version Start Date: 26/09/2013 Version End Date: -

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

5.8 Potable abstractions

Records within 2000m	0

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

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

5.9 Source Protection Zones

Records within 500m	0

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

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

5.10 Source Protection Zones (confined aquifer)

Records within 500m	0

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

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

6 Hydrology

Site Outline

Search buffers in metres (m)

Water Network (OS MasterMap)

Surface water features (wider than 5m)

Surface water features (narrower than 5m)

WFD River, canal and surface water transfer water bodies

WFD Lake water bodies

WFD Transitional and coastal water bodies

WFD Surface water body catchments boundaries

WFD Groundwater body boundaries

6.1 Water Network (OS MasterMap)

Records within 250m	8

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

Features are displayed on the Hydrology map on **page 48**

ID	Location	Type of water feature	Ground level	Permanence	Name
B	111m W	Inland river not influenced by normal tidal action.	On ground surface	Watercourse contains water year round (in normal circumstances)	-

ID	Location	Type of water feature	Ground level	Permanence	Name
B	111m W	Inland river not influenced by normal tidal action.	On ground surface	Watercourse contains water year round (in normal circumstances)	-
1	113m W	Inland river not influenced by normal tidal action.	Not provided	Watercourse contains water year round (in normal circumstances)	-
2	151m W	Inland river not influenced by normal tidal action.	On ground surface	Watercourse contains water year round (in normal circumstances)	-
C	155m NW	Inland river not influenced by normal tidal action.	On ground surface	Watercourse contains water year round (in normal circumstances)	-
D	191m W	Inland river not influenced by normal tidal action.	On ground surface	Watercourse contains water year round (in normal circumstances)	-
3	221m N	Inland river not influenced by normal tidal action.	Not provided	Watercourse contains water year round (in normal circumstances)	-
E	241m E	Inland river not influenced by normal tidal action.	On ground surface	Watercourse contains water year round (in normal circumstances)	-

This data is sourced from the Ordnance Survey.

6.2 Surface water features

Records within 250m	3

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

Features are displayed on the Hydrology map on **page 48**

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 48**

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	**1**

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

Features are displayed on the Hydrology map on **page 48**

ID	Location	Type	Name	Water body ID	Overall rating	Chemical rating	Ecological rating	Year
-	787m NE	River	Calder from River Colne to River Chald	GB104027062631	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 48**

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

7.1 Risk of flooding from rivers and the sea

Records within 50m	0

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

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

7.2 Historical Flood Events

Records within 250m	0

Records of historic flooding from rivers, the sea, groundwater and surface water. Records began in 1946 when predecessor bodies started collecting detailed information about flooding incidents, although limited details may be included on flooding incidents prior to this date. Takes into account the presence of defences, structures, and other infrastructure where they existed at the time of flooding, and includes flood extents that may have been affected by overtopping, breaches or blockages.

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

7.3 Flood Defences

Records within 250m	0

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

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

7.4 Areas Benefiting from Flood Defences

Records within 250m	0

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

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

7.5 Flood Storage Areas

Records within 250m	0

Areas that act as a balancing reservoir, storage basin or balancing pond to attenuate an incoming flood peak to a flow level that can be accepted by the downstream channel or to delay the timing of a flood peak so that its volume is discharged over a longer period.

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

River and coastal flooding - Flood Zones

7.6 Flood Zone 2

Records within 50m	0

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

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

7.7 Flood Zone 3

Records within 50m	0

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

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

8 Surface water flooding

8.1 Surface water flooding

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

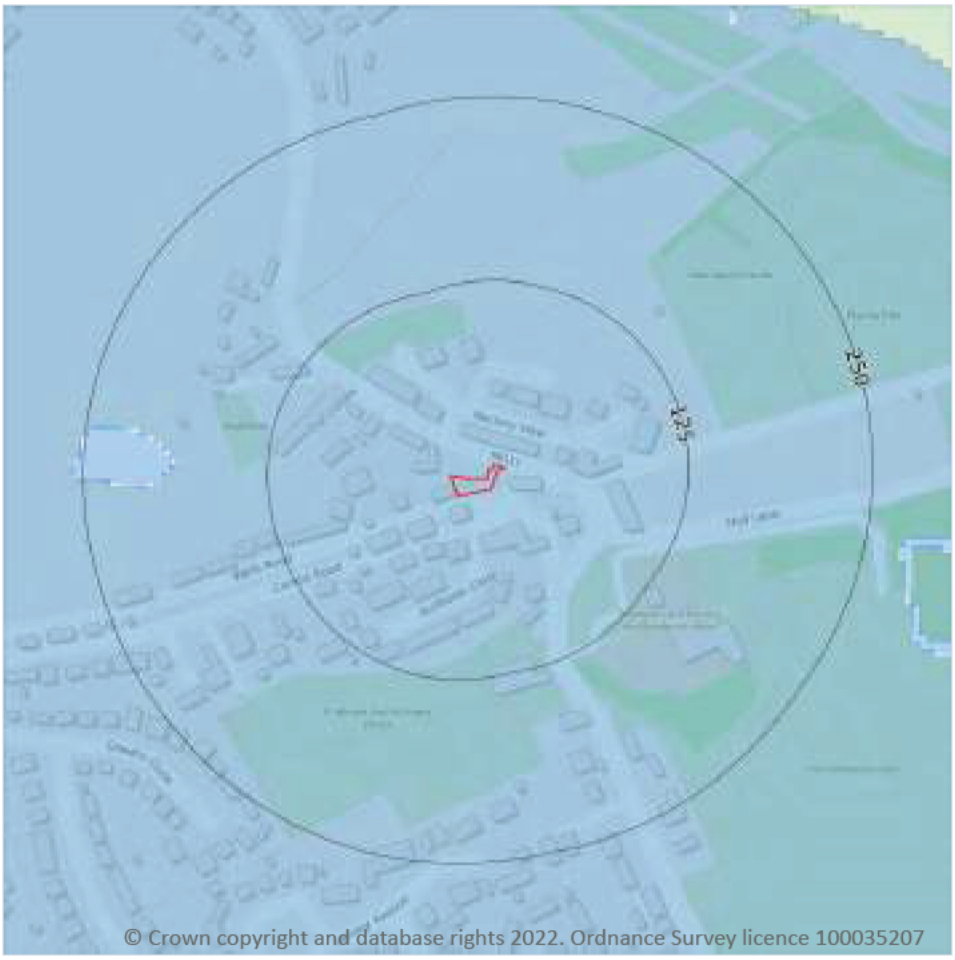
Ambiental Risk Analytics surface water (pluvial) FloodMap identifies areas likely to flood as a result of extreme rainfall events, i.e. land naturally vulnerable to surface water ponding or flooding. This data set was produced by simulating 1 in 30 year, 1 in 100 year, 1 in 250 year and 1 in 1,000 year 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.

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

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

This data is sourced from Ambiental Risk Analytics.

9 Groundwater flooding



Site Outline

Search buffers in metres (m)

High

Moderate - High

Moderate

Low

Negligible

9.1 Groundwater flooding

Highest risk on site	**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 56**

This data is sourced from Ambiental 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	1

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

Features are displayed on the Environmental designations map on **page 57**

ID	Location	Name	Data source
3	1212m NW	Sparrow Wood	Natural England

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

10.7 Designated Ancient Woodland

Records within 2000m	1

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 57**

ID	Location	Name	Woodland Type
-	1756m S	Grange, Hepper And Denby Woods	Ancient Replanted Woodland

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

10.8 Biosphere Reserves

Records within 2000m	0

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

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

10.9 Forest Parks

Records within 2000m	0

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

This data is sourced from the Forestry Commission.

10.10 Marine Conservation Zones

Records within 2000m	0

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

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

10.11 Green Belt

Records within 2000m	2

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

Features are displayed on the Environmental designations map on **page 57**

ID	Location	Name	Local Authority name
1	110m W	South and West Yorkshire	Kirklees
2	781m NE	South and West Yorkshire	Wakefield

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.

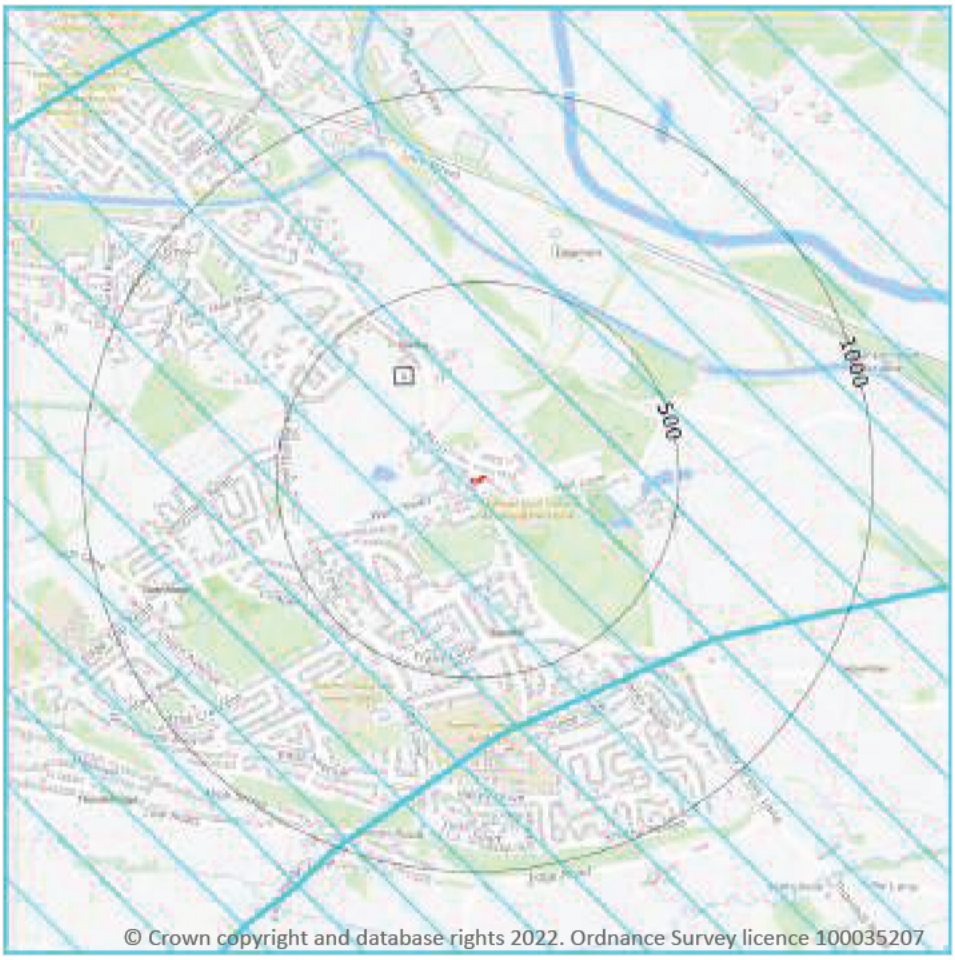
10.16 Nitrate Vulnerable Zones

Records within 2000m	0

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.

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 62**

ID	Location	Type of developments requiring consultation
1	On site	**Infrastructure - Airports, helipads and other aviation proposals.** **Air pollution - Any industrial/agricultural development that could cause air pollution (incl: industrial processes, livestock & poultry units with floorspace > 500m², slurry lagoons & digestate stores > 750m², manure stores > 3500t).** **Combustion - General combustion processes >50mw energy input. incl: energy from waste incineration, other incineration, landfill gas generation plant, pyrolysis/gasification, anaerobic digestion, sewage treatment works, other incineration/ combustion.**

This data is sourced from Natural England.

10.18 SSSI Units

Records within 2000m	0

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

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

11 Visual and cultural designations

Site Outline

Search buffers in metres (m)

Listed buildings

Conservation areas

Conservation areas - no data

National Parks

Areas of Outstanding Natural Beauty

Registered parks and gardens

Scheduled Monuments

World Heritage Sites

11.1 World Heritage Sites

Records within 250m	0

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

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

11.2 Area of Outstanding Natural Beauty

Records within 250m	0

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

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

11.3 National Parks

Records within 250m	0

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

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

11.4 Listed Buildings

Records within 250m	8

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

Features are displayed on the Visual and cultural designations map on **page 64**

ID	Location	Name	Grade	Reference Number	Listed date
2	58m SE	2, 4 and 6, Combs Road, Dewsbury, Kirklees, WF12	II	1183447	23/08/1973
3	127m S	Church of St Michael and All Angels, Dewsbury, Kirklees, WF12	I	1200754	30/06/1949
A	134m SW	Boundary Wall To Combs Hall Farmhouse, Dewsbury, Kirklees, WF12	II	1300557	30/06/1949
A	144m SW	Brewhouse in Garden of Combs Hall Farmhouse, Dewsbury, Kirklees, WF12	II	1313656	30/06/1949

ID	Location	Name	Grade	Reference Number	Listed date
4	144m S	Lych Gate and Front Wall To The Church of St Michael and All Angels, Dewsbury, Kirklees, WF12	II	1134727	03/07/1985
A	149m SW	Combs Hall Farmhouse, Dewsbury, Kirklees, WF12	II	1183467	30/06/1949
6	176m SE	The Old Rectory, Dewsbury, Kirklees, WF12	II	1200799	03/07/1985
7	177m SW	Former Thornhill Grammar School, Dewsbury, Kirklees, WF12	II	1134730	03/07/1985

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

11.5 Conservation Areas

Records within 250m	1

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.

Features are displayed on the Visual and cultural designations map on **page 64**

ID	Location	Name	District	Date of designation
1	4m S	Thornhill	Kirklees	31/07/1978

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

11.6 Scheduled Ancient Monuments

Records within 250m	1

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.

Features are displayed on the Visual and cultural designations map on **page 64**

ID	Location	Ancient monument name	Reference number
5	172m E	Thornhill Hall moat and sites of formal gardens and bowling green, and remnant of pre-seventeenth century open-field system	1009930

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

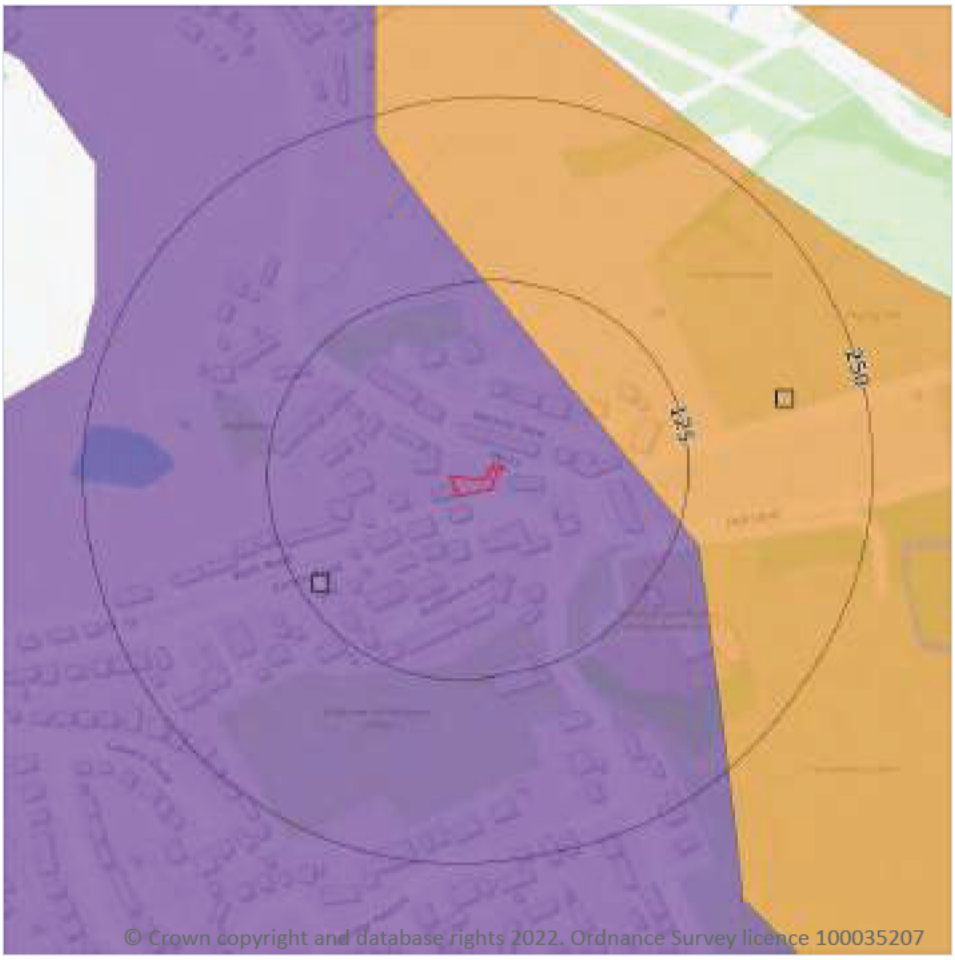
11.7 Registered Parks and Gardens

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	2

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

Features are displayed on the Agricultural designations map on **page 68**

ID	Location	Classification	Description
1	**On site**	**Urban**	-
2	69m NE	Grade 3	Good to moderate quality agricultural land. Land with moderate limitations which affect the choice of crops, timing and type of cultivation, harvesting or the level of yield. Where more demanding crops are grown yields are generally lower or more variable than on land in Grades 1 and 2.

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	12

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 70**

ID	Location	Main Habitat	Other habitats
2	82m SE	Deciduous woodland	Main habitat: DWOOD (INV > 50%)
A	88m SE	No main habitat but additional habitats present	Additional: DWOOD (INV 50%)
3	89m SE	Deciduous woodland	Main habitat: DWOOD (INV > 50%)
B	127m SE	Deciduous woodland	Main habitat: DWOOD (INV > 50%)

ID	Location	Main Habitat	Other habitats
B	128m SE	Deciduous woodland	Main habitat: DWOOD (INV > 50%)
4	130m SE	Deciduous woodland	Main habitat: DWOOD (INV > 50%)
5	174m N	Deciduous woodland	Main habitat: DWOOD (INV > 50%)
A	175m E	Deciduous woodland	Main habitat: DWOOD (INV > 50%)
6	200m E	Deciduous woodland	Main habitat: DWOOD (INV > 50%)
7	215m E	Deciduous woodland	Main habitat: DWOOD (INV > 50%)
8	236m N	Deciduous woodland	Main habitat: DWOOD (INV > 50%)
9	239m SE	Deciduous woodland	Main habitat: DWOOD (INV > 50%)

This data is sourced from Natural England.

13.2 Habitat Networks

Records within 250m	0

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

This data is sourced from Natural England.

13.3 Open Mosaic Habitat

Records within 250m	1

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

Features are displayed on the Habitat designations map on **page 70**

ID	Location	Site reference	Identification confidence	Primary source	Secondary source	Tertiary source
1	43m NW	NLUD Ref: 471801688	Low	National Land Use Database - Previously Developed Land	UK Perspectives Aerial Photography	-

This data is sourced from Natural England.

13.4 Limestone Pavement Orders

Records within 250m	0

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

This data is sourced from Natural England.

14 Geology 1:10,000 scale - Availability

Site Outline

Search buffers in metres (m)

Full coverage

Partial coverage

No coverage

14.1 10k Availability

Records within 500m	2

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

Features are displayed on the Geology 1:10,000 scale - Availability map on **page 73**

ID	Location	Artificial	Superficial	Bedrock	Mass movement	Sheet No.
1	**On site**	**Full**	**Full**	**Full**	**Full**	**SE21NE**
2	292m W	Full	Full	Full	Full	SE21NW

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 **12**

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.

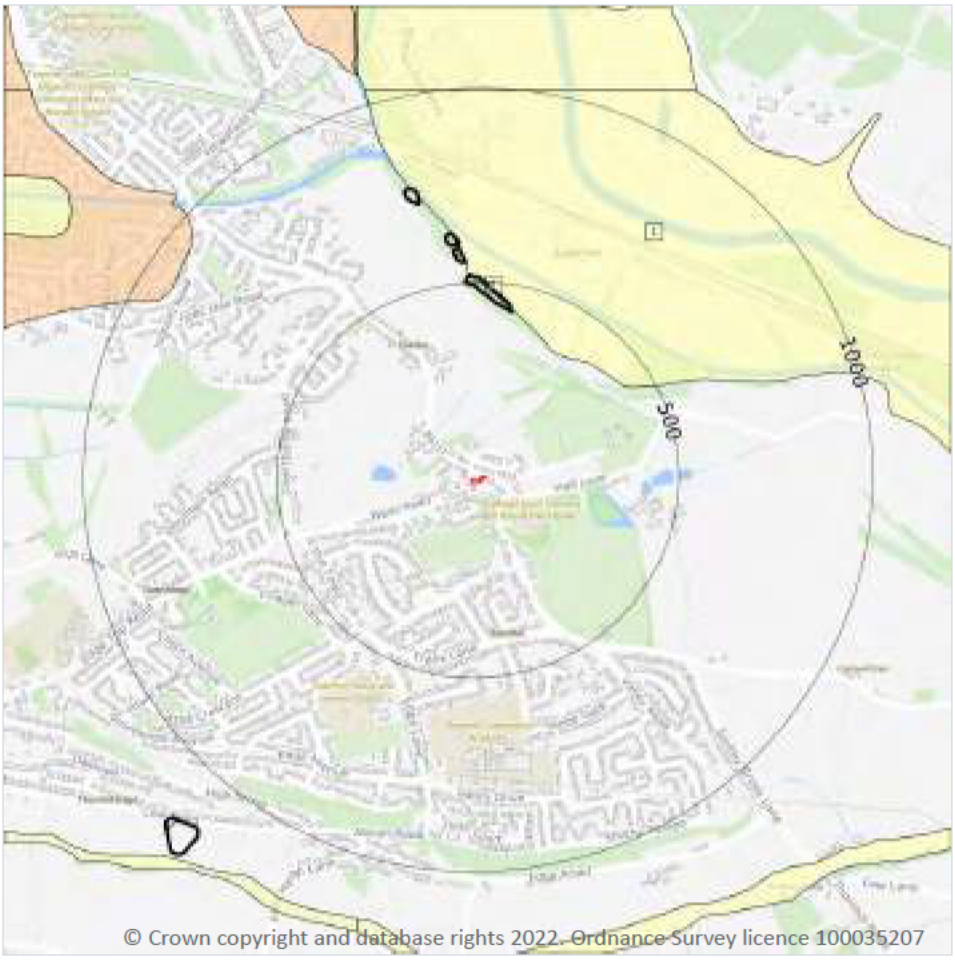
Features are displayed on the Geology 1:10,000 scale - Artificial and made ground map on **page 74**

ID	Location	LEX Code	Description	Rock description
1	**On site**	**MGR-ARTDP**	**Made Ground (Undivided)**	**Artificial Deposit**
2	107m W	MGR-ARTDP	Made Ground (Undivided)	Artificial Deposit
A	163m NE	MGR-ARTDP	Made Ground (Undivided)	Artificial Deposit
3	198m N	MGR-ARTDP	Made Ground (Undivided)	Artificial Deposit

ID	Location	LEX Code	Description	Rock description
A	222m NE	MGR-ARTDP	Made Ground (Undivided)	Artificial Deposit
4	267m E	MGR-ARTDP	Made Ground (Undivided)	Artificial Deposit
B	286m NE	WMGR-ARTDP	Infilled Ground	Artificial Deposit
5	287m SE	MGR-ARTDP	Made Ground (Undivided)	Artificial Deposit
C	324m N	WMGR-ARTDP	Infilled Ground	Artificial Deposit
B	389m E	MGR-ARTDP	Made Ground (Undivided)	Artificial Deposit
B	407m NE	MGR-ARTDP	Made Ground (Undivided)	Artificial Deposit
C	444m N	MGR-ARTDP	Made Ground (Undivided)	Artificial Deposit

This data is sourced from the British Geological Survey.

Geology 1:10,000 scale - Superficial



Site Outline

Search buffers in metres (m)

Landslip (10k)

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

14.3 Superficial geology (10k)

Records within 500m	1

Superficial geological deposits at 1:10,000 scale. Also known as 'drift', these are the youngest geological deposits, formed during the Quaternary. They rest on older deposits or rocks referred to as bedrock.

Features are displayed on the Geology 1:10,000 scale - Superficial map on **page 76**

ID	Location	LEX Code	Description	Rock description
1	366m NE	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	1

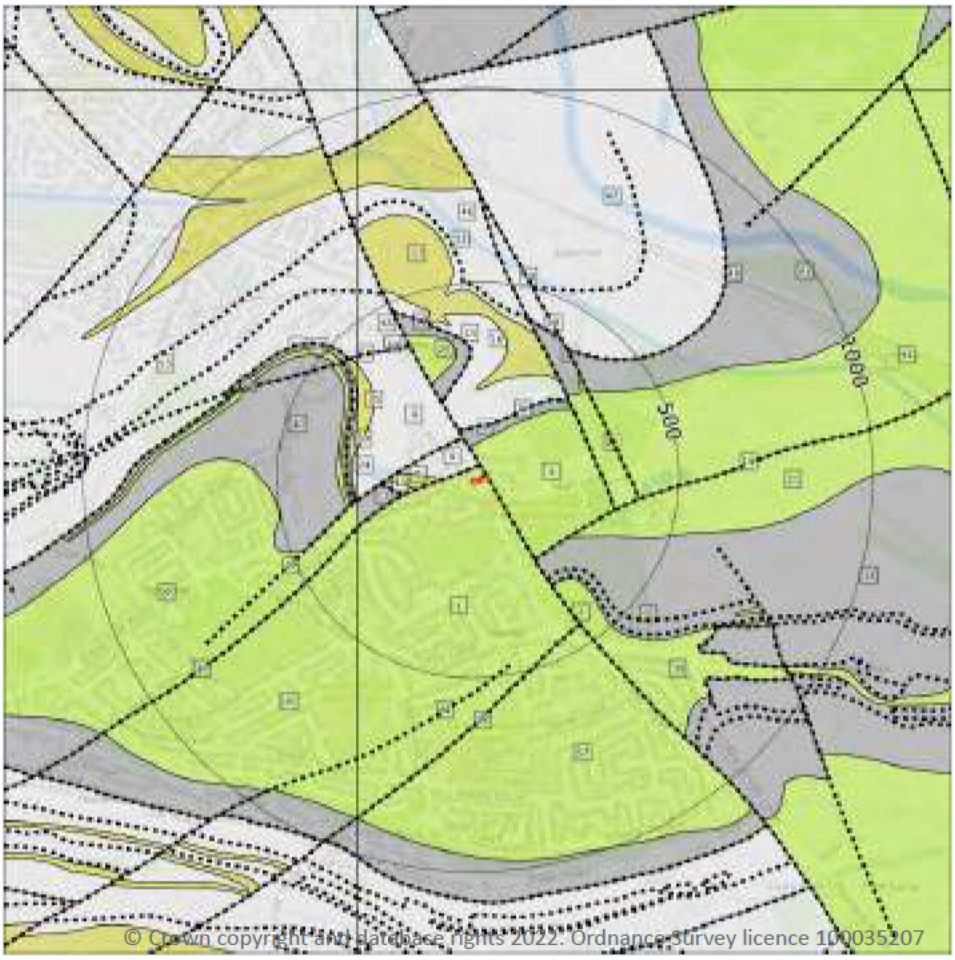
Mass movement deposits on BGS geological maps at 1:10,000 scale. Primarily superficial deposits that have moved down slope under gravity to form landslips. These affect bedrock, other superficial deposits and artificial ground.

Features are displayed on the Geology 1:10,000 scale - Superficial map on **page 76**

ID	Location	LEX Code	Description	Rock description
2	432m N	SLIP-UKNOWN	Landslide Deposits	Unknown/unclassified Entry

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	38

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 78**

ID	Location	LEX Code	Description	Rock age
1	**On site**	**TR-SDST**	**Thornhill Rock - Sandstone**	**Duckmantian Sub-age**
3	5m NE	TR-SDST	Thornhill Rock - Sandstone	Duckmantian Sub-age
4	24m N	PLCM-MDSS	Pennine Lower Coal Measures Formation - Mudstone, Siltstone And Sandstone	Langsettian Sub-age

ID	Location	LEX Code	Description	Rock age
6	74m W	PLCM-SDST	Pennine Lower Coal Measures Formation - Sandstone	Langsettian Sub-age
7	83m N	PMCM-MDSS	Pennine Middle Coal Measures Formation - Mudstone, Siltstone And Sandstone	Bolsovian Sub-age - Duckmantian Sub-age
8	105m NW	PLCM-MDSS	Pennine Lower Coal Measures Formation - Mudstone, Siltstone And Sandstone	Langsettian Sub-age
10	127m N	PLCM-MDSS	Pennine Lower Coal Measures Formation - Mudstone, Siltstone And Sandstone	Langsettian Sub-age
12	145m W	PLCM-MDSS	Pennine Lower Coal Measures Formation - Mudstone, Siltstone And Sandstone	Langsettian Sub-age
13	180m W	PMCM-MDSS	Pennine Middle Coal Measures Formation - Mudstone, Siltstone And Sandstone	Bolsovian Sub-age - Duckmantian Sub-age
16	212m N	PMCM-MDSS	Pennine Middle Coal Measures Formation - Mudstone, Siltstone And Sandstone	Bolsovian Sub-age - Duckmantian Sub-age
17	222m N	PLCM-SDST	Pennine Lower Coal Measures Formation - Sandstone	Langsettian Sub-age
18	243m SE	PMCM-MDSS	Pennine Middle Coal Measures Formation - Mudstone, Siltstone And Sandstone	Bolsovian Sub-age - Duckmantian Sub-age
20	262m NW	TR-SDST	Thornhill Rock - Sandstone	Duckmantian Sub-age
21	264m SE	TR-SDST	Thornhill Rock - Sandstone	Duckmantian Sub-age
23	278m E	TR-SDST	Thornhill Rock - Sandstone	Duckmantian Sub-age
24	292m W	PLCM-MDSS	Pennine Lower Coal Measures Formation - Mudstone, Siltstone And Sandstone	Langsettian Sub-age
25	295m NW	PLCM-SDST	Pennine Lower Coal Measures Formation - Sandstone	Langsettian Sub-age
26	297m W	TR-SDST	Thornhill Rock - Sandstone	Duckmantian Sub-age
28	299m NE	PMCM-MDSS	Pennine Middle Coal Measures Formation - Mudstone, Siltstone And Sandstone	Bolsovian Sub-age - Duckmantian Sub-age
30	301m W	PLCM-SDST	Pennine Lower Coal Measures Formation - Sandstone	Langsettian Sub-age
32	303m W	PLCM-MDSS	Pennine Lower Coal Measures Formation - Mudstone, Siltstone And Sandstone	Langsettian Sub-age
33	307m W	PMCM-MDSS	Pennine Middle Coal Measures Formation - Mudstone, Siltstone And Sandstone	Bolsovian Sub-age - Duckmantian Sub-age
35	316m W	TR-SDST	Thornhill Rock - Sandstone	Duckmantian Sub-age
37	318m W	PMCM-SDST	Pennine Middle Coal Measures Formation - Sandstone	Bolsovian Sub-age - Duckmantian Sub-age
38	320m SE	HMR-SDST	Haigh Moor Rock - Sandstone	Duckmantian Sub-age

ID	Location	LEX Code	Description	Rock age
40	328m W	PMCM-MDSS	Pennine Middle Coal Measures Formation - Mudstone, Siltstone And Sandstone	Bolsovian Sub-age - Duckmantian Sub-age
42	337m NE	TR-SDST	Thornhill Rock - Sandstone	Duckmantian Sub-age
43	345m NE	PMCM-MDSS	Pennine Middle Coal Measures Formation - Mudstone, Siltstone And Sandstone	Bolsovian Sub-age - Duckmantian Sub-age
45	376m NW	PLCM-MDSS	Pennine Lower Coal Measures Formation - Mudstone, Siltstone And Sandstone	Langsettian Sub-age
46	390m N	PLCM-MDSS	Pennine Lower Coal Measures Formation - Mudstone, Siltstone And Sandstone	Langsettian Sub-age
47	392m NE	PLCM-MDSS	Pennine Lower Coal Measures Formation - Mudstone, Siltstone And Sandstone	Langsettian Sub-age
49	406m NE	PLCM-MDSS	Pennine Lower Coal Measures Formation - Mudstone, Siltstone And Sandstone	Langsettian Sub-age
51	412m NW	PLCM-MDSS	Pennine Lower Coal Measures Formation - Mudstone, Siltstone And Sandstone	Langsettian Sub-age
53	431m NW	PLCM-MDSS	Pennine Lower Coal Measures Formation - Mudstone, Siltstone And Sandstone	Langsettian Sub-age
56	441m NW	PMCM-MDSS	Pennine Middle Coal Measures Formation - Mudstone, Siltstone And Sandstone	Bolsovian Sub-age - Duckmantian Sub-age
57	445m SE	TR-SDST	Thornhill Rock - Sandstone	Duckmantian Sub-age
59	449m NW	PMCM-SDST	Pennine Middle Coal Measures Formation - Sandstone	Bolsovian Sub-age - Duckmantian Sub-age
60	459m NW	PMCM-MDSS	Pennine Middle Coal Measures Formation - Mudstone, Siltstone And Sandstone	Bolsovian Sub-age - Duckmantian Sub-age

This data is sourced from the British Geological Survey.

14.6 Bedrock faults and other linear features (10k)

Records within 500m **23**

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.

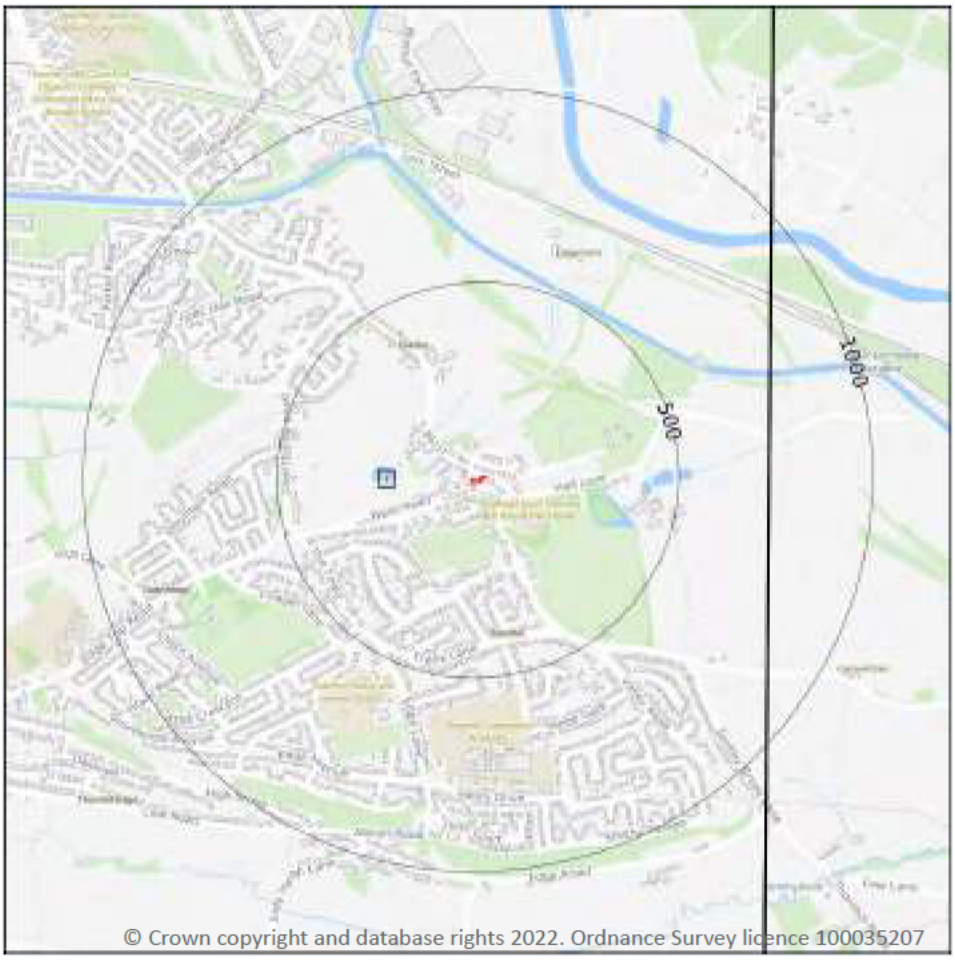
Features are displayed on the Geology 1:10,000 scale - Bedrock map on **page 78**

ID	Location	Category	Description
2	5m NE	FAULT	Normal fault, inferred

ID	Location	Category	Description
5	24m N	FAULT	Normal fault, inferred; crossmarks on downthrow side
9	105m NW	FAULT	Normal fault, inferred; crossmarks on downthrow side
11	127m N	ROCK	Coal seam, inferred
14	180m W	ROCK	Coal seam, inferred
15	212m N	ROCK	Coal seam, inferred
19	243m SE	FAULT	Normal fault, inferred
22	278m E	FAULT	Normal fault, inferred
27	297m W	FAULT	Normal fault, inferred; crossmarks on downthrow side
29	299m NE	FAULT	Normal fault, inferred
31	302m SE	ROCK	Coal seam, inferred
34	307m W	ROCK	Coal seam, inferred
36	316m W	FAULT	Normal fault, inferred; crossmarks on downthrow side
39	320m SE	ROCK	Coal seam, inferred
41	337m NE	FAULT	Normal fault, inferred
44	376m NW	FAULT	Normal fault, inferred; crossmarks on downthrow side
48	392m NE	FOSSIL_HORIZON	Fossil horizon, marine band
50	406m NE	FOSSIL_HORIZON	Fossil horizon, marine band
52	422m N	ROCK	Coal seam, inferred
54	431m NW	FAULT	Normal fault, inferred; crossmarks on downthrow side
55	441m NW	ROCK	Coal seam, inferred
58	445m SE	FAULT	Normal fault, inferred
61	476m S	FAULT	Normal fault, inferred

This data is sourced from the British Geological Survey.

15 Geology 1:50,000 scale - Availability



Site Outline

Search buffers in metres (m)

Geological map tile

15.1 50k Availability

Records within 500m	1

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

Features are displayed on the Geology 1:50,000 scale - Availability map on **page 82**

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	2

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 83**

ID	Location	LEX Code	Description	Rock description
1	282m NE	MGR-ARTDP	MADE GROUND (UNDIVIDED)	ARTIFICIAL DEPOSIT
2	283m NE	WMGR-ARTDP	INFILLED GROUND	ARTIFICIAL DEPOSIT

This data is sourced from the British Geological Survey.

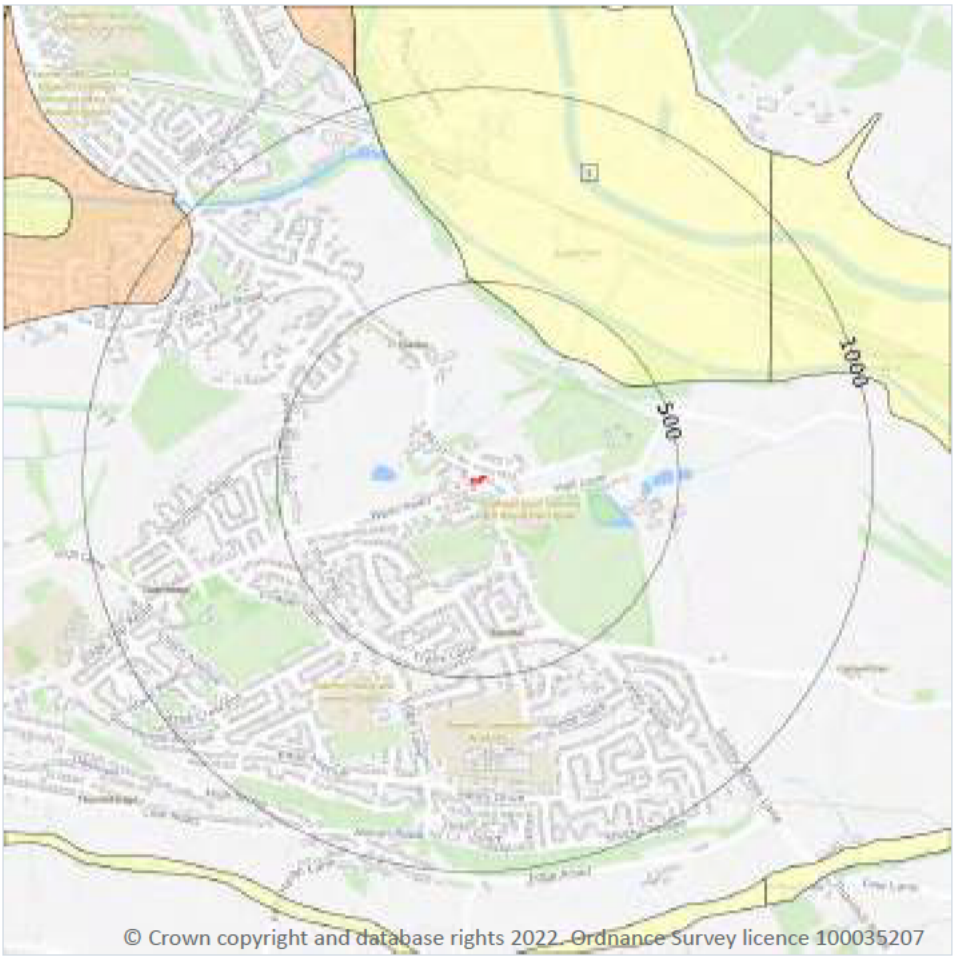
15.3 Artificial ground permeability (50k)

Records within 50m	0

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

This data is sourced from the British Geological Survey.

Geology 1:50,000 scale - Superficial



Site Outline

Search buffers in metres (m)

Landslip (50k)

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

15.4 Superficial geology (50k)

Records within 500m	1

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

Features are displayed on the Geology 1:50,000 scale - Superficial map on **page 85**

ID	Location	LEX Code	Description	Rock description
1	369m NE	ALV-XCZSV	ALLUVIUM	CLAY, SILT, SAND AND GRAVEL

This data is sourced from the British Geological Survey.

15.5 Superficial permeability (50k)

Records within 50m	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.

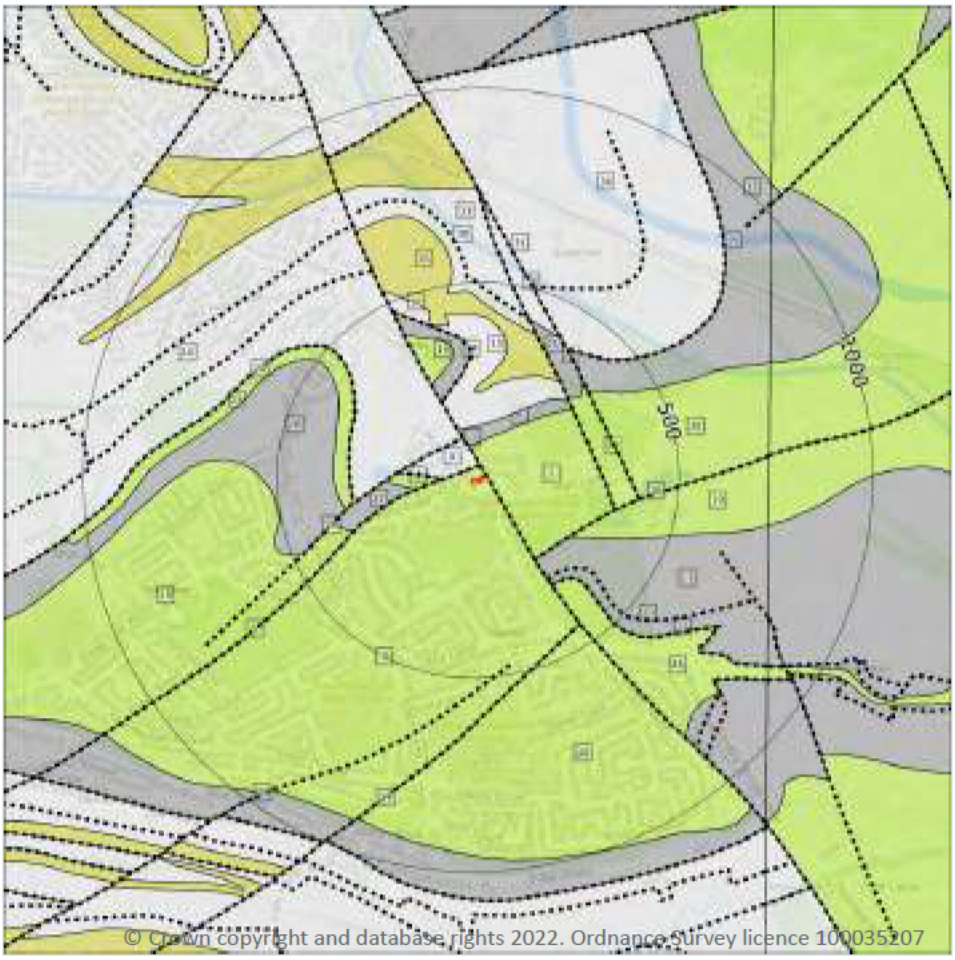
15.7 Landslip permeability (50k)

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	26

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 87**

ID	Location	LEX Code	Description	Rock age
1	**On site**	**TR-SDST**	**THORNHILL ROCK - SANDSTONE**	**WESTPHALIAN**
2	5m NE	TR-SDST	THORNHILL ROCK - SANDSTONE	WESTPHALIAN
4	25m N	PLCM-MDSS	PENNINE LOWER COAL MEASURES FORMATION - MUDSTONE, SILTSTONE AND SANDSTONE	WESTPHALIAN

ID	Location	LEX Code	Description	Rock age
6	75m W	PMCM-SDST	PENNINE MIDDLE COAL MEASURES FORMATION - SANDSTONE	WESTPHALIAN
8	84m NW	PMCM-MDSS	PENNINE MIDDLE COAL MEASURES FORMATION - MUDSTONE, SILTSTONE AND SANDSTONE	WESTPHALIAN
10	104m NW	PLCM-MDSS	PENNINE LOWER COAL MEASURES FORMATION - MUDSTONE, SILTSTONE AND SANDSTONE	WESTPHALIAN
11	129m N	PLCM-MDSS	PENNINE LOWER COAL MEASURES FORMATION - MUDSTONE, SILTSTONE AND SANDSTONE	WESTPHALIAN
12	144m W	PMCM-MDSS	PENNINE MIDDLE COAL MEASURES FORMATION - MUDSTONE, SILTSTONE AND SANDSTONE	WESTPHALIAN
14	212m N	PMCM-MDSS	PENNINE MIDDLE COAL MEASURES FORMATION - MUDSTONE, SILTSTONE AND SANDSTONE	WESTPHALIAN
15	215m N	PLCM-SDST	PENNINE LOWER COAL MEASURES FORMATION - SANDSTONE	WESTPHALIAN
17	243m SE	PMCM-MDSS	PENNINE MIDDLE COAL MEASURES FORMATION - MUDSTONE, SILTSTONE AND SANDSTONE	WESTPHALIAN
18	262m NW	TR-SDST	THORNHILL ROCK - SANDSTONE	WESTPHALIAN
19	264m SE	TR-SDST	THORNHILL ROCK - SANDSTONE	WESTPHALIAN
20	278m NE	TR-SDST	THORNHILL ROCK - SANDSTONE	WESTPHALIAN
22	296m NE	PMCM-MDSS	PENNINE MIDDLE COAL MEASURES FORMATION - MUDSTONE, SILTSTONE AND SANDSTONE	WESTPHALIAN
25	309m W	PMCM-SDST	PENNINE MIDDLE COAL MEASURES FORMATION - SANDSTONE	WESTPHALIAN
26	320m SE	HMR-SDST	HAIGH MOOR ROCK - SANDSTONE	WESTPHALIAN
28	331m W	PMCM-MDSS	PENNINE MIDDLE COAL MEASURES FORMATION - MUDSTONE, SILTSTONE AND SANDSTONE	WESTPHALIAN
29	332m W	TR-SDST	THORNHILL ROCK - SANDSTONE	WESTPHALIAN
30	335m NE	TR-SDST	THORNHILL ROCK - SANDSTONE	WESTPHALIAN
32	345m NE	PMCM-MDSS	PENNINE MIDDLE COAL MEASURES FORMATION - MUDSTONE, SILTSTONE AND SANDSTONE	WESTPHALIAN
33	390m N	PLCM-MDSS	PENNINE LOWER COAL MEASURES FORMATION - MUDSTONE, SILTSTONE AND SANDSTONE	WESTPHALIAN
34	392m NE	PLCM-MDSS	PENNINE LOWER COAL MEASURES FORMATION - MUDSTONE, SILTSTONE AND SANDSTONE	WESTPHALIAN

ID	Location	LEX Code	Description	Rock age
36	409m NE	PLCM-MDSS	PENNINE LOWER COAL MEASURES FORMATION - MUDSTONE, SILTSTONE AND SANDSTONE	WESTPHALIAN
37	414m N	PLCM-MDSS	PENNINE LOWER COAL MEASURES FORMATION - MUDSTONE, SILTSTONE AND SANDSTONE	WESTPHALIAN
40	445m SE	TR-SDST	THORNHILL ROCK - 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**	**High**	**Moderate**
25m NW	Fracture	Moderate	Low

This data is sourced from the British Geological Survey.

15.10 Bedrock faults and other linear features (50k)

Records within 500m	15

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.

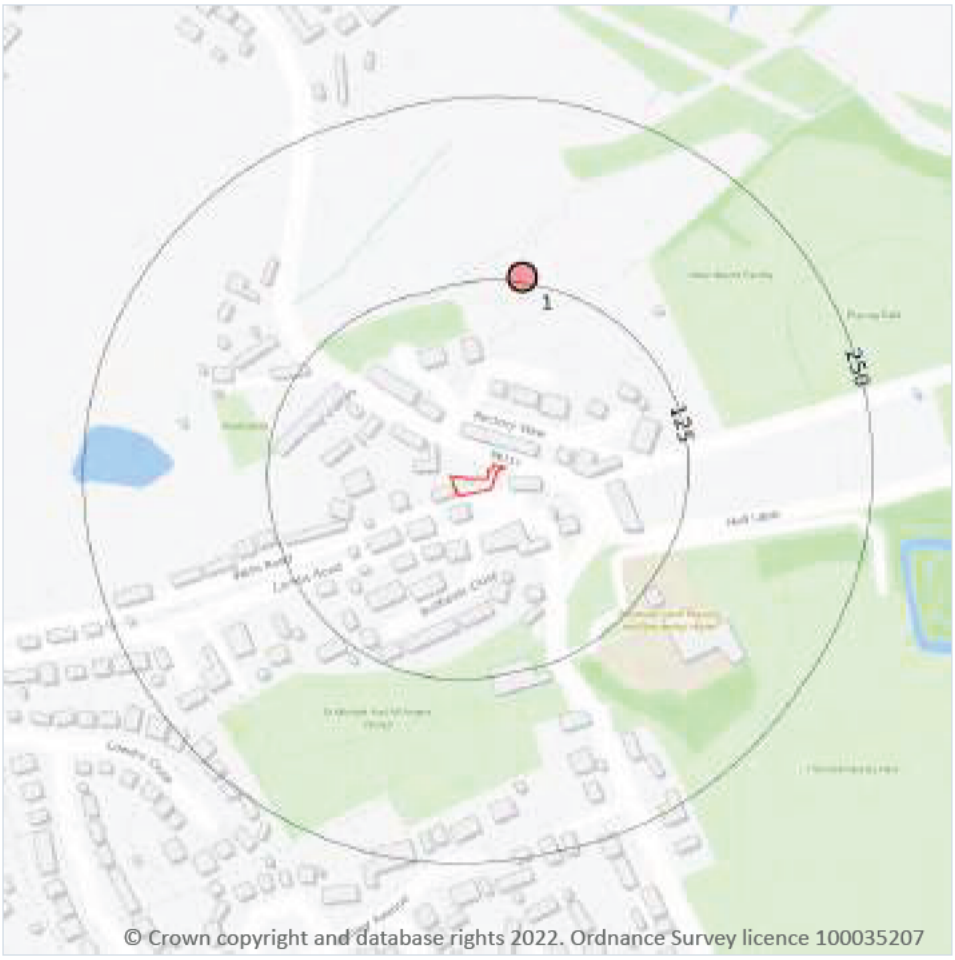
Features are displayed on the Geology 1:50,000 scale - Bedrock map on **page 87**

ID	Location	Category	Description
3	5m NE	FAULT	Fault, inferred
5	25m N	FAULT	Fault, inferred
7	75m W	ROCK	Coal seam, inferred
9	104m NW	FAULT	Fault, inferred
13	212m N	ROCK	Coal seam, inferred
16	243m SE	FAULT	Fault, inferred

ID	Location	Category	Description
21	278m NE	FAULT	Fault, inferred
23	303m SE	ROCK	Coal seam, inferred
24	309m W	ROCK	Coal seam, inferred
27	320m SE	ROCK	Coal seam, inferred
31	335m NE	FAULT	Fault, inferred
35	392m NE	FOSSIL_HORIZON	Marine band
38	422m N	ROCK	Coal seam, inferred
39	445m SE	FAULT	Fault, inferred
41	476m S	FAULT	Fault, 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

16.1 BGS Boreholes

Records within 250m	1

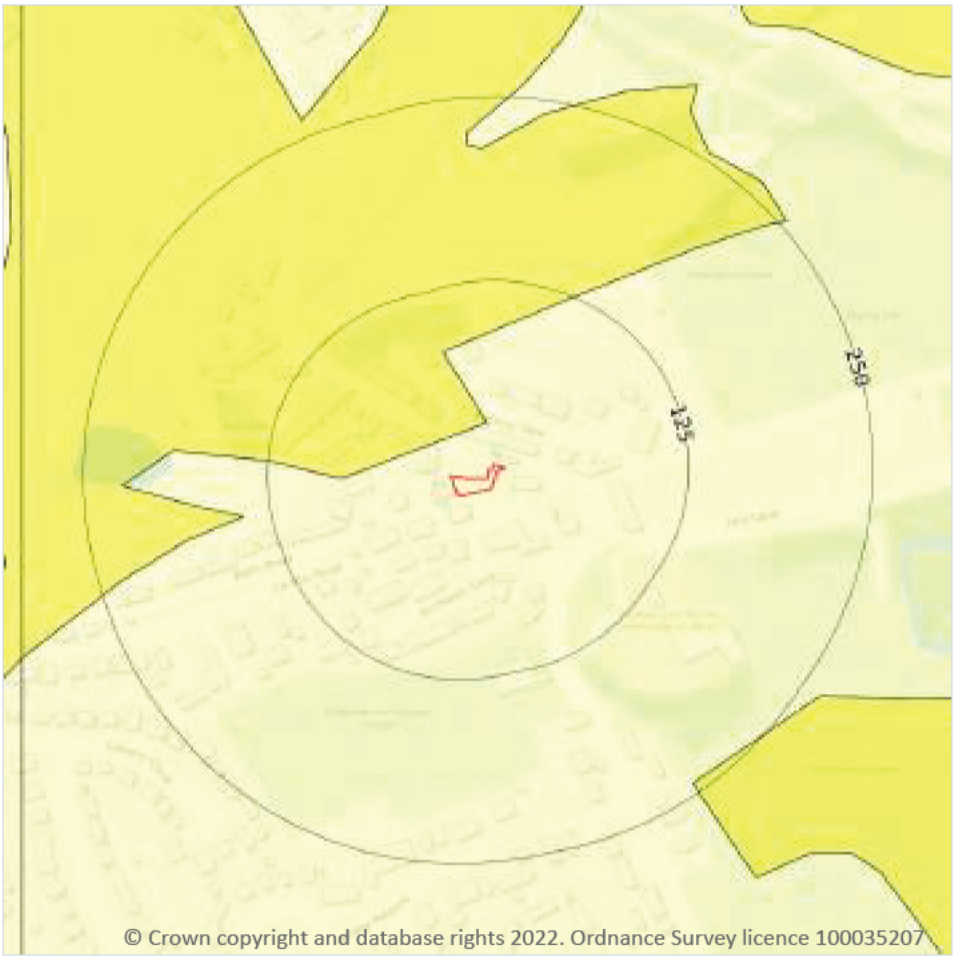
The Single Onshore Boreholes Index (SOBI); an index of over one million records of boreholes, shafts and wells from all forms of drilling and site investigation work held by the British Geological Survey. Covering onshore and nearshore boreholes dating back to at least 1790 and ranging from one to several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

Features are displayed on the Boreholes map on **page 91**

ID	Location	Grid reference	Name	Length	Confidential	Web link
1	129m N	425340 419133	THORNHILL COLLIERY COMBS PIT NO.2 SHAFT	238.05	N	56462

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

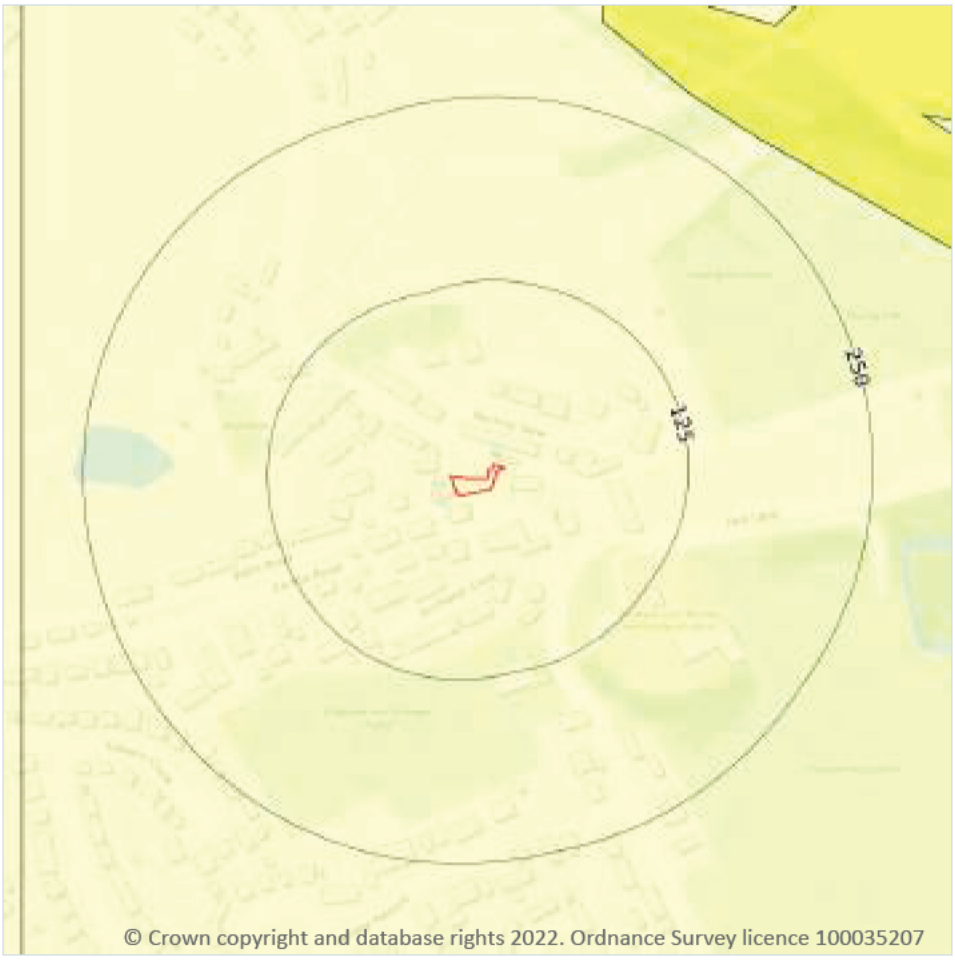
The potential hazard presented by soils that absorb water when wet (making them swell), and lose water as they dry (making them shrink). This shrink-swell behaviour is controlled by the type and amount of clay in the soil, and by seasonal changes in the soil moisture content (related to rainfall and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

Features are displayed on the Natural ground subsidence - Shrink swell clays map on **page 92**

Location	Hazard rating	Details
On site	**Negligible**	**Ground conditions predominantly non-plastic.**
25m N	Very low	Ground conditions predominantly low plasticity.

This data is sourced from the British Geological Survey.

Natural ground subsidence - Running sands



Site Outline

Search buffers in metres (m)

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

17.2 Running sands

Records within 50m	1

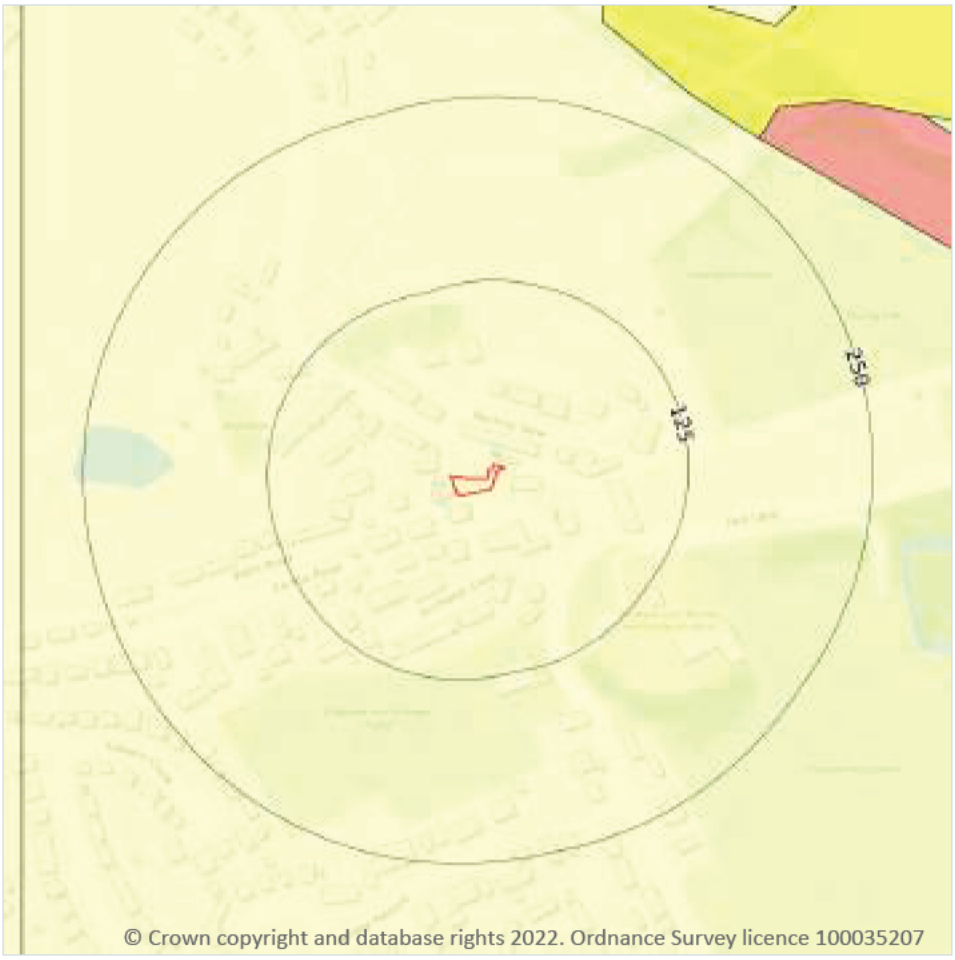
The potential hazard presented by rocks that can contain loosely-packed sandy layers that can become fluidised by water flowing through them. Such sands can 'run', removing support from overlying buildings and causing potential damage.

Features are displayed on the Natural ground subsidence - Running sands map on **page 93**

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.**

This data is sourced from the British Geological Survey.

Natural ground subsidence - Compressible deposits



Site Outline

Search buffers in metres (m)

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

17.3 Compressible deposits

Records within 50m	1

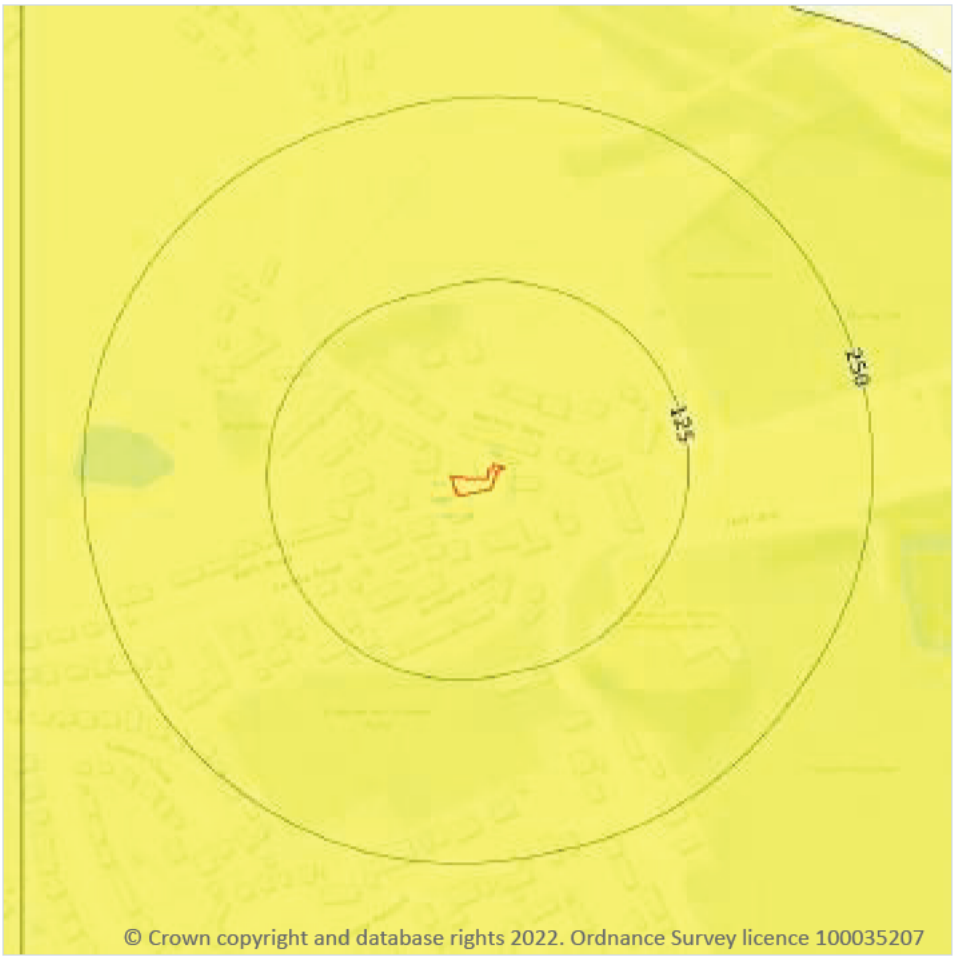
The potential hazard presented by types of ground that may contain layers of very soft materials like clay or peat and may compress if loaded by overlying structures, or if the groundwater level changes, potentially resulting in depression of the ground and disturbance of foundations.

Features are displayed on the Natural ground subsidence - Compressible deposits map on **page 94**

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

This data is sourced from the British Geological Survey.

Natural ground subsidence - Collapsible deposits



Site Outline

Search buffers in metres (m)

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

17.4 Collapsible deposits

Records within 50m	1

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

Features are displayed on the Natural ground subsidence - Collapsible deposits map on **page 95**

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	3

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.

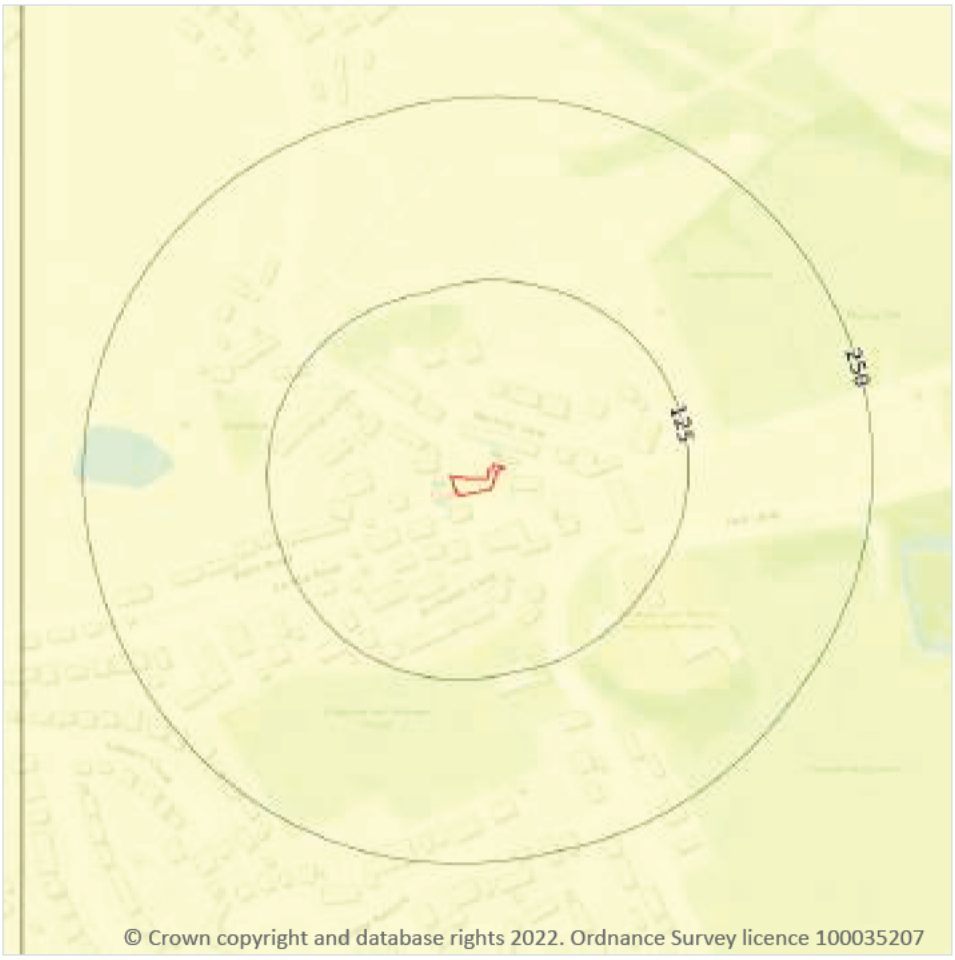
Features are displayed on the Natural ground subsidence - Landslides map on **page 96**

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
25m N	Moderate	Slope instability problems are probably present or have occurred in the past. Land use should consider specifically the stability of the site.
25m N	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

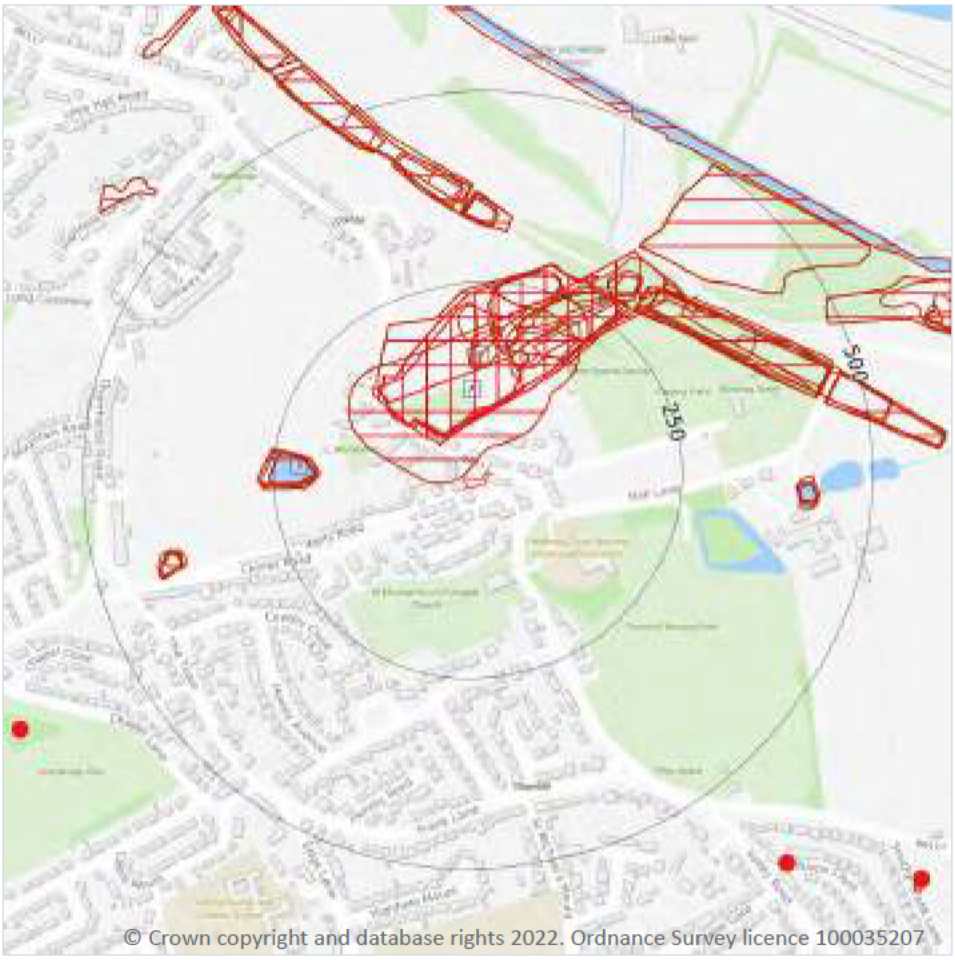
The potential hazard presented by ground dissolution, which occurs when water passing through soluble rocks produces underground cavities and cave systems. These cavities reduce support to the ground above and can cause localised collapse of the overlying rocks and deposits.

Features are displayed on the Natural ground subsidence - Ground dissolution of soluble rocks map on **page 98**

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, ground workings and natural cavities



Site Outline

Search buffers in metres (m)

- Natural cavities (Area)
- Natural cavities (Point)
- BritPits
- Surface ground workings
- Underground workings
- Historical Mineral Planning Areas
- Mining Cavities

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 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.

18.2 BritPits

Records within 500m	0

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

This data is sourced from the British Geological Survey.

18.3 Surface ground workings

Records within 250m	30

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, ground workings and natural cavities map on **page 99**

ID	Location	Land Use	Year of mapping	Mapping scale
A	3m NW	Colliery	1905	1:10560
B	54m NW	Colliery	1892	1:10560
B	54m NW	Colliery	1973	1:10000
B	54m NW	Colliery	1955	1:10560
B	54m NW	Colliery	1966	1:10560
A	61m NW	Colliery	1948	1:10560
B	63m NW	Colliery	1938	1:10560
B	63m NW	Colliery	1938	1:10560
B	137m N	Refuse Heap	1955	1:10560
B	137m N	Refuse Heap	1966	1:10560
B	139m N	Refuse Heap	1905	1:10560
C	144m N	Refuse Heap	1892	1:10560
B	154m N	Refuse Heap	1948	1:10560
B	162m N	Refuse Heap	1938	1:10560
B	162m N	Refuse Heap	1938	1:10560
B	163m N	Unspecified Pit	1973	1:10000
B	165m N	Unspecified Heap	1973	1:10000

ID	Location	Land Use	Year of mapping	Mapping scale
D	191m W	Pond	1973	1:10000
D	191m W	Pond	1992	1:10000
D	191m W	Reservoir	1955	1:10560
D	191m W	Pond	1983	1:10000
D	191m W	Pond	1966	1:10560
B	191m N	Refuse Heap	1966	1:10560
D	192m W	Pond	1892	1:10560
D	197m W	Reservoir	1938	1:10560
D	197m W	Reservoir	1948	1:10560
D	197m W	Reservoir	1905	1:10560
B	222m N	Unspecified Heap	1973	1:10000
B	222m N	Unspecified Heap	1955	1:10560
B	222m N	Unspecified Heap	1966	1:10560

This is data is sourced from Ordnance Survey/Groundsure.

18.4 Underground workings

Records within 1000m	12

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, ground workings and natural cavities map on **page 99**

ID	Location	Land Use	Year of mapping	Mapping scale
B	54m NW	Colliery	1892	1:10560
B	54m NW	Colliery	1951	1:10560
B	54m NW	Colliery	1966	1:10560
B	54m NW	Colliery	1973	1:10000
A	61m NW	Colliery	1948	1:10560
R	774m SE	Unspecified Old Shaft	1905	1:10560
R	774m SE	Unspecified Old Shaft	1948	1:10560

ID	Location	Land Use	Year of mapping	Mapping scale
-	941m SE	Unspecified Old Shafts	1905	1:10560
-	941m SE	Unspecified Old Shafts	1948	1:10560
-	950m SE	Unspecified Old Shafts	1905	1:10560
-	950m SE	Unspecified Old Shafts	1948	1:10560
-	966m W	Unspecified Mine	1966	1:10560

This is data is sourced from Ordnance Survey/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 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.

18.8 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.

18.9 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.

18.10 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.

18.11 Gypsum areas

Records on site	0

Generalised areas that may be affected by gypsum extraction.

This data is sourced from British Gypsum.

18.12 Tin mining

Records on site	0

Generalised areas that may be affected by historical tin mining.

This data is sourced from Groundsure.

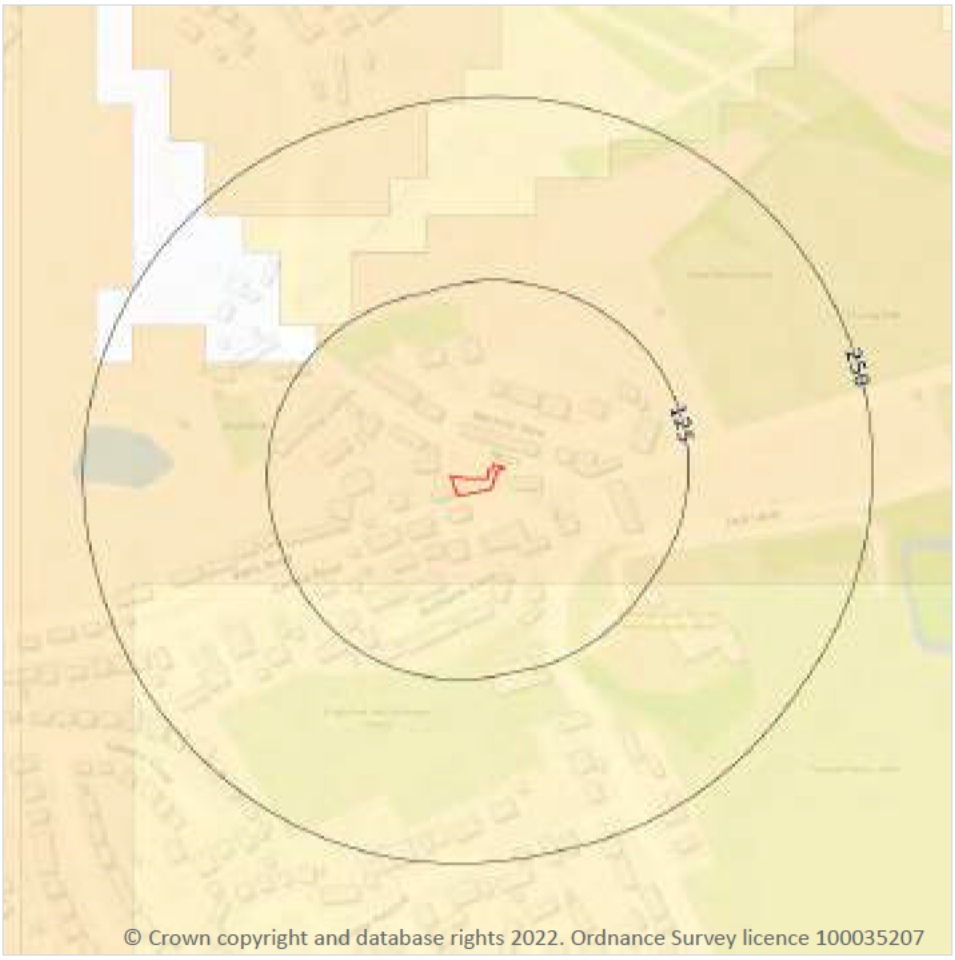
18.13 Clay mining

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 Radon



Site Outline

Search buffers in metres (m)

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

19.1 Radon

Records on site	1

Estimated percentage of dwellings exceeding the Radon Action Level. This data is the highest resolution radon dataset available for the UK and is produced to a 75m level of accuracy to allow for geological data accuracy and a 'residential property' buffer. The findings of this section should supersede any estimations derived from the Indicative Atlas of Radon in Great Britain. The data was derived from both geological assessments and long term measurements of radon in more than 479,000 households.

Features are displayed on the Radon map on **page 105**

Location	Estimated properties affected	Radon Protection Measures required
On site	**Between 3% and 5%**	**Basic**

This data is sourced from the British Geological Survey and Public Health England.

20 Soil chemistry

20.1 BGS Estimated Background Soil Chemistry

Records within 50m	5

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

Location	Arsenic	Bioaccessible Arsenic	Lead	Bioaccessible Lead	Cadmium	Chromium	Nickel
On site	**25 - 35 mg/kg**	**No data**	**100 mg/kg**	**60 mg/kg**	**1.8 mg/kg**	**60 - 90 mg/kg**	**15 - 30 mg/kg**
On site	**25 - 35 mg/kg**	**No data**	**100 mg/kg**	**60 mg/kg**	**1.8 mg/kg**	**60 - 90 mg/kg**	**15 - 30 mg/kg**
5m NE	25 - 35 mg/kg	No data	100 mg/kg	60 mg/kg	1.8 mg/kg	60 - 90 mg/kg	15 - 30 mg/kg
8m SE	25 - 35 mg/kg	No data	100 mg/kg	60 mg/kg	1.8 mg/kg	60 - 90 mg/kg	15 - 30 mg/kg
25m NW	25 - 35 mg/kg	No data	100 mg/kg	60 mg/kg	1.8 mg/kg	90 - 120 mg/kg	15 - 30 mg/kg

This data is sourced from the British Geological Survey.

20.2 BGS Estimated Urban Soil Chemistry

Records within 50m	0

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

This data is sourced from the British Geological Survey.

20.3 BGS Measured Urban Soil Chemistry

Records within 50m	0

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

This data is sourced from the British Geological Survey.

21 Railway infrastructure and projects

Site Outline

Search buffers in metres (m)

- Crossrail 1 Stations
- Crossrail 1 Route
- Crossrail 2 Stations
- Crossrail 2 Route
- Crossrail 2 Worksites
- Crossrail 2 Safeguarding
- 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
- HS2 Stations
- HS2 Depots
- HS2 Surface Safeguarding
- HS2 Subsurface Safeguarding

21.1 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.

21.2 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.

21.3 Railway tunnels

Records within 250m	0

Railway tunnels taken from contemporary Ordnance Survey mapping.

This data is sourced from the Ordnance Survey.

21.4 Historical railway and tunnel features

Records within 250m	5

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 108**

Location	Land Use	Year of mapping	Mapping scale
116m N	Mineral Railway Sidings	1892	10560
129m N	Mineral Railway Sidings	1948	10560
129m N	Mineral Railway Sidings	1905	10560
133m N	Tramway Sidings	1938	10560
139m N	Railway Sidings	1966	2500

This data is sourced from Ordnance Survey/Groundsure.

21.5 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.

21.6 Historical railways

Records within 250m	0

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

This data is sourced from OpenStreetMap.

21.7 Railways

Records within 250m	0

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

This data is sourced from Ordnance Survey and OpenStreetMap.

21.8 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.

21.9 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.

21.10 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.

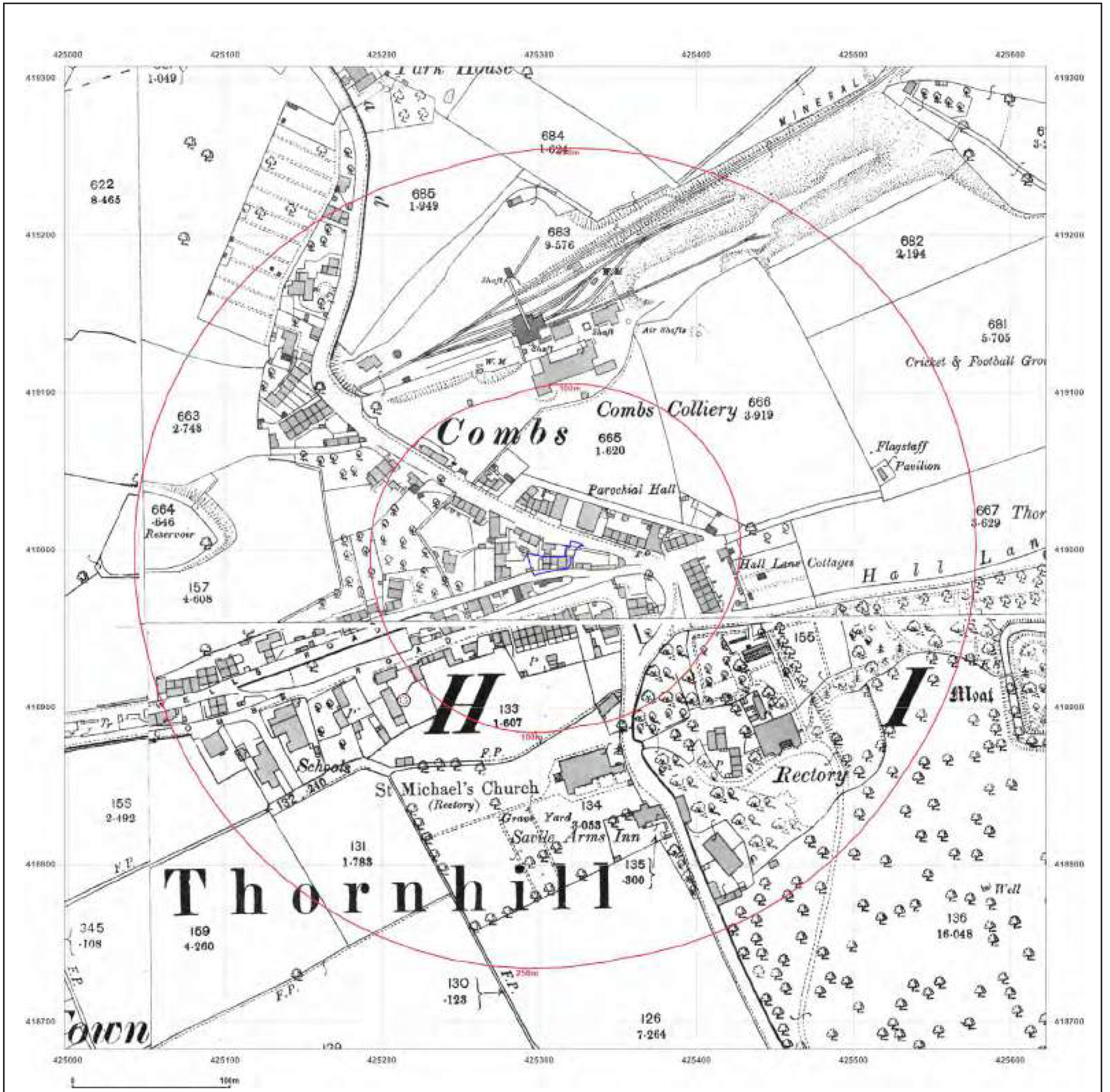
Data providers

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-jan-2020/.

Appendix C- Historical Mapping



Groundsure INSIGHTS

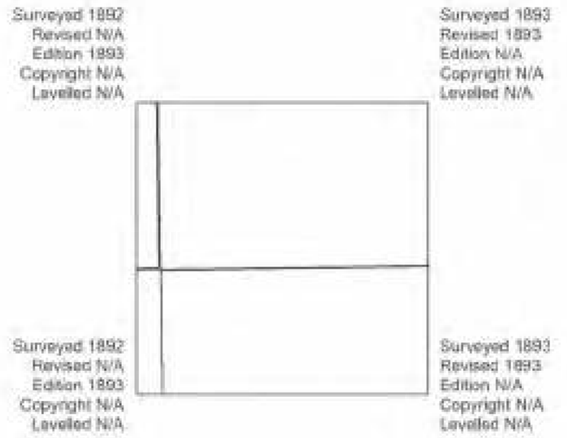
Site Details:

18, WELLS ROAD, THORNHILL,
DEWSBURY, WF12 0LE

Client Ref: YEX3503
Report Ref: GS-9107505
Grid Ref: 425310, 418995

Map Name: County Series
Map date: **1893**
Scale: 1:2,500
Printed at: 1:2,500

N
W E
S

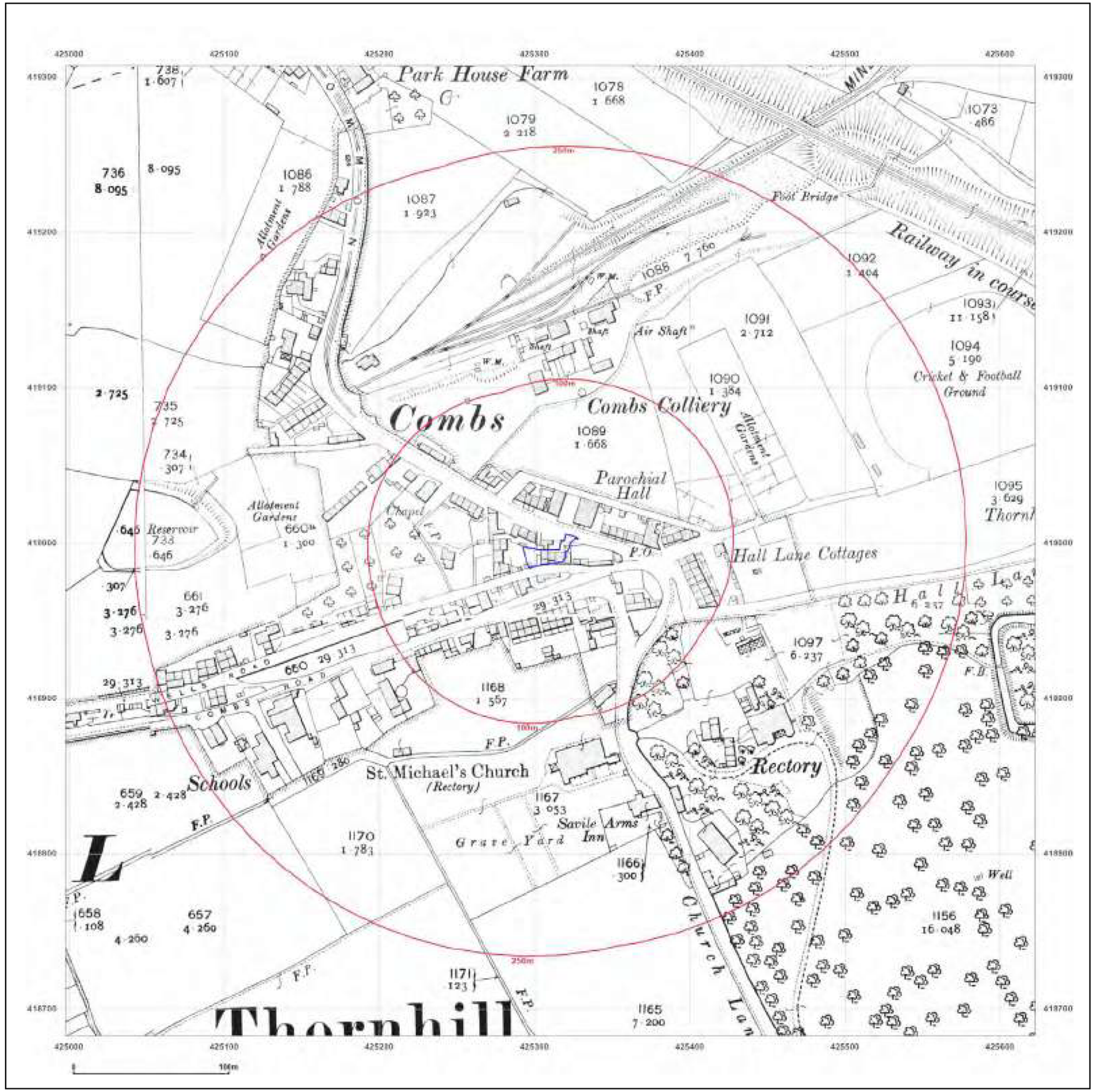


Powered by OS

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

Production date: 06 October 2022

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



Groundsure INSIGHTS

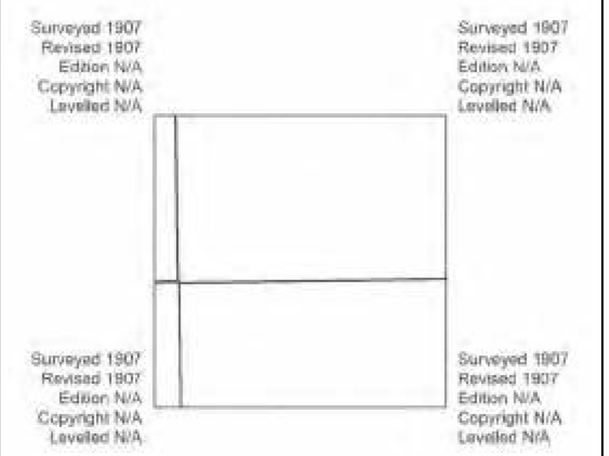
Site Details:

18, WELLS ROAD, THORNHILL,
DEWSBURY, WF12 0LE

Client Ref: YEX3503
Report Ref: GS-9107505
Grid Ref: 425310, 418995

Map Name: County Series
Map date: **1907**
Scale: 1:2,500
Printed at: 1:2,500

N
W E
S

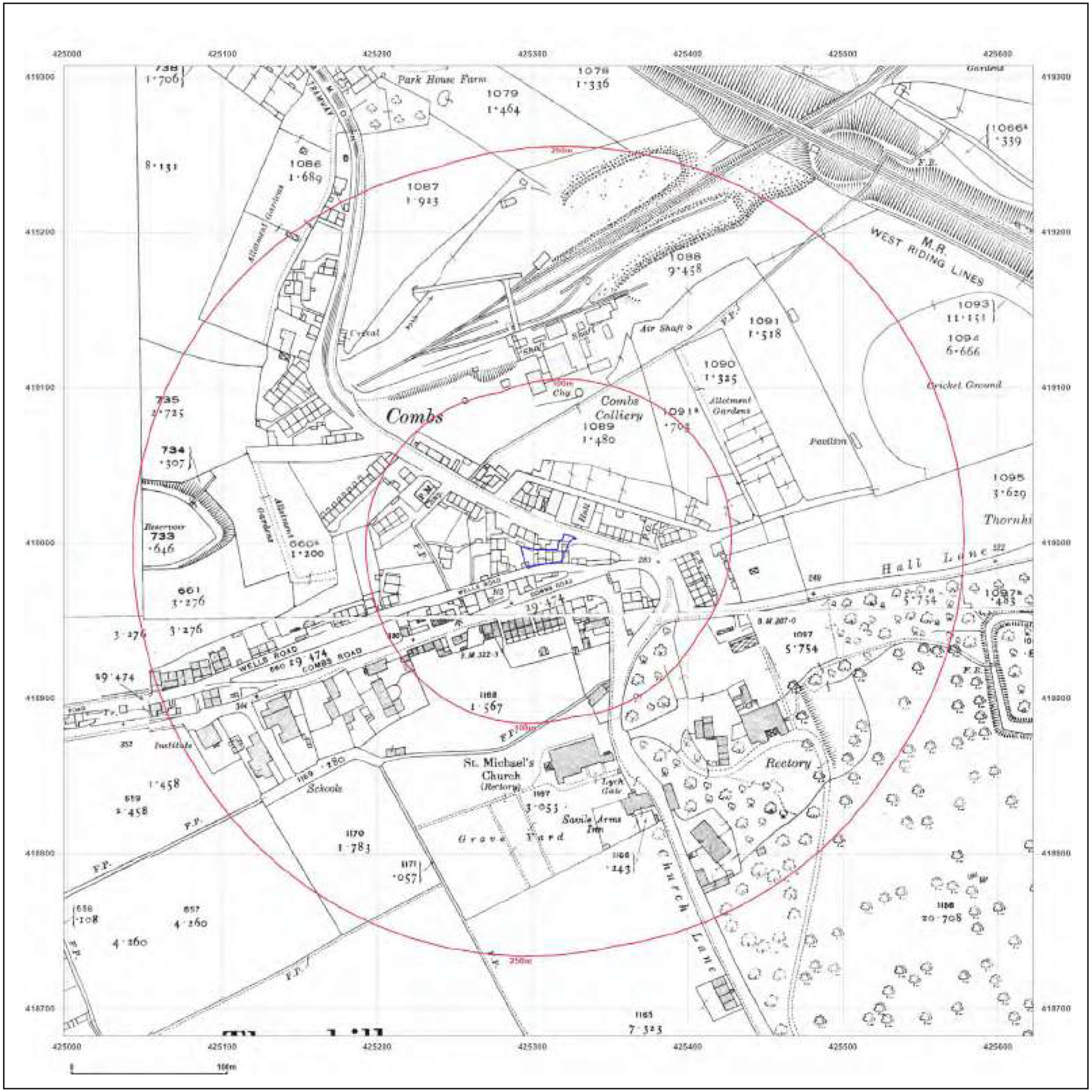


Powered by OS

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

Production date: 06 October 2022

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



Groundsure INSIGHTS

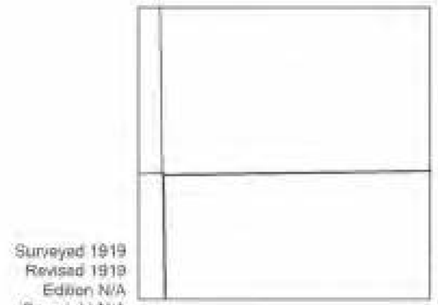
Site Details:

18, WELLS ROAD, THORNHILL,
DEWSBURY, WF12 0LE

Client Ref: YEX3503
Report Ref: GS-9107505
Grid Ref: 425310, 418995

Map Name: County Series
Map date: **1919-1922**
Scale: 1:2,500
Printed at: 1:2,500

N
W E
S

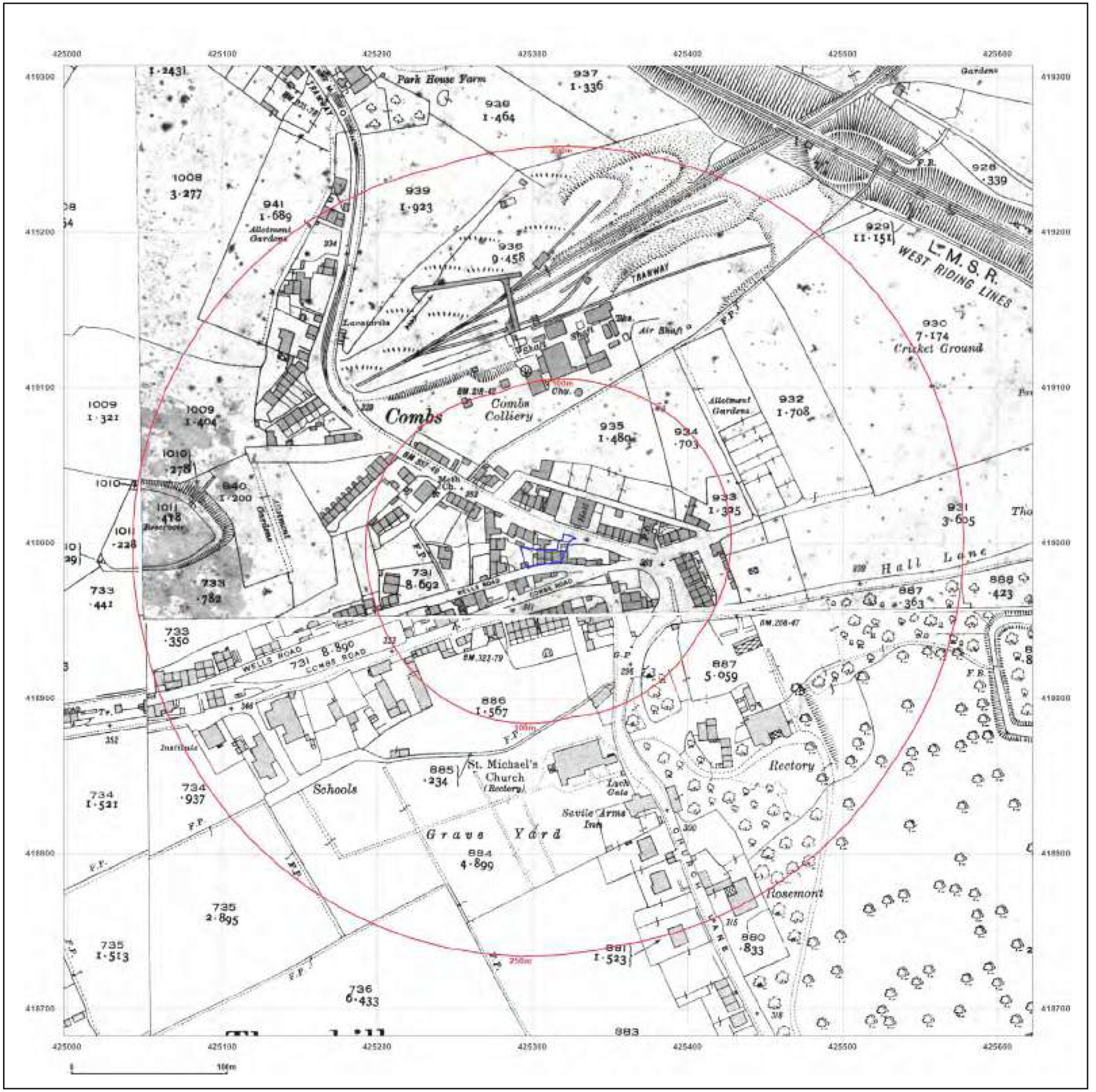


Powered by OS

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

Production date: 06 October 2022

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



Groundsure INSIGHTS

Site Details:

18, WELLS ROAD, THORNHILL,
DEWSBURY, WF12 0LE

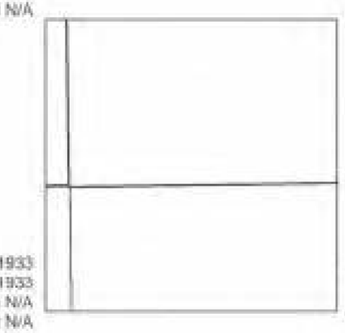
Client Ref: YEX3503
Report Ref: GS-9107505
Grid Ref: 425310, 418995

Map Name: County Series
Map date: **1932-1933**
Scale: 1:2,500
Printed at: 1:2,500

N
W E
S

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

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



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

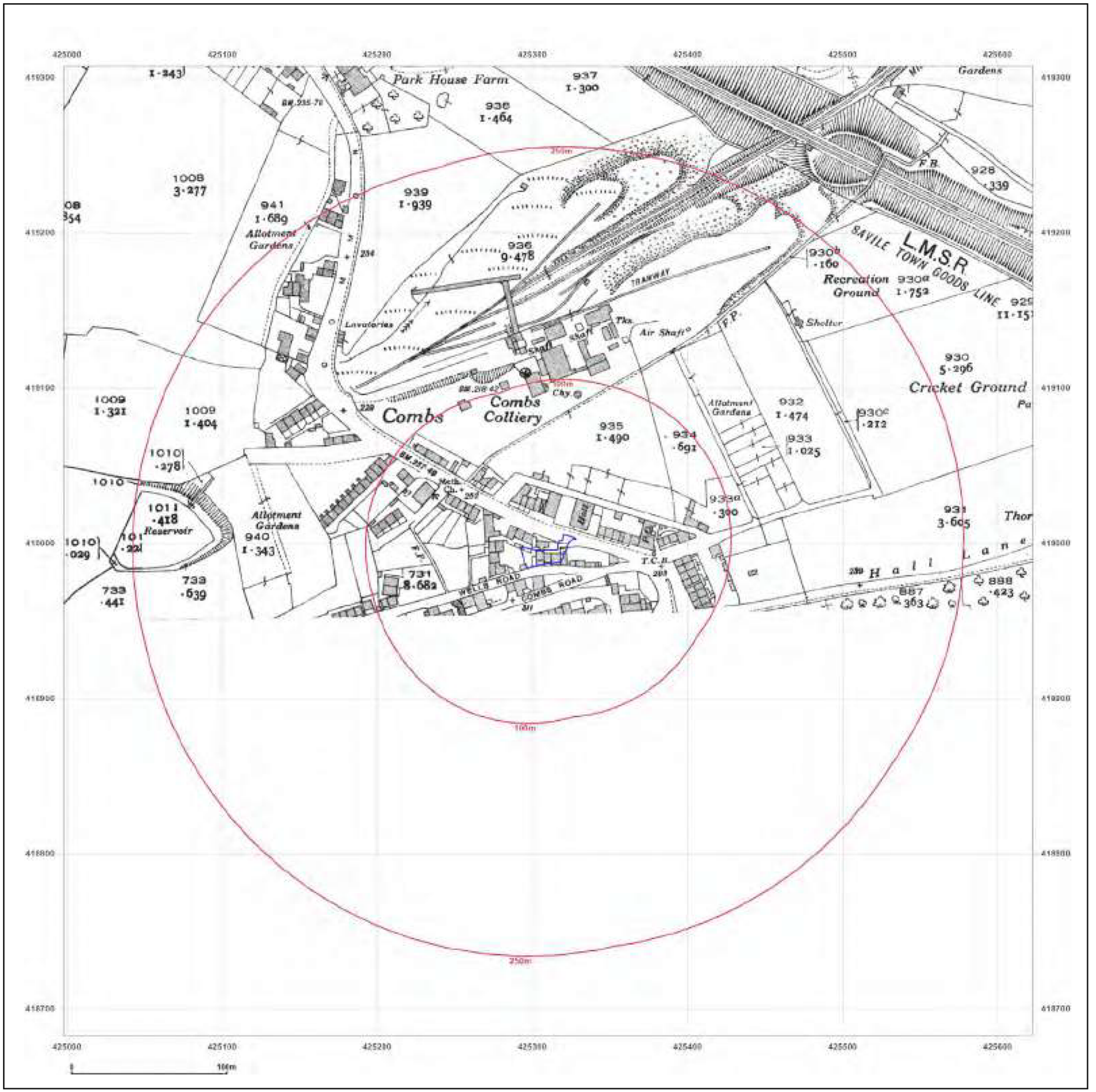
Surveyed 1932
Revised 1932
Edition N/A
Copyright N/A
Levelled N/A

Powered by OS

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

Production date: 06 October 2022

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



Groundsure INSIGHTS

Site Details:

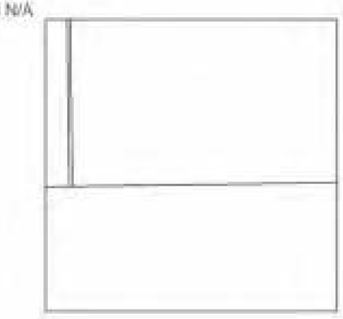
18, WELLS ROAD, THORNHILL, DEWSBURY, WF12 0LE

Client Ref: YEX3503
Report Ref: GS-9107505
Grid Ref: 425310, 418995

Map Name: County Series
Map date: **1937-1939**
Scale: 1:2,500
Printed at: 1:2,500

Surveyed 1937
Revised 1937
Edition N/A
Copyright N/A
Levelled N/A

Surveyed 1939
Revised 1939
Edition N/A
Copyright N/A
Levelled N/A



Powered by OS

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

Production date: 06 October 2022

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

Groundsure INSIGHTS

Site Details:

18, WELLS ROAD, THORNHILL,
DEWSBURY, WF12 0LE

Client Ref: YEX3503
Report Ref: GS-9107505
Grid Ref: 425310, 418995

Map Name: National Grid
Map date: **1953**
Scale: 1:1,250
Printed at: 1:2,000

N
W E
S

Surveyed 1953
Revised 1953
Edition N/A
Copyright N/A
Levelled 1931

Surveyed 1953
Revised 1953
Edition N/A
Copyright N/A
Levelled 1931

Surveyed 1953
Revised 1953
Edition N/A
Copyright N/A
Levelled 1931

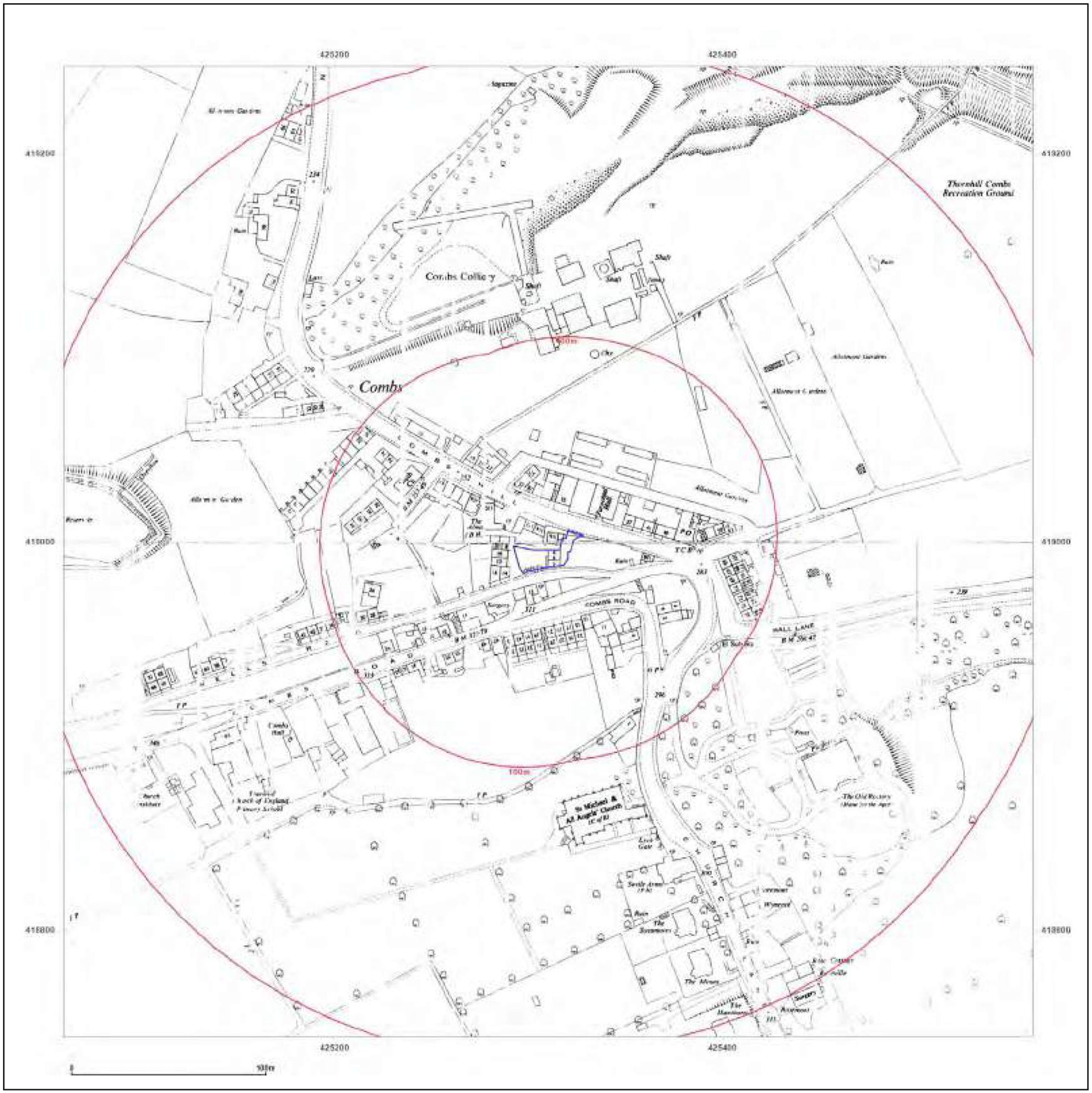
Surveyed 1953
Revised 1953
Edition N/A
Copyright N/A
Levelled 1931

Powered by OS

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

Production date: 06 October 2022

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



Groundsure INSIGHTS

Site Details:

18, WELLS ROAD, THORNHILL, DEWSBURY, WF12 0LE

Client Ref: YEX3503
Report Ref: GS-9107505
Grid Ref: 425310, 418995

Map Name: National Grid
Map date: **1954**
Scale: 1:1,250
Printed at: 1:2,000

N
W E
S

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

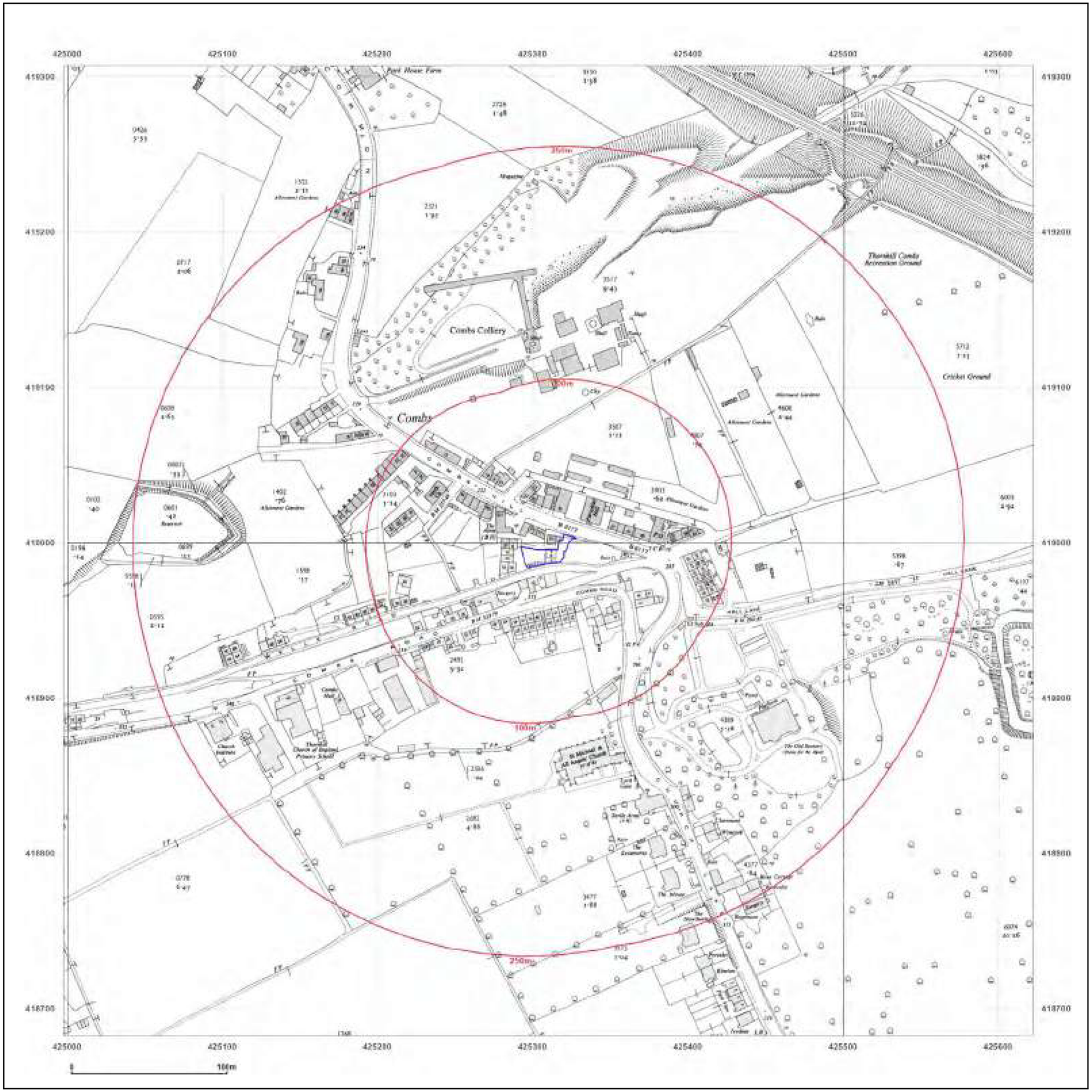
Surveyed N/A
Revised N/A
Edition N/A
Copyright N/A
Levelled N/A

Powered by

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

Production date: 06 October 2022

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



Groundsure INSIGHTS

Site Details:

18, WELLS ROAD, THORNHILL, DEWSBURY, WF12 0LE

Client Ref: YEX3503
Report Ref: GS-9107505
Grid Ref: 425310, 418995

Map Name: National Grid
Map date: **1955**
Scale: 1:2,500
Printed at: 1:2,500

N
W E
S

Surveyed 1954
Revised 1954
Edition 1955
Copyright N/A
Levelled 1931

Surveyed 1953
Revised 1953
Edition 1955
Copyright N/A
Levelled 1931

Surveyed 1954
Revised 1954
Edition 1955
Copyright N/A
Levelled 1931

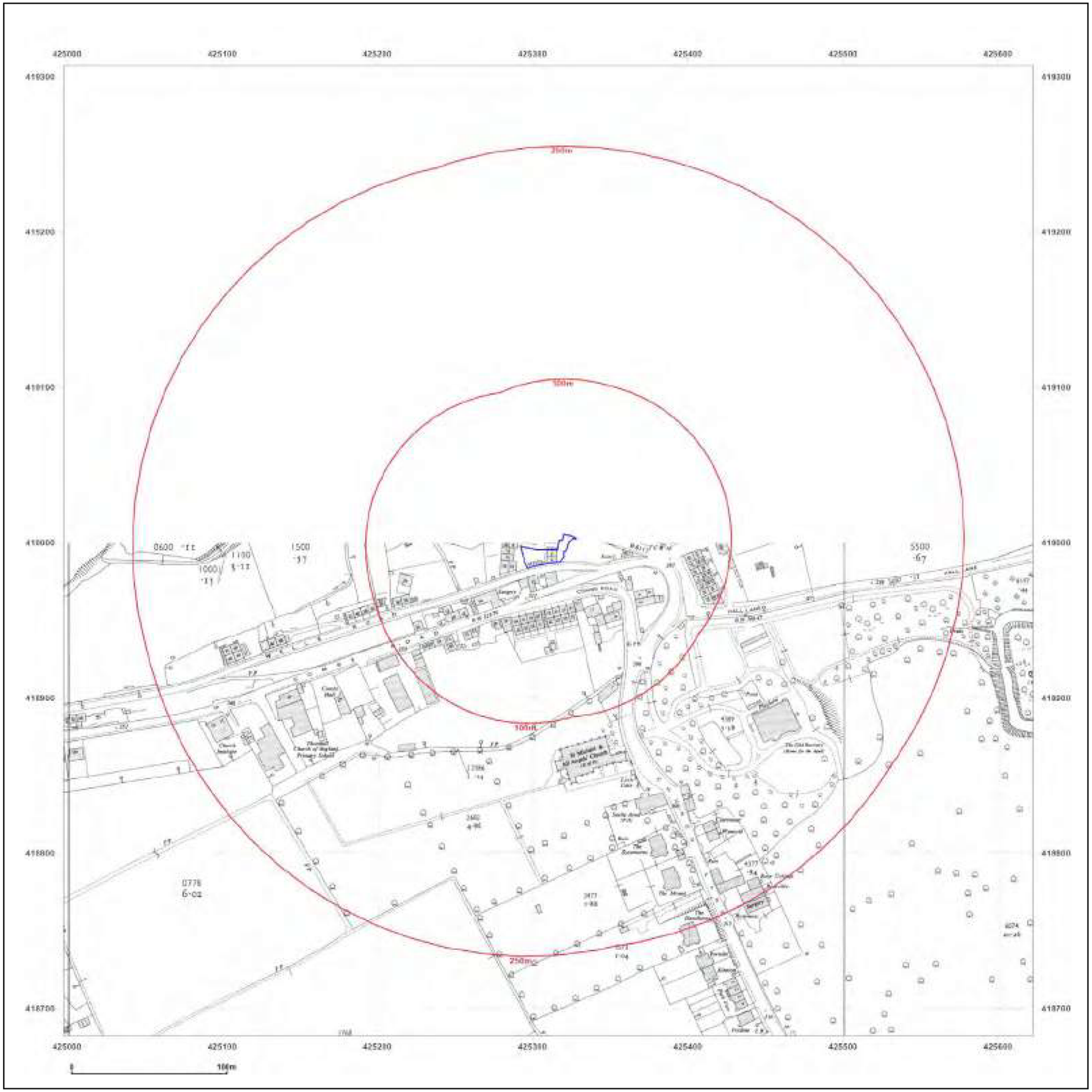
Surveyed 1953
Revised 1953
Edition 1955
Copyright N/A
Levelled 1931

Powered by OS

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

Production date: 06 October 2022

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



Groundsure INSIGHTS

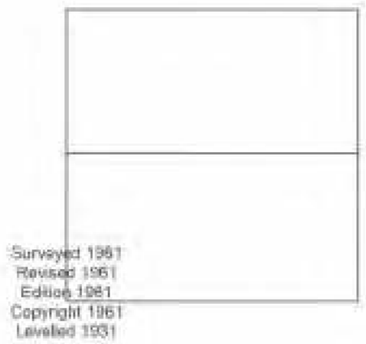
Site Details:

18, WELLS ROAD, THORNHILL,
DEWSBURY, WF12 0LE

Client Ref: YEX3503
Report Ref: GS-9107505
Grid Ref: 425310, 418995

Map Name: National Grid
Map date: **1961**
Scale: 1:2,500
Printed at: 1:2,500

N
W E
S

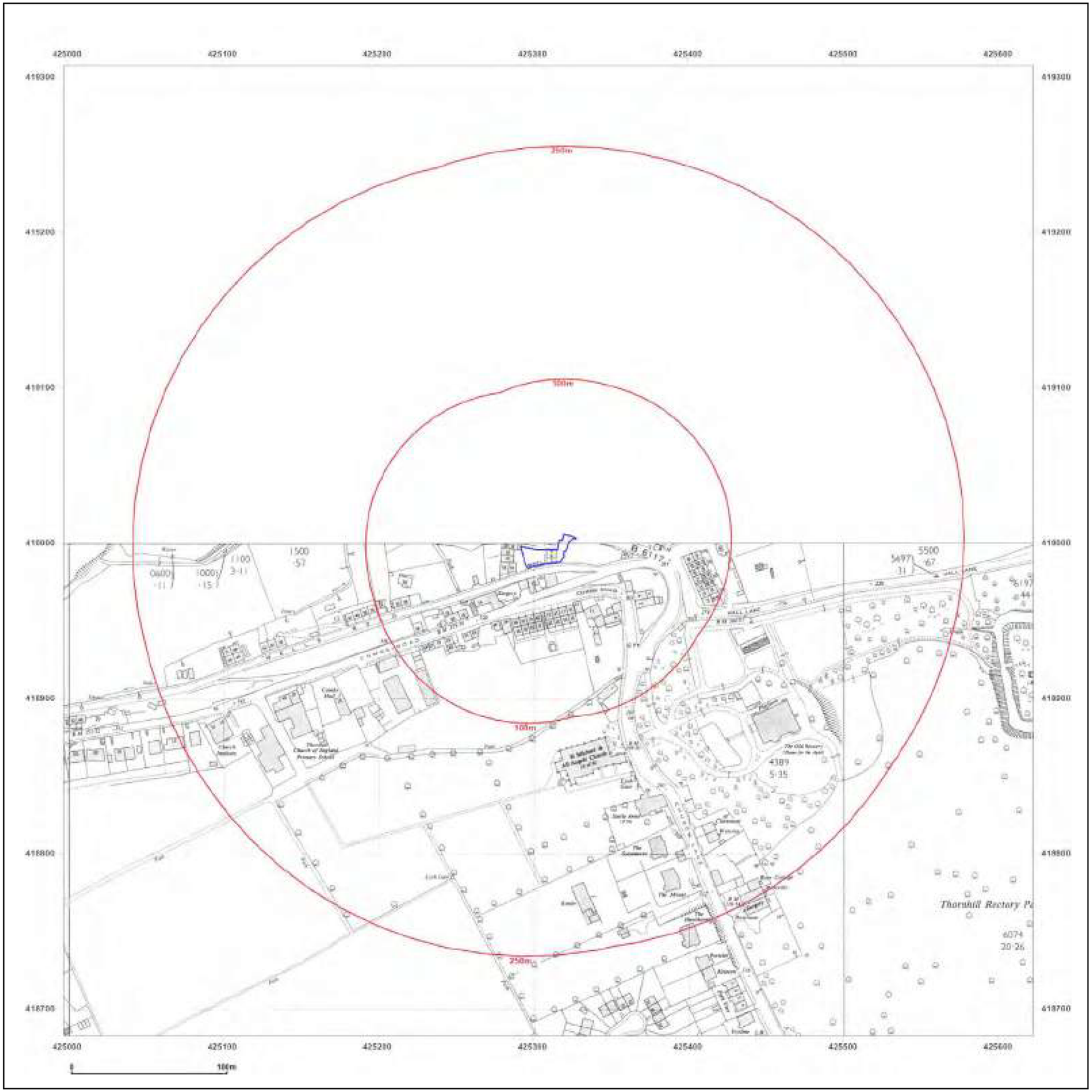


Powered by

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

Production date: 06 October 2022

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



Groundsure INSIGHTS

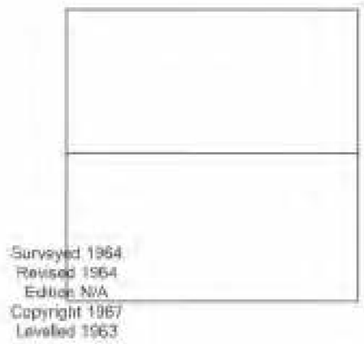
Site Details:

18, WELLS ROAD, THORNHILL,
DEWSBURY, WF12 0LE

Client Ref: YEX3503
Report Ref: GS-9107505
Grid Ref: 425310, 418995

Map Name: National Grid
Map date: **1967**
Scale: 1:2,500
Printed at: 1:2,500

N
W E
S



Powered by

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

Production date: 06 October 2022

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

Groundsure INSIGHTS

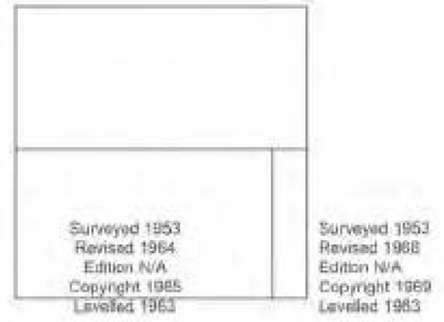
Site Details:

18, WELLS ROAD, THORNHILL,
DEWSBURY, WF12 0LE

Client Ref: YEX3503
Report Ref: GS-9107505
Grid Ref: 425310, 418995

Map Name: National Grid
Map date: **1965-1969**
Scale: 1:1,250
Printed at: 1:2,000

N
W E
S

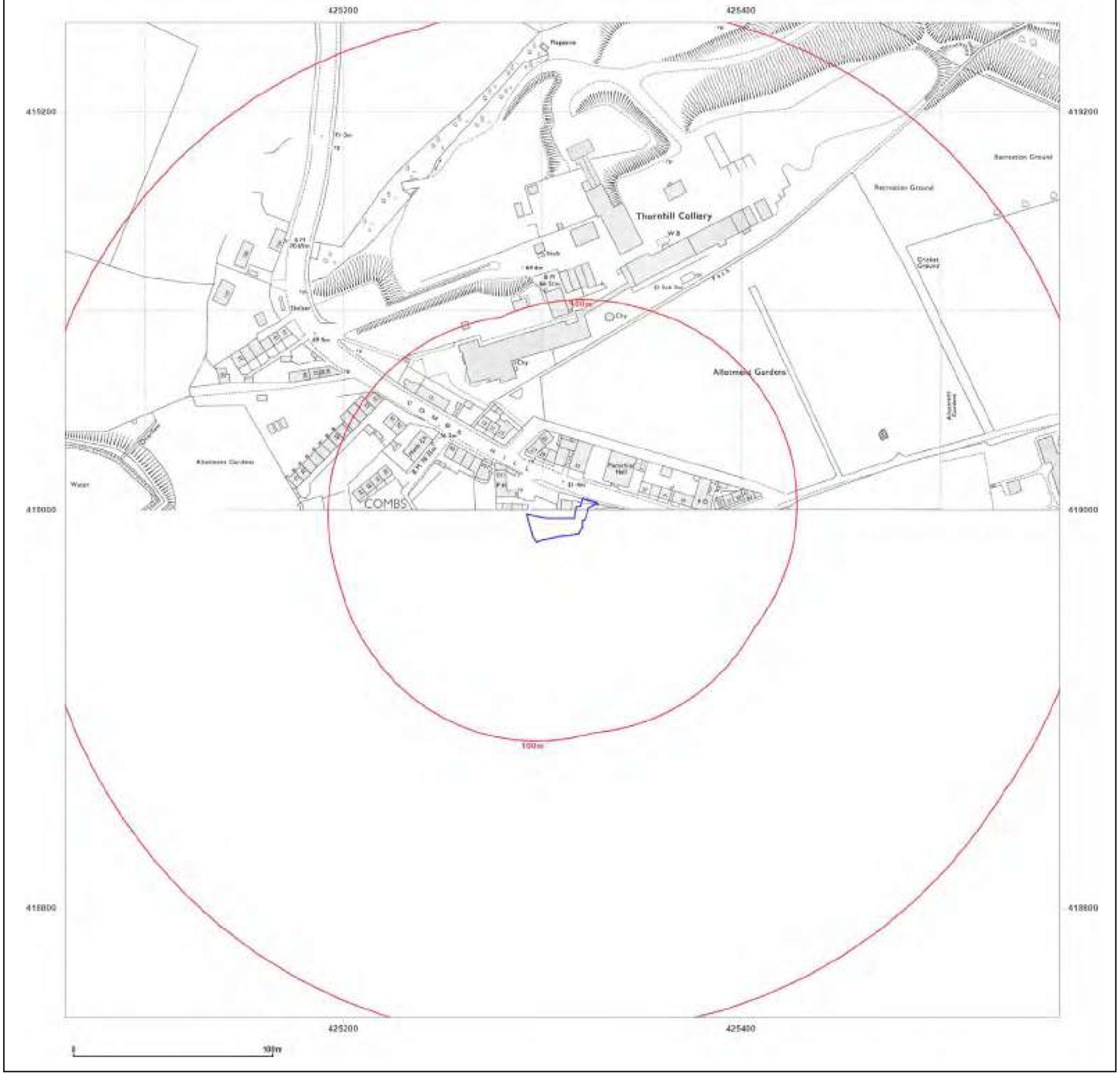


Powered by OS

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

Production date: 06 October 2022

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



Groundsure INSIGHTS

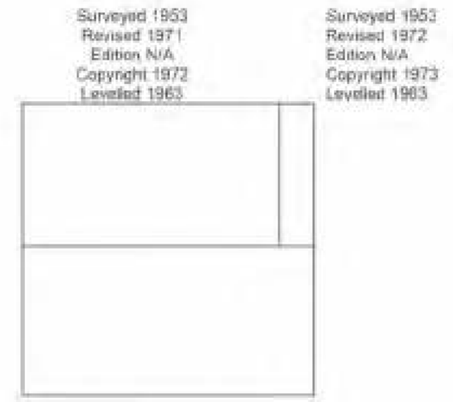
Site Details:

18, WELLS ROAD, THORNHILL,
DEWSBURY, WF12 0LE

Client Ref: YEX3503
Report Ref: GS-9107505
Grid Ref: 425310, 418995

Map Name: National Grid
Map date: **1972-1973**
Scale: 1:1,250
Printed at: 1:2,000

N
W E
S

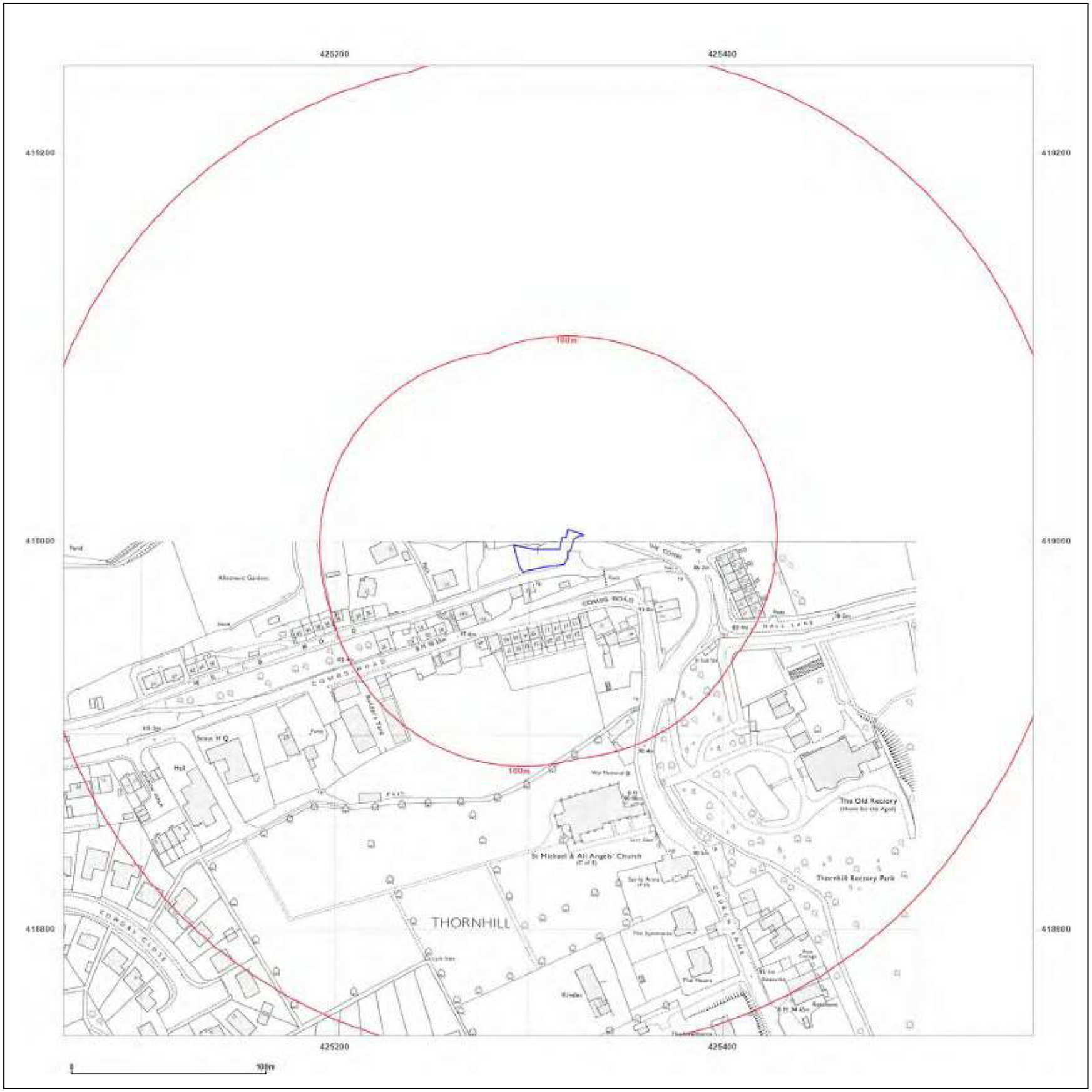


Powered by OS

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

Production date: 06 October 2022

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



Groundsure INSIGHTS

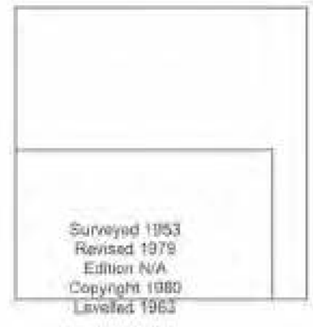
Site Details:

18, WELLS ROAD, THORNHILL,
DEWSBURY, WF12 0LE

Client Ref: YEX3503
Report Ref: GS-9107505
Grid Ref: 425310, 418995

Map Name: National Grid
Map date: **1980**
Scale: 1:1,250
Printed at: 1:2,000

N
W E
S



Powered by OS

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

Production date: 06 October 2022

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

Groundsure INSIGHTS

Site Details:

18, WELLS ROAD, THORNHILL,
DEWSBURY, WF12 0LE

Client Ref: YEX3503
Report Ref: GS-9107505
Grid Ref: 425310, 418995

Map Name: National Grid
Map date: **1990-1994**
Scale: 1:1,250
Printed at: 1:2,000

N
W E
S

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

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

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

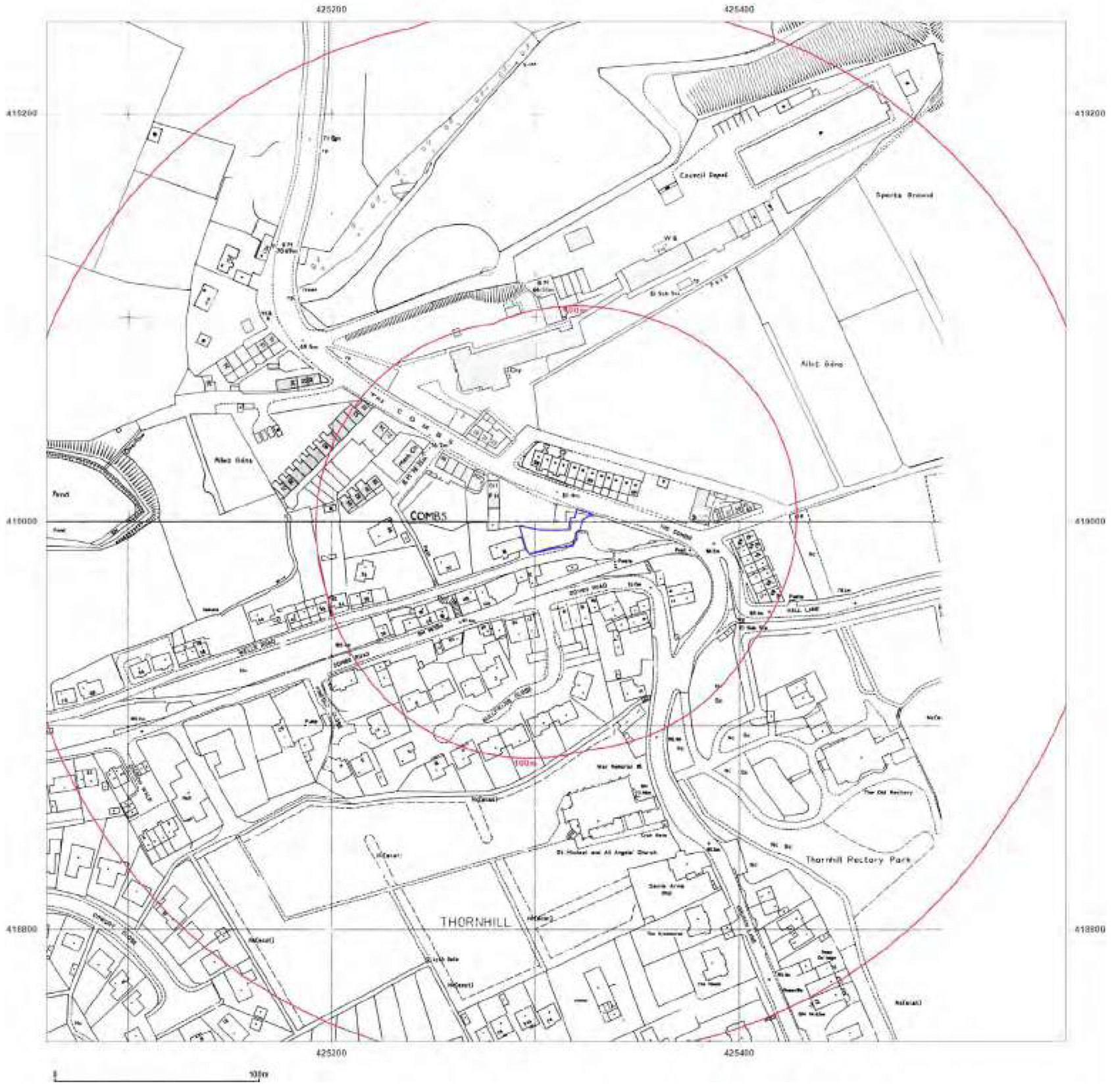
Surveyed 1994
Revised 1994
Edition N/A
Copyright N/A
Levelled N/A

Powered by OS

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

Production date: 06 October 2022

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



Groundsure INSIGHTS

Site Details:

18, WELLS ROAD, THORNHILL,
DEWSBURY, WF12 0LE

Client Ref: YEX3503
Report Ref: GS-9107505
Grid Ref: 425310, 418995

Map Name: National Grid
Map date: **1989-1994**
Scale: 1:1,250
Printed at: 1:2,000

N
W E
S

Surveyed 1963
Revised 1989
Edition N/A
Copyright 1989
Levelled 1963

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

Powered by OS

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

Production date: 06 October 2022

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

Groundsure INSIGHTS

Site Details:

18, WELLS ROAD, THORNHILL,
DEWSBURY, WF12 0LE

Client Ref: YEX3503
Report Ref: GS-9107505
Grid Ref: 425310, 418995

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

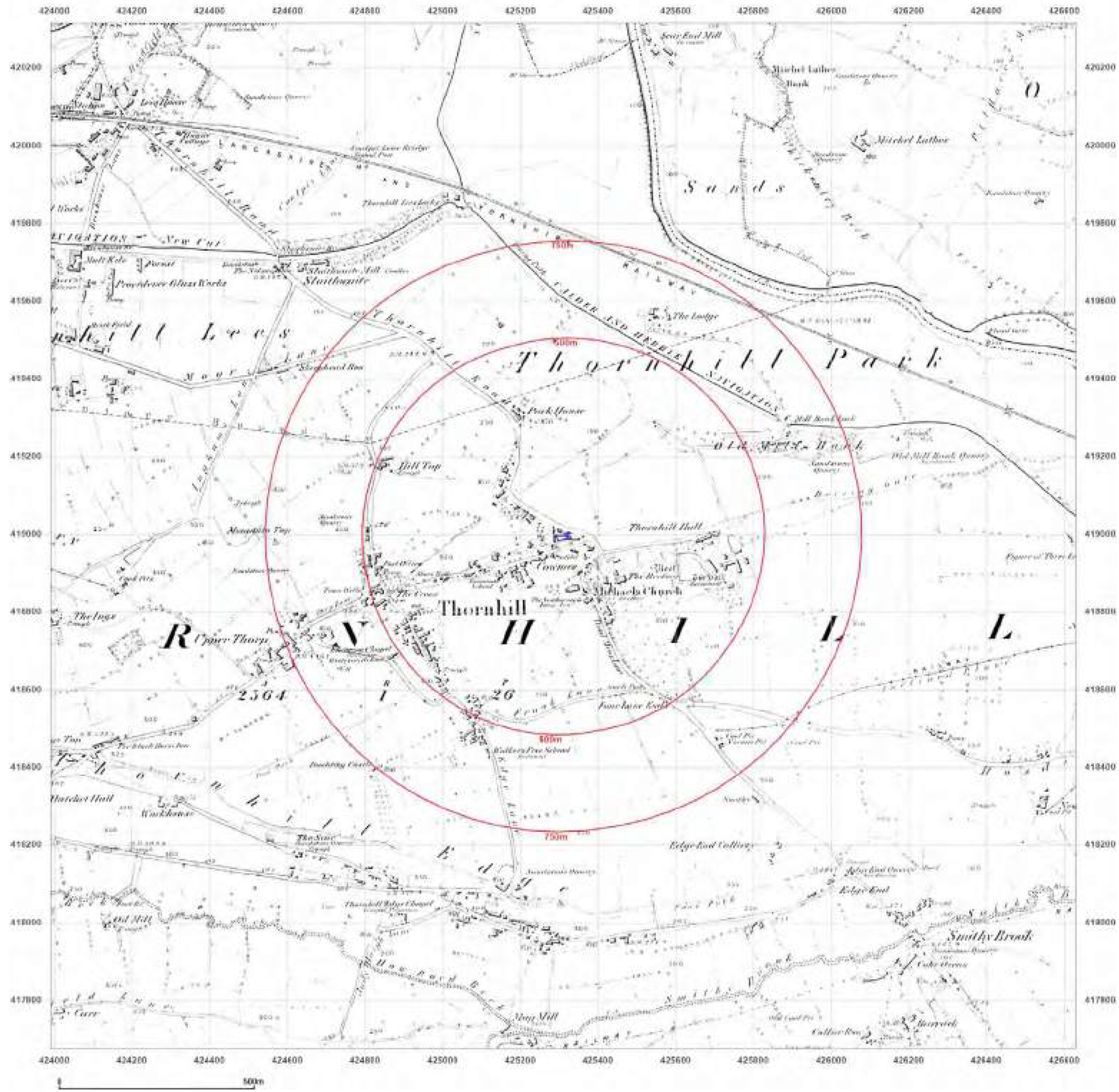
N
W E
S

Powered by OS

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

Production date: 06 October 2022

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



Site Details:

18, WELLS ROAD, THORNHILL,
DEWSBURY, WF12 0LE

Client Ref: YEX3503
Report Ref: GS-9107505
Grid Ref: 425310, 418995

Map Name: County Series

Map date: **1855**

Scale: 1:10,560

Printed at: 1:10,560

N
W E
S

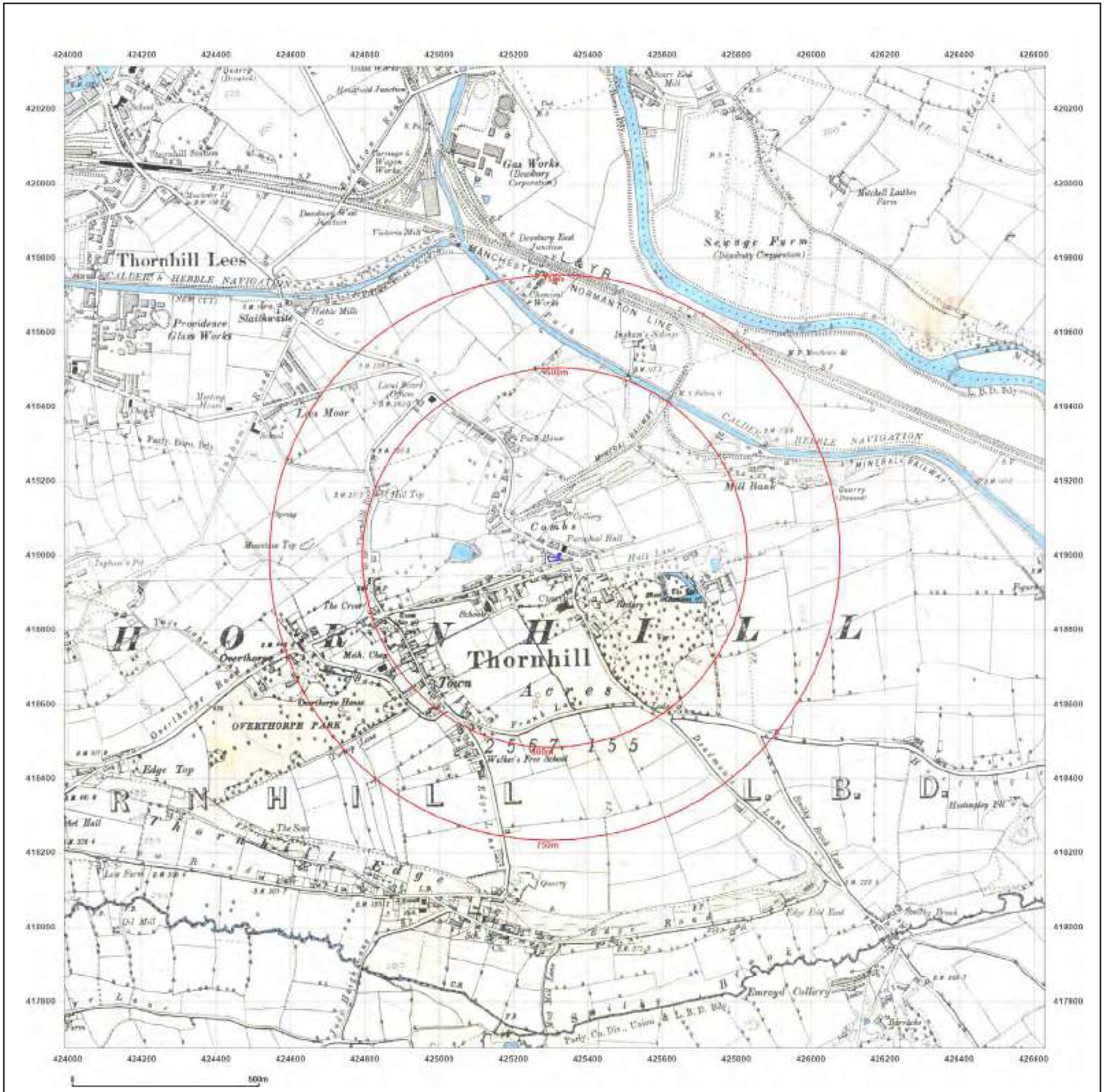
Surveyed 1851
Revised N/A
Edition 1855
Copyright N/A
Levelled N/A

Powered by OS

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

Production date: 06 October 2022

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



Groundsure INSIGHTS

Site Details:

18, WELLS ROAD, THORNHILL, DEWSBURY, WF12 0LE

Client Ref: YEX3503
Report Ref: GS-9107505
Grid Ref: 425310, 418995

Map Name: County Series
Map date: **1892**
Scale: 1:10,560
Printed at: 1:10,560

N
W E
S

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

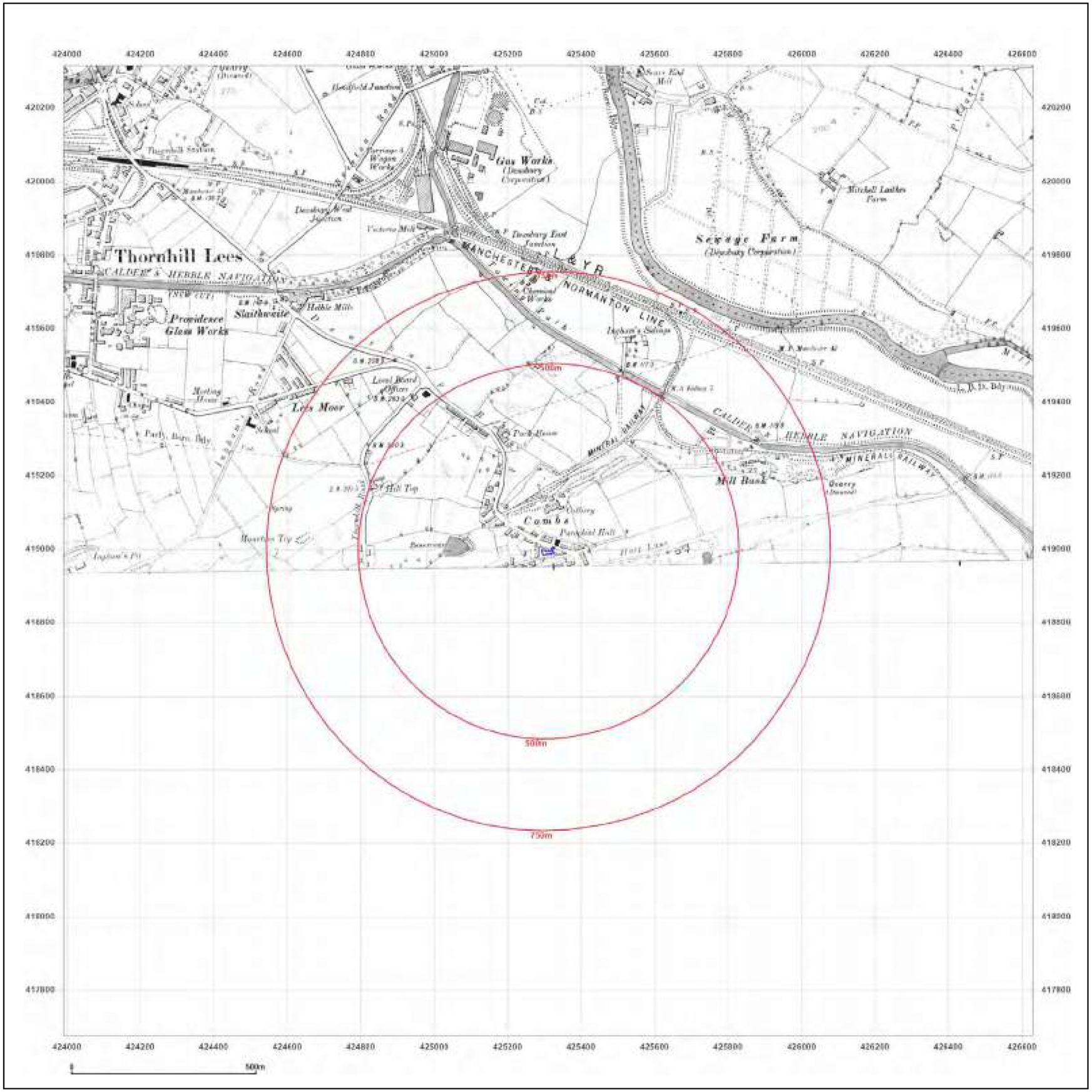
Surveyed 1892
Revised 1892
Edition N/A
Copyright N/A
Levelled N/A

Powered by OS

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

Production date: 06 October 2022

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



Groundsure INSIGHTS

Site Details:

18, WELLS ROAD, THORNHILL, DEWSBURY, WF12 0LE

Client Ref: YEX3503
Report Ref: GS-9107505
Grid Ref: 425310, 418995

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

N
W E
S

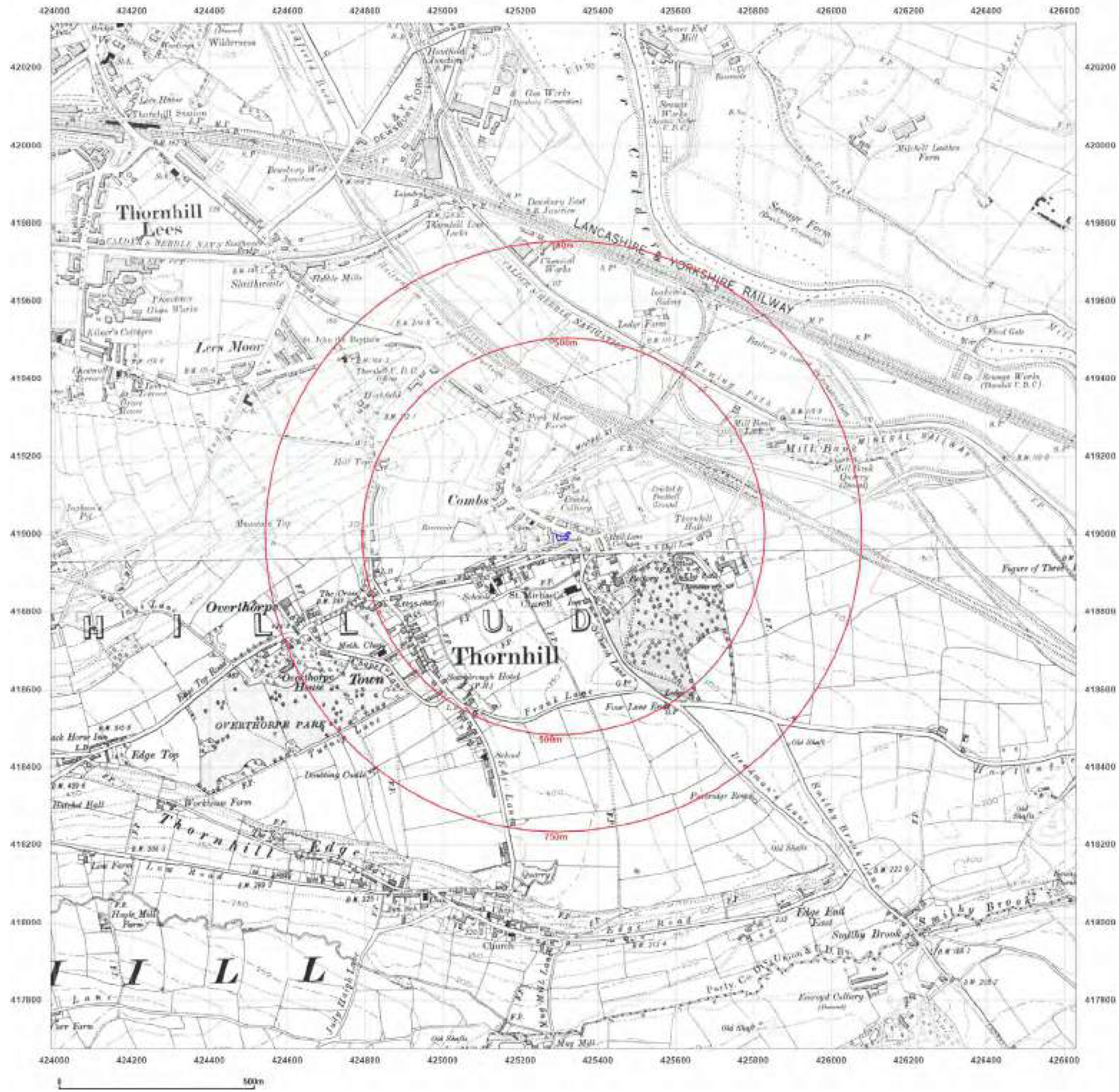
Surveyed 1892
Revised N/A
Edition 1894
Copyright N/A
Levelled N/A

Powered by

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

Production date: 06 October 2022

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



Site Details:

18, WELLS ROAD, THORNHILL,
DEWSBURY, WF12 0LE

Client Ref: YEX3503
Report Ref: GS-9107505
Grid Ref: 425310, 418995

Map Name: County Series

Map date: **1905**

Scale: 1:10,560

Printed at: 1:10,560

N
W E
S

Surveyed 1892
Revised 1905
Edition N/A
Copyright N/A
Levelled N/A

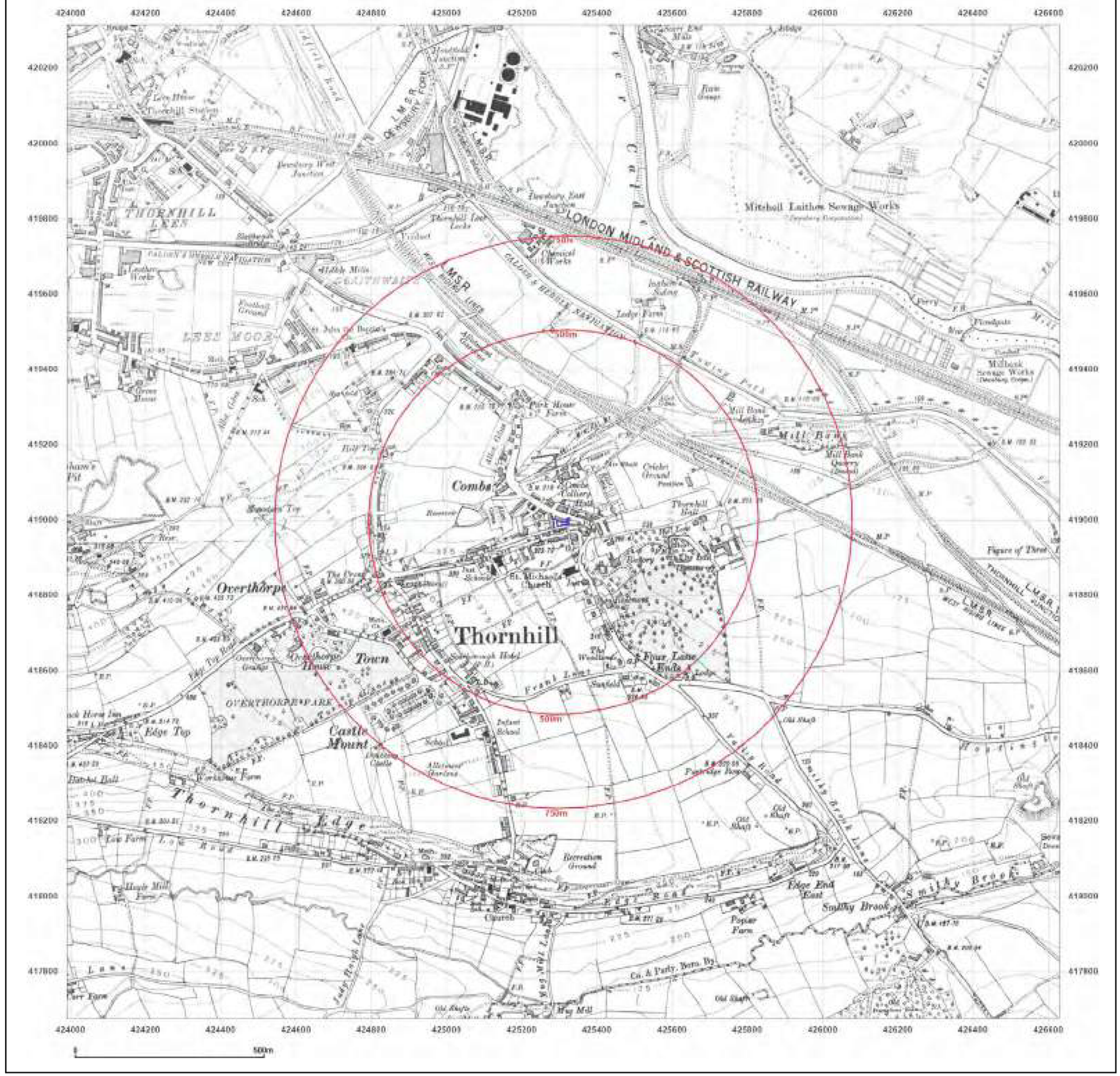
Surveyed 1892
Revised 1905
Edition N/A
Copyright N/A
Levelled N/A

Powered by OS

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

Production date: 06 October 2022

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



Groundsure INSIGHTS

Site Details:

18, WELLS ROAD, THORNHILL,
DEWSBURY, WF12 0LE

Client Ref: YEX3503
Report Ref: GS-9107505
Grid Ref: 425310, 418995

Map Name: County Series
Map date: **1931**
Scale: 1:10,560
Printed at: 1:10,560

N
W E
S

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

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

Powered by OS

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

Production date: 06 October 2022

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

Groundsure INSIGHTS

Site Details:

18, WELLS ROAD, THORNHILL, DEWSBURY, WF12 0LE

Client Ref: YEX3503
Report Ref: GS-9107505
Grid Ref: 425310, 418995

Map Name: County Series
Map date: **1938**
Scale: 1:10,560
Printed at: 1:10,560

N
W E
S

Surveyed 1851
Revised 1938
Edition N/A
Copyright N/A
Levelled 1931

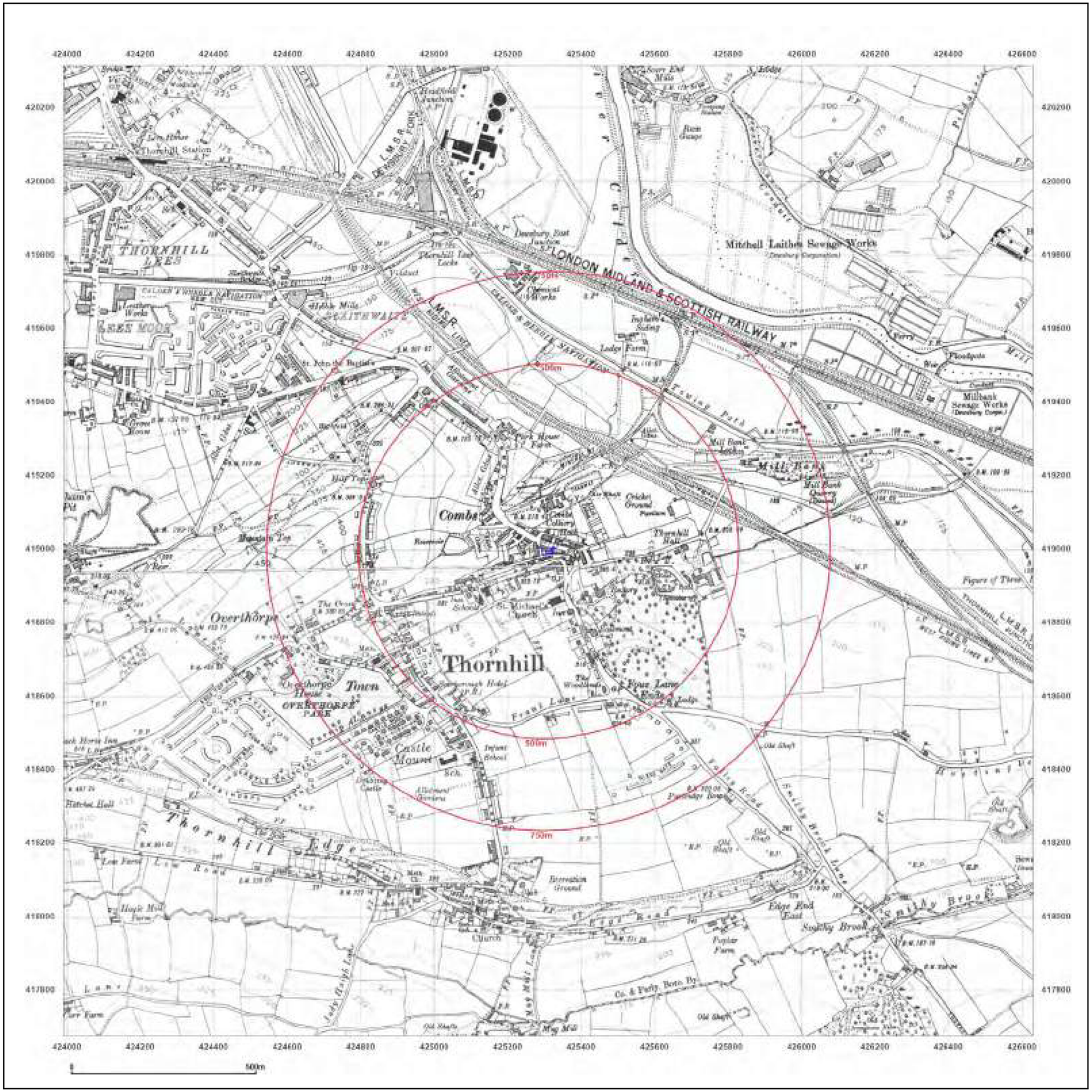
Surveyed 1849
Revised 1938
Edition N/A
Copyright N/A
Levelled 1931

Powered by OS

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

Production date: 06 October 2022

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



Groundsure INSIGHTS

Site Details:

18, WELLS ROAD, THORNHILL,
DEWSBURY, WF12 0LE

Client Ref: YEX3503
Report Ref: GS-9107505
Grid Ref: 425310, 418995

Map Name: County Series

Map date: **1938**

Scale: 1:10,560

Printed at: 1:10,560

N
W E
S

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

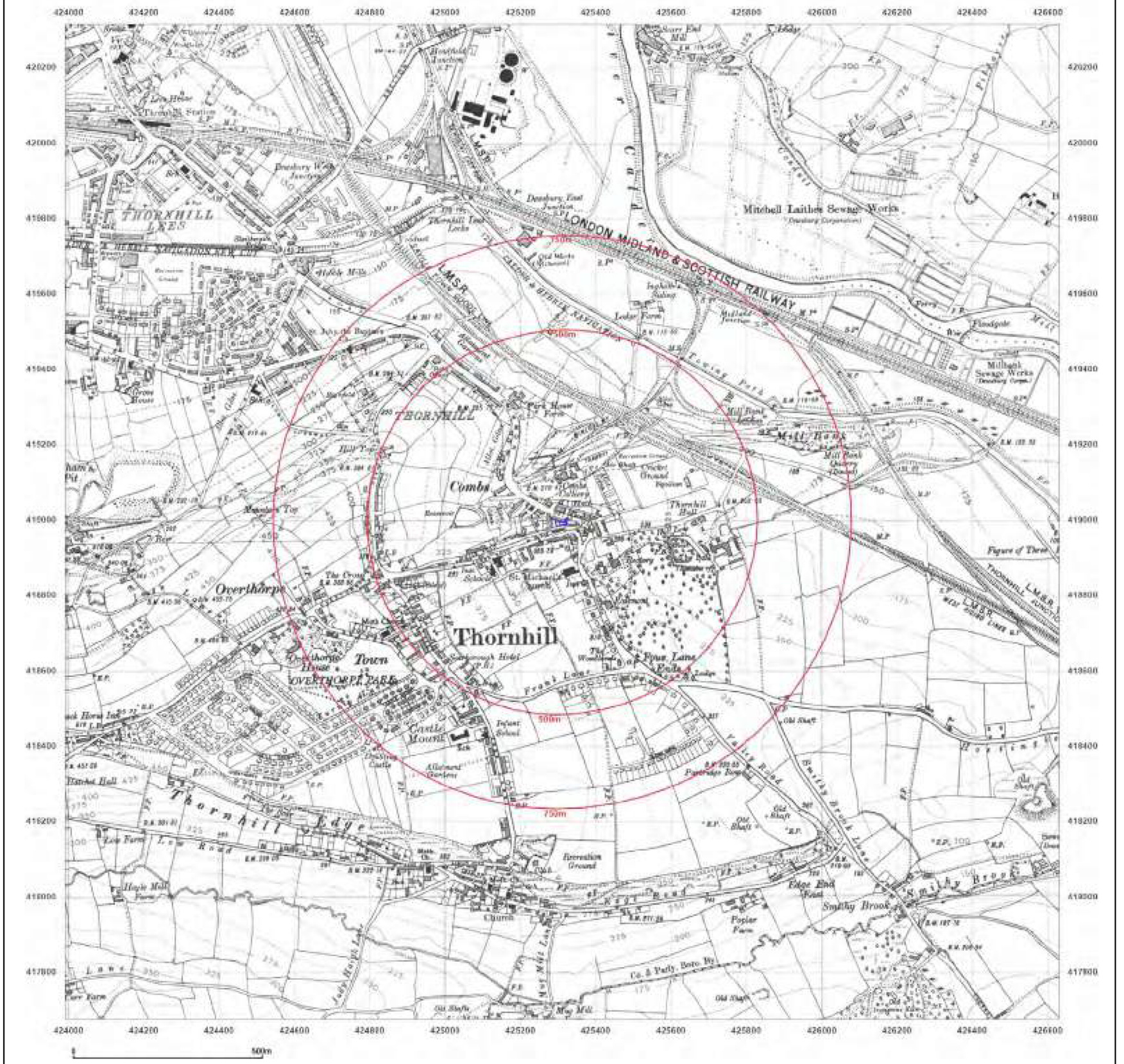
Surveyed 1851
Revised 1938
Edition 1938
Copyright N/A
Levelled N/A

Powered by OS

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

Production date: 06 October 2022

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



Groundsure INSIGHTS

Site Details:

18, WELLS ROAD, THORNHILL, DEWSBURY, WF12 0LE

Client Ref: YEX3503
Report Ref: GS-9107505
Grid Ref: 425310, 418995

Map Name: County Series

Map date: **1948**

Scale: 1:10,560

Printed at: 1:10,560

N
W E
S

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

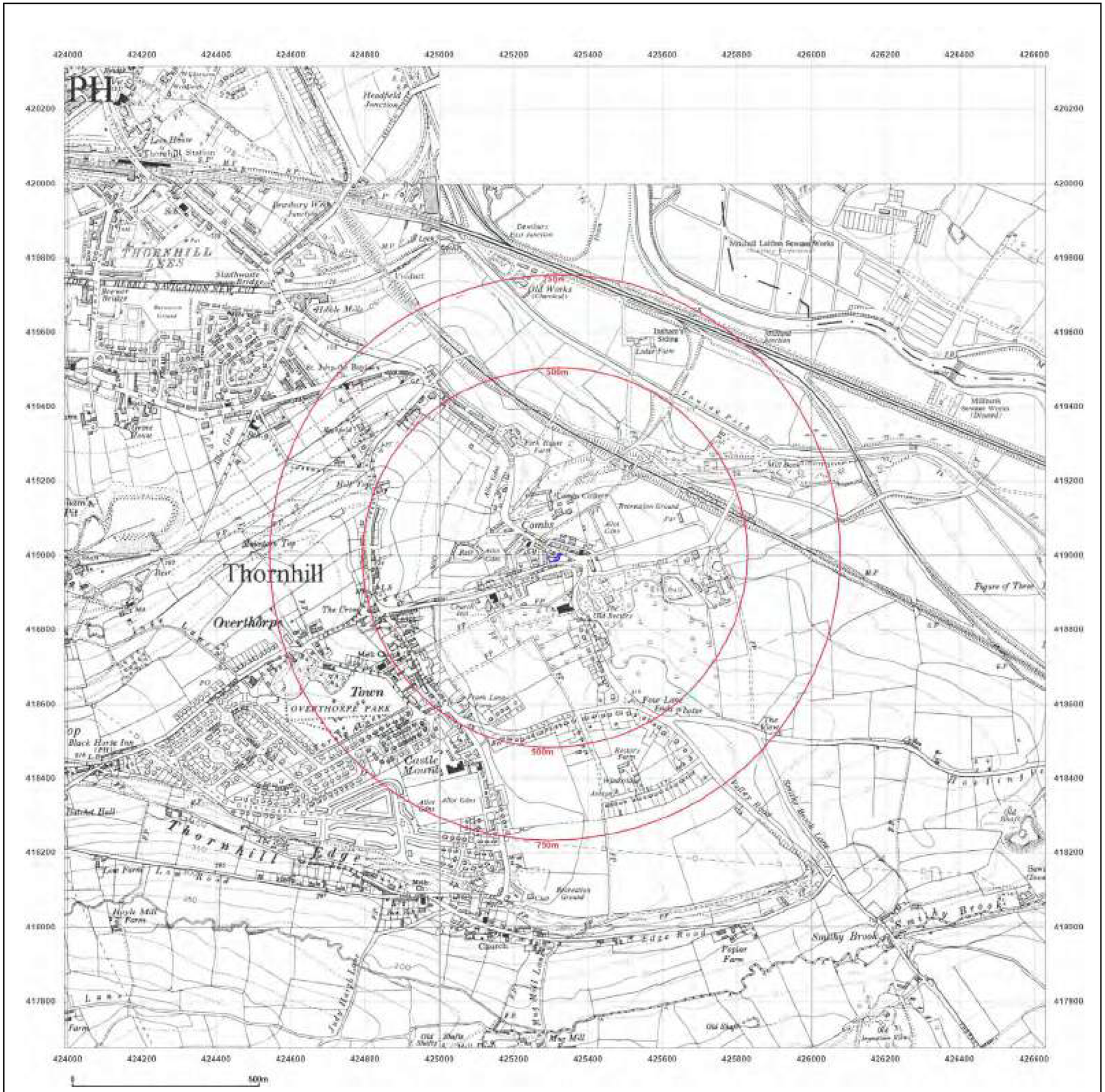
Surveyed 1851
Revised 1948
Edition N/A
Copyright N/A
Levelled N/A

Powered by OS

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

Production date: 06 October 2022

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



Groundsure INSIGHTS

Site Details:

18, WELLS ROAD, THORNHILL,
DEWSBURY, WF12 0LE

Client Ref: YEX3503
Report Ref: GS-9107505
Grid Ref: 425310, 418995

Map Name: Provisional
Map date: **1951-1955**
Scale: 1:10,560
Printed at: 1:10,560

N
W E
S

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

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

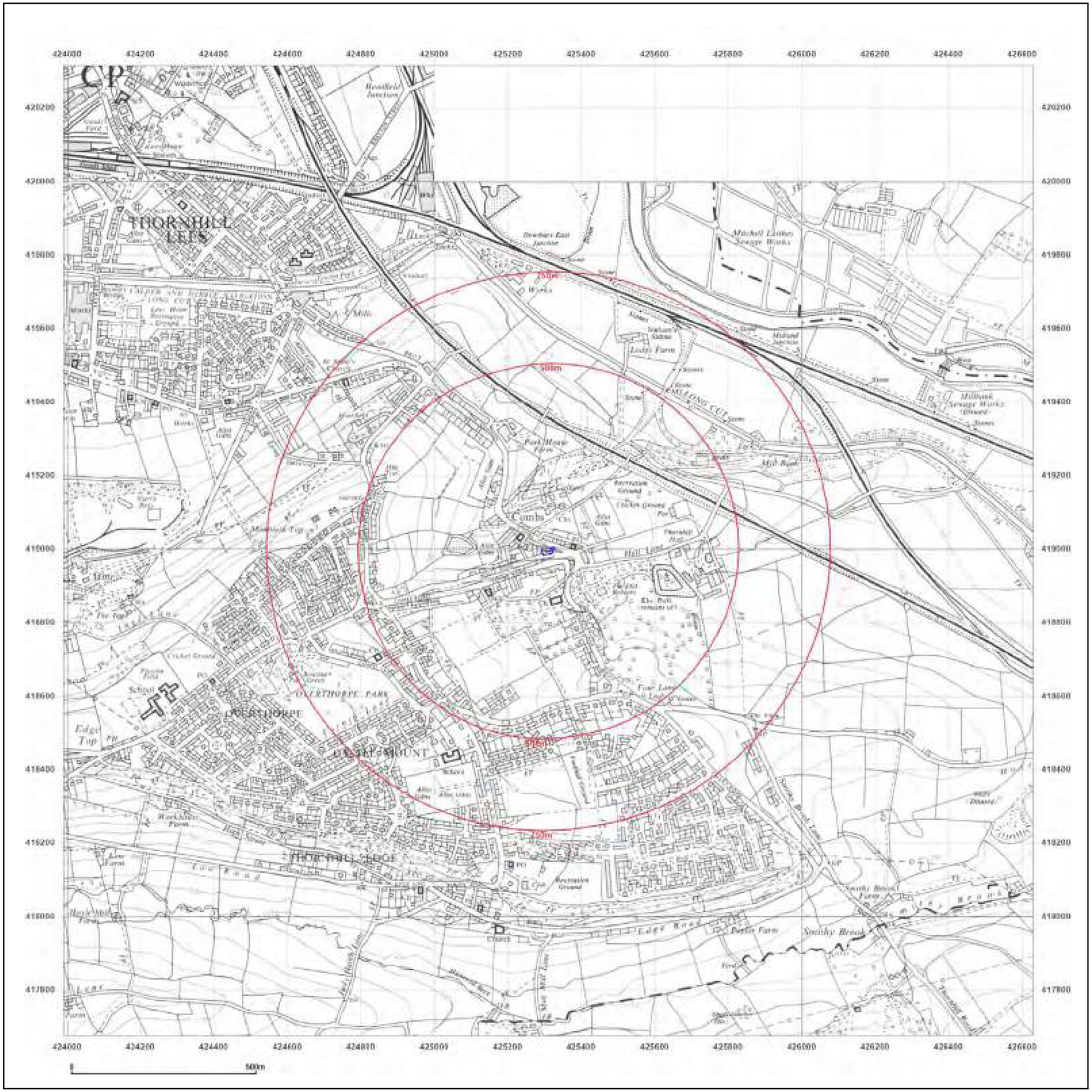
Surveyed N/A
Revised 1955
Edition N/A
Copyright N/A
Levelled N/A

Powered by OS

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

Production date: 06 October 2022

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



Groundsure INSIGHTS

Site Details:

18, WELLS ROAD, THORNHILL, DEWSBURY, WF12 0LE

Client Ref: YEX3503
Report Ref: GS-9107505
Grid Ref: 425310, 418995

Map Name: Provisional
Map date: **1966-1967**
Scale: 1:10,560
Printed at: 1:10,560

N
W E
S

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

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

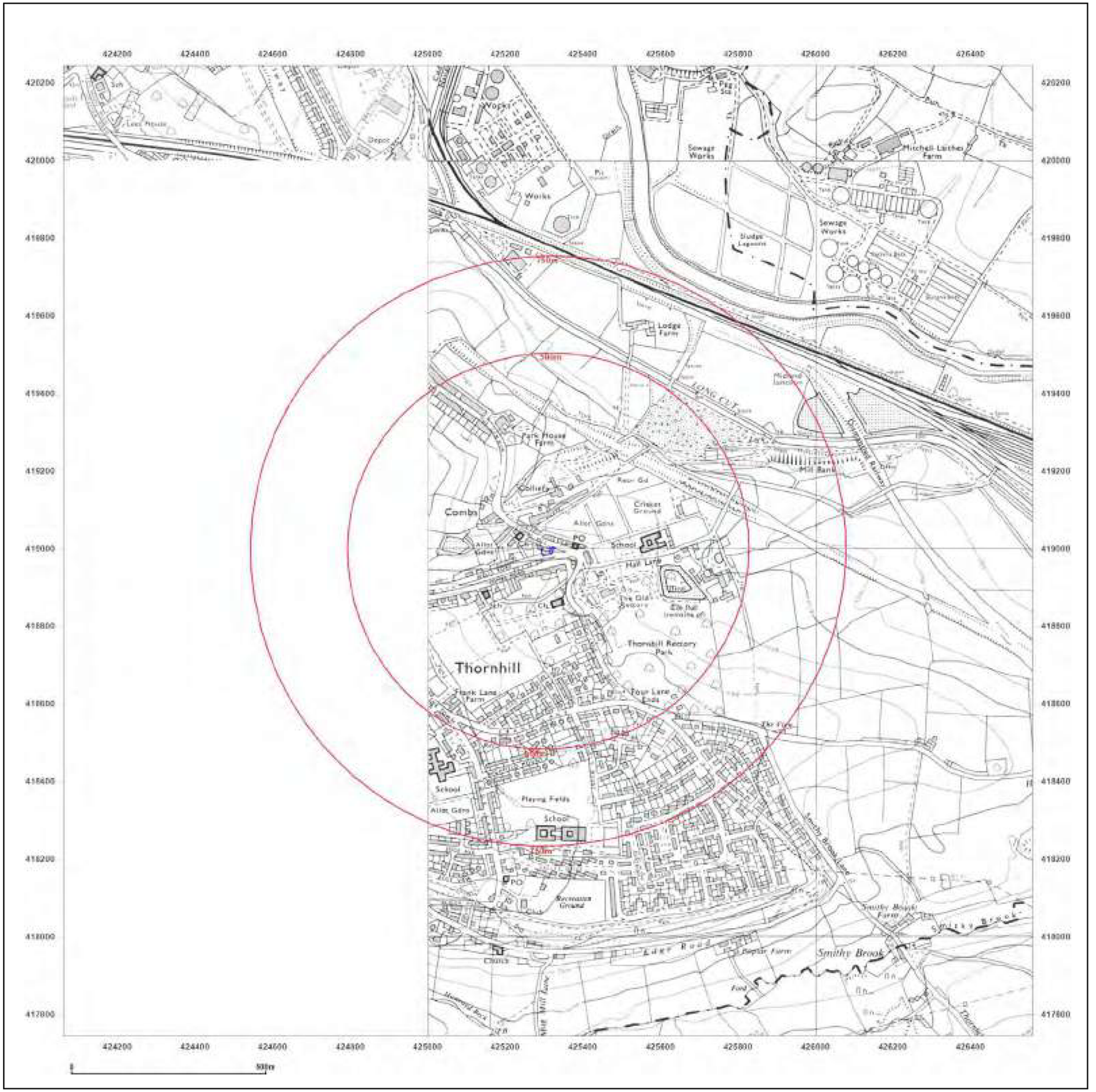
Surveyed 1966
Revised 1966
Edition N/A
Copyright N/A
Levelled N/A

Powered by OS

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

Production date: 06 October 2022

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



Groundsure INSIGHTS

Site Details:

18, WELLS ROAD, THORNHILL,
DEWSBURY, WF12 0LE

Client Ref: YEX3503
Report Ref: GS-9107505
Grid Ref: 425310, 418995

Map Name: National Grid
Map date: **1971-1974**
Scale: 1:10,000
Printed at: 1:10,000

N
W E
S

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

Surveyed 1971
Revised 1971
Edition N/A
Copyright N/A
Levelled N/A

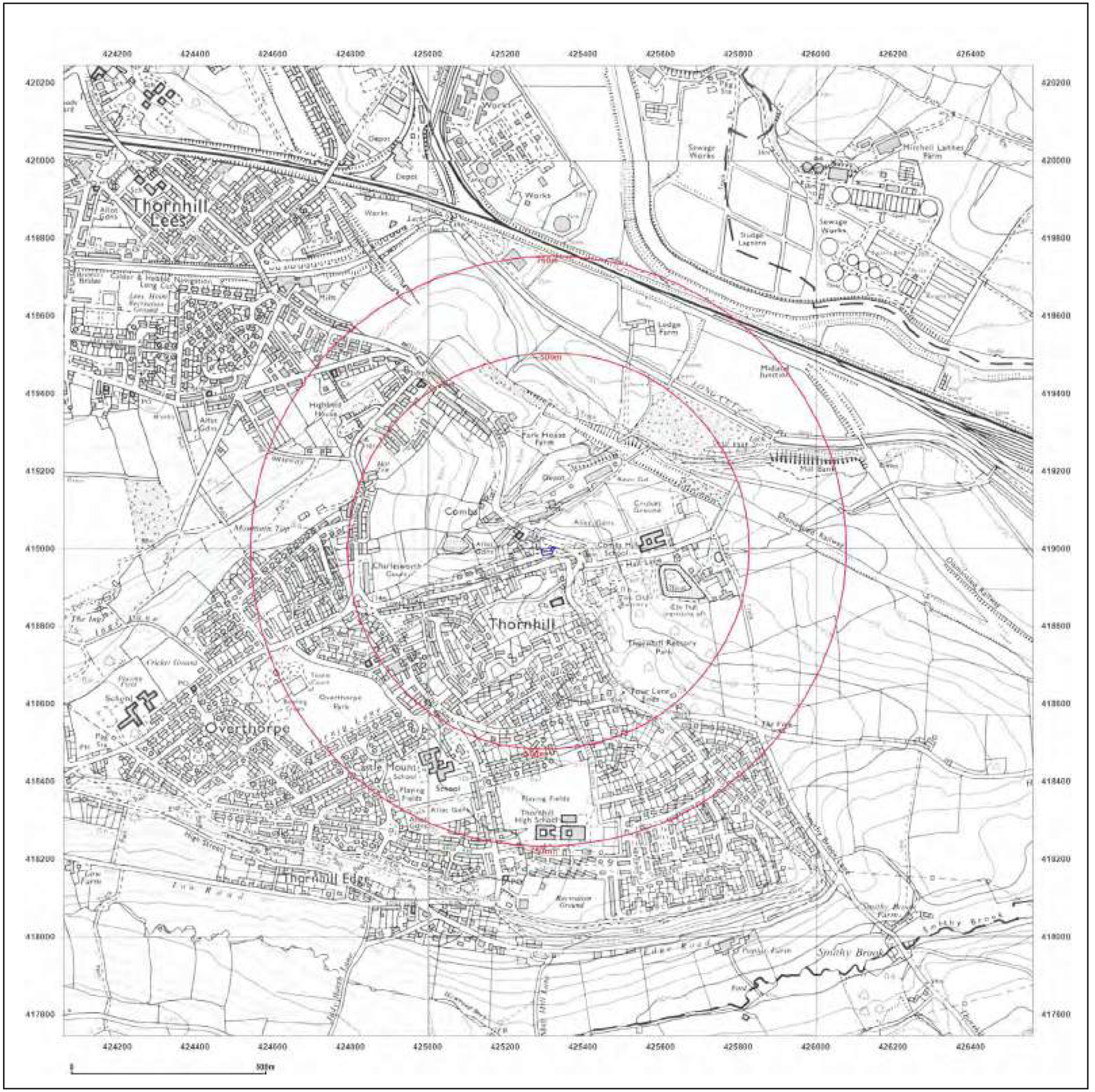
Surveyed 1973
Revised 1973
Edition N/A
Copyright N/A
Levelled N/A

Powered by OS

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

Production date: 06 October 2022

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



Groundsure INSIGHTS

Site Details:

18, WELLS ROAD, THORNHILL, DEWSBURY, WF12 0LE

Client Ref: YEX3503
Report Ref: GS-9107505
Grid Ref: 425310, 418995

Map Name: National Grid

Map date: **1980-1983**

Scale: 1:10,000

Printed at: 1:10,000

N
W E
S

Surveyed 1977
Revised 1981
Edition N/A
Copyright N/A
Levelled N/A

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

Surveyed 1977
Revised 1982
Edition N/A
Copyright N/A
Levelled N/A

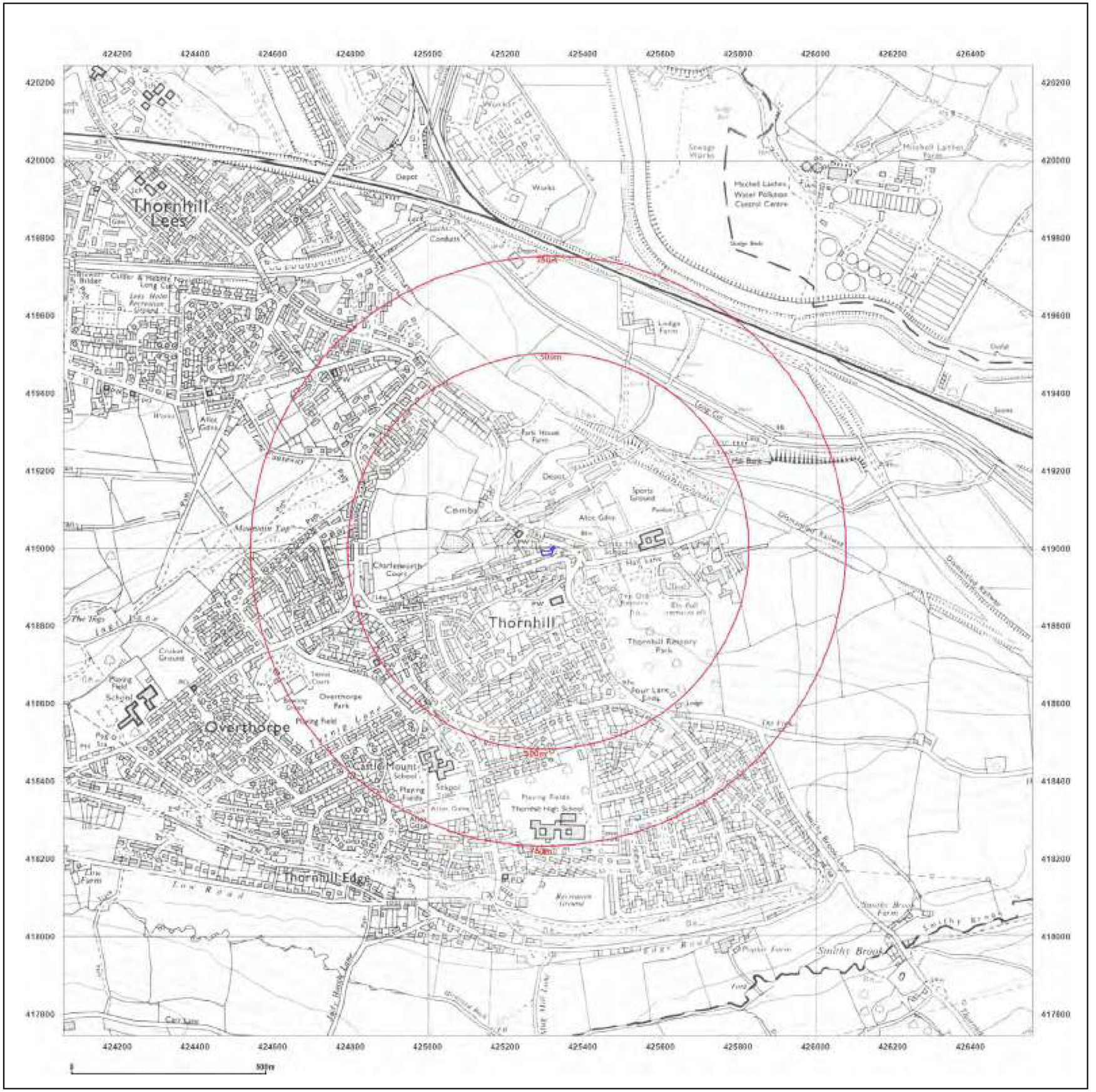
Surveyed 1982
Revised 1983
Edition N/A
Copyright N/A
Levelled N/A

Powered by OS

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

Production date: 06 October 2022

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



Groundsure INSIGHTS

Site Details:

18, WELLS ROAD, THORNHILL, DEWSBURY, WF12 0LE

Client Ref: YEX3503
Report Ref: GS-9107505
Grid Ref: 425310, 418995

Map Name: National Grid
Map date: **1988-1993**
Scale: 1:10,000
Printed at: 1:10,000

N
W E
S

Surveyed 1965
Revised 1988
Edition N/A
Copyright N/A
Levelled N/A

Surveyed 1988
Revised 1992
Edition N/A
Copyright N/A
Levelled N/A

Surveyed 1991
Revised 1993
Edition N/A
Copyright N/A
Levelled N/A

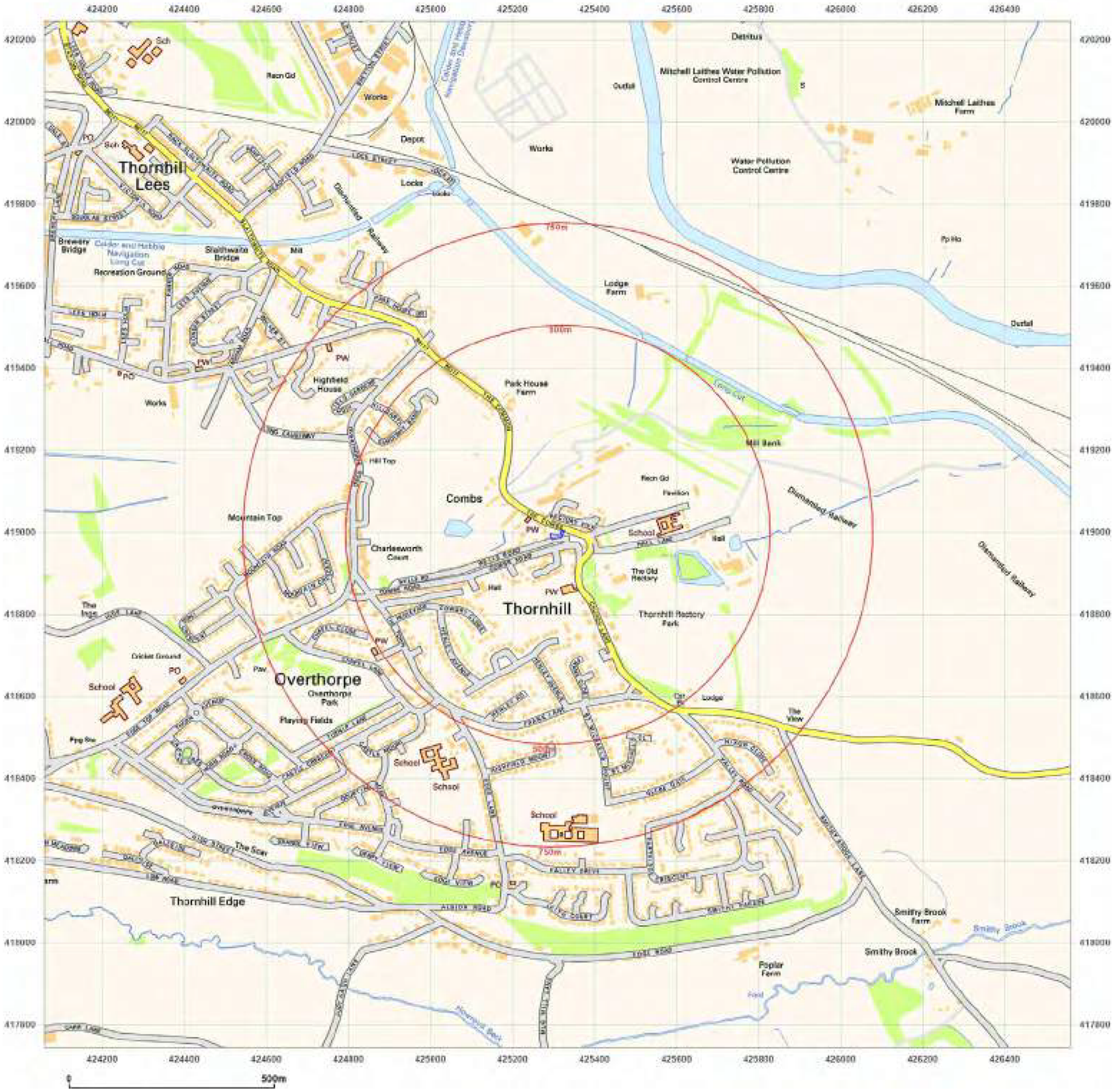
Surveyed 1990
Revised 1992
Edition N/A
Copyright N/A
Levelled N/A

Powered by OS

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

Production date: 06 October 2022

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



Groundsure INSIGHTS

Site Details:

18, WELLS ROAD, THORNHILL, DEWSBURY, WF12 0LE

Client Ref: YEX3503
Report Ref: GS-9107505
Grid Ref: 425310, 418995

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

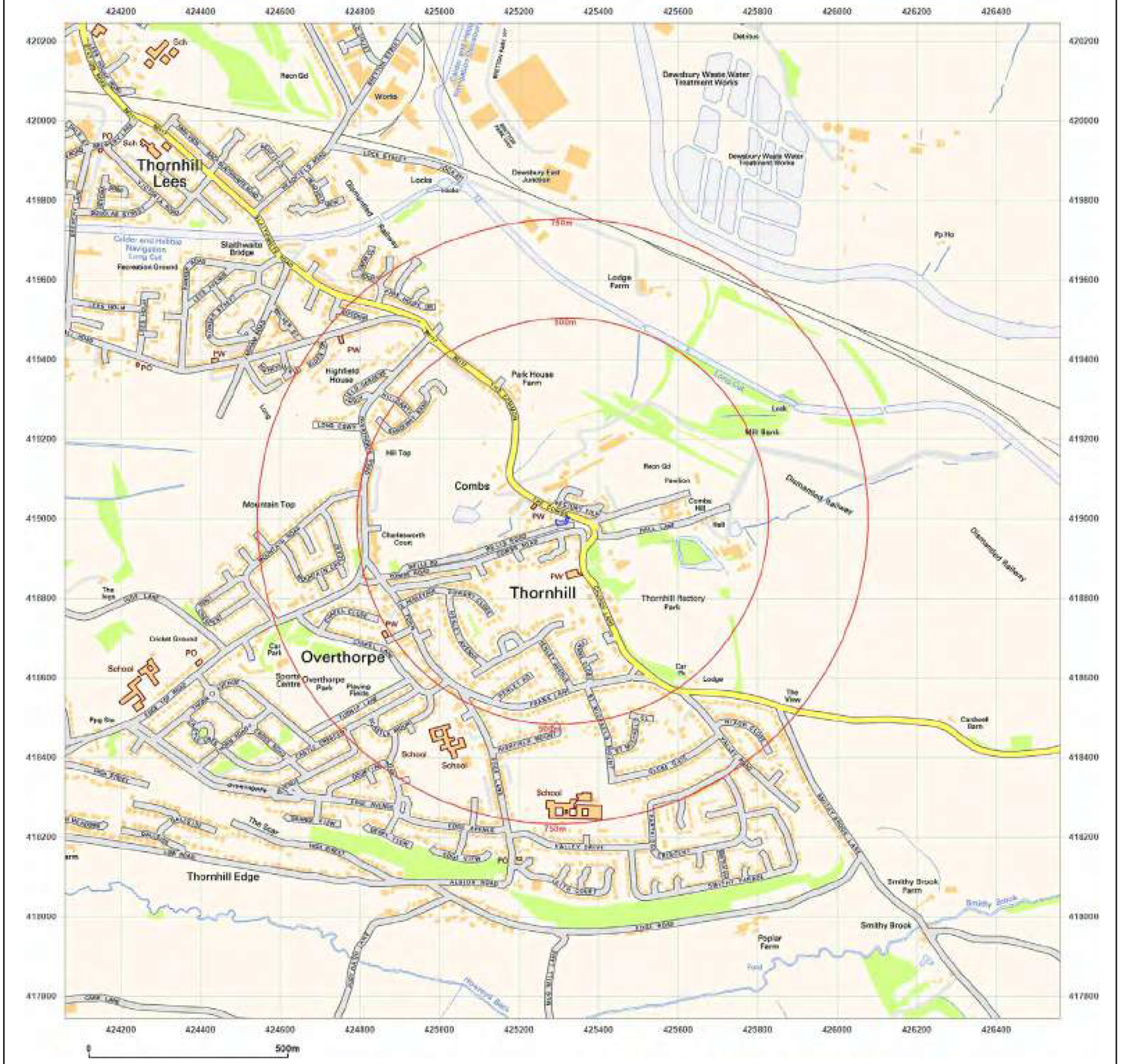
N
W E
S

Powered by OS

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

Production date: 06 October 2022

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



Groundsure INSIGHTS

Site Details:

18, WELLS ROAD, THORNHILL, DEWSBURY, WF12 0LE

Client Ref: YEX3503
Report Ref: GS-9107505
Grid Ref: 425310, 418995

Map Name: National Grid
Map date: 2010
Scale: 1:10,000
Printed at: 1:10,000

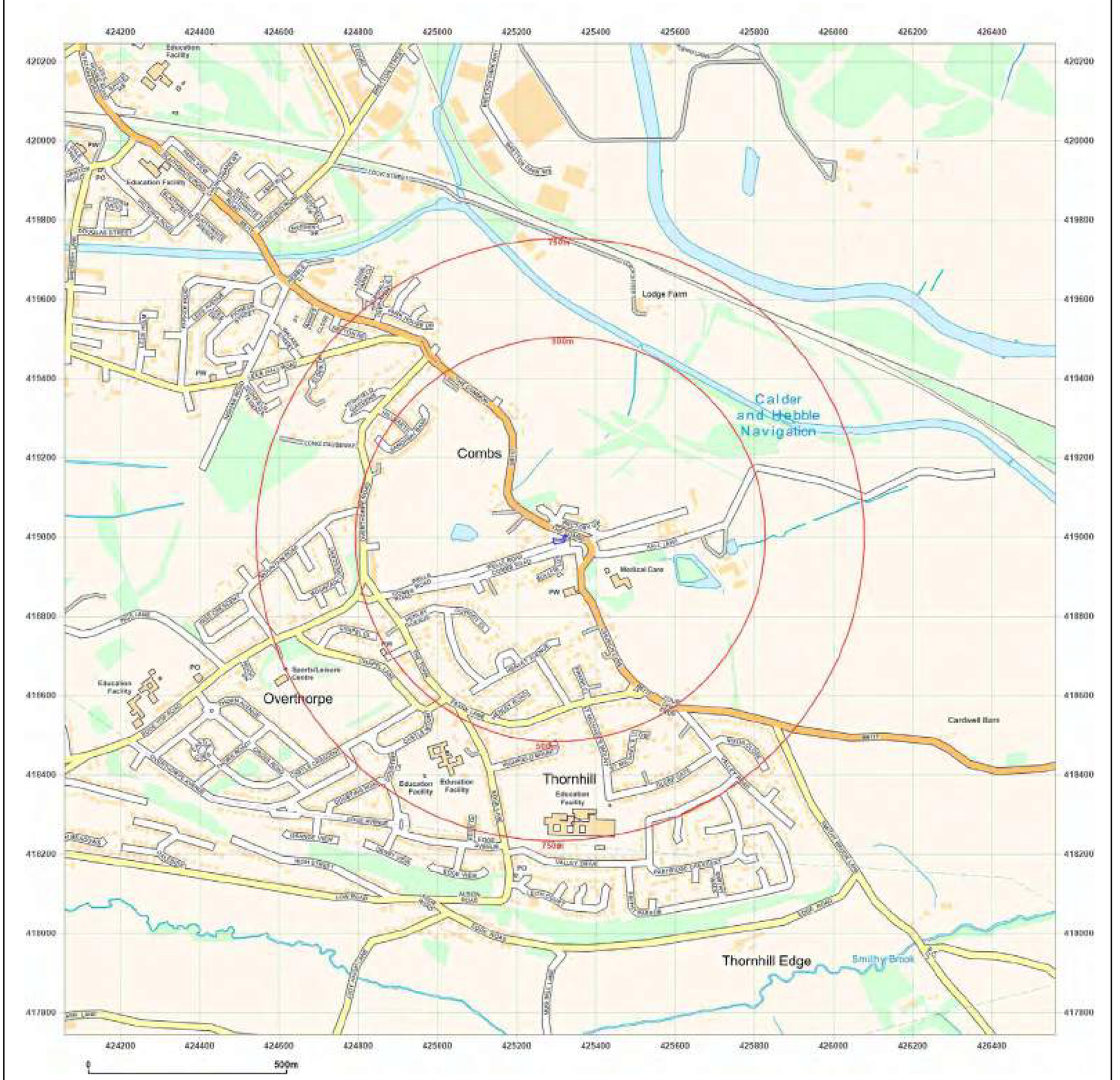
N
W E
S

Powered by OS

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

Production date: 06 October 2022

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



Groundsure INSIGHTS

Site Details:

18, WELLS ROAD, THORNHILL,
DEWSBURY, WF12 0LE

Client Ref: YEX3503
Report Ref: GS-9107505
Grid Ref: 425310, 418995

Map Name: National Grid
Map date: 2022
Scale: 1:10,000
Printed at: 1:10,000

N
W E
S

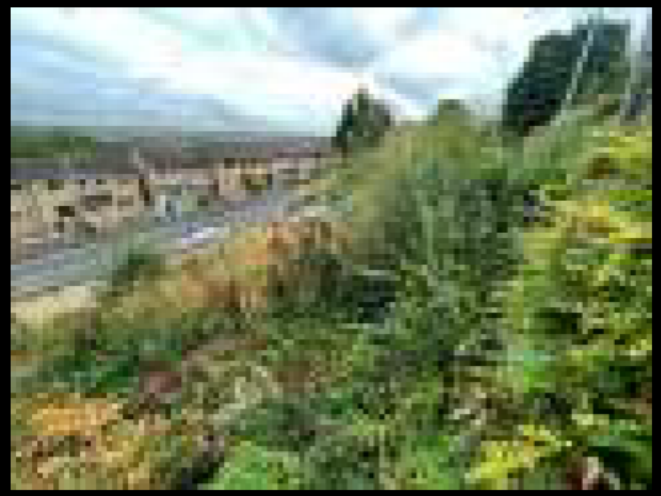
Powered by OS

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

Production date: 06 October 2022

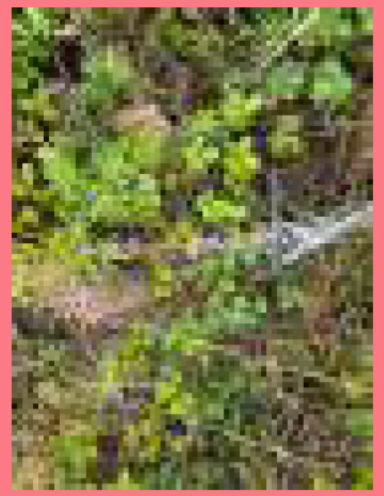
Map legend available at:
www.groundsure.com/sites/default/files/groundsure_legend.pdf

Appendix D- Site Walkover Photographs



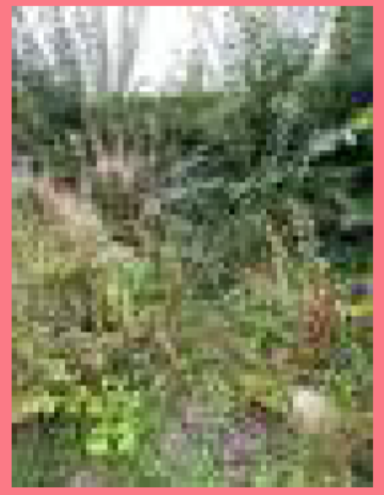
YEX3503- 18b Wells Road, WF12 0LE
Walkover Photos

Evidence of miscellaneous waste



Temporary fencing and adjacent offsite garage

General overgrowth



Appendix E- UXO Bomb Risk Map

UNEXPLODED BOMB RISK MAP

SITE LOCATION

Location: WF12 0LE,
Map Centre: 425181,418954

LEGEND

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

miltary | **industry** | **UXO find**
transport | **dock** | **Luftwaffe targets**
utilities | **Bombing decoy** | **other**

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

The map indicates the potential for Unexploded Bombs (UXB) to be present as a result of World War Two (WWII) bombing.

You can incorporate the map into your preliminary risk assessment* for potential Unexploded Ordnance (UXO) for a site. Using this map, you can make an informed decision as to whether more in-depth detailed risk assessment* is necessary.

What do I do if my site is in a moderate or high risk area?

Generally, we recommend that a detailed UXO desk study and risk assessment is undertaken for sites in a moderate or high UXB risk area.

Similarly, if your site is near to a designated Luftwaffe target or bombing decoy then additional detailed research is recommended.

More often than not, this further detailed research will conclude that the potential for a significant UXO hazard to be present on your site is actually low.

Never plan site work or undertake a risk assessment using these maps alone. More detail is required, particularly where there may be a source of UXO from other military operations which are not reflected on these maps.

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

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

A low risk really means that there is no greater probability of encountering UXO than anywhere else in the UK.

If you are unsure whether other sources of UXO may be present, you can ask for one of our **pre-desk study assessments (PDSA)**

If I have any questions, who do I contact?

tel: **+44 (0) 1993 886682**

email: **uxo@zetica.com**

web: **www.zeticauxo.com**

The information in this UXB risk map is derived from a number of sources and should be used in conjunction with the accompanying notes on our website: **(https://zeticauxo.com/downloads-and-resources/risk-maps/)**

It is important to note that this map is not a UXO risk assessment and should not be reported as such when reproduced.

*Preliminary and detailed UXO risk assessments are advocated as good practice by industry guidance such as CIRIA C681 'Unexploded Ordnance (UXO), a guide for the construction industry'.