

FLORENCE ARTS CENTRE, EGREMONT

PRELIMINARY RISK ASSESSMENT
(PHASE 1 DESK STUDY)

S2442/01, MAR 2025
ISSUE 0.0



SPIRE
GEOTECHNICAL
Geologists & Site Investigation
Specialists



CONTENTS

1.0	INTRODUCTION	1
1.1	Authority	1
1.2	Proposed Development	1
1.3	Terms of Reference	1
1.4	Limitations	2
2.0	SITE DETAILS	3
2.1	Location & Access	3
2.2	Walkover Survey	3
2.3	Immediate Surroundings	4
3.0	HISTORICAL MAPPING & DATA	5
3.1	Historical Data Reference	5
3.2	Site History	5
3.3	History of Surrounding Land	5
3.4	Historical Records & Searches	6
4.0	SEARCH INFORMATION	7
4.1	Landfills & Waste	7
4.2	Current Industrial Use	7
4.3	Flood Mapping	7
4.4	Environmental Designations	8
4.5	UXO Mapping	8
5.0	GEOLOGY	10
5.1	Geological Data Reference	10
5.2	Made Ground	10
5.3	Superficial Drift	11
5.4	Bedrock	11
5.5	Mining	11
5.6	Radon	12
5.7	Borehole Data	12
6.0	PRELIMINARY GEOTECHNICAL ASSESSMENT	14
6.1	Ground Conditions	14
6.2	Potential Geohazards	14
6.3	Foundations	15
6.4	Soil Drainage Characteristics	15
7.0	PRELIMINARY GEOENVIRONMENTAL ASSESSMENT	16
7.1	Potential Contamination Sources	16
7.2	Potential Contamination Pathways	16
7.3	Potential Receptors	16
7.4	PRA Conceptual Site Model	17
8.0	RECOMMENDATIONS	18
8.1	Geotechnical	18
8.2	Geoenvironmental	18
8.3	Other	18



LIST OF FIGURES

Figure 1	Site Location	3
Figure 2	UXO Bomb Risk Map	8
Figure 3	Geological Extract	10
Figure 4	BGS Borehole Locations	12

LIST OF TABLES

Table 1	Initial Pollutant Linkage and Risk Assessment	17
---------	---	----

LIST OF APPENDICES

Appendix 1	Drawings
Appendix 2	Historical Mapping
Appendix 3	Environmental Search Information
Appendix 4	Historical Borehole Records



1.0 INTRODUCTION

1.1 Authority

Spire Geotechnical Limited (SGL) was instructed to complete a Preliminary Risk Assessment (Phase 1 Desk Study) for land located at the Florence Arts Centre, Florence Mine, Egremont in Cumbria.

1.2 Proposed Development

Various developments are being considered at the site, and any future work is likely to be phased.

The Phase 01 Plan area is positioned in the west of the existing site and includes a small extension to the arts centre building, car parking and outdoor play space. Additional phases are largely likely to include the development of the eastern site area with recreational use. At this, concepts include the creation of new walkways and pod structures.

As part of the longer-term plans for the overall site, it is likely that the existing buildings associated with Florence Mine will be brought back into use, for example the pump house.

This Phase 1 report considers all of the site area. It should be noted that any future ground investigation work shall be phased as required by each stage of the development.

At this stage, SGL are considering future ground investigation work that will target the western site area encompassing the Phase 01 Plan (public/staff car parks, café, outdoor/play space concentrated around the existing arts centre building).

1.3 Terms of Reference

This report is prepared in general accordance with the following guidance/standards:

- BS5930:2015+A1:2020 Code of Practice for Ground Investigations
- BS10175:2011+A1:2013 Investigation of Potentially Contaminated Sites

Additional information from the following data sources is considered in this report:

- Ordnance Survey (OS) Mapping
- Historical Maps and Groundsure Report
- Published British Geological Survey (BGS) Maps & Electronic GeoIndex GIS
- Historical ground investigation data (boreholes)
- BGS 1:50,000 scale mapping
- Geological Memoirs
- EA Flood Mapping
- BRE BR211 Radon Guidance
- UKHSA Report of Address Search for Radon Risk
- Health Protection Agency Radon Maps



1.4 Limitations

This report has been compiled based on desk-based sources available to SGL, including historical maps and records from regulatory and statutory bodies procured through the Groundsure Report. SGL has produced the preliminary assessment, in part, based on this available information in the assumption this information is accurate.

SGL accepts no liability for the accuracy of the assessment resulting from inaccurate information supplied by others. The report is based on information available at the time, and as such, the potential exists for further information to become available, which may change this report's conclusion. Should development proposals change; SGL shall be consulted to make a review of the information presented within this report. Additional assessment and investigation may be required depending on the nature of any revised proposals.

Whilst this report considers the risks associated with all of the site area, any forthcoming Phase 2 investigation work will only consider the western development located at/around the existing Florence Arts Centre.



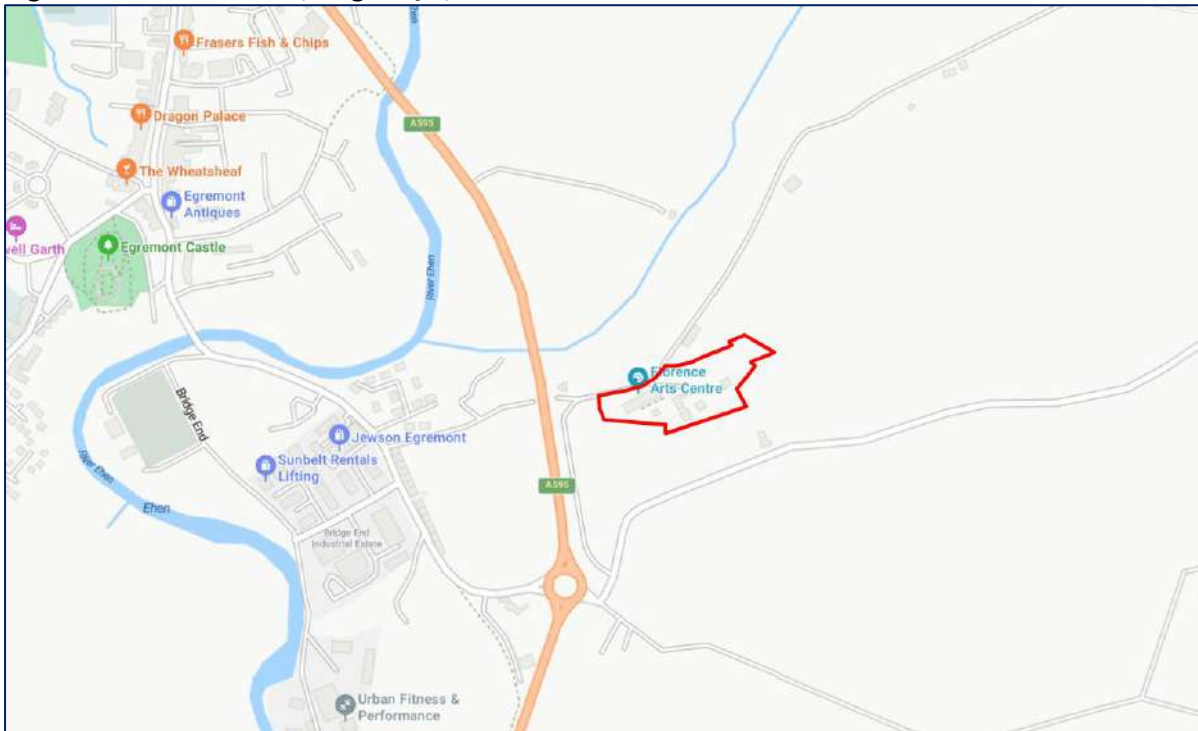
2.0 SITE DETAILS

2.1 Location & Access

The site measuring approximately 1.25Ha is located at the Florence Arts Centre in Egremont, Cumbria (Figure 1).

The site lies at an approximate Ordnance Survey (OS) National Grid Reference (NGR) of 301763, 510309.

Figure 1: Site Location (Bing Maps)



The site can be accessed directly from the highway (Sherwen's Terrace) located to the north of the area via the main arts centre driveway.

2.2 Walkover Survey

Site Description

A series of supporting photographs taken during the recent site walkover are included in Appendix 1.

The site is generally split over two areas. In the west is the existing Florence Arts Centre building and visitor car park. The main car park positioned to the south of the arts centre is bound by a retaining structure. To the west of the arts centre is a well-maintained wildlife/community garden. The garden partially extends around to the north west of the building.

The main arts centre building is generally supported by a retaining structure along the north, beyond which is a minor watercourse (flowing in a westerly direction).



To the south of the visitor centre is the old pump house, which is linked to the main Florence Mine building. To the east of the visitor centre and north of the pump house is areas of hardstanding/parking, and a former access trackway that leads offsite to the south.

Land in the east of the site generally encompasses former use associated with the Florence Mine (iron ore mine). The main engine house and shaft are positioned centrally in the south. A number of derelict outbuildings and remnant features are positioned in the east and are generally partitioned by a trackway that forms a horse-shoe shape. Short earth mounding associated with former rail sidings is also evident. Peripheral areas are generally overgrown and wooded. It is understood that the entrance to the drift mine is present in the far east. This area is generally inaccessible due to overgrowth, but it is inferred that the mine entrance leads offsite to the general east.

Vegetation

Established areas of planting, including shrubs and trees, generally extend around the site's periphery.

There were no visual signs of invasive weed species, such as Japanese Knotweed. Given the time of year (i.e. such plants may be dormant/difficult to identify), this should be confirmed by a qualified ecologist.

Utilities

At various locations across the site, it must be assumed that live services are present, particularly around the located of the existing art centre.

Prior to conducting any future intrusive ground investigation/s, a review should be made of available utility plans and information.

Topography

There is a gentle fall in topography across the area from south east to north west. The eastern areas of site fall on approximate elevation of 60m AOD. In contrast, the western areas fall on approximately 57m AOD.

2.3 Immediate Surroundings

The site is generally positioned within a rural setting. From the site walkover, the following neighbouring properties/uses were observed:

- North – highway with housing to the north east.
- East – onto fields/farmland.
- South – onto fields/farmland.
- West – onto fields/farmland. Egremont and A595 to the far west.



3.0 HISTORICAL MAPPING & DATA

3.1 Historical Data References

A series of available historical plans dating back to 1861, and more recent aerial images, have been reviewed and a summary is presented in Section 3.2 and 3.3. The historical plans (Appendix 2) include a series of County, National Grid, LandLine, and aerial images, (1:1250, 1:2,500, 1:10,000 and 1:10,560 scale maps).

In addition to the above, the Groundsure Report (Appendix 3) has been considered to provide a summary of those historical industrial use and features that have been identified.

3.2 Site History

The following provides a summary of the onsite features recorded on historical plans:

- **1861 – 1899:** The site generally lies undeveloped and is split over four fields. A track pathway is present in the west.
- **1924 – 1926:** A railway/mineral siding and short embankment are preset along the northernmost area. A road to the north west may have been realigned along with a drainage ditch, the latter of which encroaches onto the north westernmost extreme.
- **1951 – 1969:** The site has been transformed and is now part of an iron ore mine. Additional rail/mineral sidings are present in the north.
- **1982:** All of the railway sidings have been removed, and the north is labelled as “dismantled railway”.
- **1992 – 2025:** The former railway embankment may have been removed. A series of inferred sorting/storage bays are evident in the east.

3.3 History of Surrounding Land

The following provides a summary of offsite features recorded on historical plans for the immediate surrounding land:

- **1861 – 1863:** The site is surrounded by farmland. Mill Race watercourse and roadway are present to the north. Little Mill (corn) is present from 140m to the west.
- **1898 – 1899:** A series of terraced dwellings are present from 20m to the north along Sherwen’s Terrace. Ullcoats Mine (iron ore) is located 500m to the east. Railway land is present from 110m to the west.
- **1924 – 1956:** A large pond feature is located 110m north. Florence Pit (iron ore) is located from 100m to the south of site. The pit is extensive and includes several buildings and railway sidings. Ullcoats Pits 2 & 3 are present from c.300m to the east.
- **1963 – 1969:** The Florence Pit to the south is described as disused. All of the associated rail infrastructure has been removed.
- **1992:** The former pit site to the south has been cleared. The A595 highway has been built from 90m to the west.



- **2001 – 2025:** The site of the former Ullcoats Pit from 700m to the east is now an industrial estate.

3.4 Historical Records & Searches

The Groundsure Report (Appendix 3) provides details of former industrial uses onsite and in the general area. A summary of the reported uses is provided below.

Historical Industrial Use

The site throughout a large part of the 20th Century was an operation iron ore mine (Florence Mine).

The iron ore mining onsite was conducted largely over two phases from differing ownerships between 1914 and 2007. The mining related to the extraction of minerals such as haematite (locally referred to as “speckled” haematite found deep within the lower limestone deposits) for use within paints, dyes and cosmetics. Before closure in 2007, the mine operated by The Egremont Mining Company was described as one of the last deep working iron ore mine in Europe.

In addition to the above, the Groundsure names onsite industrial use as railway sidings (dated 1956).

Offsite, there are several historical industrial uses listed within 250m of the site. Some of the closest include:

- Tramway sidings, 81m SE (dated 1926)
- Iron ore pit, 81m SE (dated 1926)
- Refuse Heap, 81m SE (dated 1926 – 1956)
- Several cuttings from 95m SE (dated 1898 – 1956)

Tanks & Related Features

An unspecified tank is reported 193m south of the site (dated 1924). This feature will not impact the site.

Garages & Fuel Stations

There are no reported garages or fuel stations located within 250m of the site.

Energy Infrastructure

There are three energy listings recorded within 250m of the site.

These all related to electrical substations. The closest is reported 193m north west of the site (dated 1982 to 1995).



4.0 SEARCH INFORMATION

4.1 Landfills & Waste

There are no active or recent landfill sites recorded within 250m of the site.

There are two historical landfill sites reported within 250m of the site. The closest is recorded from 96m west and relates to a disused railway cutting. This included the placement of inert material in October 1991 by Alfred McAlpine. Given the nature of the inert soils/material, these will have an extremely low landfill gas generation potential, and it is unlikely that the site will be significantly impacted by this feature.

A historical landfill is present from 207m south of the site at Florence No.1 Mine. The landfilling included the deposition of inert materials. Given the likely nature of the deposited material, these are likely to have a very low landfill gas generation potential, and it is unlikely that the site is being directly impacted by this feature.

4.2 Current Industrial Use

The closest industrial use to site includes an electrical substation located 197m north west.

There are no uses within 250m of the site which including COMAH (Control of Major Accident Hazards) or regulated explosive sites. Land at 65m to the east (Elsy and Gibbons Ltd) includes use of copper and zinc, which are List 2 Dangerous Substances.

There are no regulated processes, such as IPPCs etc listed within 250m of the site.

The site is classified for licensed for A(2)/B pollutant release relating to mining processes. There are no enforcements relating to the processes.

There are no sites that have been designed as Contaminated Land within 250m of the site.

The closest pollution incident to the site is located 249m to the north west. The incident, dated 2004, is a Category 2 (significant air impact) and 4 (no impact to water/land).

4.3 Flood Mapping

This section provides considerations relating to the published flood maps and information on-site and in the surrounding area. In summary:

- Coastal/fluviat flooding: Low risk
- Groundwater flooding: Low risk
- Pluvial flooding: Generally low risk with localised flooding possible.
- Waterpipes: The potential for ambient flood risk sources from on-site/adjacent to existing water pipe apparatus (i.e. from burst water mains etc.) is possible.

Based on the above assessment, the site is not considered to be at risk from significant sources of flooding.

4.4 Environmental Designations

Land Designations

Florence Mine is designated as a Site of Special Scientific Interest (SSSI). The condition of the SSSI is described as “destroyed”.

The Florene Iron Mining Pit Head is a Grade II listed building.

Water Environment

A groundwater abstraction point directly linked to the former Florence Mine is present onsite and dated 1987. Several separate details are reported including for general cooling, transfer between sources, drinking, cooking, sanitary, washing. It is unclear whether the former abstraction point has been formally decommissioned, and if so, to what standard/s.

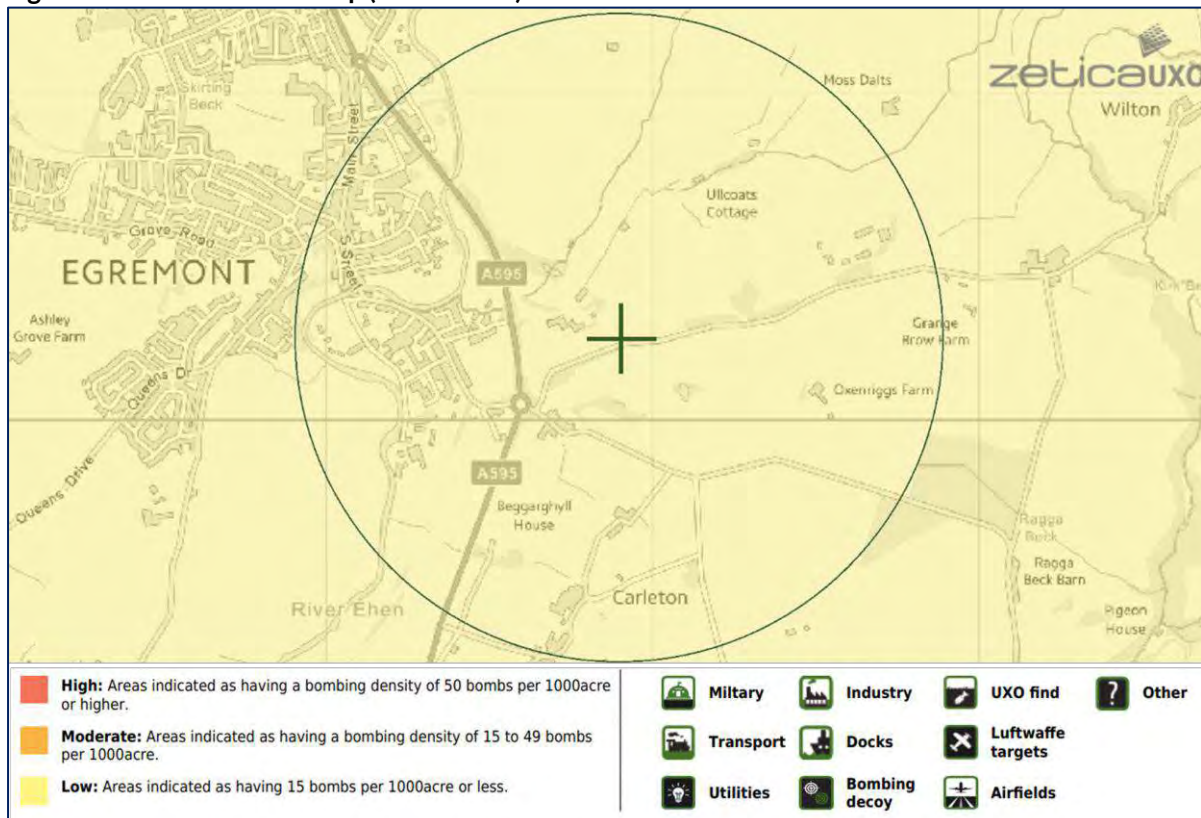
The site lies within a Source Protection Zone 3 (total catchment) for the protection of controlled waters.

The closest surface water feature is considered the open-cut drainage ditch present in the north westernmost area of the site.

4.5 UXO Mapping

The Unexploded Bomb Risk Map (Zetica), presented in Figure 2, concluded that the site is situated within an area which has a low potential (15 bombs or less per 1000 acres) for Unexploded Bombs to be present.

Figure 2: UXO Bomb Risk Map (Zetica UXO)





No further action is considered necessary regarding the potential UXO risks to the development.

5.0 GEOLOGY

5.1 Geological Data Reference

This section provides considerations relating to available geological information on-site and in the surrounding area.

The following sources have been reviewed:

- BGS 1:50,000 scale map, Sheet 37, Gosforth (solid & drift edition);
- BGS GeoIndex;
- EA Mapping and Data
- Geological Memoir: Gosforth District, 1936
- Groundsure Report

Figure 3: Geological Extract (BGS Maps)



5.2 Made Ground

BGS plans do not record the presence of significantly thick artificial/ made ground across the site (i.e., >5m). Based on our review of historical activities at the site, made ground where present will be typically of around 1m in thickness. Locally, deeper areas of made ground should be expected.

Whilst the site was a previous mine, there is no evidence (based on existing site levels and land surrounding the site) of the deposition of significant quantities of spoil and waste generated from the former industrial use.



Where encountered, made ground material may include generally gravelly fills and capping associated with existing areas of hard standing. Historically, rail infrastructure and short embankments have been present, therefore fills may be ash-rich locally, containing gravels such as ballast, bricks and relict buried objects. Localised made ground, likely consisting of disturbed material may be present.

5.3 Superficial Drift

Geological BGS maps and data show the presence of superficial geology beneath the site and in the immediate area. Beneath the site, deposits of Glacial Till (typically firm and stiff clay and localised granular deposits) are expected.

In terms of groundwaters contained with the drift, the underlying drift geological deposits are classified as a secondary (undifferentiated) aquifer. Any groundwater contained within the Till is expected to have low/negligible significance for water supply or base flows to water courses.

5.4 Bedrock

Geological BGS maps and data show the site to be underlain by the St. Bees Member sandstone from around 10m depth below the surface. Further context relating to the geology and mining resources beneath the site is included in Section 5.5 below.

Geological plans describe the sandstone formation beneath the site as a reddish brown fine to medium grained deposit, cross bedded fluvatile with siltstone and claystone (micaceous mudstone) beds.

In terms of groundwater, the bedrock aquifer is described as a principal aquifer, which may contain a high water storage potential. Principal aquifers may support base flows (to rivers, streams etc) on a strategic level.

5.5 Mining

From mapping, the solid geological deposits of the St. Bees Member sandstone are reported to be of 400m to 600m thickness in the geographical area. However, beneath the site, the sandstone (and associated bands of shale and mudstone) extends to a significantly shallower depth of around 100m from surface.

The St Bees Member deposits directly overlie older Permian Brockram Breccia. The Breccia consist of mineral rich deposits of clasts and limestones. The Brockram deposits have been mined beneath the site and wider area, predominantly for seams of Haematite within the lower limestone that is positioned beneath the sandstone geology. The Haematite is the iron ore materials which were extracted for use withing paints, dyes and cosmetics.

The iron ore mining beneath the site (Florence Mine) operated by The Egremont Mining Co. was considered the last deep working iron ore mine in Europe. Details on the mine-head confirm that the associated shaft extended to depths beyond 170m into the lower Brockram layers.

Due to geological faulting (see Figure 3 above) to the north and east of the site (towards Ullcoats), the Brockram has been uplifted to a far shallower (and a more “economic” depth), and this is reflected in the number of pits formerly associated with Ullcoats Pit. It is understood that a drift mine leaves the site in a north easterly direction, and it is inferred that this may extent towards the areas of shallow outcrop beyond the site.

Whilst the site has included former mining, and there is a deep shaft associated with the extraction of iron ore (Haematite), the wider site area is not considered to be at significant risk from shallow mining activities. Any voids/workings associated with the mine are deep underground, and the risk of collapse of ground at the surface is highly unlikely (improbable).

There is no direct risk to the proposed development from the former mining present beneath the site at depth.

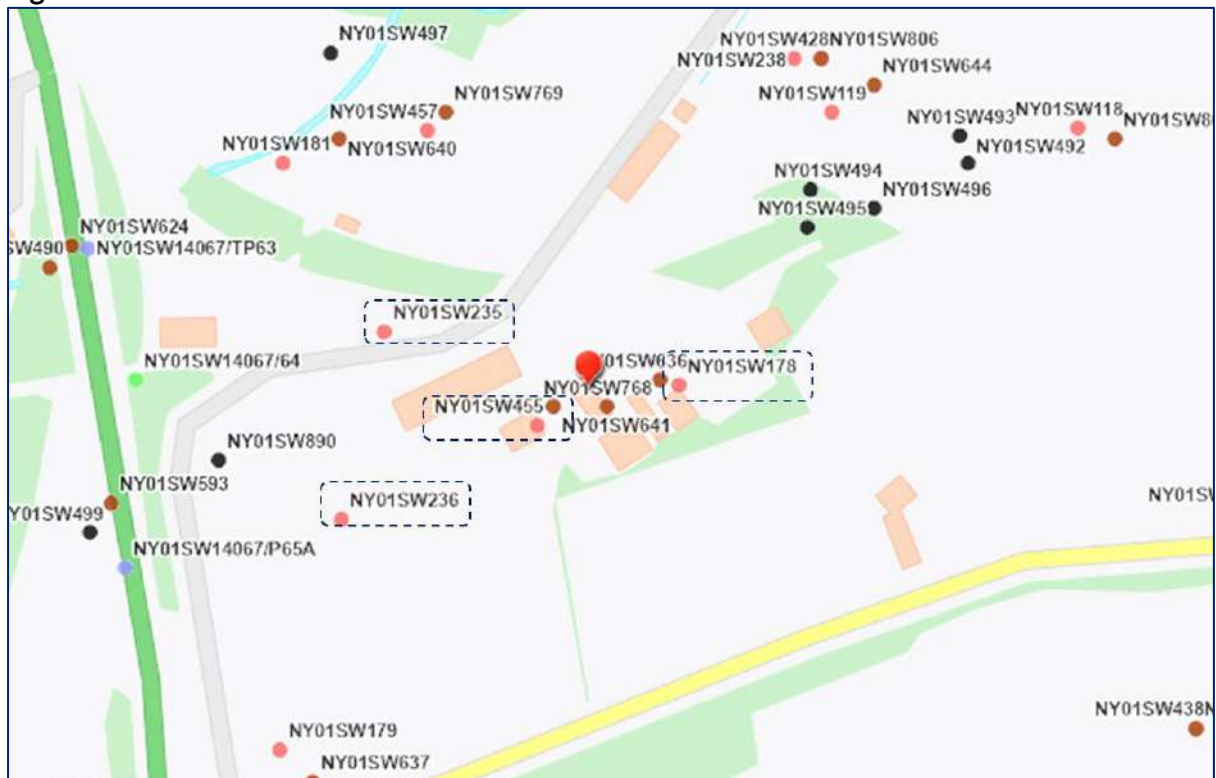
5.6 Radon

The site lies within an area which has a low radon potential. UKradon Interactive mapping for the site indicates that < 1% of properties are estimated to be at or above the Radon Action Level.

No radon protection is required for the proposed development.

5.7 Borehole Data

Figure 4: BGS Borehole Locations





A selection of available historical borehole records (presented in Appendix 4) has been reviewed to establish the likely ground conditions beneath the site. A summary has been provided below:

- Borehole NY01SW178 was placed onsite, and to the immediate east of the main mine shaft. The borehole recorded soil/clay over gravel to approximately 10.9m depth below surface. These initial drift deposits overlie sandstone with shale to 101.50m depth. These deposits overlie variations of conglomerate and limestone strata.
- Borehole NY01SW455 was placed onsite at the location of the existing pump house. The borehole recorded clay sand and gravel with boulders to a depth of 14m from surface. These superficial deposits overlie variations of sandstone and marl/shale to 103m depth, which in turn overlie alternations of conglomerate, shale and limestone.
- Borehole Ny01SW235 was positioned offsite to the immediate north west of the visitors centre adjacent to the access road. The borehole recorded initial superficial drift deposits to 10.6m depth from surface. The drift overlies layers of sandstone and shale to 98.8m, which in turn overlie conglomerate and limestone geology.
- Borehole NZ01SW236 is positioned offsite to the immediate south west. The borehole recorded superficial drift geology from surface to 11.3m depth. The drift overlies sandstone and shale to 102.7m. The sandstone in turn overlies the lower conglomerate and limestone.



6.0 PRELIMINARY GEOTECHNICAL ASSESSMENT

6.1 Ground Conditions

Based on the site history and geological setting, made ground of approximately 1m thickness is anticipated beneath the site. Locally this may be deeper. Where present, this may include disturbed natural material with anthropogenic debris, such as brick and rubble, and limestone subbase material. Ash-rich fills may be present, particularly in the north in the area of the former mineral rail sidings and embankment.

Made ground is likely to overlie cohesive and granular glacial till deposits. These initial drift geological deposits are expected to extend to depths of between 10m and 15m depth (based on borehole records for the site). The drift overlies sandstone, which is likely to extend to around 100m depth from surface.

6.2 Potential Geohazards

This section provides considerations relating to available geological information on-site and in the surrounding area.

Acidic / Chemically Aggressive Ground Conditions

There may be substances (i.e. sulphates and pyritic fills etc.) in the ground that may result in a chemical attack on placed building materials and concrete. The risk is considered to be low, although with suitable specification of materials in accordance with BRE SD1 the risk may be reduced to very low.

Subsidence

This section provides considerations relating to available geological information on-site and in the surrounding area.

- Shrink swell clays: Very low hazard rating
- Running sand: Very low hazard rating
- Compressible ground: Negligible hazard rating
- Landslides: Moderate hazard rating
- Ground dissolution of soluble rocks: Negligible hazard rating

Mining

Whilst the mine head is still present onsite, this is unlikely to impact the Phase 01 area in the west of the site. Notwithstanding the above, investigations fall all future phases of development should be sufficiently detailed and proportionate to each phase respectively.



6.3 Foundations

Various developments over phases are being considered. At this stage, foundations may include traditional/shallow foundations. If a significant thickness of made ground onsite is present, lightly loaded concrete rafts may be feasible (subject to an appraisal of the ground conditions), or alternatively deeper foundations may be required locally.

For the Phase 01 development area in the west, the proposed extension to the existing Arts Centre is likely to include either a concrete raft or deep strip footings. This should be confirmed through a limited programme of intrusive investigation work.

6.4 Soil Drainage Characteristics

At this stage, the use of traditional infiltration-type sustainable drainage is not likely to be viable and the expected clay deposits will likely exhibit low drainage characteristics.



7.0 PRELIMINARY GEOENVIRONMENTAL ASSESSMENT

For the purposes of this report:

- A **source** is a contaminant or pollutant that is in, on or under the land and that has the potential to cause harm or pollution.
- A **pathway** is a route by which a receptor is or could be affected by a contaminant.
- A **receptor** is something that could be adversely affected by a contaminant i.e. a person, water environment, an organism, an ecosystem, or Part 2A such as buildings, crops or animals.

7.1 Potential Contamination Sources

Following a review of available records and information relating to the site and the immediate surrounding land, the following potential contamination sources have been identified:

- **S1:** Onsite: Made ground sources beneath existing areas of hardstanding (i.e. from subbase fills and made ground).

7.2 Potential Contamination Pathways

The potential contaminants are likely to move and migrate (pathways) and reach a receptor via the following:

- **P1:** Dermal contact / ingestion of contaminants in soil and soil-derived dust
- **P2:** Inhalation of soil derived outdoor dust and vapours
- **P3:** Migration of gases through the ground
- **P4:** Leaching via Vertical and Lateral Migration

7.3 Potential Receptors

Following a review available records and information relating to the site and the immediate surrounding land, the following potential receptors (i.e. those coming into contact with contamination sources) have been identified:

- **R1:** Human health – End users, such as future employees
- **R2:** Human health – Ground/construction workers
- **R3:** Human health – Users of surrounding areas
- **R4:** Water environment – Surface water
- **R5:** Water environment – Groundwater
- **R6:** Ecological
- **R7:** Building structure and building materials

7.4 PRA Conceptual Site Model

A contaminant linkage is the relationship between a *contaminant (source)*, a *pathway* and a *receptor* and how a relevant receptor might be affected by the contaminants in question.

The Conceptual Site Model (CSM) and Risk Assessment collate the salient aspects of the site to form a model which considers the various contamination linkages (Table 1). The Preliminary Risk Assessment CSM may require updating after fieldwork and testing (where required).

Table 1: Initial Pollutant Linkage and Risk Assessment

Available Contaminant – Pathway – Receptor Linkages			
Linkage		Risk	Preliminary Contamination Risk Assessment
S1		LOW	<u>Made Ground (on-site)</u> Future development work at the site will be phased. Whilst this site considers the whole of the site area, it should be noted that on an area in and around the existing visitor centre (include a small extension and hard standing) is proposed in the west. Made ground may exist at the site associated with the former use of the site including the mining of iron ore, associated mineral railway land and structures. No visual or olfactory evidence of gross contamination was identified. Based on the former use and the potential nature of the made ground materials, the following contaminants of concern may be present: ■ Asbestos ■ Elevated heavy metals & inorganic chemicals ■ Elevated organics such as TPHs and PAHs The risk to construction and utility workers from on-site contaminated soils is low, however appropriate health and safety risk assessment and Personal Protective Equipment should be implemented as good practice. Complimentary sampling and laboratory analysis is recommended to verify the low-risk rating to the western Phase 01 development area. It should be noted that whilst there are areas of historical landfilling present within 250m of the site, these features are likely to have a low landfill gas generation potential given the specified fill material. Also, the Phase 01 development proposals are not sensitive to potentially elevated sources of ground gas (i.e. given the transient use of the site with no habitable space).
	P1		
	P2		
	P3		
	P4		
	R1		
	R2		
	R3		

A description of the risk ratings in Table 1 include:

- **Low Risk** – not considered likely to cause significant harm to Human Health and/or Water Environment. The requirement for remediation is not anticipated;
- **Moderate Risk** – there is the possibility of significant harm to Human Health and/or Water Environment, depending on site-specific conditions. Remedial measures may be required, depending on site-specific conditions; and,
- **High Risk** – considered likely to cause significant harm to human Health and/or Water Environment. Remedial measures are likely required to protect future end-users.



8.0 RECOMMENDATIONS

8.1 Geotechnical

The Phase 01 development area in the west is likely to include works to and around the existing visitor centre. This is expected to include a new café, outdoor play space and creation of new areas of car parking.

Based on the findings of this report, there is a low geotechnical risk to the proposal development. Notwithstanding the low risk, it is recommended that sufficient geotechnical design information is gathered through a programme of intrusive ground investigation and related insitu and laboratory testing.

8.2 Geoenvironmental

The intrusive ground investigation should allow for an update of the preliminary risk assessment CSM. Whilst there is an overall low risk to the site and future receptors from land contamination, complementary sampling and laboratory analysis is recommended to verify this assumption.

The findings of the geoenvironmental assessment should be presented within a Phase 2 Ground Investigation Report.

8.3 Other

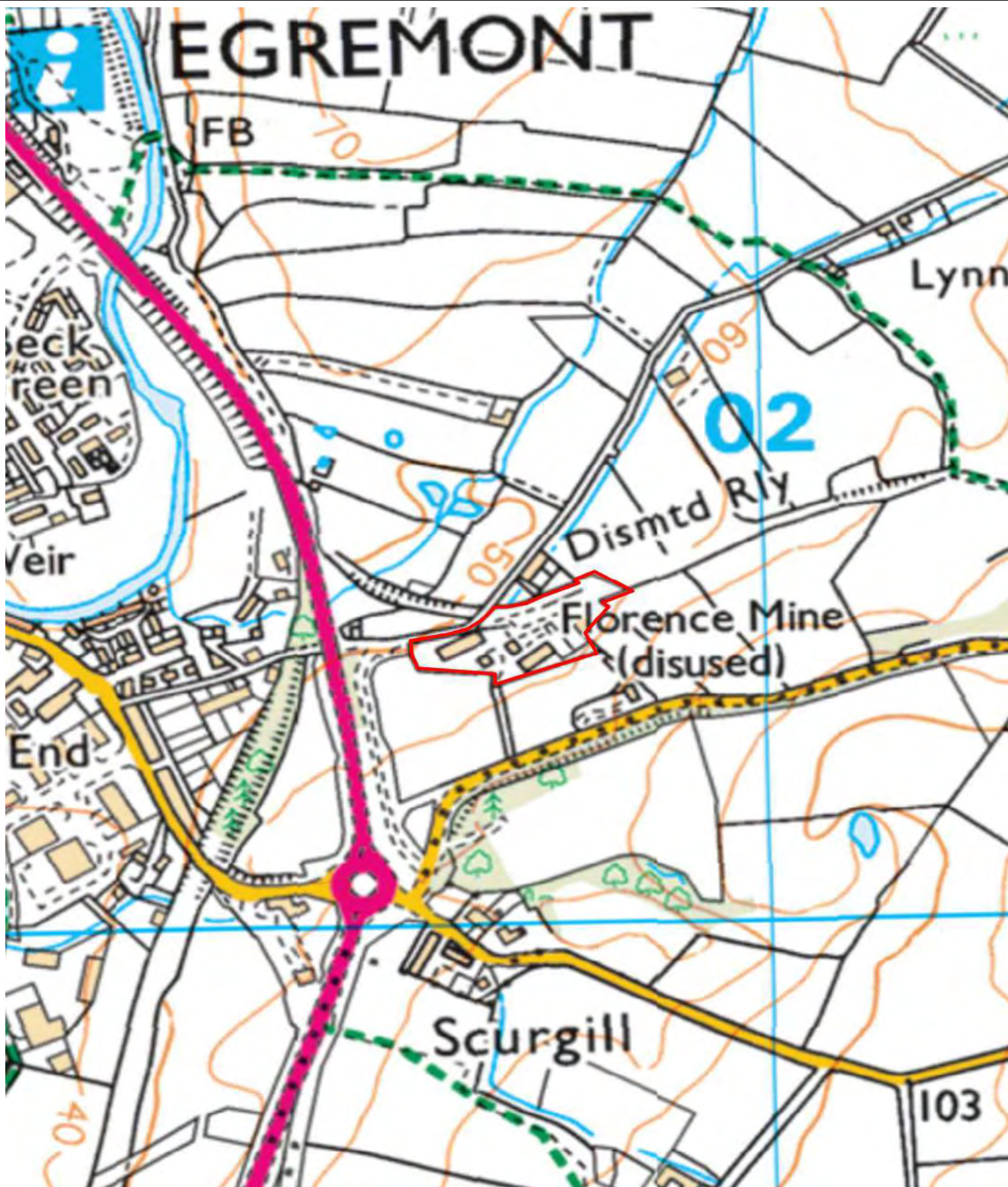
There is a low risk to the site from potential UXO, and no further assessment is deemed necessary.

There are no significant sources of flooding that could potentially impact the development.

APPENDIX 1



SPIRE
GEOTECHNICAL
Geologists & Site Investigation
Specialists



SITE LOCATION MAP

CLIENT BDN LTD	PROJECT FLORENCE ARTS CENTRE
STATUS FINAL	DRAWING NO. S2442_DWG_01

GENERAL NOTES

SGL has prepared the drawing for the sole use of the Client and their appointed agents. SGL shall not be responsible for any use of the drawing for any purpose other than that for which it was prepared. Agreement for the use or copying of this drawing by any Third Party must be obtained in writing from SGL. Should the Client require to pass copies of the drawing to other parties for information, no professional liability or warranty shall be extended to other parties by SGL.



**SPIRE
GEOTECHNICAL**
0191 549 7384 | spire-geo.com

NORTH EAST North Sands Business Park,
Sunderland, SR6 0QA

SCOTLAND Hill Street, New Town, Edinburgh,
EH2 3JP

YORKSHIRE International House, King Street,
Leeds, LS1 2HL



**SPIRE
GEOTECHNICAL**
0191 549 7384 | spire-geo.com

NORTH EAST North Sands Business Park,
Sunderland, SR6 0QA

SCOTLAND Hill Street, New Town, Edinburgh,
EH2 3JP

YORKSHIRE International House, King Street,
Leeds, LS1 2HL

AERIAL IMAGE

<u>CLIENT</u>	BDN LTD	<u>PROJECT</u>	FLORENCE ARTS CENTRE
<u>STATUS</u>	FINAL	<u>DRAWING NO.</u>	S2442_DWG_02

GENERAL NOTES

SGL has prepared the drawing for the sole use of the Client and their appointed agents. SGL shall not be responsible for any use of the drawing for any purpose other than that for which it was prepared. Agreement for the use or copying of this drawing by any Third Party must be obtained in writing from SGL. Should the Client require to pass copies of the drawing to other parties for information, no professional liability or warranty shall be extended to other parties by SGL.



PHOTOGRAPHIC RECORD SHEET - WESTERN AREA (1 OF 2)

<u>CLIENT</u>	BDN LTD	<u>PROJECT</u>	FLORENCE ARTS CENTRE
<u>STATUS</u>	FINAL	<u>DRAWING NO.</u>	S2442_DWG_03A

GENERAL NOTES

SGL has prepared the drawing for the sole use of the Client and their appointed agents. SGL shall not be responsible for any use of the drawing for any purpose other than that for which it was prepared. Agreement for the use or copying of this drawing by any Third Party must be obtained in writing from SGL. Should the Client require to pass copies of the drawing to other parties for information, no professional liability or warranty shall be extended to other parties by SGL.



**SPIRE
GEOTECHNICAL**

0191 549 7384 | spire-geo.com

NORTH EAST North Sands Business Park,
Sunderland, SR6 0QA

SCOTLAND Hill Street, New Town, Edinburgh,
EH2 3JP

YORKSHIRE International House, King Street,
Leeds, LS1 2HL



PHOTOGRAPHIC RECORD SHEET - WESTERN AREA (2 OF 2)

<u>CLIENT</u>	BDN LTD	<u>PROJECT</u>	FLORENCE ARTS CENTRE
<u>STATUS</u>	FINAL	<u>DRAWING NO.</u>	S2442_DWG_03B

<u>GENERAL NOTES</u>
SGL has prepared the drawing for the sole use of the Client and their appointed agents. SGL shall not be responsible for any use of the drawing for any purpose other than that for which it was prepared. Agreement for the use or copying of this drawing by any Third Party must be obtained in writing from SGL. Should the Client require to pass copies of the drawing to other parties for information, no professional liability or warranty shall be extended to other parties by SGL.



**SPIRE
GEOTECHNICAL**
0191 549 7384 | spire-geo.com

NORTH EAST North Sands Business Park,
Sunderland, SR6 0QA

SCOTLAND Hill Street, New Town, Edinburgh,
EH2 3JP

YORKSHIRE International House, King Street,
Leeds, LS1 2HL



PHOTOGRAPHIC RECORD SHEET - EASTERN AREA (1 OF 2)

<u>CLIENT</u>	BDN LTD	<u>PROJECT</u>	FLORENCE ARTS CENTRE
<u>STATUS</u>	FINAL	<u>DRAWING NO.</u>	S2442_DWG_04A

GENERAL NOTES

SGL has prepared the drawing for the sole use of the Client and their appointed agents. SGL shall not be responsible for any use of the drawing for any purpose other than that for which it was prepared. Agreement for the use or copying of this drawing by any Third Party must be obtained in writing from SGL. Should the Client require to pass copies of the drawing to other parties for information, no professional liability or warranty shall be extended to other parties by SGL.



**SPIRE
GEOTECHNICAL**

0191 549 7384 | spire-geo.com

NORTH EAST North Sands Business Park,
Sunderland, SR6 0QA

SCOTLAND Hill Street, New Town, Edinburgh,
EH2 3JP

YORKSHIRE International House, King Street,
Leeds, LS1 2HL



PHOTOGRAPHIC RECORD SHEET - EASTERN AREA (2 OF 2)

<u>CLIENT</u>	BDN LTD	<u>PROJECT</u>	FLORENCE ARTS CENTRE
<u>STATUS</u>	FINAL	<u>DRAWING NO.</u>	S2442_DWG_04B

<u>GENERAL NOTES</u>
SGL has prepared the drawing for the sole use of the Client and their appointed agents. SGL shall not be responsible for any use of the drawing for any purpose other than that for which it was prepared. Agreement for the use or copying of this drawing by any Third Party must be obtained in writing from SGL. Should the Client require to pass copies of the drawing to other parties for information, no professional liability or warranty shall be extended to other parties by SGL.



**SPIRE
GEOTECHNICAL**

0191 549 7384 | spire-geo.com

NORTH EAST North Sands Business Park,
Sunderland, SR6 0QA

SCOTLAND Hill Street, New Town, Edinburgh,
EH2 3JP

YORKSHIRE International House, King Street,
Leeds, LS1 2HL

APPENDIX 2



SPIRE
GEOTECHNICAL
Geologists & Site Investigation
Specialists

Site Details:

FLORENCE ARTS CENTRE,
EGREMONT, CUMBRIA, CA22
2NR

Client Ref: S2442
Report Ref: GS-9XC-M3I-J79-535
Grid Ref: 301760, 510315

Map Name: County Series

Map date: 1861

Scale: 1:10,560

Printed at: 1:10,560



Surveyed 1861
Revised 1861
Edition N/A
Copyright N/A
Levelled N/A

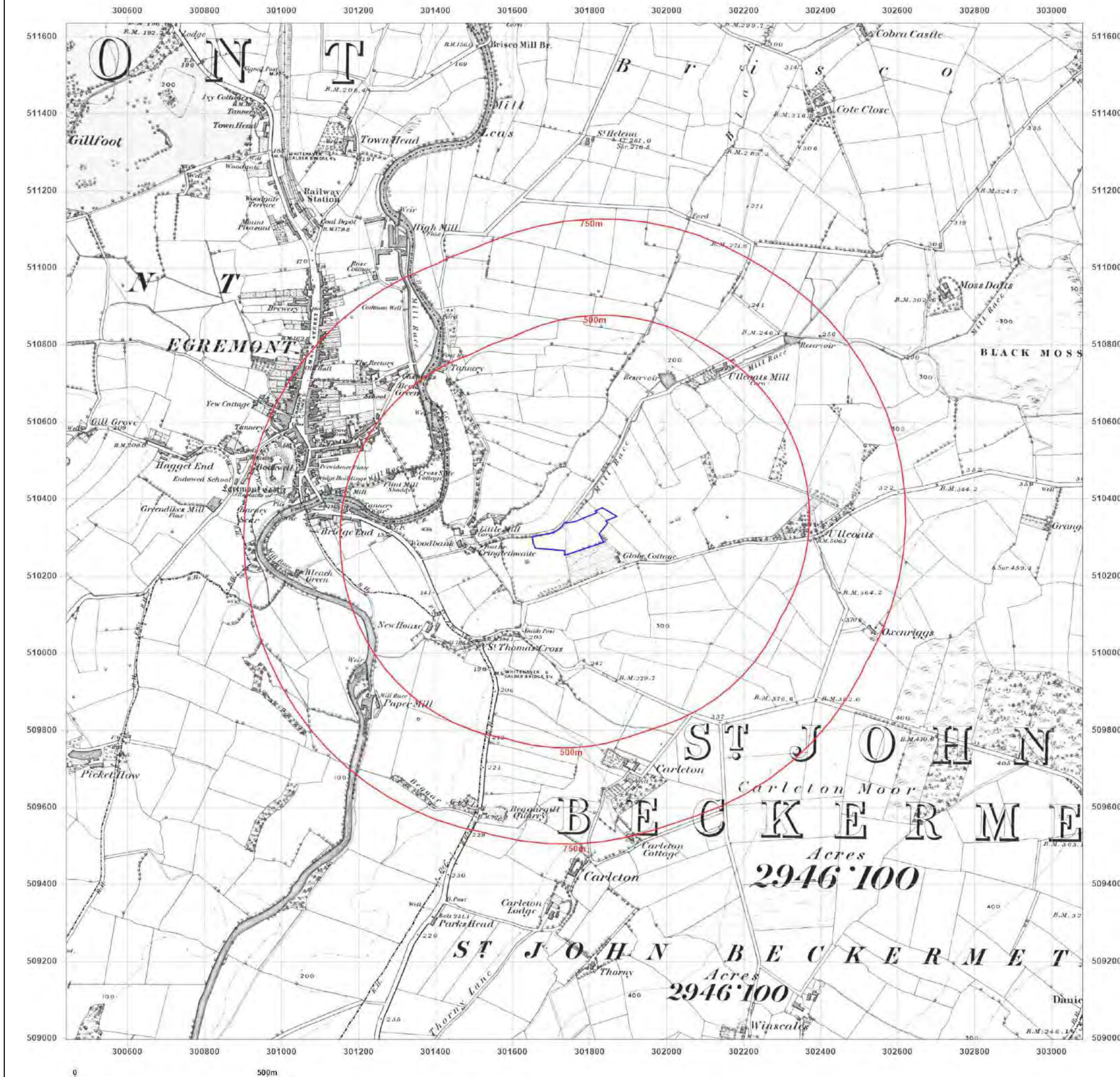


Produced by
Groundsure Insights
T: 08444 159000
E: info@groundsure.com
W: www.groundsure.com

© Crown copyright and database rights 2024 Ordnance Survey 100035207

Production date: 20 February 2025

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



Site Details:

FLORENCE ARTS CENTRE,
EGREMONT, CUMBRIA, CA22
2NR

Client Ref: S2442
Report Ref: GS-9XC-M3I-J79-535
Grid Ref: 301760, 510315

Map Name: County Series

Map date: 1898

Scale: 1:10,560

Printed at: 1:10,560



Surveyed 1860
Revised 1898
Edition N/A
Copyright N/A
Levelled N/A

Surveyed 1863
Revised 1898
Edition N/A
Copyright N/A
Levelled N/A

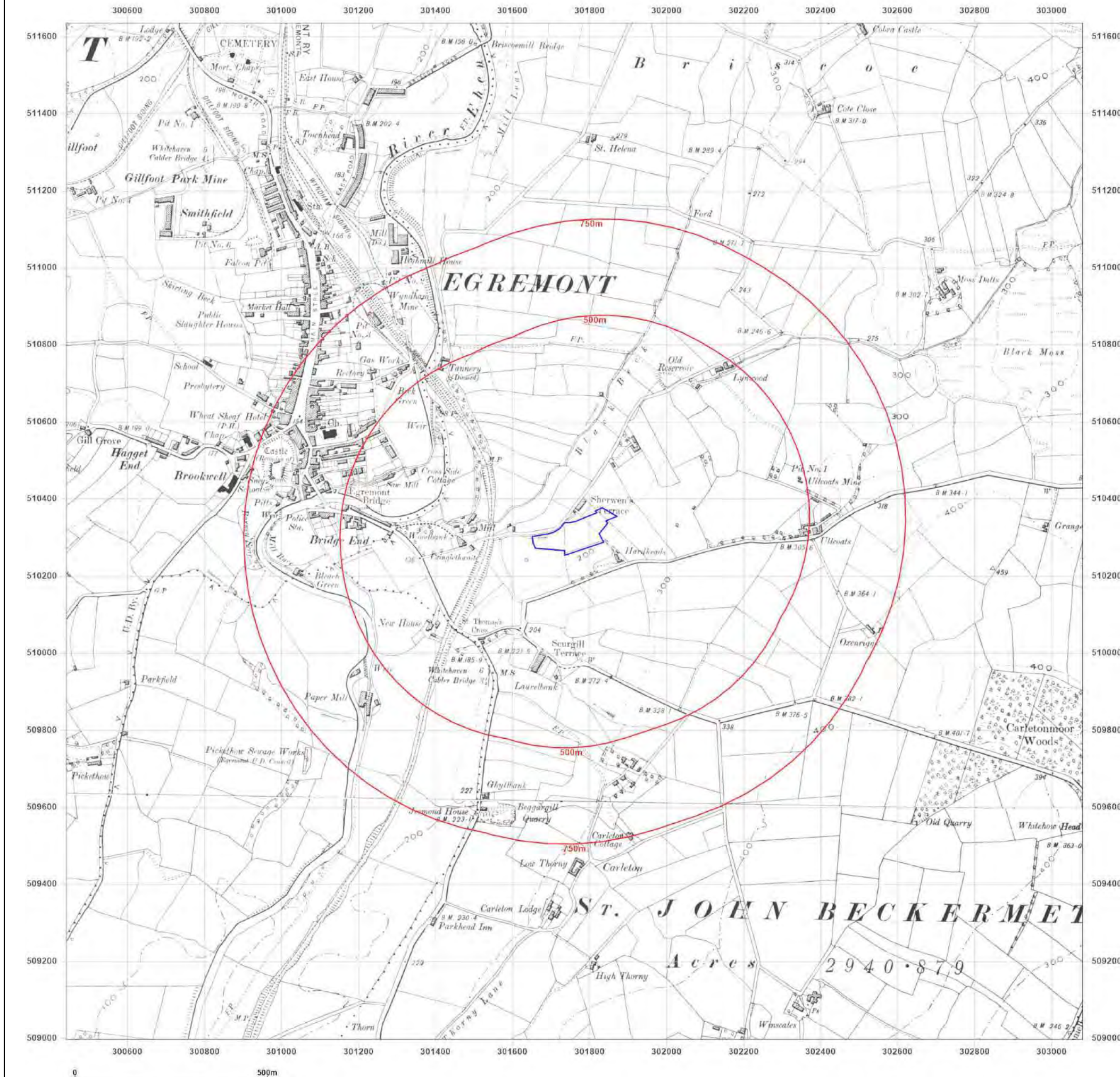


Produced by
Groundsure Insights
T: 08444 159000
E: info@groundsure.com
W: www.groundsure.com

© Crown copyright and database rights 2024 Ordnance Survey 100035207

Production date: 20 February 2025

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



Site Details:

FLORENCE ARTS CENTRE,
EGREMONT, CUMBRIA, CA22
2NR

Client Ref: S2442
Report Ref: GS-9XC-M3I-J79-535
Grid Ref: 301760, 510315

Map Name: County Series

Map date: 1926

Scale: 1:10,560

Printed at: 1:10,560



Surveyed 1860
Revised 1926
Edition N/A
Copyright N/A
Levelled N/A

Surveyed 1863
Revised 1926
Edition N/A
Copyright N/A
Levelled N/A

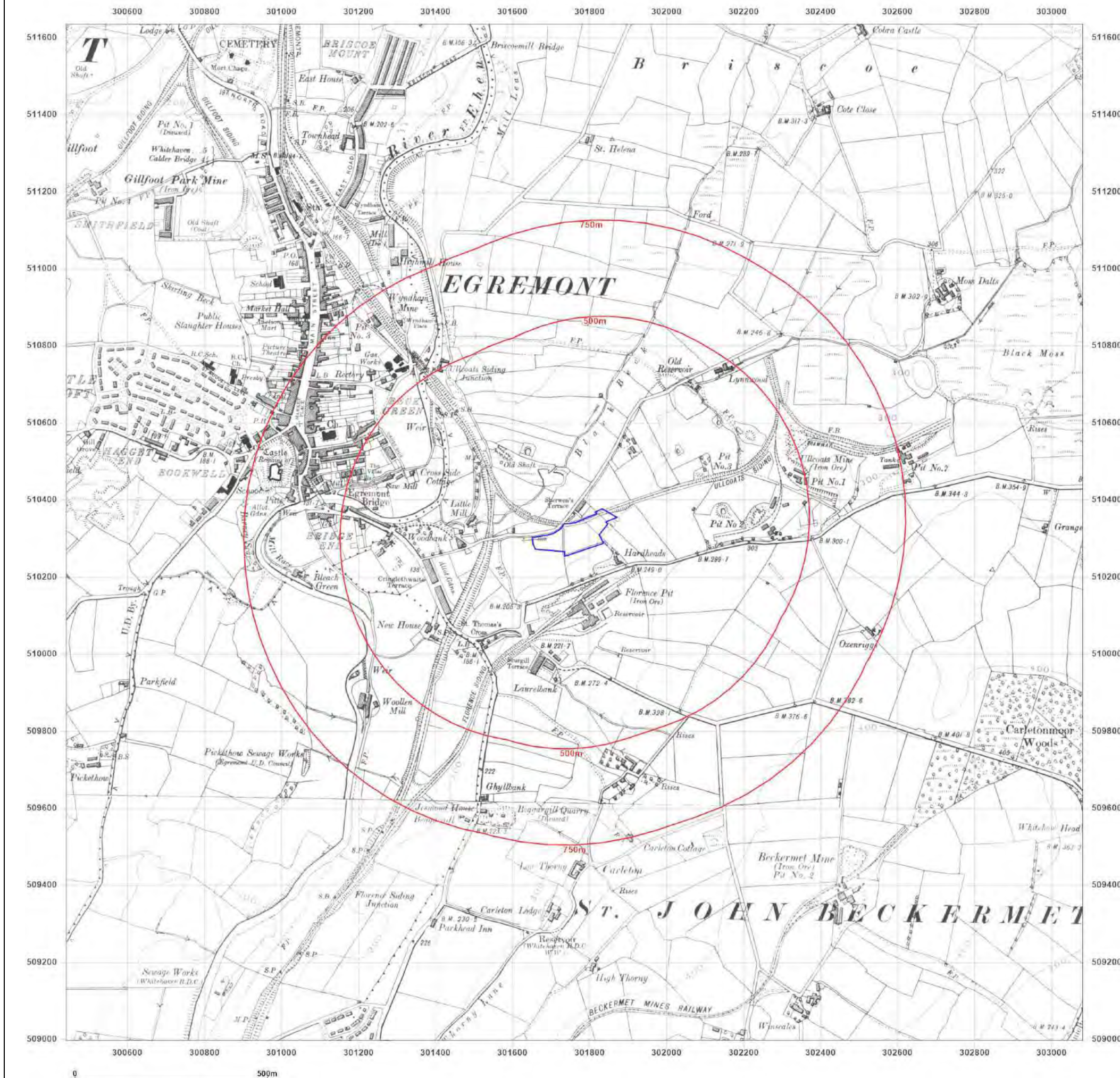


Produced by
Groundsure Insights
T: 08444 159000
E: info@groundsure.com
W: www.groundsure.com

© Crown copyright and database rights 2024 Ordnance Survey 100035207

Production date: 20 February 2025

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



Site Details:

FLORENCE ARTS CENTRE,
EGREMONT, CUMBRIA, CA22
2NR

Client Ref: S2442
Report Ref: GS-9XC-M3I-J79-535
Grid Ref: 301760, 510315

Map Name: Provisional

Map date: 1951-1956

Scale: 1:10,560

Printed at: 1:10,560



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

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

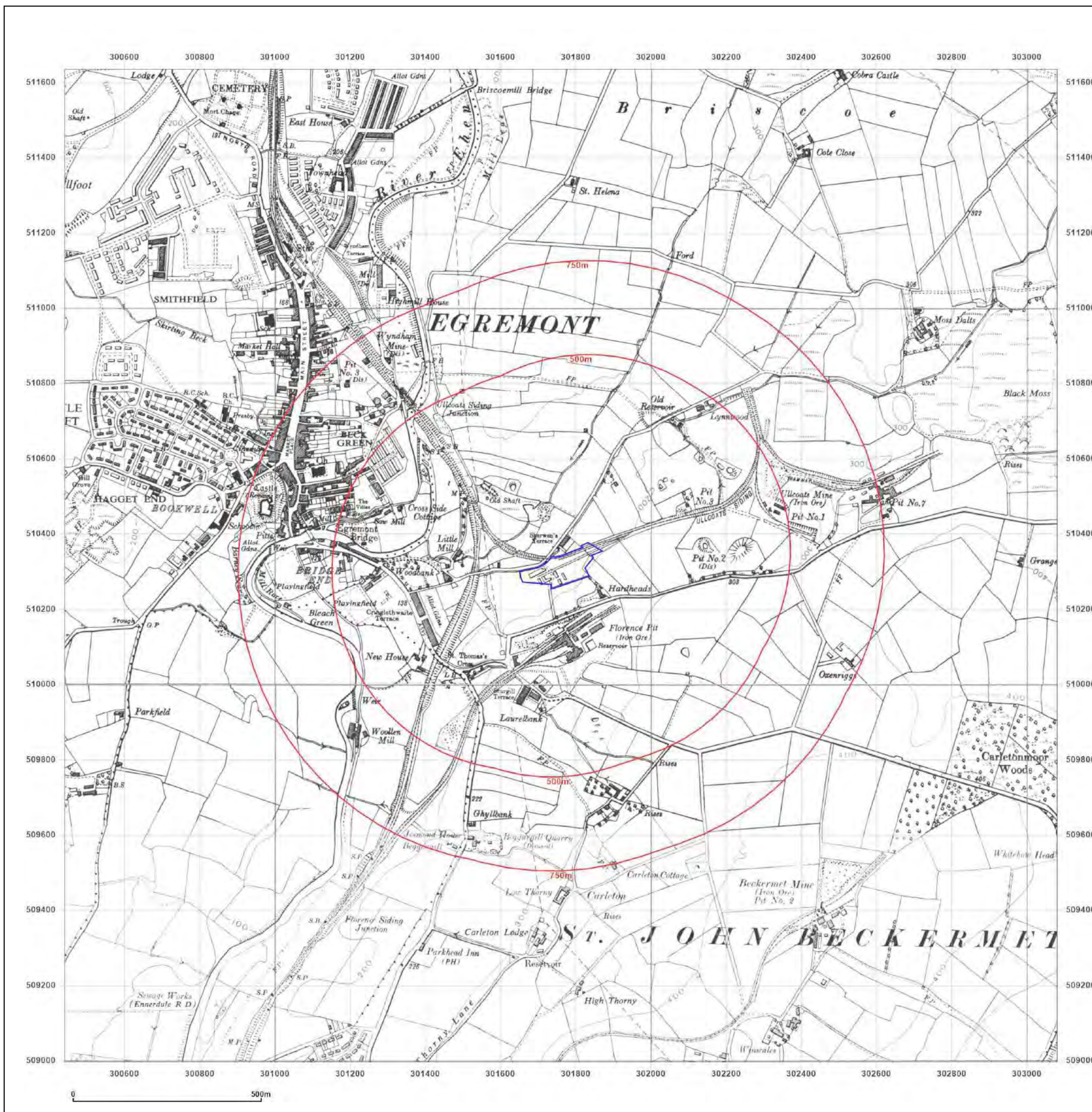


Produced by
Groundsure Insights
T: 08444 159000
E: info@groundsure.com
W: www.groundsure.com

© Crown copyright and database rights 2024 Ordnance Survey 100035207

Production date: 20 February 2025

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



Site Details:

FLORENCE ARTS CENTRE,
EGREMONT, CUMBRIA, CA22
2NR

Client Ref: S2442
Report Ref: GS-9XC-M3I-J79-535
Grid Ref: 301760, 510315

Map Name: National Grid

Map date: 1971

Scale: 1:10,000

Printed at: 1:10,000



Surveyed 1970
Revised 1971
Edition N/A
Copyright N/A
Levelled N/A

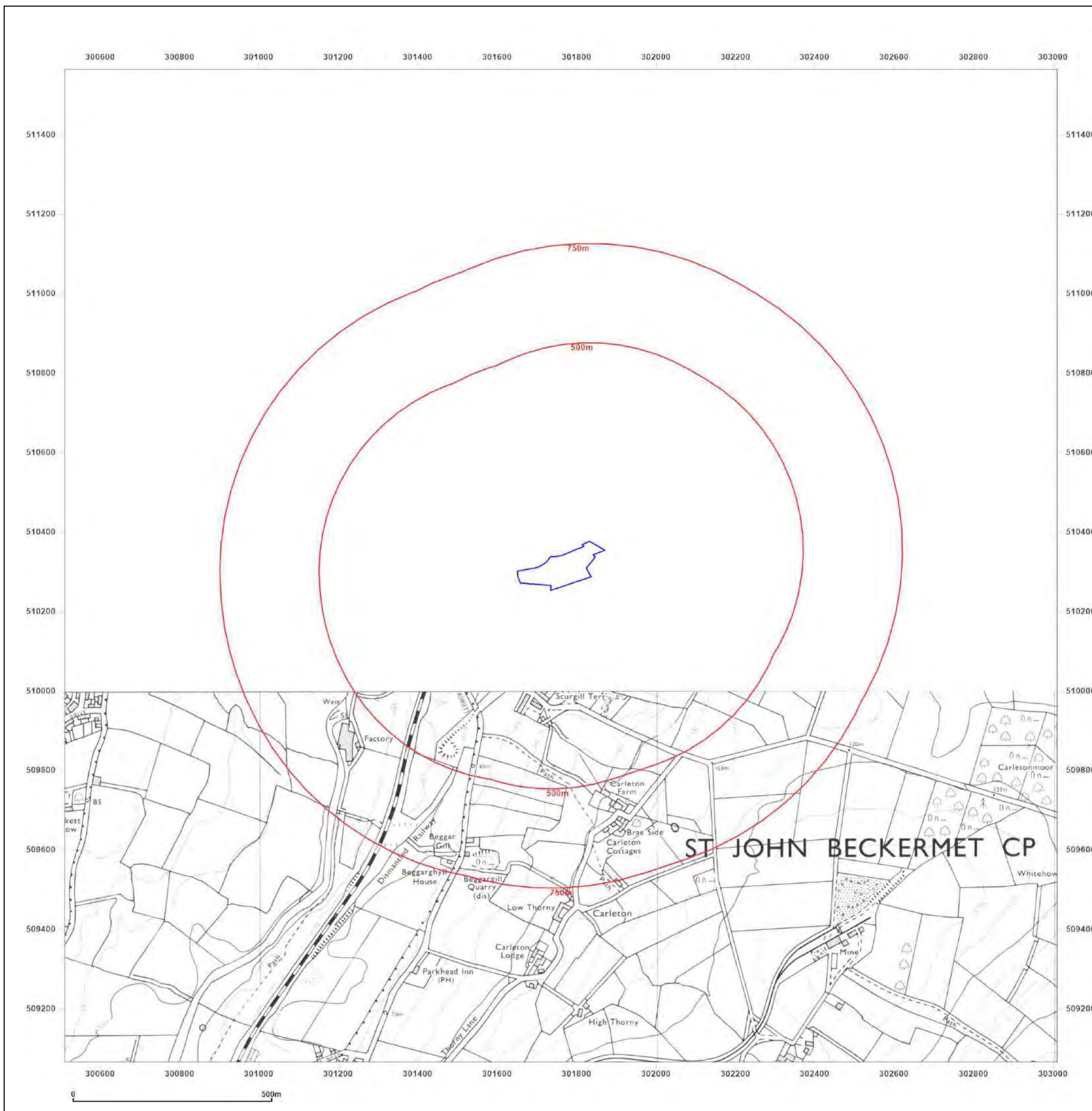


Produced by
Groundsure Insights
T: 08444 159000
E: info@groundsure.com
W: www.groundsure.com

© Crown copyright and database rights 2024 Ordnance Survey 100035207

Production date: 20 February 2025

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



Site Details:

FLORENCE ARTS CENTRE,
EGREMONT, CUMBRIA, CA22
2NR

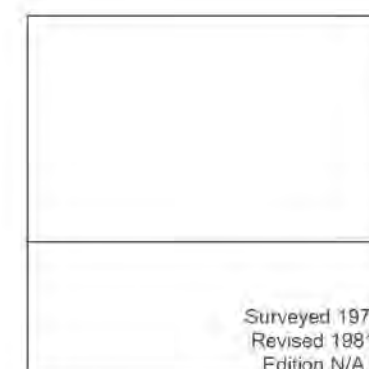
Client Ref: S2442
Report Ref: GS-9XC-M3I-J79-535
Grid Ref: 301760, 510315

Map Name: National Grid

Map date: 1981

Scale: 1:10,000

Printed at: 1:10,000



Surveyed 1970
Revised 1981
Edition N/A
Copyright N/A
Levelled N/A

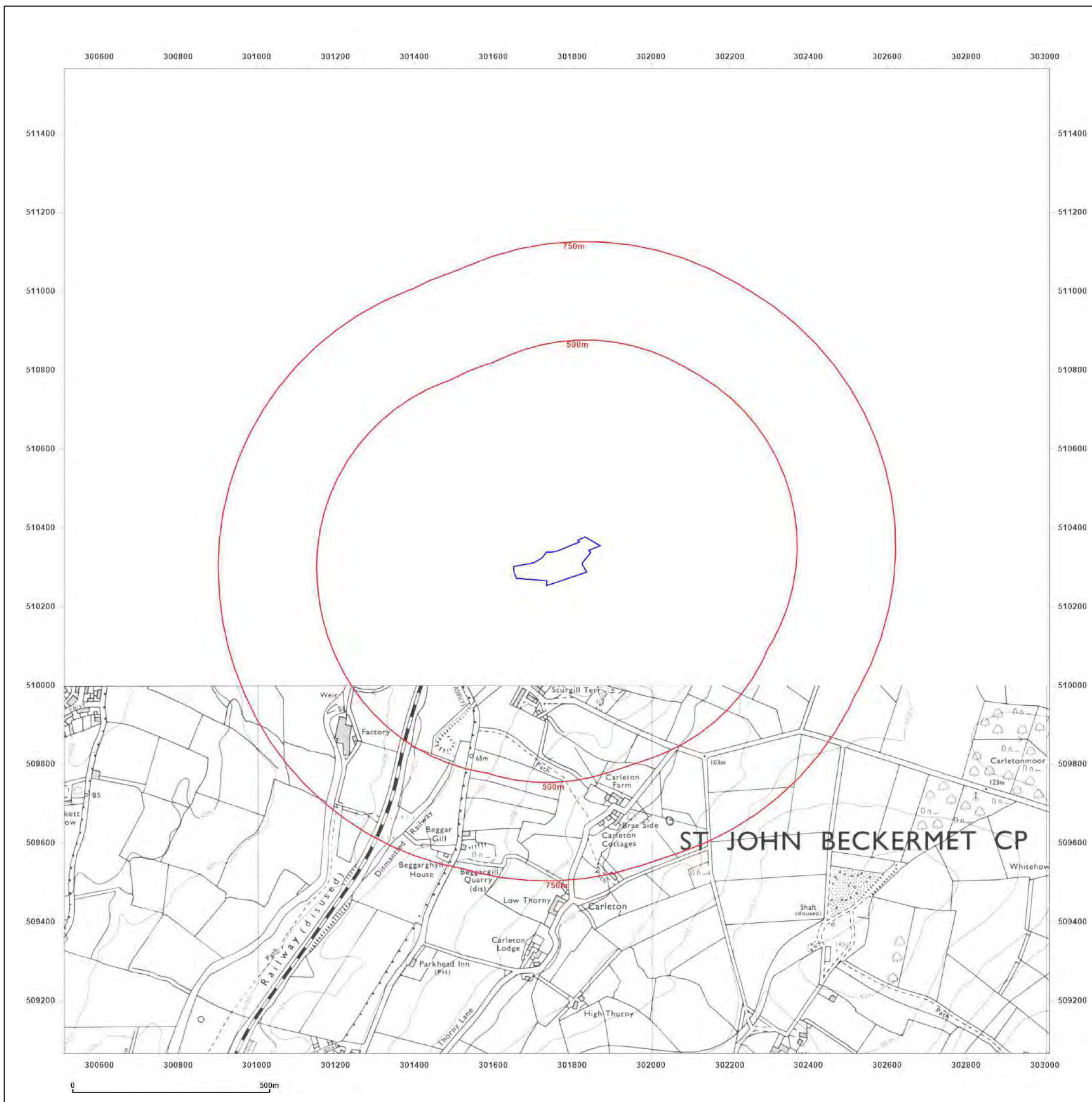


Produced by
Groundsure Insights
T: 08444 159000
E: info@groundsure.com
W: www.groundsure.com

© Crown copyright and database rights 2024 Ordnance Survey 100035207

Production date: 20 February 2025

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



Site Details:

FLORENCE ARTS CENTRE,
EGREMONT, CUMBRIA, CA22
2NR

Client Ref: S2442
Report Ref: GS-9XC-M3I-J79-535
Grid Ref: 301760, 510315

Map Name: National Grid

Map date: 1994

Scale: 1:10,000

Printed at: 1:10,000



Surveyed 1968
Revised 1994
Edition N/A
Copyright N/A
Levelled N/A

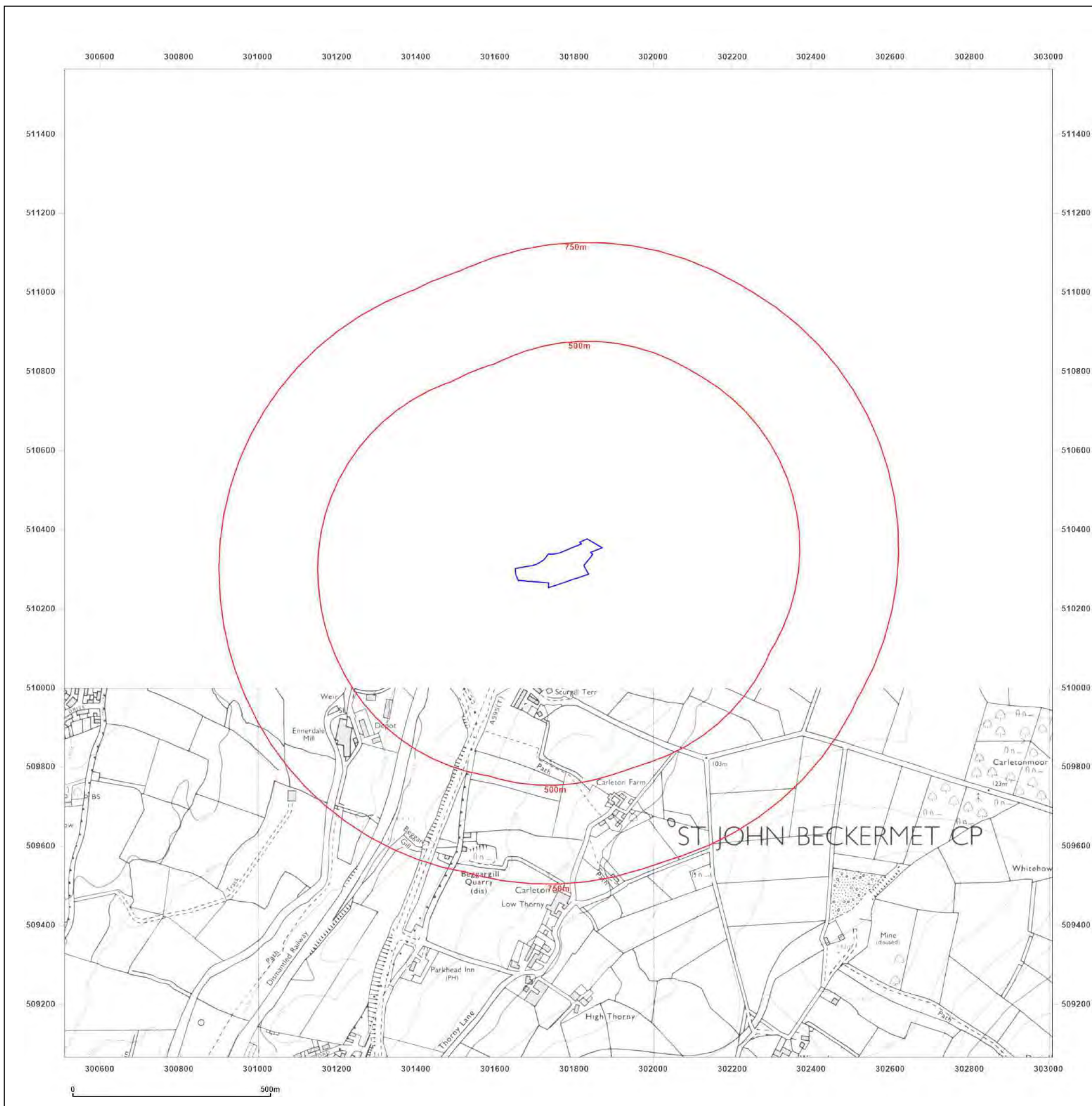


Produced by
Groundsure Insights
T: 08444 159000
E: info@groundsure.com
W: www.groundsure.com

© Crown copyright and database rights 2024 Ordnance Survey 100035207

Production date: 20 February 2025

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



Site Details:

FLORENCE ARTS CENTRE,
EGREMONT, CUMBRIA, CA22
2NR

Client Ref: S2442
Report Ref: GS-9XC-M3I-J79-535
Grid Ref: 301760, 510315

Map Name: National Grid

Map date: 2001

Scale: 1:10,000

Printed at: 1:10,000



2001

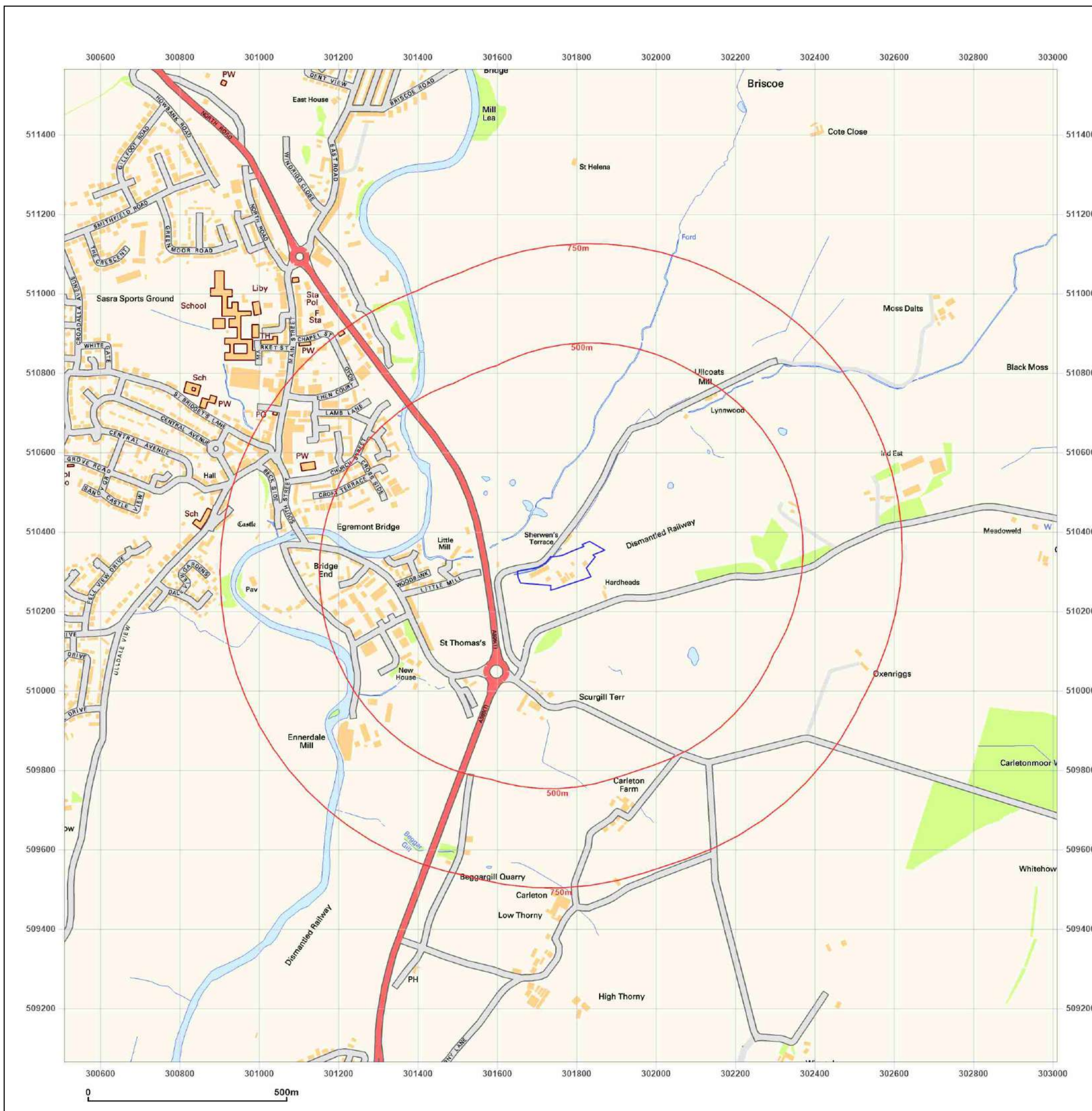


Produced by
Groundsure Insights
T: 08444 159000
E: info@groundsure.com
W: www.groundsure.com

© Crown copyright and database rights 2024 Ordnance Survey 100035207

Production date: 20 February 2025

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



Site Details:

FLORENCE ARTS CENTRE,
EGREMONT, CUMBRIA, CA22
2NR

Client Ref: S2442
Report Ref: GS-9XC-M3I-J79-535
Grid Ref: 301760, 510315

Map Name: National Grid

Map date: 2010

Scale: 1:10,000

Printed at: 1:10,000



2010

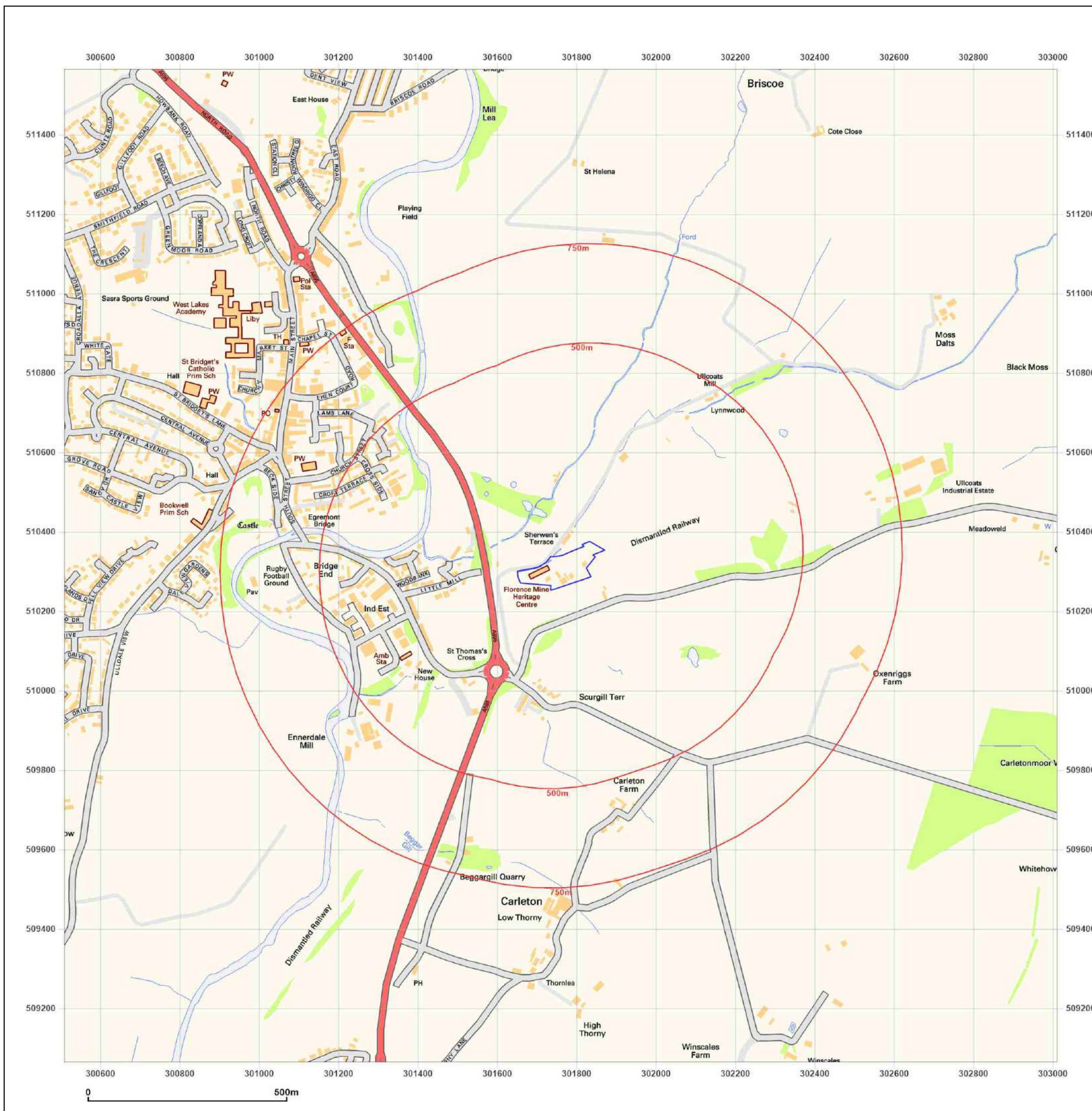


Produced by
Groundsure Insights
T: 08444 159000
E: info@groundsure.com
W: www.groundsure.com

© Crown copyright and database rights 2024 Ordnance Survey 100035207

Production date: 20 February 2025

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



Site Details:

FLORENCE ARTS CENTRE,
EGREMONT, CUMBRIA, CA22
2NR

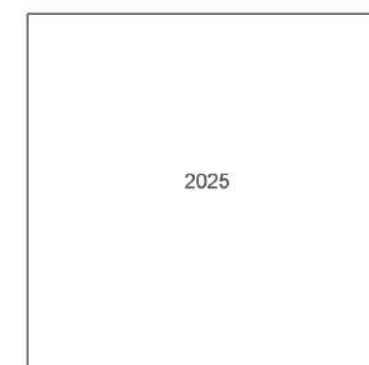
Client Ref: S2442
Report Ref: GS-9XC-M3I-J79-535
Grid Ref: 301760, 510315

Map Name: National Grid

Map date: 2025

Scale: 1:10,000

Printed at: 1:10,000

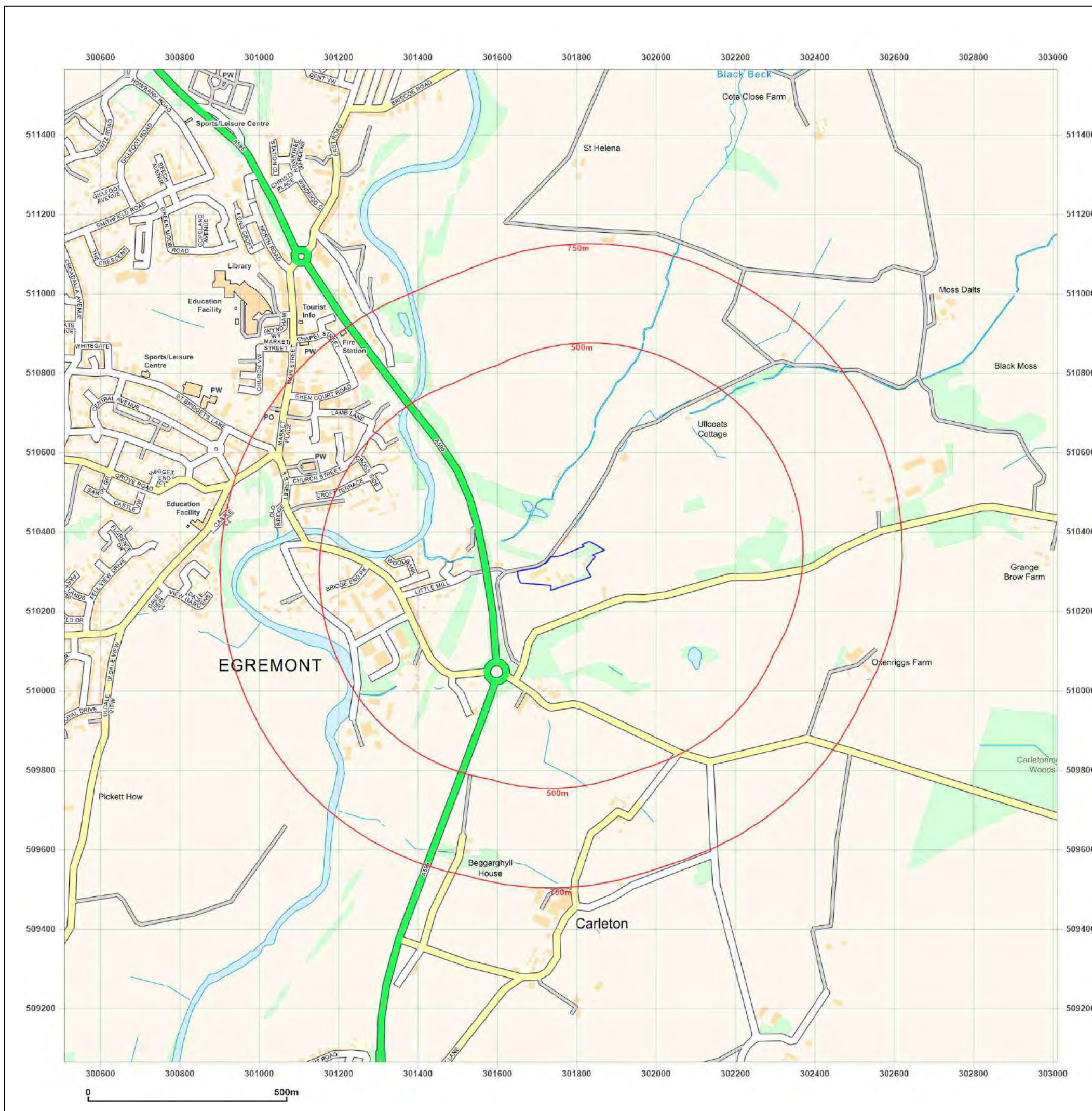


Produced by
Groundsure Insights
T: 08444 159000
E: info@groundsure.com
W: www.groundsure.com

© Crown copyright and database rights 2024 Ordnance Survey 100035207

Production date: 20 February 2025

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



Site Details:

FLORENCE ARTS CENTRE,
EGREMONT, CUMBRIA, CA22
2NR

Client Ref: S2442
Report Ref: GS-9XC-M3I-J79-535
Grid Ref: 301760, 510315

Map Name: County Series

Map date: 1863

Scale: 1:2,500

Printed at: 1:2,500



Surveyed 1863
Revised 1863
Edition N/A
Copyright N/A
Levelled N/A

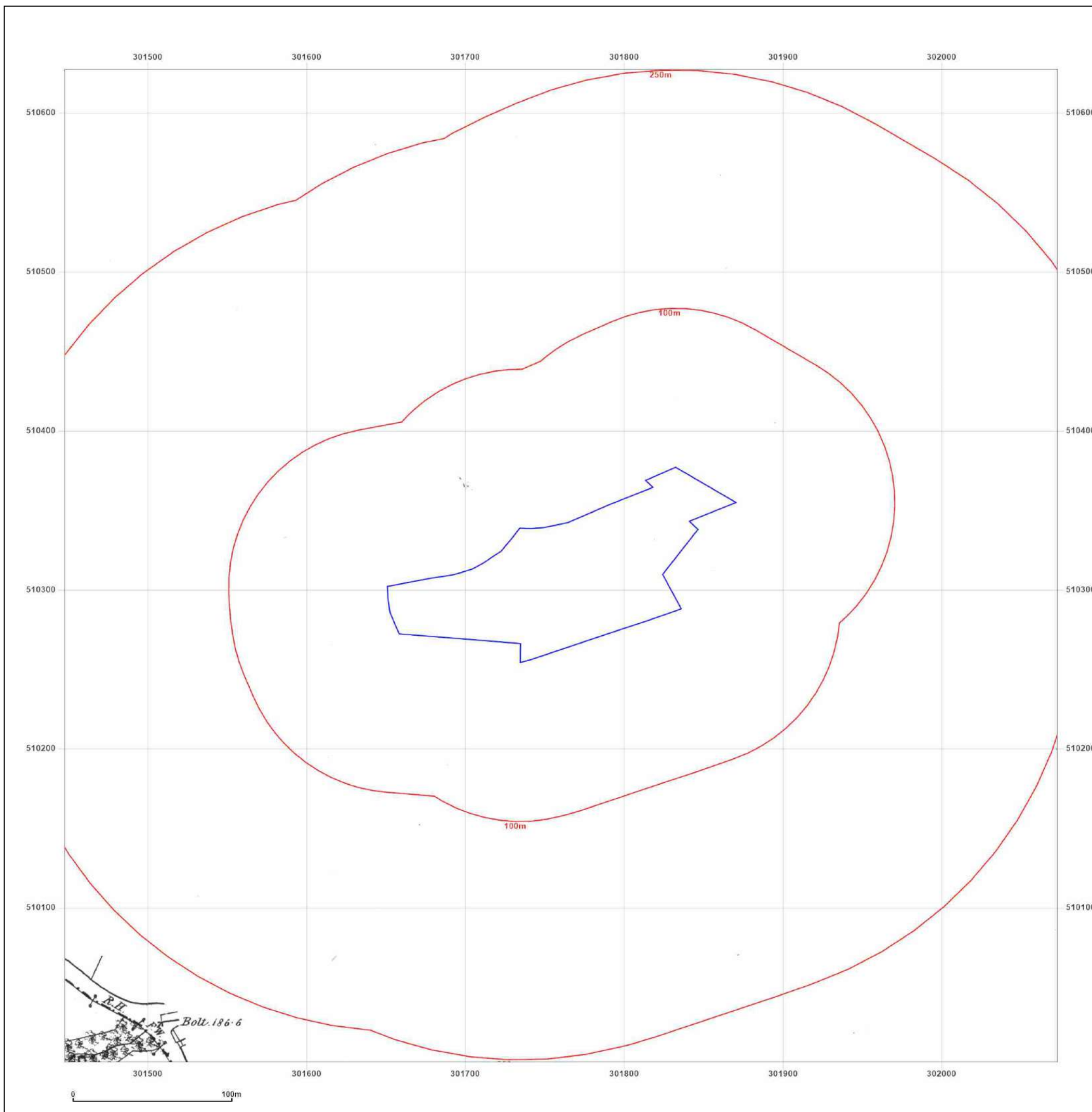


Produced by
Groundsure Insights
T: 08444 159000
E: info@groundsure.com
W: www.groundsure.com

© Crown copyright and database rights 2024 Ordnance Survey 100035207

Production date: 20 February 2025

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



Site Details:

FLORENCE ARTS CENTRE,
EGREMONT, CUMBRIA, CA22
2NR

Client Ref: S2442
Report Ref: GS-9XC-M3I-J79-535
Grid Ref: 301760, 510315

Map Name: County Series

Map date: 1863

Scale: 1:2,500

Printed at: 1:2,500



Surveyed 1863
Revised 1863
Edition N/A
Copyright N/A
Levelled N/A

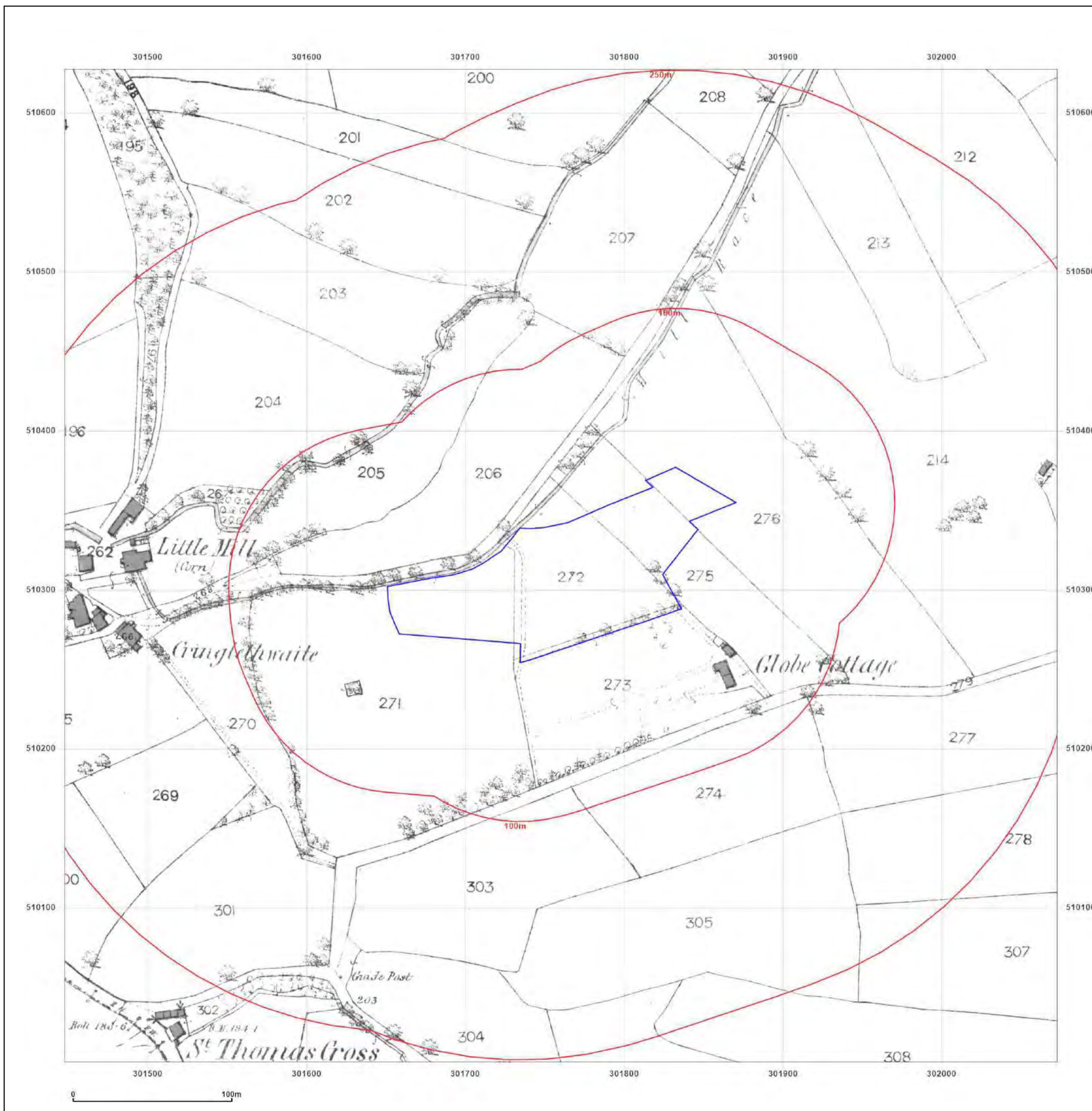


Produced by
Groundsure Insights
T: 08444 159000
E: info@groundsure.com
W: www.groundsure.com

© Crown copyright and database rights 2024 Ordnance Survey 100035207

Production date: 20 February 2025

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



Site Details:

FLORENCE ARTS CENTRE,
EGREMONT, CUMBRIA, CA22
2NR

Client Ref: S2442
Report Ref: GS-9XC-M3I-J79-535
Grid Ref: 301760, 510315

Map Name: County Series

Map date: 1899

Scale: 1:2,500

Printed at: 1:2,500



Surveyed 1899
Revised 1899
Edition N/A
Copyright N/A
Levelled N/A

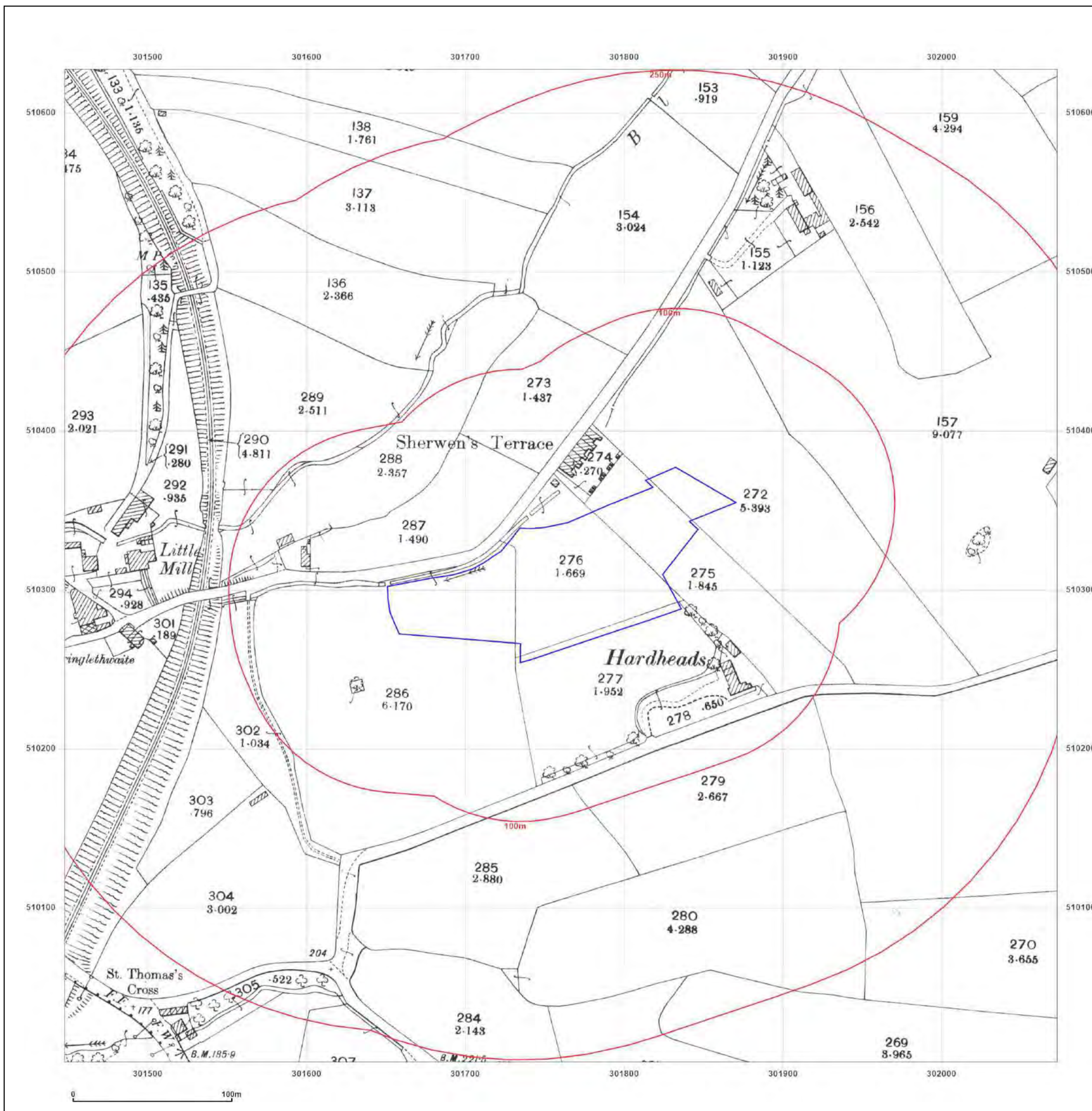


Produced by
Groundsure Insights
T: 08444 159000
E: info@groundsure.com
W: www.groundsure.com

© Crown copyright and database rights 2024 Ordnance Survey 100035207

Production date: 20 February 2025

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



Site Details:

FLORENCE ARTS CENTRE,
EGREMONT, CUMBRIA, CA22
2NR

Client Ref: S2442
Report Ref: GS-9XC-M3I-J79-535
Grid Ref: 301760, 510315

Map Name: County Series

Map date: 1924

Scale: 1:2,500

Printed at: 1:2,500



Surveyed 1924
Revised 1924
Edition N/A
Copyright N/A
Levelled N/A

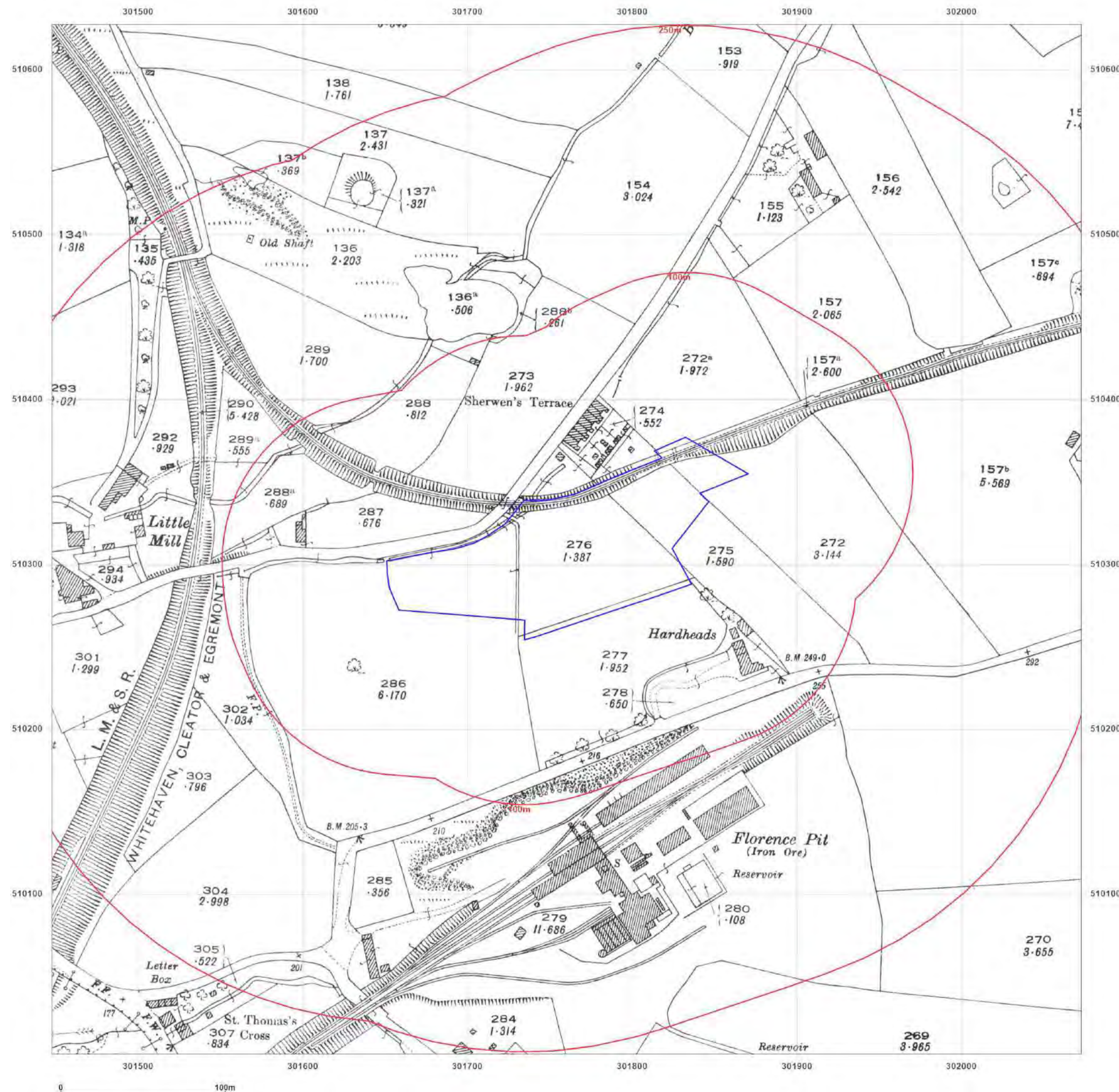


Produced by
Groundsure Insights
T: 08444 159000
E: info@groundsure.com
W: www.groundsure.com

© Crown copyright and database rights 2024 Ordnance Survey 100035207

Production date: 20 February 2025

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



Site Details:

FLORENCE ARTS CENTRE,
EGREMONT, CUMBRIA, CA22
2NR

Client Ref: S2442
Report Ref: GS-9XC-M3I-J79-535
Grid Ref: 301760, 510315

Map Name: National Grid

Map date: 1963

Scale: 1:2,500

Printed at: 1:2,500



Surveyed N/A
Revised 1961
Edition N/A
Copyright 1963
Levelled 1956

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

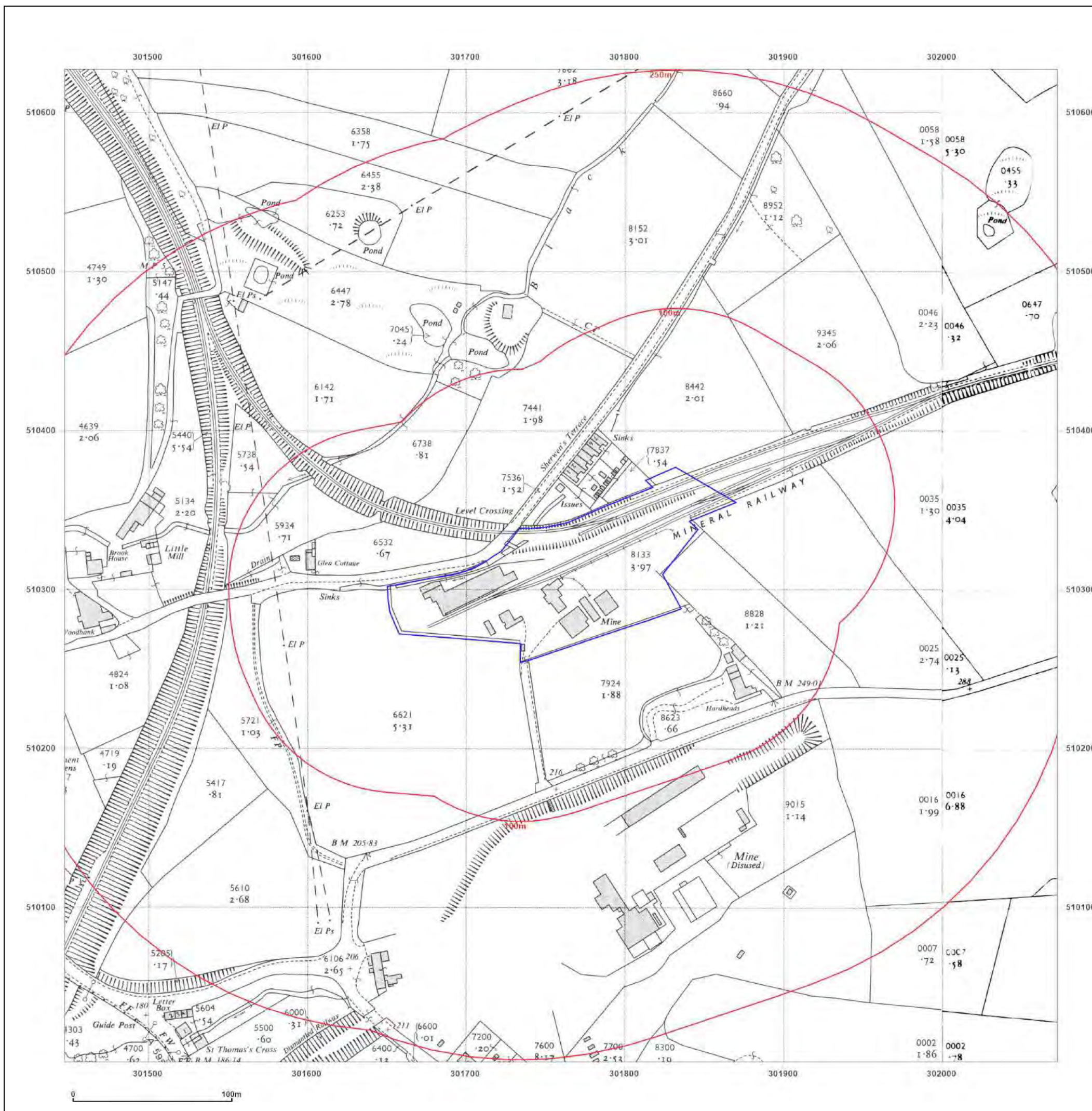


Produced by
Groundsure Insights
T: 08444 159000
E: info@groundsure.com
W: www.groundsure.com

© Crown copyright and database rights 2024 Ordnance Survey 100035207

Production date: 20 February 2025

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



Site Details:

FLORENCE ARTS CENTRE,
EGREMONT, CUMBRIA, CA22
2NR

Client Ref: S2442
Report Ref: GS-9XC-M3I-J79-535
Grid Ref: 301760, 510315

Map Name: National Grid

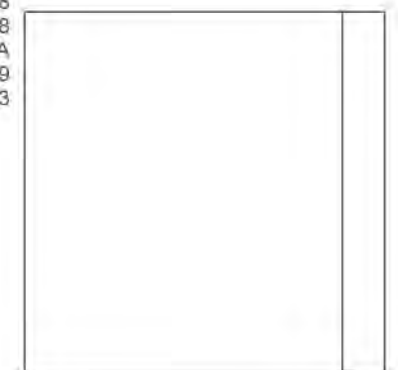
Map date: 1969

Scale: 1:2,500

Printed at: 1:2,500



Surveyed 1968
Revised 1968
Edition N/A
Copyright 1969
Levelled 1953

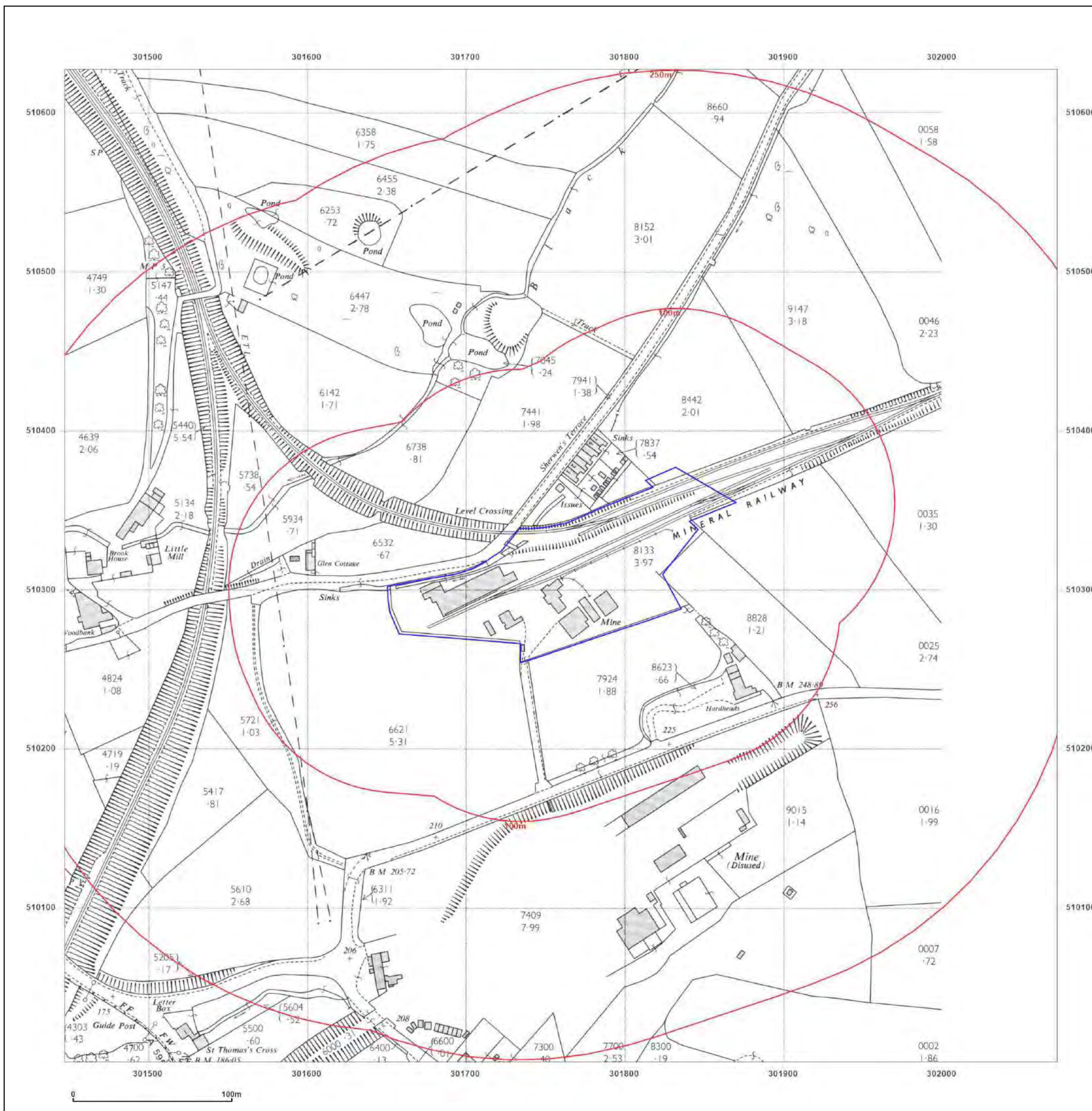


Produced by
Groundsure Insights
T: 08444 159000
E: info@groundsure.com
W: www.groundsure.com

© Crown copyright and database rights 2024 Ordnance Survey 100035207

Production date: 20 February 2025

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



Site Details:

FLORENCE ARTS CENTRE,
EGREMONT, CUMBRIA, CA22
2NR

Client Ref: S2442
Report Ref: GS-9XC-M3I-J79-535
Grid Ref: 301760, 510315

Map Name: National Grid

Map date: 1969

Scale: 1:2,500

Printed at: 1:2,500



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

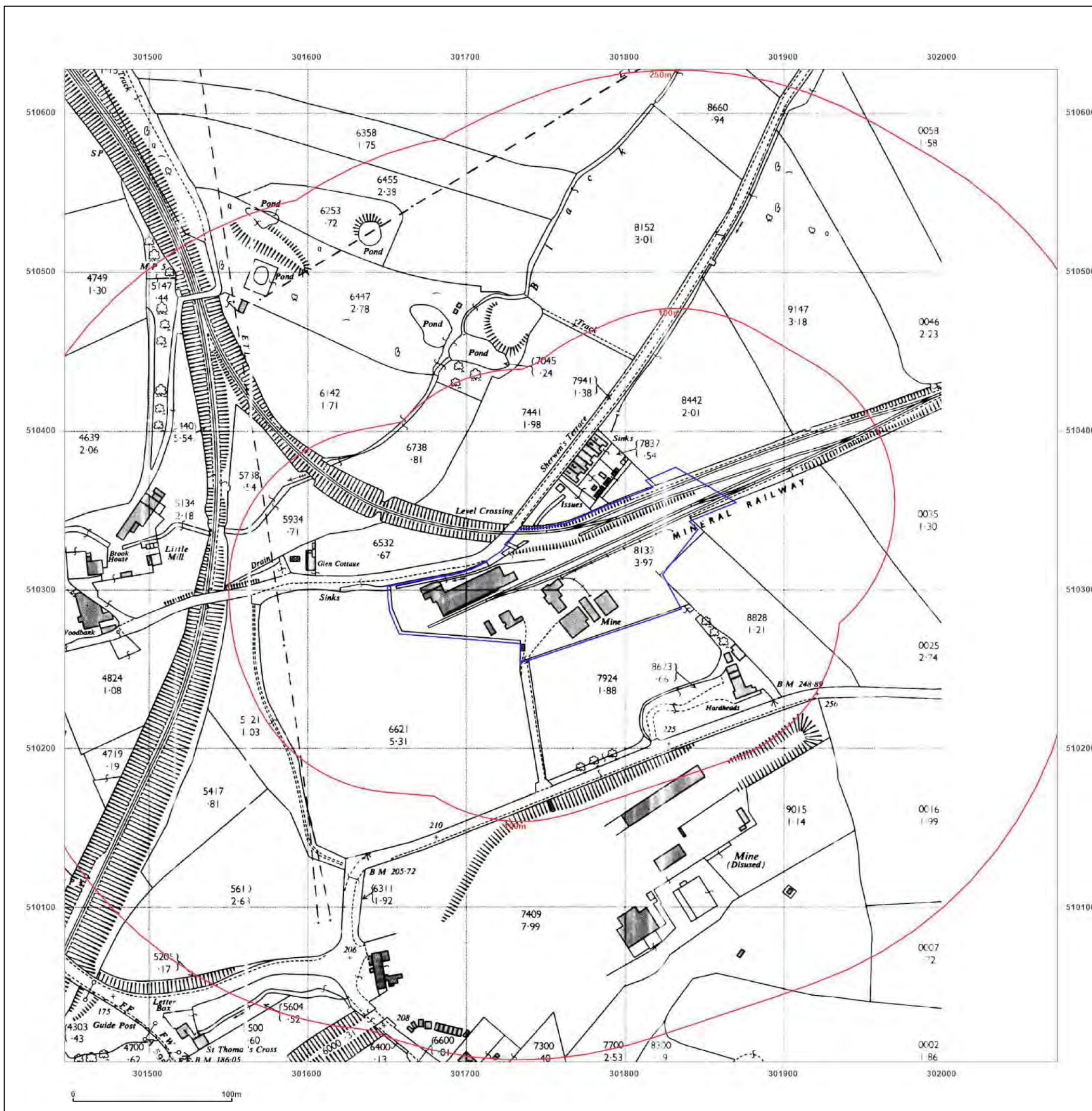


Produced by
Groundsure Insights
T: 08444 159000
E: info@groundsure.com
W: www.groundsure.com

© Crown copyright and database rights 2024 Ordnance Survey 100035207

Production date: 20 February 2025

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



Site Details:

FLORENCE ARTS CENTRE,
EGREMONT, CUMBRIA, CA22
2NR

Client Ref: S2442
Report Ref: GS-9XC-M3I-J79-535
Grid Ref: 301760, 510315

Map Name: National Grid

Map date: 1982

Scale: 1:2,500

Printed at: 1:2,500



Surveyed 1965
Revised 1982
Edition N/A
Copyright 1982
Levelled 1965

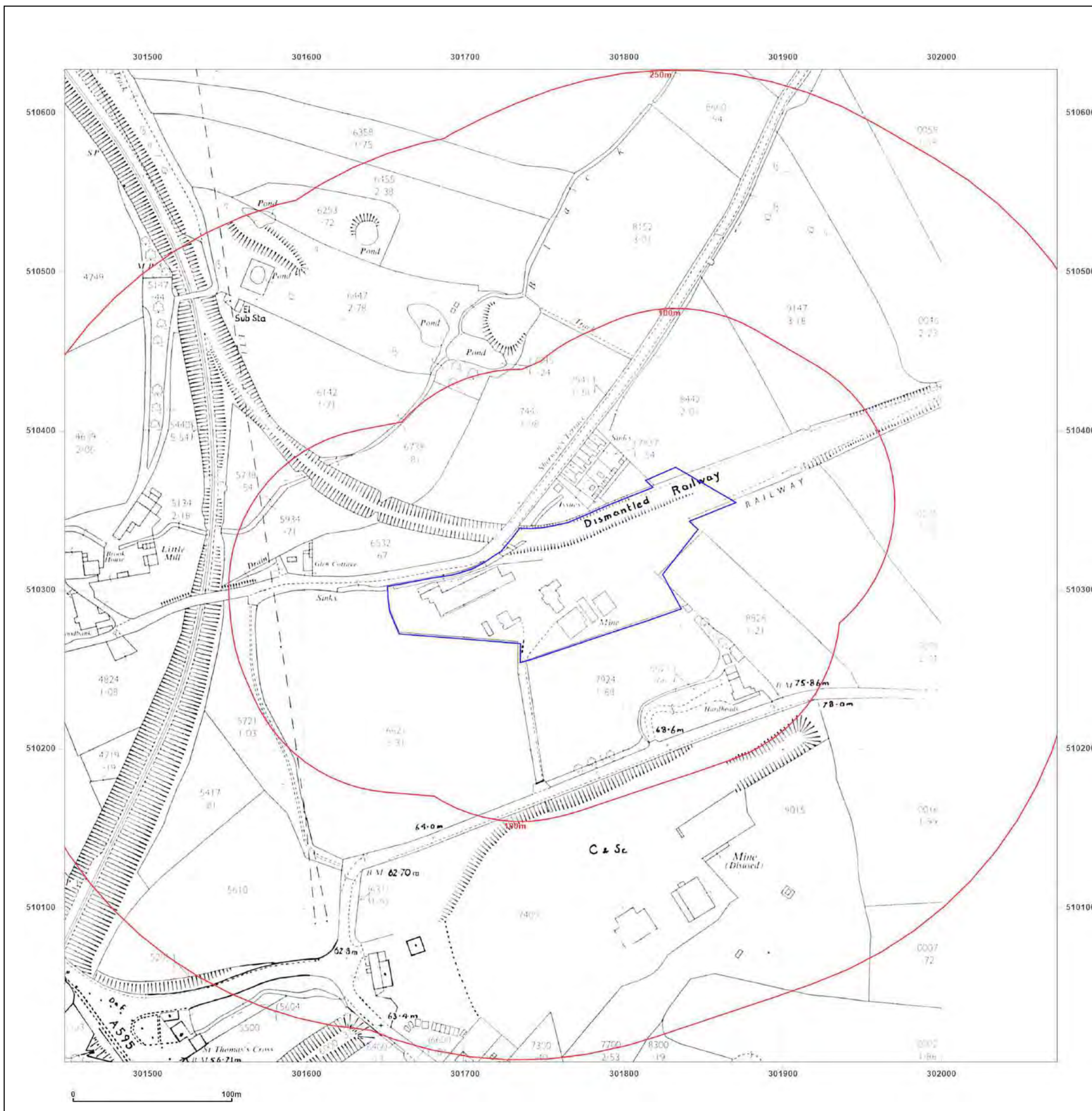


Produced by
Groundsure Insights
T: 08444 159000
E: info@groundsure.com
W: www.groundsure.com

© Crown copyright and database rights 2024 Ordnance Survey 100035207

Production date: 20 February 2025

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



Site Details:

FLORENCE ARTS CENTRE,
EGREMONT, CUMBRIA, CA22
2NR

Client Ref: S2442
Report Ref: GS-9XC-M3I-J79-535
Grid Ref: 301760, 510315

Map Name: National Grid

Map date: 1992-1993

Scale: 1:2,500

Printed at: 1:2,500



Surveyed N/A
Revised N/A
Edition N/A
Copyright 1993
Levelled 1965

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

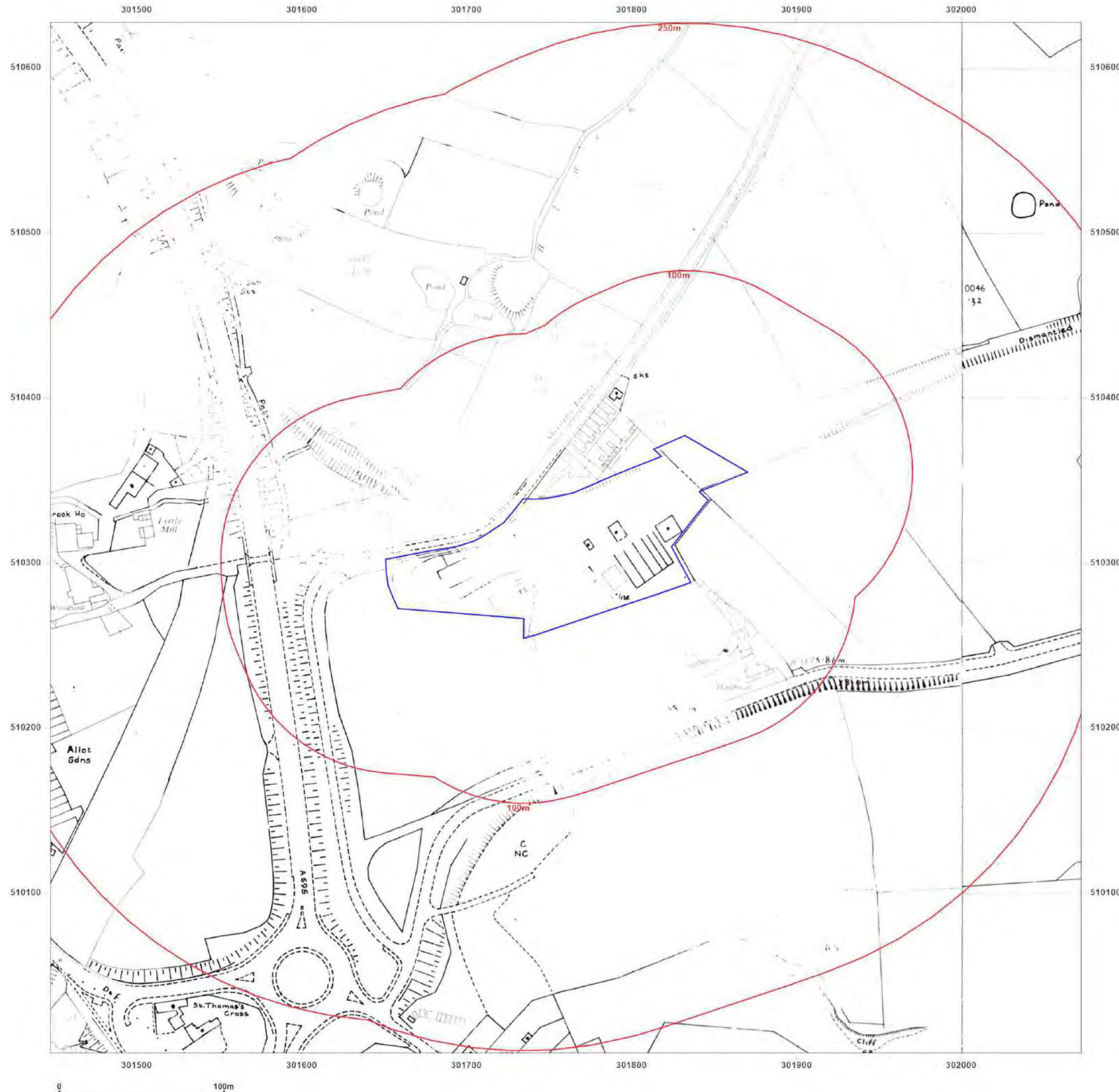


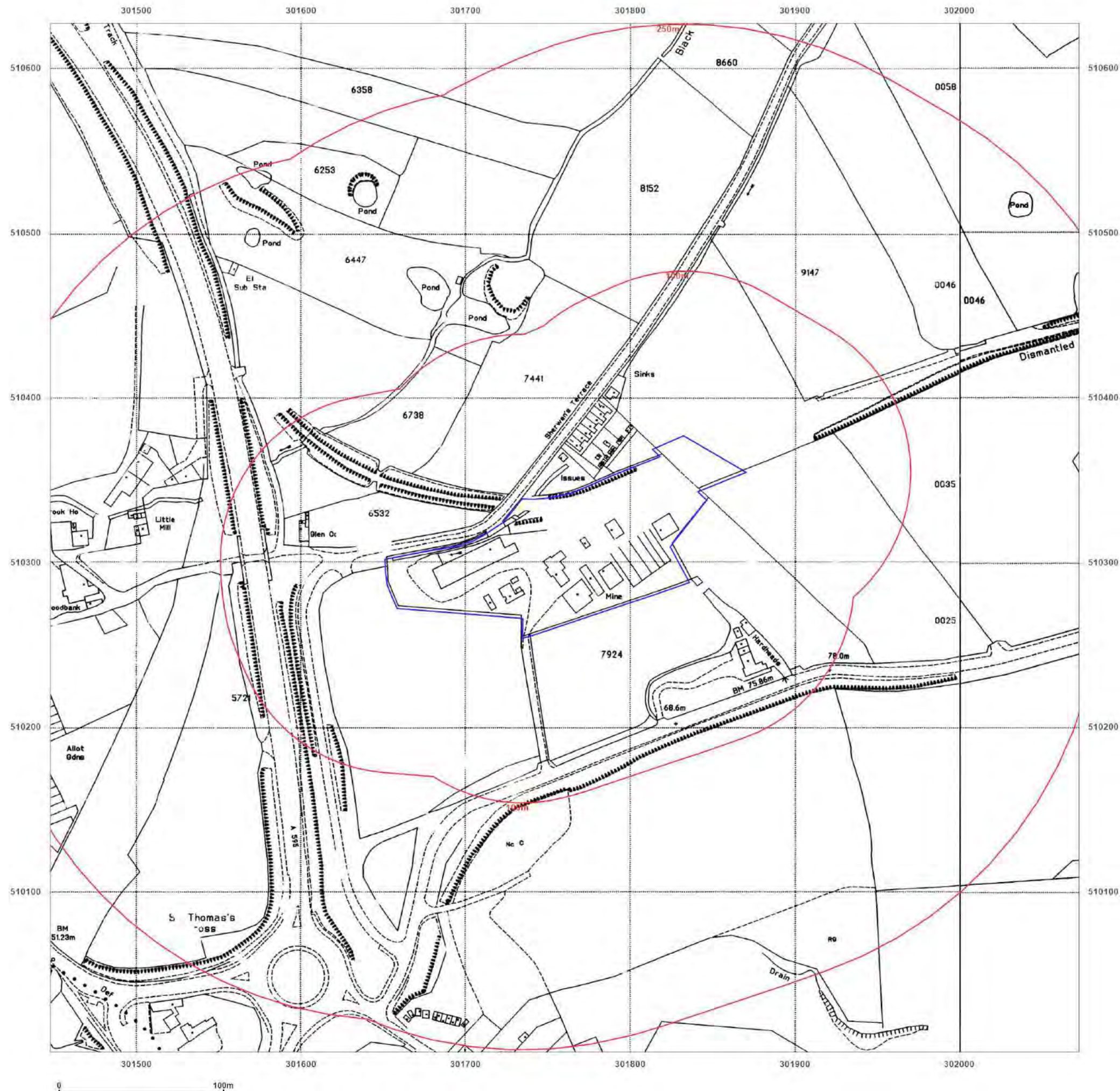
Produced by
Groundsure Insights
T: 08444 159000
E: info@groundsure.com
W: www.groundsure.com

© Crown copyright and database rights 2024 Ordnance Survey 100035207

Production date: 20 February 2025

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





Site Details:

FLORENCE ARTS CENTRE,
EGREMONT, CUMBRIA, CA22
2NR

Client Ref: S2442
Report Ref: GS-9XC-M3I-J79-535
Grid Ref: 301760, 510315

Map Name: National Grid

Map date: 1994

Scale: 1:2,500

Printed at: 1:2,500



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

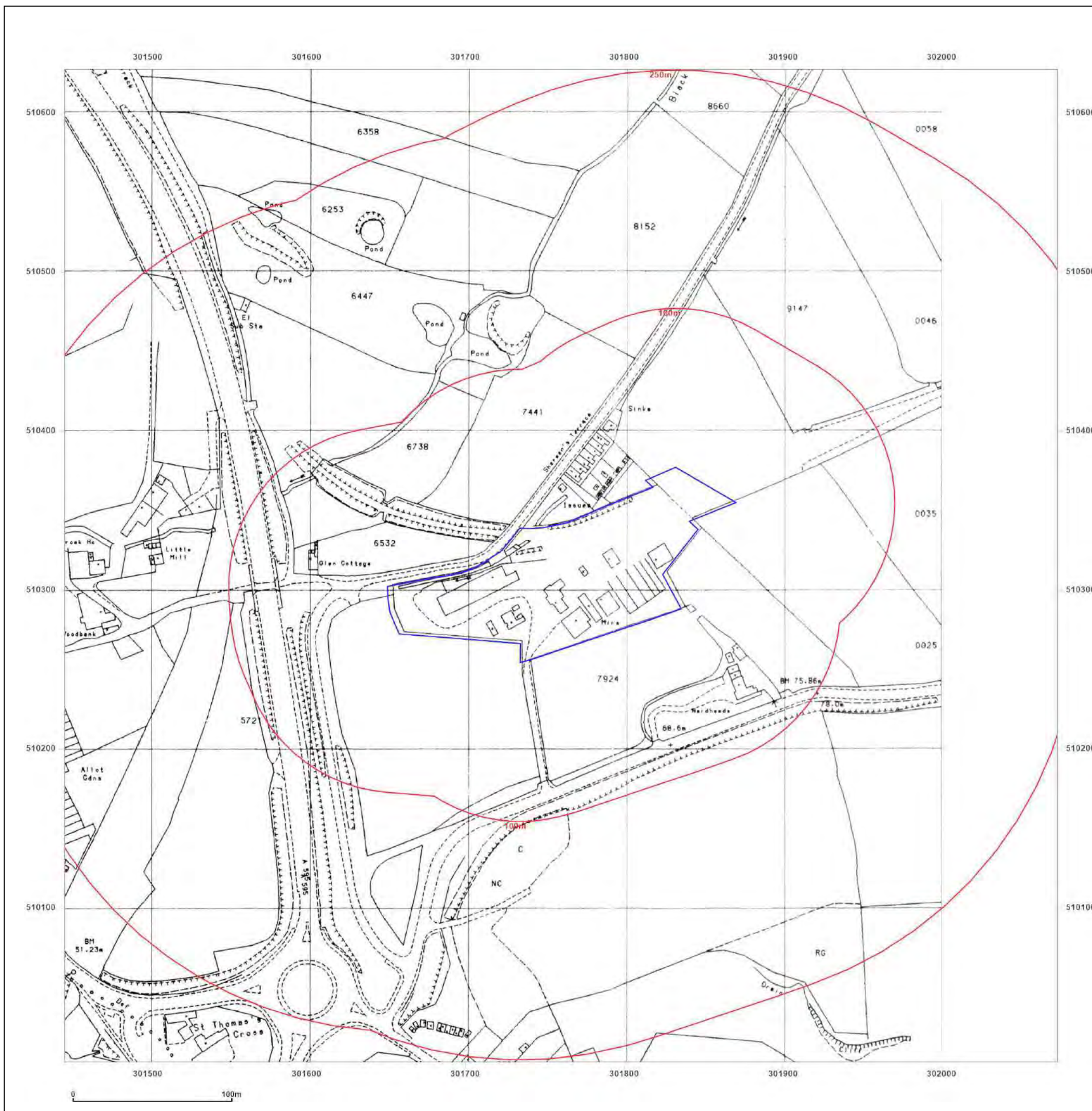


Produced by
Groundsure Insights
T: 08444 159000
E: info@groundsure.com
W: www.groundsure.com

© Crown copyright and database rights 2024 Ordnance Survey 100035207

Production date: 20 February 2025

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



Site Details:

FLORENCE ARTS CENTRE,
EGREMONT, CUMBRIA, CA22
2NR

Client Ref: S2442
Report Ref: GS-9XC-M3I-J79-535
Grid Ref: 301760, 510315

Map Name: National Grid

Map date: 1995

Scale: 1:2,500

Printed at: 1:2,500



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

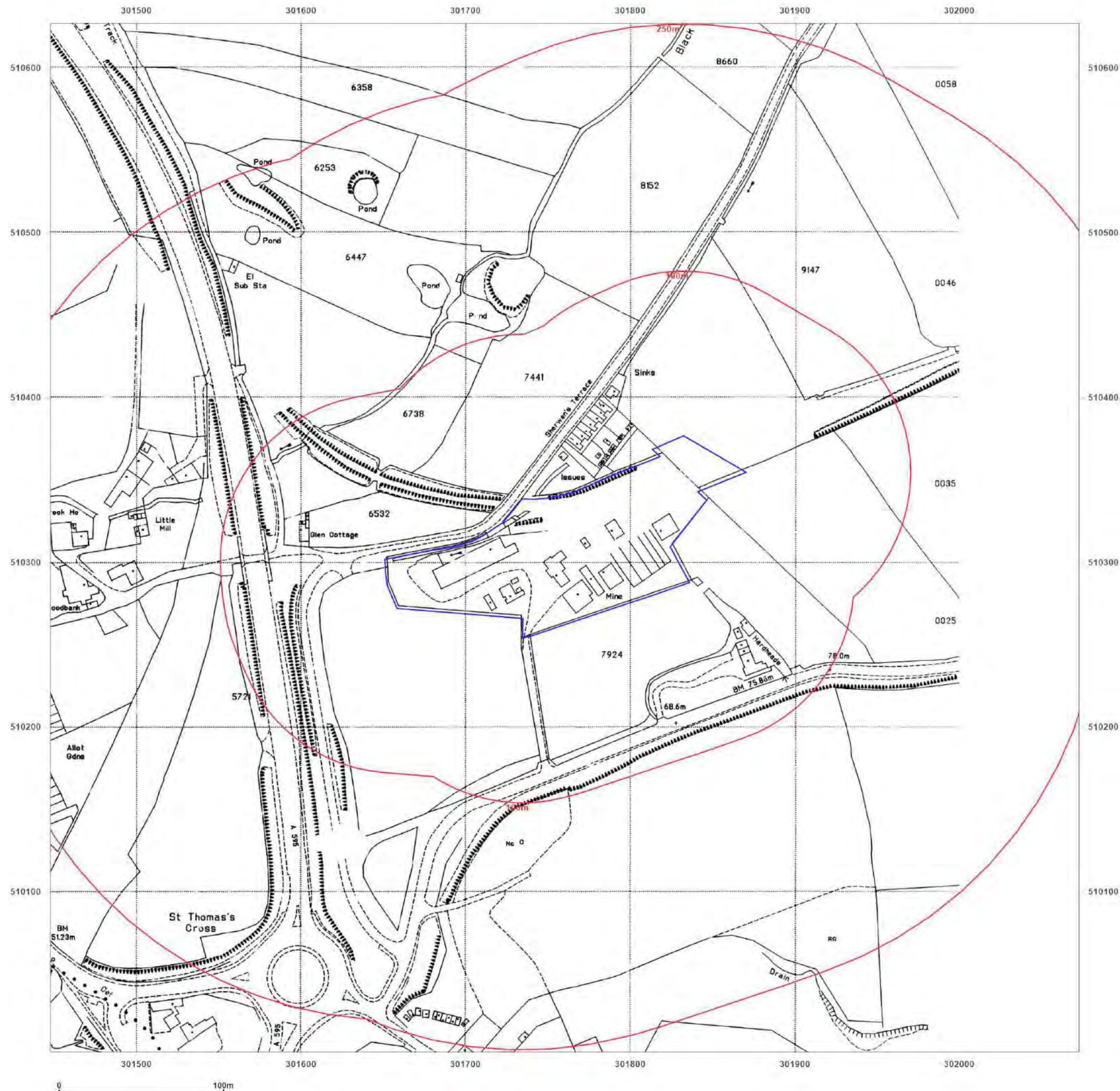


Produced by
Groundsure Insights
T: 08444 159000
E: info@groundsure.com
W: www.groundsure.com

© Crown copyright and database rights 2024 Ordnance Survey 100035207

Production date: 20 February 2025

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



Site Details:

FLORENCE ARTS CENTRE,
EGREMONT, CUMBRIA, CA22
2NR

Client Ref: S2442
Report Ref: GS-9XC-M3I-J79-535
Grid Ref: 301760, 510315

Map Name: National Grid

Map date: 1995

Scale: 1:2,500

Printed at: 1:2,500



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

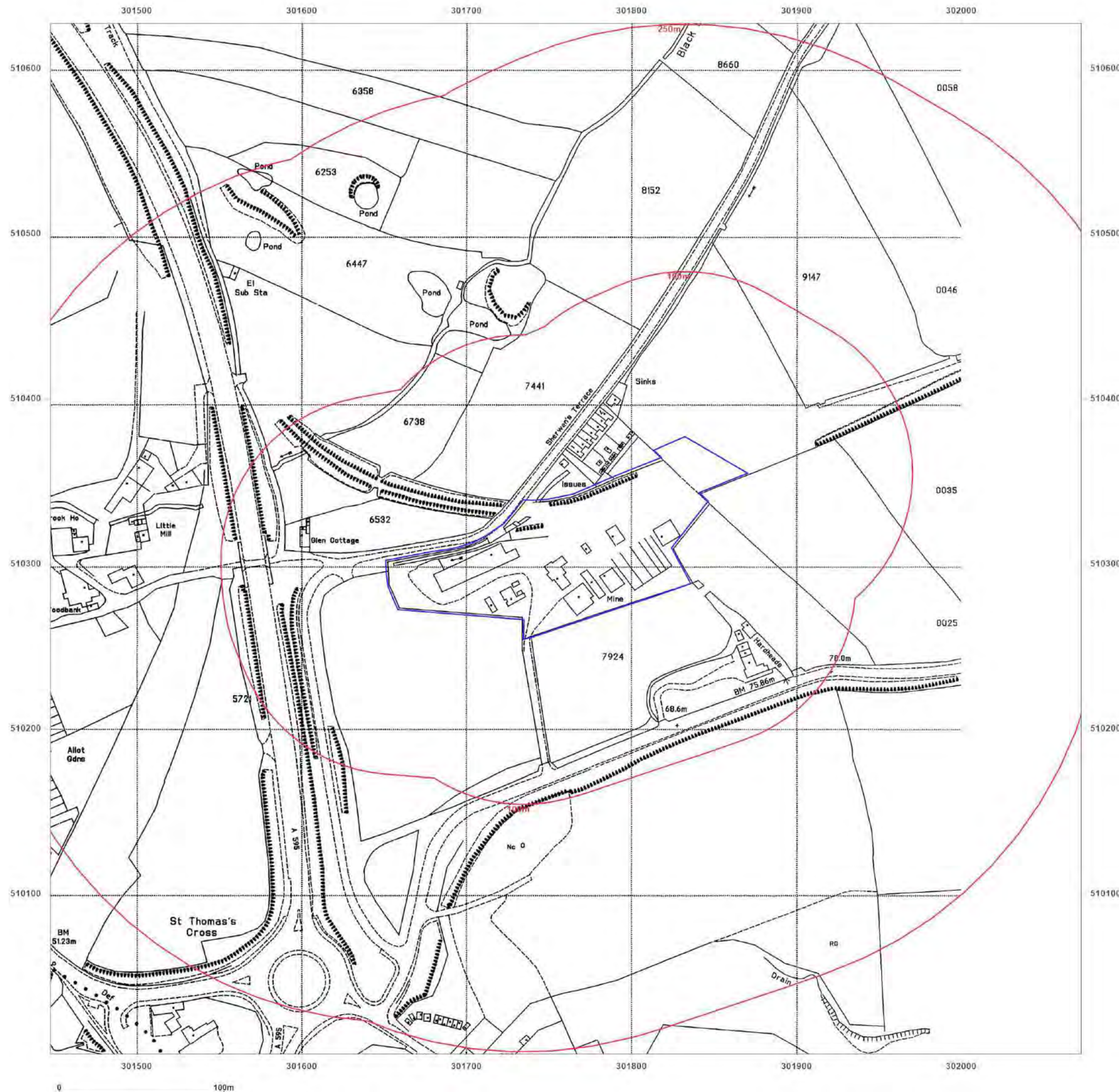


Produced by
Groundsure Insights
T: 08444 159000
E: info@groundsure.com
W: www.groundsure.com

© Crown copyright and database rights 2024 Ordnance Survey 100035207

Production date: 20 February 2025

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



Site Details:

FLORENCE ARTS CENTRE,
EGREMONT, CUMBRIA, CA22
2NR

Client Ref: S2442
Report Ref: GS-9XC-M3I-J79-535
Grid Ref: 301760, 510315

Map Name: LandLine

Map date: 2003

Scale: 1:1,250

Printed at: 1:1,250



2003



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

© Crown copyright and database rights 2024 Ordnance Survey 100035207

Production date: 20 February 2025

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



APPENDIX 3



SPIRE
GEOTECHNICAL
Geologists & Site Investigation
Specialists

FLORENCE ARTS CENTRE, EGREMONT, CUMBRIA, CA22 2NR

Order Details

Date: 20/02/2025
Your ref: S2442
Our Ref: GS-CI8-QZ4-HJL-QT2

Site Details

Location: 301763 510309
Area: 1.24 ha
Authority: [Cumberland Council](#) ↗



Summary of findings

[p. 2 >](#) **Aerial image**

[p. 9 >](#)

OS MasterMap site plan

[p.14 >](#) [Insight User Guide](#) ↗

Summary of findings

Page	Section	Past land use >	On site	0-50m	50-250m	250-500m	500-2000m
15 >	1.1 >	Historical industrial land uses >	1	0	25	23	-
17 >	1.2 >	Historical tanks >	0	0	1	2	-
18 >	1.3 >	Historical energy features >	0	0	3	4	-
18	1.4	Historical petrol stations	0	0	0	0	-
19 >	1.5 >	Historical garages >	0	0	0	3	-
19	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
20 >	2.1 >	Historical industrial land uses >	1	0	28	29	-
23 >	2.2 >	Historical tanks >	0	0	1	2	-
23 >	2.3 >	Historical energy features >	0	0	7	8	-
24	2.4	Historical petrol stations	0	0	0	0	-
24 >	2.5 >	Historical garages >	0	0	0	5	-
Page	Section	Waste and landfill >	On site	0-50m	50-250m	250-500m	500-2000m
25	3.1	Active or recent landfill	0	0	0	0	-
25	3.2	Historical landfill (BGS records)	0	0	0	0	-
26 >	3.3 >	Historical landfill (LA/mapping records) >	0	0	0	2	-
26 >	3.4 >	Historical landfill (EA/NRW records) >	0	0	2	2	-
27	3.5	Historical waste sites	0	0	0	0	-
27 >	3.6 >	Licensed waste sites >	0	0	0	7	-
30	3.7	Waste exemptions	0	0	0	0	-
Page	Section	Current industrial land use >	On site	0-50m	50-250m	250-500m	500-2000m
31 >	4.1 >	Recent industrial land uses >	2	0	1	-	-
32 >	4.2 >	Current or recent petrol stations >	0	0	0	1	-
32	4.3	Electricity cables	0	0	0	0	-
32	4.4	Gas pipelines	0	0	0	0	-
32	4.5	Sites determined as Contaminated Land	0	0	0	0	-



33	4.6	Control of Major Accident Hazards (COMAH)	0	0	0	0	-
33	4.7	Regulated explosive sites	0	0	0	0	-
33	4.8	Hazardous substance storage/usage	0	0	0	0	-
33	4.9	Historical licensed industrial activities (IPC)	0	0	0	0	-
33	4.10	Licensed industrial activities (Part A(1))	0	0	0	0	-
34 >	4.11 >	Licensed pollutant release (Part A(2)/B) >	1	0	0	1	-
34	4.12	Radioactive Substance Authorisations	0	0	0	0	-
34 >	4.13 >	Licensed Discharges to controlled waters >	1	0	0	3	-
35	4.14	Pollutant release to surface waters (Red List)	0	0	0	0	-
35	4.15	Pollutant release to public sewer	0	0	0	0	-
35	4.16	List 1 Dangerous Substances	0	0	0	0	-
36	4.17	List 2 Dangerous Substances	0	0	0	0	-
36 >	4.18 >	Pollution Incidents (EA/NRW) >	0	0	1	3	-
37	4.19	Pollution inventory substances	0	0	0	0	-
37	4.20	Pollution inventory waste transfers	0	0	0	0	-
37	4.21	Pollution inventory radioactive waste	0	0	0	0	-
Page	Section	Hydrogeology >	On site	0-50m	50-250m	250-500m	500-2000m
38 >	5.1 >	Superficial aquifer >	Identified (within 500m)				
40 >	5.2 >	Bedrock aquifer >	Identified (within 500m)				
42 >	5.3 >	Groundwater vulnerability >	Identified (within 50m)				
43 >	5.4 >	Groundwater vulnerability- soluble rock risk >	Identified (within 0m)				
43	5.5	Groundwater vulnerability- local information	None (within 0m)				
44 >	5.6 >	Groundwater abstractions >	8	0	0	0	19
51	5.7	Surface water abstractions	0	0	0	0	0
51 >	5.8 >	Potable abstractions >	2	0	0	0	6
53 >	5.9 >	Source Protection Zones >	1	0	0	0	-
54	5.10	Source Protection Zones (confined aquifer)	0	0	0	0	-
Page	Section	Hydrology >	On site	0-50m	50-250m	250-500m	500-2000m
55 >	6.1 >	Water Network (OS MasterMap) >	2	2	15	-	-



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



70	10.13	Possible Special Areas of Conservation (pSAC)	0	0	0	0	0
70	10.14	Potential Special Protection Areas (pSPA)	0	0	0	0	0
70	10.15	Nitrate Sensitive Areas	0	0	0	0	0
70	10.16	Nitrate Vulnerable Zones	0	0	0	0	0
71 >	10.17 >	SSSI Impact Risk Zones >	1	-	-	-	-
72 >	10.18 >	SSSI Units >	1	0	0	0	7
Page	Section	Visual and cultural designations >	On site	0-50m	50-250m	250-500m	500-2000m
75	11.1	World Heritage Sites	0	0	0	-	-
76	11.2	Area of Outstanding Natural Beauty	0	0	0	-	-
76	11.3	National Parks	0	0	0	-	-
76 >	11.4 >	Listed Buildings >	1	0	0	-	-
77	11.5	Conservation Areas	0	0	0	-	-
77	11.6	Scheduled Ancient Monuments	0	0	0	-	-
77	11.7	Registered Parks and Gardens	0	0	0	-	-
Page	Section	Agricultural designations >	On site	0-50m	50-250m	250-500m	500-2000m
78 >	12.1 >	Agricultural Land Classification >	Grade 3 (within 250m)				
79	12.2	Open Access Land	0	0	0	-	-
79 >	12.3 >	Tree Felling Licences >	0	1	9	-	-
80 >	12.4 >	Environmental Stewardship Schemes >	1	0	3	-	-
80 >	12.5 >	Countryside Stewardship Schemes >	1	1	2	-	-
Page	Section	Habitat designations >	On site	0-50m	50-250m	250-500m	500-2000m
81 >	13.1 >	Priority Habitat Inventory >	0	0	9	-	-
82	13.2	Habitat Networks	0	0	0	-	-
82	13.3	Open Mosaic Habitat	0	0	0	-	-
82	13.4	Limestone Pavement Orders	0	0	0	-	-
Page	Section	Geology 1:10,000 scale >	On site	0-50m	50-250m	250-500m	500-2000m
84 >	14.1 >	10k Availability >	Identified (within 500m)				
85	14.2	Artificial and made ground (10k)	0	0	0	0	-
86	14.3	Superficial geology (10k)	0	0	0	0	-



86	14.4	Landslip (10k)	0	0	0	0	-
87	14.5	Bedrock geology (10k)	0	0	0	0	-
87	14.6	Bedrock faults and other linear features (10k)	0	0	0	0	-
Page	Section	Geology 1:50,000 scale >	On site	0-50m	50-250m	250-500m	500-2000m
88 >	15.1 >	50k Availability >	Identified (within 500m)				
89	15.2	Artificial and made ground (50k)	0	0	0	0	-
89	15.3	Artificial ground permeability (50k)	0	0	-	-	-
90 >	15.4 >	Superficial geology (50k) >	1	1	5	4	-
91 >	15.5 >	Superficial permeability (50k) >	Identified (within 50m)				
91	15.6	Landslip (50k)	0	0	0	0	-
92	15.7	Landslip permeability (50k)	None (within 50m)				
93 >	15.8 >	Bedrock geology (50k) >	1	0	4	3	-
94 >	15.9 >	Bedrock permeability (50k) >	Identified (within 50m)				
94 >	15.10 >	Bedrock faults and other linear features (50k) >	0	0	4	4	-
Page	Section	Boreholes >	On site	0-50m	50-250m	250-500m	500-2000m
96 >	16.1 >	BGS Boreholes >	7	11	71	-	-
Page	Section	Natural ground subsidence >					
101 >	17.1 >	Shrink swell clays >	Very low (within 50m)				
102 >	17.2 >	Running sands >	Very low (within 50m)				
103 >	17.3 >	Compressible deposits >	Negligible (within 50m)				
104 >	17.4 >	Collapsible deposits >	Very low (within 50m)				
105 >	17.5 >	Landslides >	Moderate (within 50m)				
107 >	17.6 >	Ground dissolution of soluble rocks >	Negligible (within 50m)				
Page	Section	Mining and ground workings >	On site	0-50m	50-250m	250-500m	500-2000m
109 >	18.1 >	BritPits >	2	0	1	0	-
110 >	18.2 >	Surface ground workings >	0	0	23	-	-
111 >	18.3 >	Underground workings >	0	0	2	2	8
112	18.4	Underground mining extents	0	0	0	0	-
112	18.5	Historical Mineral Planning Areas	0	0	0	0	-



113 >	18.6 >	Non-coal mining >	1	0	2	3	1
114	18.7	JPB mining areas	None (within 0m)				
114	18.8	The Coal Authority non-coal mining	0	0	0	0	-
114 >	18.9 >	Researched mining >	2	1	2	2	-
115 >	18.10 >	Mining record office plans >	5	2	2	3	-
115 >	18.11 >	BGS mine plans >	0	2	3	6	-
116	18.12	Coal mining	None (within 0m)				
116	18.13	Brine areas	None (within 0m)				
116	18.14	Gypsum areas	None (within 0m)				
117	18.15	Tin mining	None (within 0m)				
117	18.16	Clay mining	None (within 0m)				
Page	Section	Ground cavities and sinkholes >	On site	0-50m	50-250m	250-500m	500-2000m
118	19.1	Natural cavities	0	0	0	0	-
119 >	19.2 >	Mining cavities >	0	0	1	1	2
119	19.3	Reported recent incidents	0	0	0	0	-
120	19.4	Historical incidents	0	0	0	0	-
Page	Section	Radon >					
121 >	20.1 >	Radon >	Less than 1% (within 0m)				
Page	Section	Soil chemistry >	On site	0-50m	50-250m	250-500m	500-2000m
123 >	21.1 >	BGS Estimated Background Soil Chemistry >	1	1	-	-	-
123	21.2	BGS Estimated Urban Soil Chemistry	0	0	-	-	-
123	21.3	BGS Measured Urban Soil Chemistry	0	0	-	-	-
Page	Section	Railway infrastructure and projects >	On site	0-50m	50-250m	250-500m	500-2000m
124	22.1	Underground railways (London)	0	0	0	-	-
124	22.2	Underground railways (Non-London)	0	0	0	-	-
125	22.3	Railway tunnels	0	0	0	-	-
125 >	22.4 >	Historical railway and tunnel features >	3	0	4	-	-
125	22.5	Royal Mail tunnels	0	0	0	-	-
126 >	22.6 >	Historical railways >	1	0	1	-	-



126	22.7	Railways	0	0	0	-	-
126	22.8	Crossrail 2	0	0	0	0	-
126	22.9	HS2	0	0	0	0	-



Recent aerial photograph

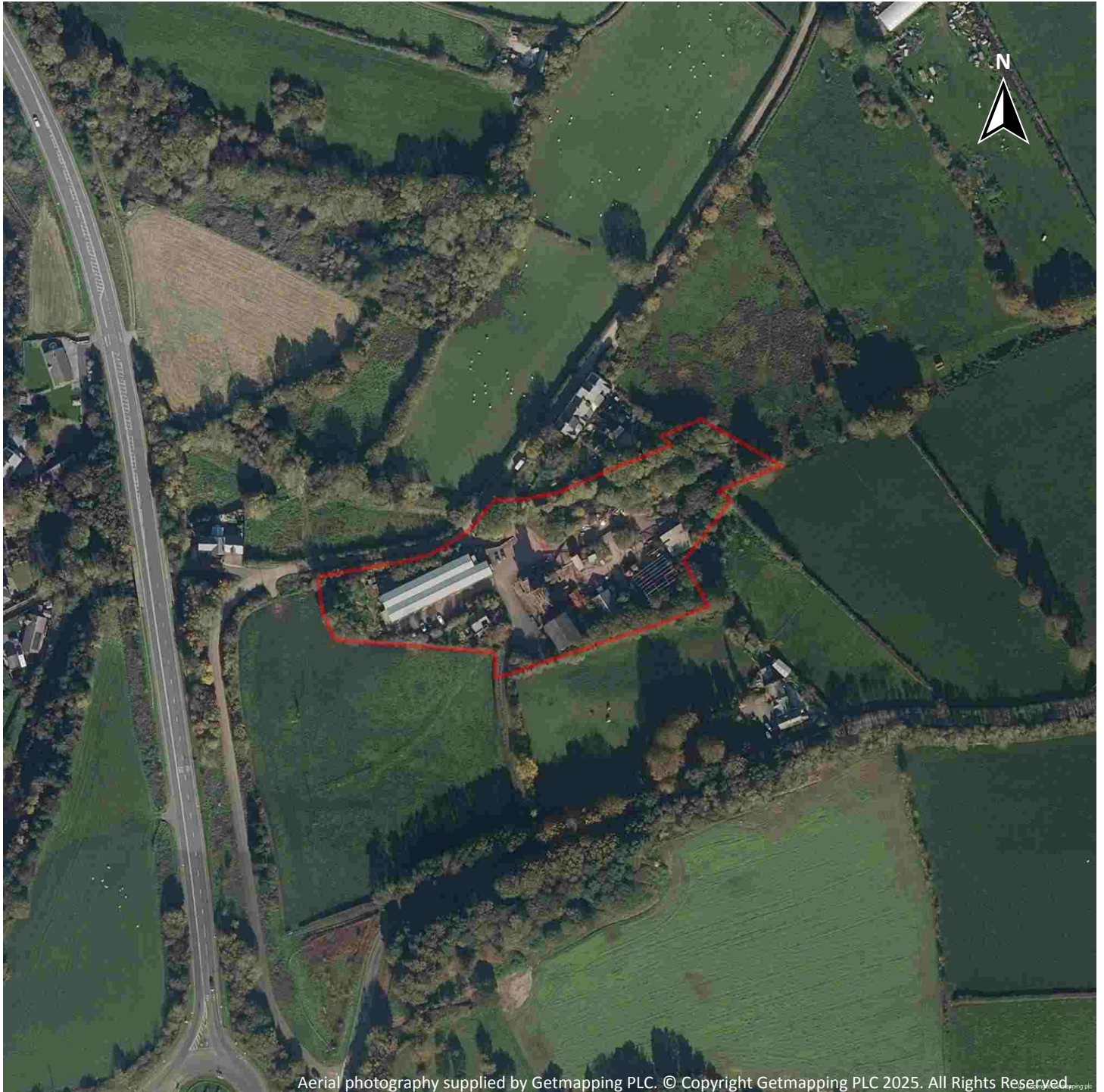


Capture Date: 20/04/2022

Site Area: 1.24ha



Recent site history - 2018 aerial photograph



Capture Date: 10/10/2018

Site Area: 1.24ha



Recent site history - 2008 aerial photograph

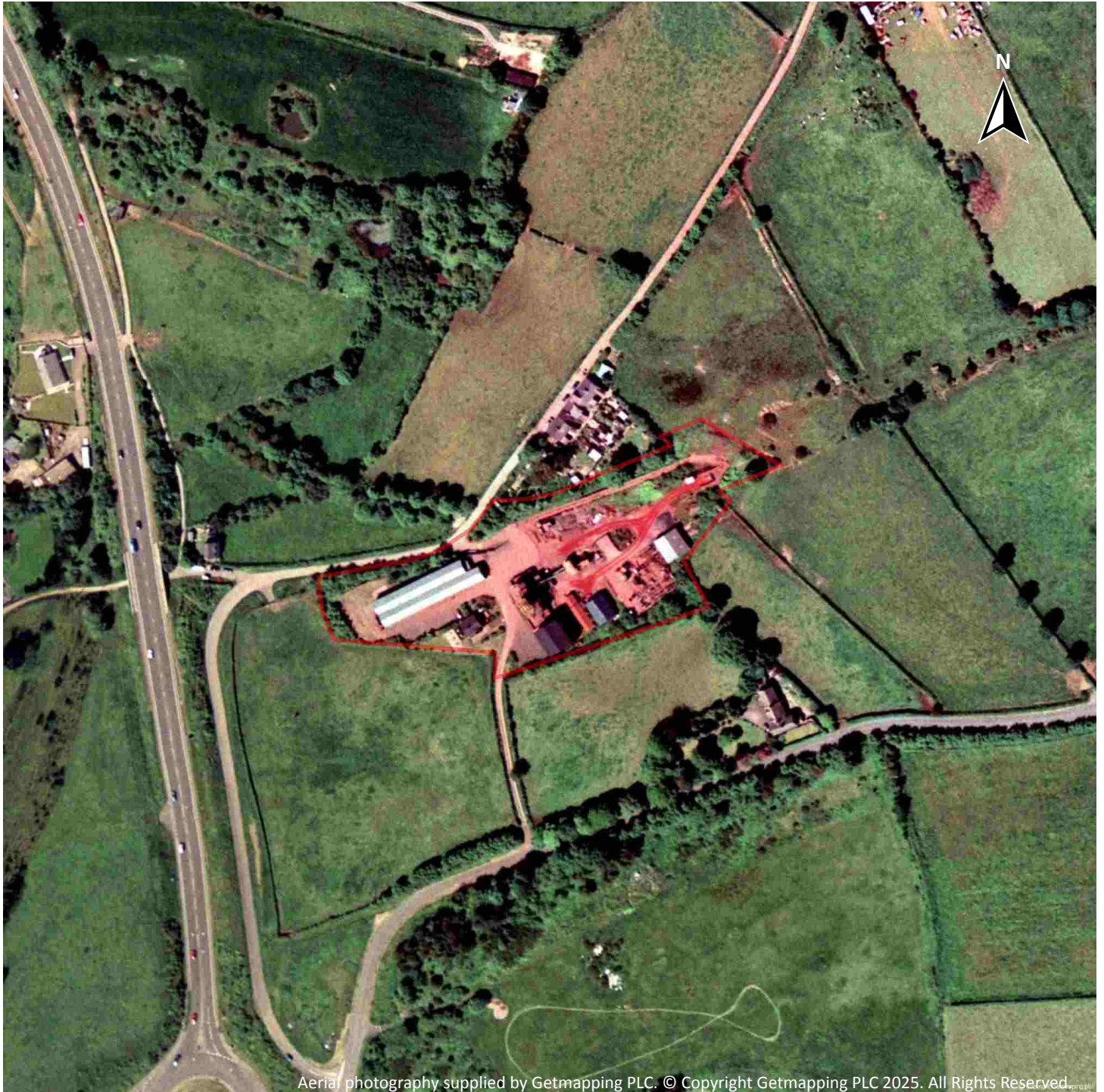


Capture Date: 05/10/2008

Site Area: 1.24ha



Recent site history - 2000 aerial photograph

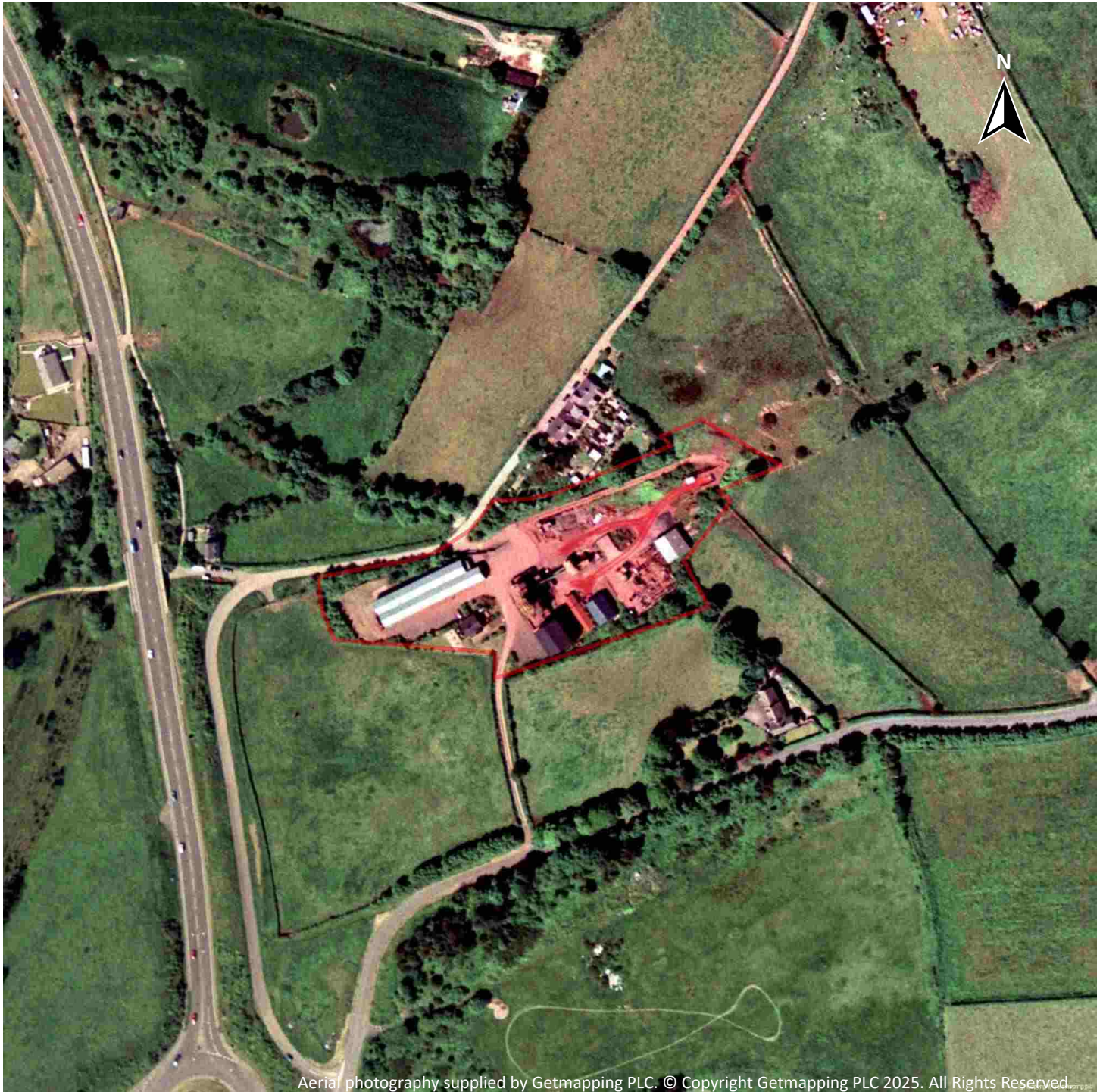


Capture Date: 16/06/2000

Site Area: 1.24ha



Recent site history - 1999 aerial photograph

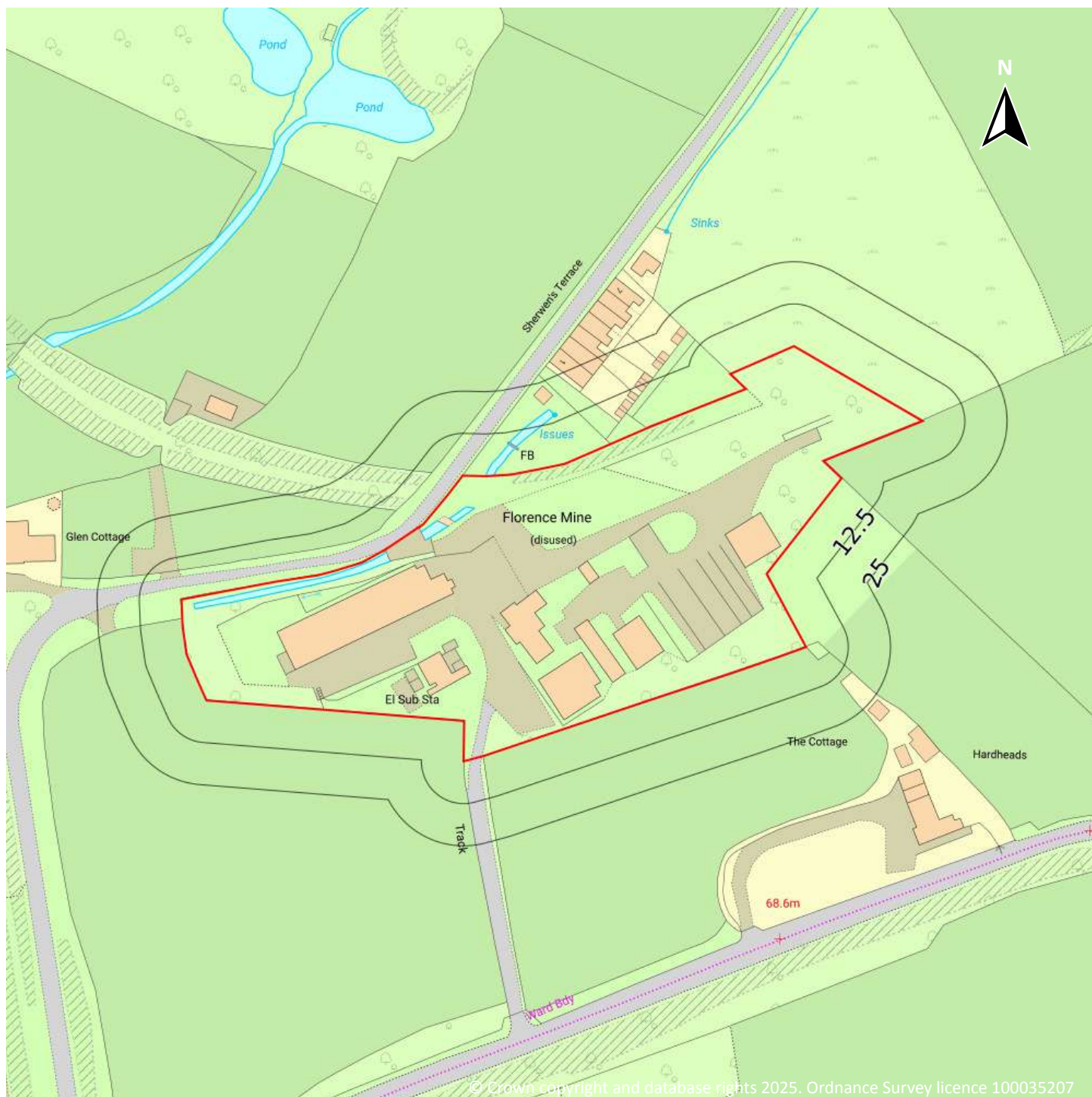


Capture Date: 26/07/1999

Site Area: 1.24ha



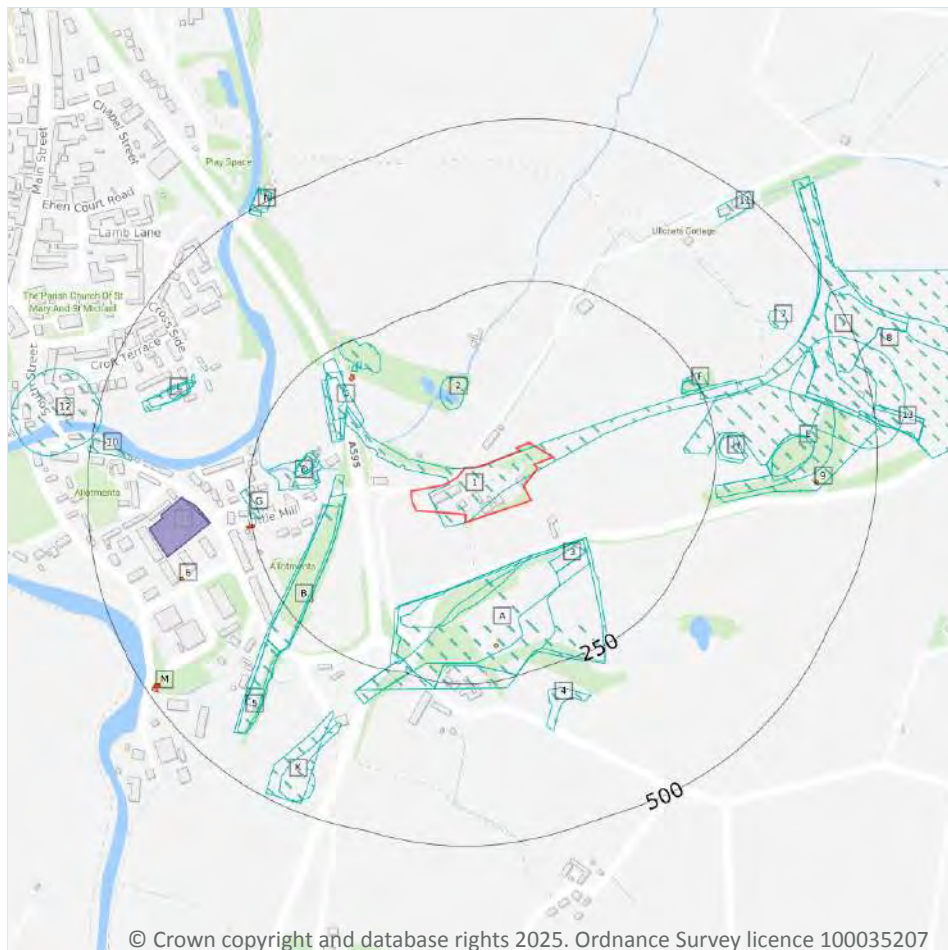
OS MasterMap site plan



Site Area: 1.24ha



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

49

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

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

ID	Location	Land use	Dates present	Group ID
1	On site	Railway Sidings	1956	574646



ID	Location	Land use	Dates present	Group ID
A	81m SE	Tramway Sidings	1926	578043
A	81m SE	Iron Ore Pit	1926	609644
A	81m SE	Refuse Heap	1926 - 1956	649556
A	85m SE	Railway Sidings	1956	574539
A	85m SE	Iron Ore Pit	1956	611004
2	92m NW	Refuse Heap	1956	577568
3	95m SE	Cuttings	1926	568952
B	100m W	Cuttings	1898	615384
B	104m W	Cuttings	1926	560503
B	113m W	Cuttings	1956	604010
C	127m NW	Cuttings	1926	635688
C	133m W	Cuttings	1956	615507
D	142m W	Corn Mill	1861	568152
D	145m W	Unspecified Mill	1898 - 1926	627091
C	151m NW	Cuttings	1898	608985
D	155m W	Unspecified Mill	1956	614148
C	190m NW	Refuse Heap	1926 - 1956	646962
E	202m E	Unspecified Pit	1926	646323
C	203m NW	Unspecified Old Shaft	1956	586905
C	206m NW	Unspecified Old Shaft	1926	586904
F	220m NE	Unspecified Pit	1926	593933
F	221m NE	Refuse Heaps	1956	592785
F	226m NE	Refuse Heap	1926	577566
G	235m W	Unspecified Ground Workings	1926	597056
F	245m E	Cuttings	1926	568950
H	252m E	Unspecified Disused Pit	1956	589318
I	253m E	Tramway Sidings	1926	613859
H	257m E	Unspecified Pit	1926	593935



ID	Location	Land use	Dates present	Group ID
4	285m S	Refuse Heap	1971 - 1981	617912
E	329m E	Refuse Heap	1926	577567
K	335m SW	Refuse Heap	1951	577565
E	337m E	Unspecified Heap	1956	585109
K	348m SW	Unspecified Heap	1971 - 1981	607723
5	362m SW	Cuttings	1951	651899
L	373m W	Sawmill	1898 - 1926	613854
L	373m W	Flint Mill	1861	598868
L	374m W	Sawmill	1956	615931
I	376m E	Unspecified Pit	1898	628774
7	393m NE	Unspecified Pit	1926	593934
8	400m E	Iron Ore Mine	1926 - 1956	611073
I	404m E	Unspecified Pit	1926	652423
10	434m W	Tannery	1861	592597
I	450m E	Refuse Heap	1926 - 1956	608225
11	451m NE	Corn Mill	1861	568151
N	484m NW	Tannery	1861	592594
N	490m NW	Disused Tannery	1898	568571
12	491m W	Unspecified Mill	1956	623047
13	496m E	Unspecified Pit	1926 - 1956	622329

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 ungrouped features can be cross-referenced across sections 1 and 2 using the 'Group ID'.

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



ID	Location	Land use	Dates present	Group ID
A	193m S	Unspecified Tank	1924	77425
9	406m E	Unspecified Tank	1924	77424
N	498m NW	Unspecified Tank	1899	77423

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 ungrouped features can be cross-referenced across sections 1 and 2 using the 'Group ID'.

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

ID	Location	Land use	Dates present	Group ID
C	193m NW	Electricity Substation	1982 - 1995	46047
G	247m W	Electricity Substation	1993 - 1994	46750
G	249m W	Electricity Substation	1995	46712
6	372m W	Electricity Substation	1995	45688
M	478m SW	Electricity Substation	1993 - 1994	46679
M	479m SW	Electricity Substation	1995	46145
M	484m SW	Electricity Substation	1990 - 1993	46142

This data is sourced from Ordnance Survey / Groundsure.

1.4 Historical petrol stations

Records within 500m

0

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

This data is sourced from Ordnance Survey / Groundsure.



1.5 Historical garages

Records within 500m

3

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

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

ID	Location	Land use	Dates present	Group ID
J	313m W	Garage	1969	15651
J	314m W	Garage	1995	15514
J	315m W	Garage	1982 - 1994	15723

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

58

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 20](#) >

ID	Location	Land Use	Date	Group ID
1	On site	Railway Sidings	1956	574646
A	81m SE	Refuse Heap	1926	649556
A	81m SE	Tramway Sidings	1926	578043



ID	Location	Land Use	Date	Group ID
A	81m SE	Iron Ore Pit	1926	609644
A	85m SE	Iron Ore Pit	1956	611004
A	85m SE	Railway Sidings	1956	574539
A	86m SE	Refuse Heap	1956	649556
2	92m NW	Refuse Heap	1956	577568
3	95m SE	Cuttings	1926	568952
B	100m W	Cuttings	1898	615384
B	104m W	Cuttings	1926	560503
B	113m W	Cuttings	1956	604010
C	127m NW	Cuttings	1926	635688
C	133m W	Cuttings	1956	615507
D	142m W	Corn Mill	1861	568152
D	145m W	Unspecified Mill	1926	627091
D	145m W	Unspecified Mill	1898	627091
C	151m NW	Cuttings	1898	608985
D	155m W	Unspecified Mill	1956	614148
C	190m NW	Refuse Heap	1926	646962
C	197m NW	Refuse Heap	1956	646962
E	202m E	Unspecified Pit	1926	646323
C	203m NW	Unspecified Old Shaft	1956	586905
C	206m NW	Unspecified Old Shaft	1926	586904
F	220m NE	Unspecified Pit	1926	593933
F	221m NE	Refuse Heaps	1956	592785
F	226m NE	Refuse Heap	1926	577566
G	235m W	Unspecified Ground Workings	1926	597056
F	245m E	Cuttings	1926	568950
H	252m E	Unspecified Disused Pit	1956	589318
I	253m E	Tramway Sidings	1926	613859



ID	Location	Land Use	Date	Group ID
H	257m E	Unspecified Pit	1926	593935
J	285m S	Refuse Heap	1971	617912
J	285m S	Refuse Heap	1981	617912
E	329m E	Refuse Heap	1926	577567
L	335m SW	Refuse Heap	1951	577565
E	337m E	Unspecified Heap	1956	585109
L	348m SW	Unspecified Heap	1971	607723
L	348m SW	Unspecified Heap	1981	607723
4	362m SW	Cuttings	1951	651899
M	373m W	Sawmill	1926	613854
M	373m W	Sawmill	1898	613854
M	373m W	Flint Mill	1861	598868
M	374m W	Sawmill	1956	615931
I	376m E	Unspecified Pit	1898	628774
6	393m NE	Unspecified Pit	1926	593934
7	400m E	Iron Ore Mine	1956	611073
I	404m E	Iron Ore Mine	1926	611073
I	404m E	Unspecified Pit	1926	652423
9	434m W	Tannery	1861	592597
I	450m E	Refuse Heap	1926	608225
10	451m NE	Corn Mill	1861	568151
I	455m E	Refuse Heap	1956	608225
O	484m NW	Tannery	1861	592594
O	490m NW	Disused Tannery	1898	568571
11	491m W	Unspecified Mill	1956	623047
P	496m E	Unspecified Pit	1926	622329
P	500m E	Unspecified Pit	1956	622329

This data is sourced from Ordnance Survey / Groundsure.



2.2 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. 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 20 >](#)

ID	Location	Land Use	Date	Group ID
A	193m S	Unspecified Tank	1924	77425
8	406m E	Unspecified Tank	1924	77424
O	498m NW	Unspecified Tank	1899	77423

This data is sourced from Ordnance Survey / Groundsure.

2.3 Historical energy features

Records within 500m

15

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 20 >](#)

ID	Location	Land Use	Date	Group ID
C	193m NW	Electricity Substation	1995	46047
C	195m NW	Electricity Substation	1982	46047
C	195m NW	Electricity Substation	1993	46047
C	195m NW	Electricity Substation	1994	46047
G	247m W	Electricity Substation	1993	46750
G	247m W	Electricity Substation	1994	46750
G	249m W	Electricity Substation	1995	46712
5	372m W	Electricity Substation	1995	45688
N	478m SW	Electricity Substation	1993	46679
N	478m SW	Electricity Substation	1994	46679
N	479m SW	Electricity Substation	1995	46145



ID	Location	Land Use	Date	Group ID
N	484m SW	Electricity Substation	1990	46142
N	484m SW	Electricity Substation	1990	46142
N	484m SW	Electricity Substation	1993	46142
N	484m SW	Electricity Substation	1993	46142

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	5
----------------------------	----------

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'.

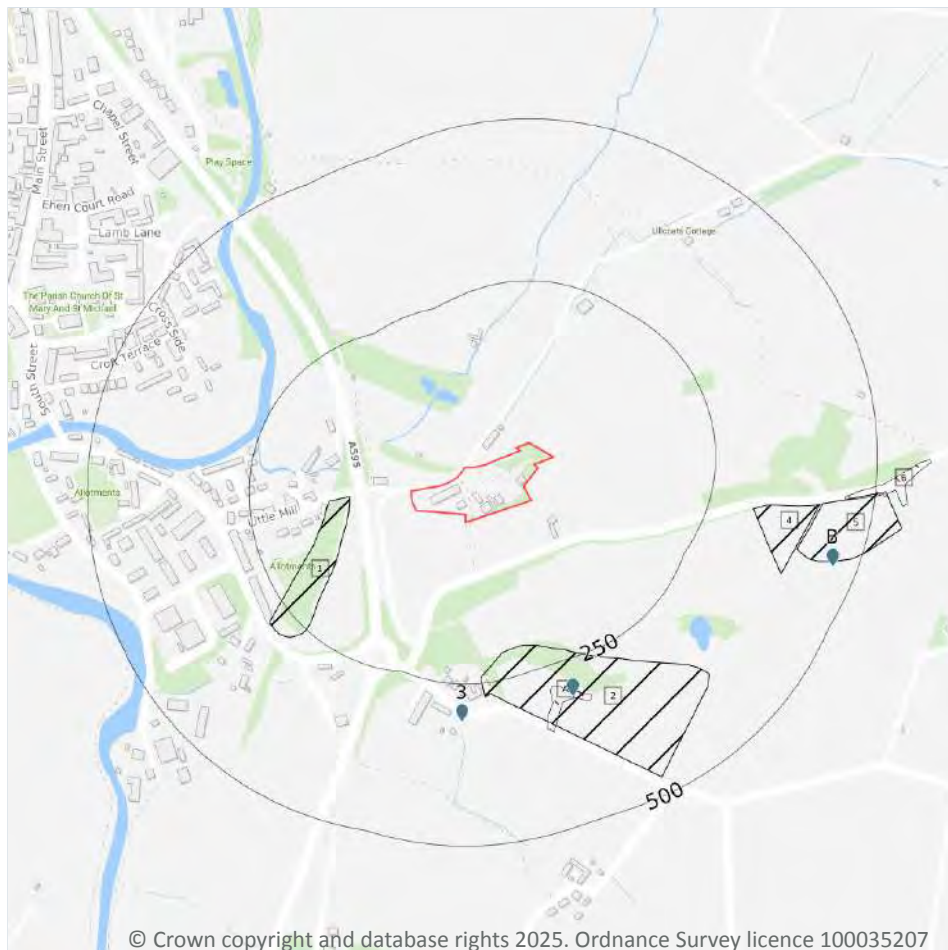
Features are displayed on the Past land use - un-grouped map on [page 20 >](#)

ID	Location	Land Use	Date	Group ID
K	313m W	Garage	1969	15651
K	314m W	Garage	1995	15514
K	315m W	Garage	1982	15723
K	315m W	Garage	1993	15723
K	315m W	Garage	1994	15723

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

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

2

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

Features are displayed on the Waste and landfill map on [page 25 >](#)

ID	Location	Site address	Source	Data type
A	283m S	Refuse Tip	1961 mapping	Polygon
6	455m E	Refuse Tip	1961 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

4

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 25 >](#)

ID	Location	Details		
1	96m W	Site Address: Disused Railway Cuttings, Egremont Bypass, St Thomas's Cross, Egremont, Cumbria Licence Holder Address: Hooton, South Wirral, Cheshire	Waste Licence: Yes Site Reference: 164 Waste Type: Inert Environmental Permitting Regulations (Waste) Reference: - Licence Issue: 10/12/1991 Licence Surrender: 11/03/1993	Operator: - Licence Holder: Alfred McAlpine Construction Limited First Recorded 01/10/1991 Last Recorded: 31/10/1991
2	207m S	Site Address: Florence No.1 Mine, Scurgill Terrace, Carleton, Egremont, Cumbria Licence Holder Address: Clay Flatts, Workington, Cumbria	Waste Licence: Yes Site Reference: 116, 89, E160.64 Waste Type: Inert, Industrial Environmental Permitting Regulations (Waste) Reference: NT1/L/ALC004 Licence Issue: 26/04/1982 Licence Surrender: -	Operator: Alco Waste Management Limited Licence Holder: Alco Transport Servicest Limited First Recorded 31/12/1977 Last Recorded: 06/04/2000



ID	Location	Details		
4	319m E	Site Address: M Fleming and T Coulthard, Field No 3323 and 4031, Grange Road, Egremont, Cumbria Licence Holder Address: Keaslow, Netherton, Egremont, Cumbria	Waste Licence: Yes Site Reference: 152 Waste Type: Special Environmental Permitting Regulations (Waste) Reference: NT1/L/FLE003 Licence Issue: 22/03/1981 Licence Surrender: -	Operator: - Licence Holder: M Fleming and T Coulthard First Recorded - Last Recorded: -
5	402m E	Site Address: Field Nos 4031 3323 and 4527, Grange Road, Egremont, Cumbria Licence Holder Address: -	Waste Licence: Yes Site Reference: 152, TW23 Waste Type: Inert, Special Environmental Permitting Regulations (Waste) Reference: - Licence Issue: 22/03/1991 Licence Surrender: -	Operator: Inter County Skip Hire Limited Licence Holder: M Fleming and T Coulthard T/A Inter Country Waste First Recorded 01/01/1981 Last Recorded: 06/09/1996

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	7
----------------------------	----------

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

Features are displayed on the Waste and landfill map on [page 25 >](#)

ID	Location	Details		
A	293m SE	Site Name: Alco Waste Management Site Address: Scurgill Transfer Station, Scurgill Terrace, Egremont, Cumbria, CA22 2NS Correspondence Address: -	Type of Site: Household, Commercial & Industrial Waste T Stn Size: >= 25000 tonnes 75000 tonnes Environmental Permitting Regulations (Waste) Licence Number: ALC008 EPR reference: EA/EPR/KP3293ZF/A001 Operator: Alco Waste Management Ltd Waste Management licence No: 57149 Annual Tonnage: 755	Issue Date: 22/03/1991 Effective Date: - Modified: - Surrendered Date: - Expiry Date: 17/01/2000 Cancelled Date: - Status: Expired
A	293m SE	Site Name: Alco Waste Management Site Address: Florence No 1 Mine, Scurgill Terrace, Egremont, Cumbria, CA22 2NS Correspondence Address: -	Type of Site: Landfill taking Non-Biodegradable Wastes Size: >= 25000 tonnes 75000 tonnes Environmental Permitting Regulations (Waste) Licence Number: ALC004 EPR reference: EA/EPR/GP3293ZG/A001 Operator: Alco Waste Management Ltd Waste Management licence No: 57116 Annual Tonnage: 500	Issue Date: 19/09/1986 Effective Date: - Modified: - Surrendered Date: - Expiry Date: - Cancelled Date: - Status: Expired
A	293m SE	Site Name: Alco Waste Management Site Address: Scurgill Transfer Station, Scurgill Terrace, Egremont, Cumbria, CA22 2NS Correspondence Address: -	Type of Site: Household, Commercial & Industrial Waste T Stn Size: 25000 tonnes Environmental Permitting Regulations (Waste) Licence Number: 626963 EPR reference: EA/EPR/KP3293ZF Operator: Alco Waste Management Limited Waste Management licence No: 57149 Annual Tonnage: 755	Issue Date: 22/03/1991 Effective Date: 22/03/1991 Modified: - Surrendered Date: - Expiry Date: - Cancelled Date: - Status: Expired



ID	Location	Details		
3	294m S	Site Name: Alco Waste Management Site Address: Florence No 1 Mine, Scurgill Terrace, Egremont, Cumbria, CA22 2NS Correspondence Address: -	Type of Site: Landfill taking Non-Biodegradable Wastes Size: 25000 tonnes Environmental Permitting Regulations (Waste) Licence Number: 657851 EPR reference: EA/EPR/GP3293ZG Operator: Alco Waste Management Limited Waste Management licence No: 57116 Annual Tonnage: 500	Issue Date: 19/09/1986 Effective Date: 19/09/1986 Modified: - Surrendered Date: - Expiry Date: - Cancelled Date: - Status: Expired
B	457m E	Site Name: M Fleming & T Coulthard Site Address: Field No 3323 & 4031, Grange Road, Egremont, Cumbria Correspondence Address: Keaslow, Netherton, Egremont, Cumbria, CA22 2UJ	Type of Site: Other Landfill Site taking Special Waste Size: Unknown Environmental Permitting Regulations (Waste) Licence Number: FLE003 EPR reference: - Operator: M Fleming & T Coulthard Waste Management licence No: 57152 Annual Tonnage: 0	Issue Date: 22/03/1981 Effective Date: - Modified: - Surrendered Date: - Expiry Date: - Cancelled Date: - Status: Part revoke
B	457m E	Site Name: M Fleming & T Coulthard Site Address: Field No 3323 & 4031, Grange Road, Egremont, Cumbria Correspondence Address: -	Type of Site: Other Landfill Site taking Special Waste Size: 25000 tonnes Environmental Permitting Regulations (Waste) Licence Number: FLE003 EPR reference: EA/EPR/KP3693ZR/A001 Operator: M Fleming & T Coulthard Waste Management licence No: 57152 Annual Tonnage: 300000	Issue Date: 22/03/1981 Effective Date: - Modified: - Surrendered Date: - Expiry Date: - Cancelled Date: - Status: Expired
B	457m E	Site Name: M Fleming & T Coulthard Site Address: Field No 3323 & 4031, Grange Road, Egremont, Cumbria, CA22 2PH Correspondence Address: -	Type of Site: Other Landfill Site taking Special Waste Size: >= 75000 tonnes Environmental Permitting Regulations (Waste) Licence Number: 647202 EPR reference: EA/EPR/KP3693ZR Operator: M Fleming & T Coulthard Waste Management licence No: 57152 Annual Tonnage: 300000	Issue Date: 22/03/1981 Effective Date: 22/03/1981 Modified: - Surrendered Date: - Expiry Date: - Cancelled Date: - Status: Expired

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



3.7 Waste exemptions

Records within 500m

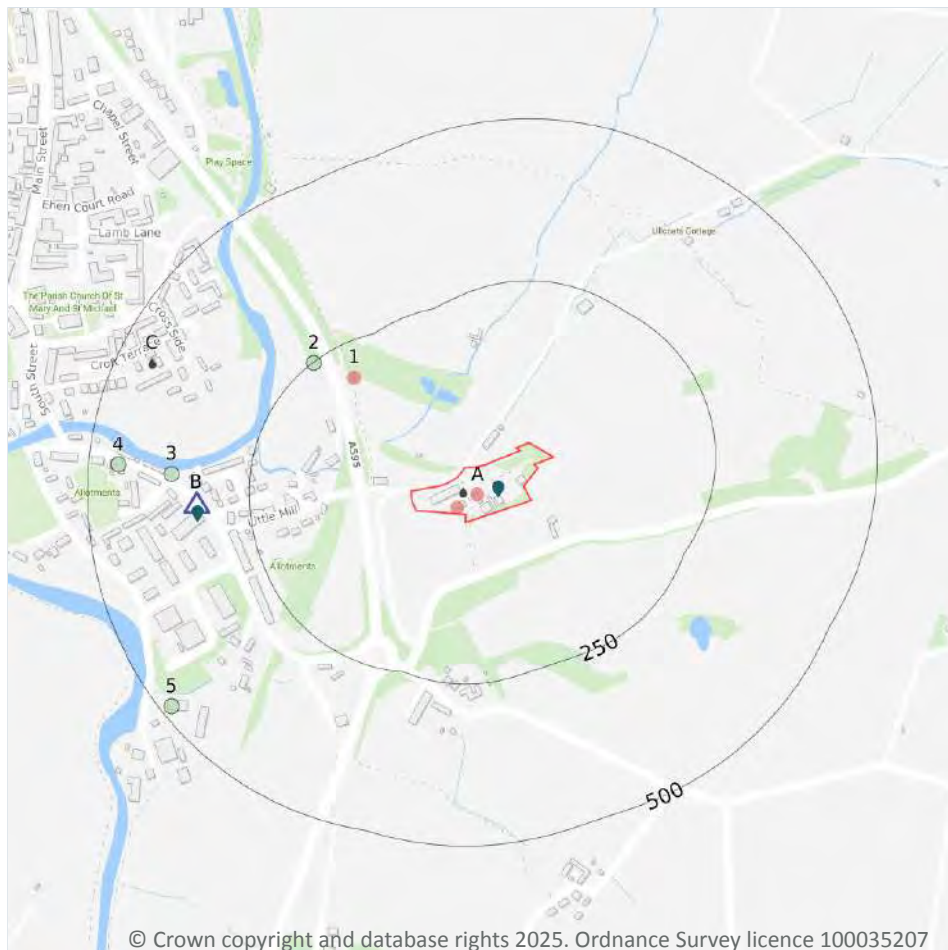
0

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.

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



4 Current industrial land use



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

4.1 Recent industrial land uses

Records within 250m

3

Current potentially contaminative industrial sites.

Features are displayed on the Current industrial land use map on [page 31](#) >

ID	Location	Company	Address	Activity	Category
A	On site	Egremont Mining Company Ltd	Florence Mine, Egremont, Cumbria, CA22 2NR	Ore Mining	Extractive Industries
A	On site	Electricity Sub Station	Cumbria, CA22	Electrical Features	Infrastructure and Facilities



ID	Location	Company	Address	Activity	Category
1	197m NW	Electricity Sub Station	Cumbria, CA22	Electrical Features	Infrastructure and Facilities

This data is sourced from Ordnance Survey.

4.2 Current or recent petrol stations

Records within 500m

1

Open, closed, under development and obsolete petrol stations.

Features are displayed on the Current industrial land use map on [page 31](#) >

ID	Location	Company	Address	LPG	Status
B	333m W	BP	Bridge End, Egremont, Cumbria, CA22 2RQ	No	Open

This data is sourced from Experian.

4.3 Electricity cables

Records within 500m

0

High voltage underground electricity transmission cables.

This data is sourced from National Grid.

4.4 Gas pipelines

Records within 500m

0

High pressure underground gas transmission pipelines.

This data is sourced from National Grid.

4.5 Sites determined as Contaminated Land

Records within 500m

0

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

This data is sourced from Local Authority records.



4.6 Control of Major Accident Hazards (COMAH)

Records within 500m

0

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

This data is sourced from the Health and Safety Executive.

4.7 Regulated explosive sites

Records within 500m

0

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

This data is sourced from the Health and Safety Executive.

4.8 Hazardous substance storage/usage

Records within 500m

0

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

This data is sourced from Local Authority records.

4.9 Historical licensed industrial activities (IPC)

Records within 500m

0

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

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

4.10 Licensed industrial activities (Part A(1))

Records within 500m

0

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

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



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

Records within 500m

2

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

Features are displayed on the Current industrial land use map on [page 31](#) >

ID	Location	Address	Details	
A	On site	Egremont Mining Co. Ltd, Florence Mine, Egremont, CA22 2NR	Process: Mining Processes Status: Current Permit Permit Type: Part B	Enforcement: No Enforcements Notified Date of enforcement: No Enforcements Notified Comment: No Enforcements Notified
B	332m W	Bridge End Garage, Egremont, Cumbria, CA22 2RQ	Process: Unloading of Petrol into Storage at Service Stations Status: Current Permit Permit Type: Part B	Enforcement: No Enforcements Notified Date of enforcement: No Enforcements Notified Comment: No Enforcements Notified

This data is sourced from Local Authority records.

4.12 Radioactive Substance Authorisations

Records within 500m

0

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

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

4.13 Licensed Discharges to controlled waters

Records within 500m

4

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

Features are displayed on the Current industrial land use map on [page 31](#) >

ID	Location	Address	Details	
A	On site	WINDERMINE,FLORENCE MINE,EGREMONT,CUMBRIA	Effluent Type: TRADE DISCHARGES - PROCESS EFFLUENT - NOT WATER COMPANY Permit Number: 017490228 Permit Version: 1 Receiving Water: RIVER EHEN	Status: REVOKED UNDER EPR 2010 Issue date: - Effective Date: 01/04/1991 Revocation Date: 14/11/2022



ID	Location	Address	Details	
C	447m W	EGREMONTULLCOAT SSTW,CUMBRIA	Effluent Type: SEWAGE DISCHARGES - FINAL/TREATED EFFLUENT - WATER COMPANY Permit Number: 017470026 Permit Version: 2 Receiving Water: TRIB KIRK BECK	Status: REVOKED - UNSPECIFIED Issue date: - Effective Date: 31/01/1985 Revocation Date: 31/10/1985
C	447m W	EGREMONTULLCOAT SSTW,CUMBRIA	Effluent Type: SEWAGE DISCHARGES - FINAL/TREATED EFFLUENT - WATER COMPANY Permit Number: 017470026 Permit Version: 1 Receiving Water: TRIB KIRK BECK	Status: REVOKED - UNSPECIFIED Issue date: - Effective Date: 28/12/1979 Revocation Date: 30/01/1985
C	447m W	EGREMONTULLCOAT SSTW,CUMBRIA	Effluent Type: SEWAGE DISCHARGES - FINAL/TREATED EFFLUENT - WATER COMPANY Permit Number: 017470026 Permit Version: 3 Receiving Water: TRIB KIRK BECK	Status: PRE NRA LEGISLATION WHERE ISSUE DATE 01-SEP-89 (HISTORIC ONLY) Issue date: - Effective Date: 01/11/1985 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

4

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

Features are displayed on the Current industrial land use map on [page 31 >](#)

ID	Location	Details	
2	249m NW	Incident Date: 20/05/2004 Incident Identification: 258433 Pollutant: Atmospheric Pollutants and Effects Pollutant Description: Effects on Humans	Water Impact: Category 4 (No Impact) Land Impact: Category 4 (No Impact) Air Impact: Category 2 (Significant)
3	372m W	Incident Date: 06/08/2001 Incident Identification: 22356 Pollutant: General Biodegradable Materials and Wastes Pollutant Description: Other General Biodegradable Material or Waste	Water Impact: Category 3 (Minor) Land Impact: Category 4 (No Impact) Air Impact: Category 4 (No Impact)
4	455m W	Incident Date: 24/02/2002 Incident Identification: 60232 Pollutant: Oils and Fuel Pollutant Description: Unidentified Oil	Water Impact: Category 4 (No Impact) Land Impact: Category 4 (No Impact) Air Impact: Category 4 (No Impact)
5	484m SW	Incident Date: 24/04/2002 Incident Identification: 74285 Pollutant: Atmospheric Pollutants and Effects Pollutant Description: Smoke	Water Impact: Category 4 (No Impact) Land Impact: Category 4 (No Impact) Air Impact: Category 4 (No Impact)

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



4.19 Pollution inventory substances

Records within 500m**0**

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

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

4.20 Pollution inventory waste transfers

Records within 500m**0**

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

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

4.21 Pollution inventory radioactive waste

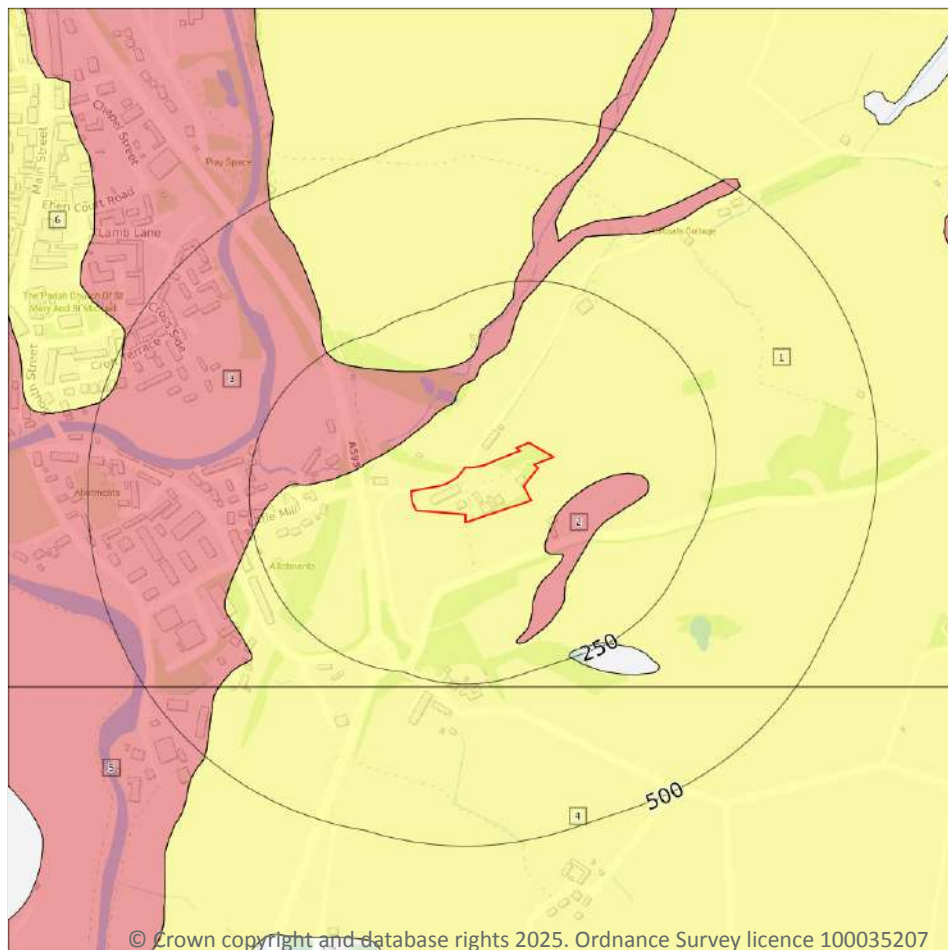
Records within 500m**0**

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

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



5 Hydrogeology - Superficial aquifer



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

5.1 Superficial aquifer

Records within 500m

6

Aquifer status of groundwater held within superficial geology.

Features are displayed on the Hydrogeology map on [page 38](#) >

ID	Location	Designation	Description
1	On site	Secondary Undifferentiated	Assigned where it is not possible to attribute either category A or B to a rock type. In general these layers have previously been designated as both minor and non-aquifer in different locations due to the variable characteristics of the rock type
2	45m E	Secondary A	Permeable layers capable of supporting water supplies at a local rather than strategic scale, and in some cases forming an important source of base flow to rivers. These are generally aquifers formerly classified as minor aquifers

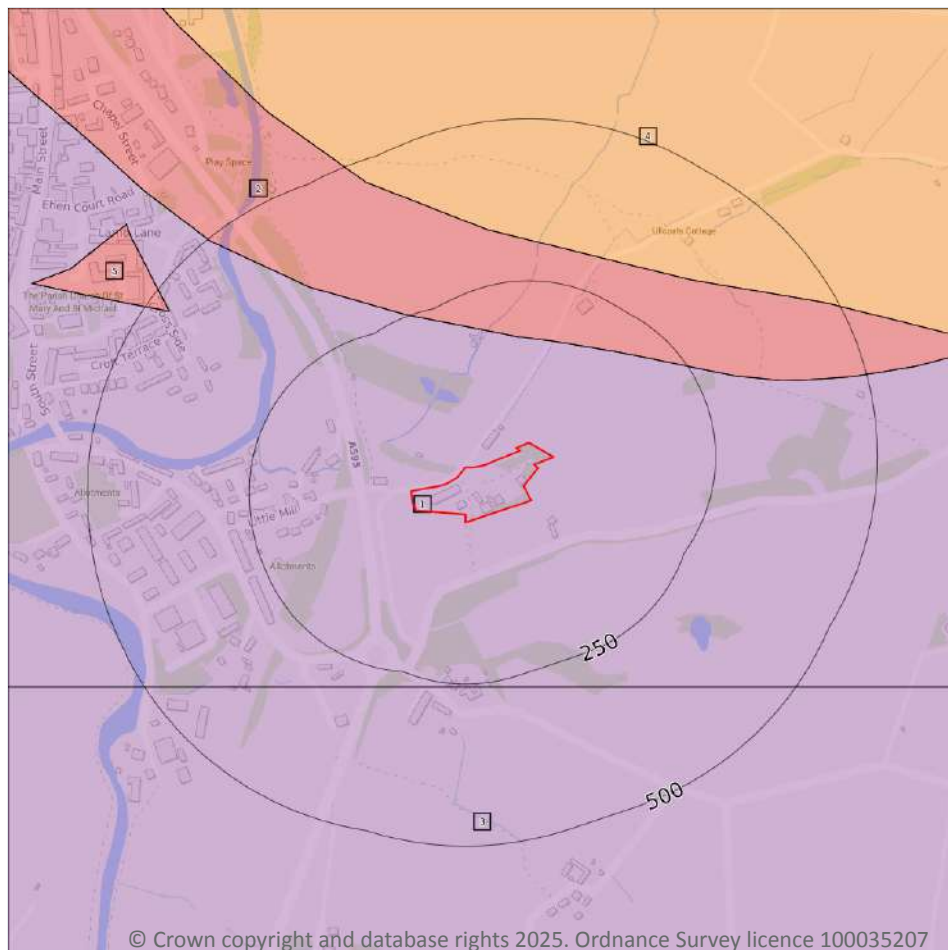


ID	Location	Designation	Description
3	71m W	Secondary A	Permeable layers capable of supporting water supplies at a local rather than strategic scale, and in some cases forming an important source of base flow to rivers. These are generally aquifers formerly classified as minor aquifers
4	254m S	Secondary Undifferentiated	Assigned where it is not possible to attribute either category A or B to a rock type. In general these layers have previously been designated as both minor and non-aquifer in different locations due to the variable characteristics of the rock type
5	408m SW	Secondary A	Permeable layers capable of supporting water supplies at a local rather than strategic scale, and in some cases forming an important source of base flow to rivers. These are generally aquifers formerly classified as minor aquifers
6	485m W	Secondary Undifferentiated	Assigned where it is not possible to attribute either category A or B to a rock type. In general these layers have previously been designated as both minor and non-aquifer in different locations due to the variable characteristics of the rock type

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



Bedrock aquifer



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

5.2 Bedrock aquifer

Records within 500m

5

Aquifer status of groundwater held within bedrock geology.

Features are displayed on the Bedrock aquifer map on [page 40](#) >

ID	Location	Designation	Description
1	On site	Principal	Geology of high intergranular and/or fracture permeability, usually providing a high level of water storage and may support water supply/river base flow on a strategic scale. Generally principal aquifers were previously major aquifers
2	160m N	Secondary A	Permeable layers capable of supporting water supplies at a local rather than strategic scale, and in some cases forming an important source of base flow to rivers. These are generally aquifers formerly classified as minor aquifers

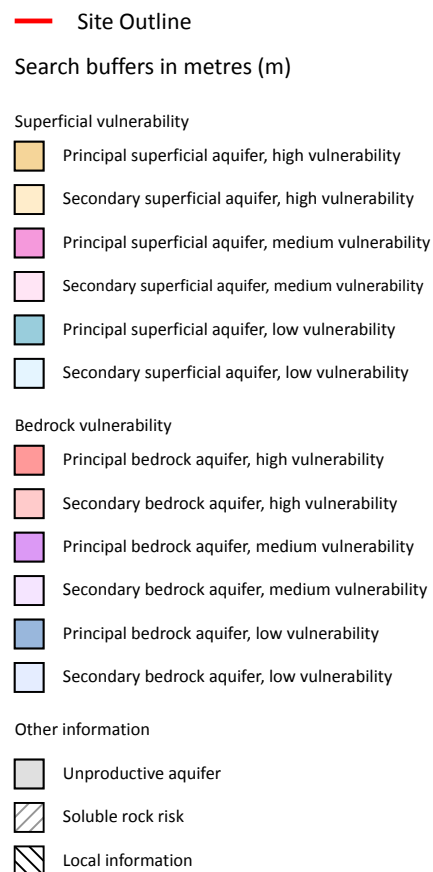
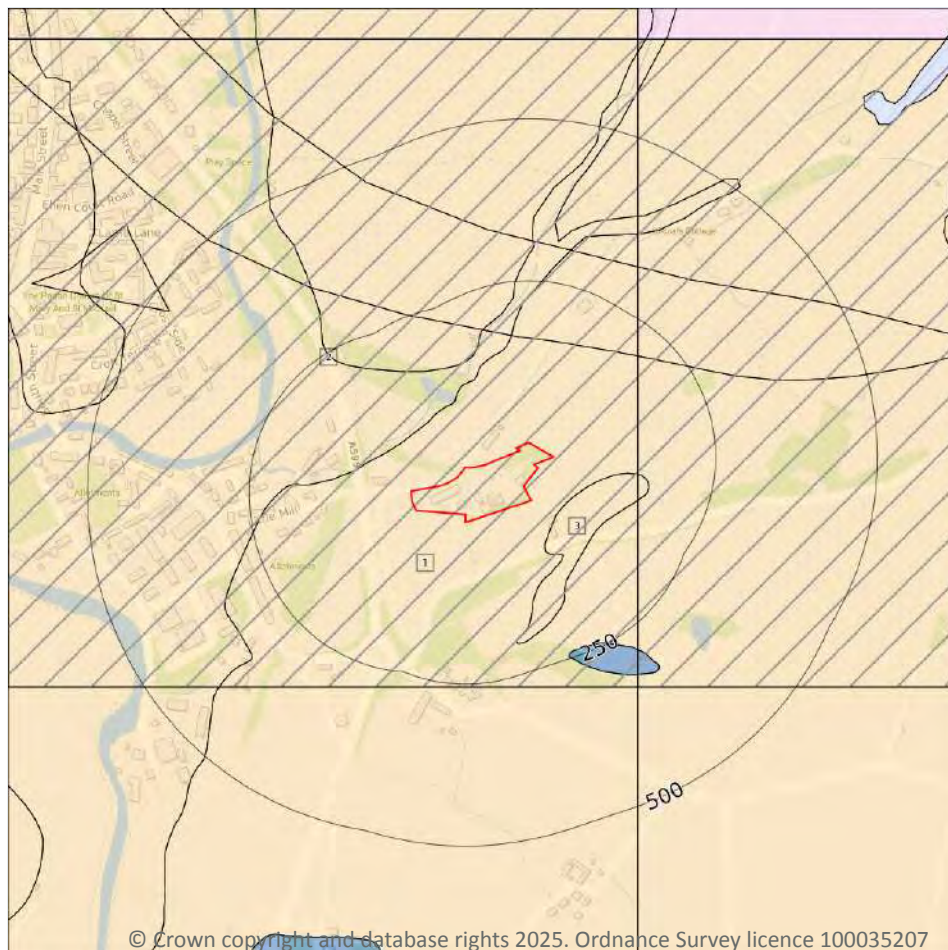


ID	Location	Designation	Description
3	254m S	Principal	Geology of high intergranular and/or fracture permeability, usually providing a high level of water storage and may support water supply/river base flow on a strategic scale. Generally principal aquifers were previously major aquifers
4	304m N	Secondary B	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 the former non-aquifers
5	466m NW	Secondary A	Permeable layers capable of supporting water supplies at a local rather than strategic scale, and in some cases forming an important source of base flow to rivers. These are generally aquifers formerly classified as minor aquifers

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



Groundwater vulnerability



5.3 Groundwater vulnerability

Records within 50m

2

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

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

Features are displayed on the Groundwater vulnerability map on [page 42](#) >



ID	Location	Summary	Soil / surface	Superficial geology	Bedrock geology
1	On site	Summary Classification: Secondary superficial aquifer - High Vulnerability Combined classification: Productive Bedrock Aquifer, Productive Superficial Aquifer	Leaching class: High Infiltration value: >70% Dilution value: >550mm/year	Vulnerability: High Aquifer type: Secondary Thickness: >10m Patchiness value: >90% Recharge potential: High	Vulnerability: Low Aquifer type: Principal Flow mechanism: Well connected fractures
3	45m E	Summary Classification: Secondary superficial aquifer - High Vulnerability Combined classification: Productive Bedrock Aquifer, Productive Superficial Aquifer	Leaching class: High Infiltration value: >70% Dilution value: >550mm/year	Vulnerability: High Aquifer type: Secondary Thickness: >10m Patchiness value: >90% Recharge potential: High	Vulnerability: Low Aquifer type: Principal 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	1
------------------------	----------

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

ID	Maximum soluble risk category	Percentage of grid square covered by maximum risk
2	Significant soluble rocks are likely to be present. Problems unlikely except with considerable surface or subsurface water flow.	14.000000000000002%

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

5.5 Groundwater vulnerability- local information

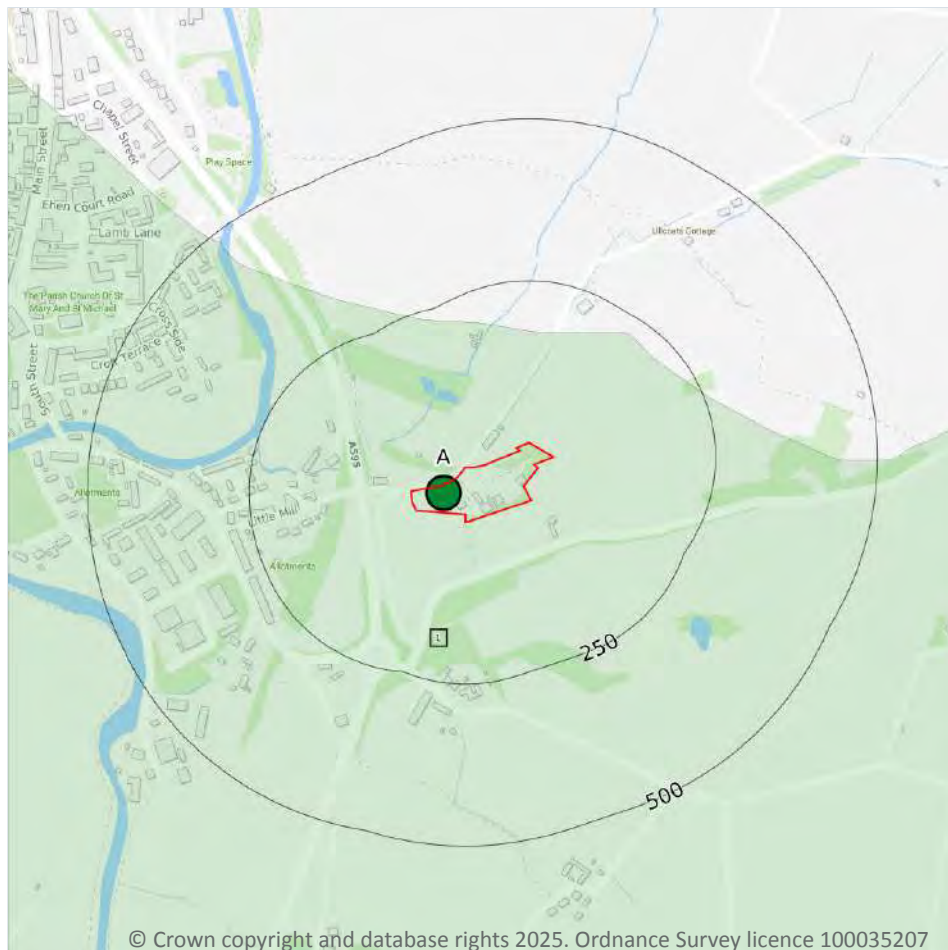
Records on site	0
------------------------	----------

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

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



Abstractions and Source Protection Zones



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

5.6 Groundwater abstractions

Records within 2000m

27

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 44](#) >

ID	Location	Details	
A	On site	Status: Historical Licence No: 2774005010 Details: General Cooling (Existing Licences Only) (Low Loss) Direct Source: Ground Water - North West Region Point: "FLORENCE MINE AT EGREMONT,CUMBRIA" Data Type: Point Name: BRITISH NUCLEAR FUELS PLC Easting: 301700 Northing: 510300	Annual Volume (m³): - Max Daily Volume (m³): - Original Application No: - Original Start Date: 28/11/1987 Expiry Date: - Issue No: 100 Version Start Date: 28/11/1987 Version End Date: -
A	On site	Status: Historical Licence No: 2774005010 Details: Transfer between sources Direct Source: Ground Water - North West Region Point: "FLORENCE MINE AT EGREMONT,CUMBRIA" Data Type: Point Name: BRITISH NUCLEAR FUELS PLC Easting: 301700 Northing: 510300	Annual Volume (m³): - Max Daily Volume (m³): - Original Application No: - Original Start Date: 28/11/1987 Expiry Date: - Issue No: 100 Version Start Date: 28/11/1987 Version End Date: -
A	On site	Status: Historical Licence No: 2774005010 Details: "Drinking, Cooking, Sanitary, Washing, (Small Garden) - Commercial/Industrial/Public Services" Direct Source: Ground Water - North West Region Point: "FLORENCE MINE AT EGREMONT,CUMBRIA" Data Type: Point Name: BRITISH NUCLEAR FUELS PLC Easting: 301700 Northing: 510300	Annual Volume (m³): - Max Daily Volume (m³): - Original Application No: - Original Start Date: 28/11/1987 Expiry Date: - Issue No: 100 Version Start Date: 28/11/1987 Version End Date: -
A	On site	Status: Historical Licence No: 2774005010 Details: Process water Direct Source: Ground Water - North West Region Point: "FLORENCE MINE AT EGREMONT,CUMBRIA" Data Type: Point Name: BRITISH NUCLEAR FUELS PLC Easting: 301700 Northing: 510300	Annual Volume (m³): - Max Daily Volume (m³): - Original Application No: - Original Start Date: 28/11/1987 Expiry Date: - Issue No: 100 Version Start Date: 28/11/1987 Version End Date: -
A	On site	Status: Historical Licence No: 2774005010 Details: Process water Direct Source: Ground Water - North West Region Point: FLORENCE MINE AT EGREMONT,CUMBRIA Data Type: Point Name: NUCLEAR DECOMMISSIONING AUTHORITY Easting: 301700 Northing: 510300	Annual Volume (m³): 4830125 Max Daily Volume (m³): 15911 Original Application No: - Original Start Date: 28/11/1987 Expiry Date: - Issue No: 101 Version Start Date: 01/04/2006 Version End Date: -



ID	Location	Details	
A	On site	Status: Historical Licence No: 2774005010 Details: Drinking, Cooking, Sanitary, Washing, (Small Garden) - Commercial/Industrial/Public Services Direct Source: Ground Water - North West Region Point: FLORENCE MINE AT EGREMONT,CUMBRIA Data Type: Point Name: NUCLEAR DECOMMISSIONING AUTHORITY Easting: 301700 Northing: 510300	Annual Volume (m³): 4830125 Max Daily Volume (m³): 15911 Original Application No: - Original Start Date: 28/11/1987 Expiry Date: - Issue No: 101 Version Start Date: 01/04/2006 Version End Date: -
A	On site	Status: Historical Licence No: 2774005010 Details: General Cooling (Existing Licences Only) (Low Loss) Direct Source: Ground Water - North West Region Point: FLORENCE MINE AT EGREMONT,CUMBRIA Data Type: Point Name: NUCLEAR DECOMMISSIONING AUTHORITY Easting: 301700 Northing: 510300	Annual Volume (m³): 4830125 Max Daily Volume (m³): 15911 Original Application No: - Original Start Date: 28/11/1987 Expiry Date: - Issue No: 101 Version Start Date: 01/04/2006 Version End Date: -
A	On site	Status: Historical Licence No: 2774005010 Details: Transfer between Sources (Pre Water Act 2003) Direct Source: Ground Water - North West Region Point: FLORENCE MINE AT EGREMONT,CUMBRIA Data Type: Point Name: NUCLEAR DECOMMISSIONING AUTHORITY Easting: 301700 Northing: 510300	Annual Volume (m³): 4830125 Max Daily Volume (m³): 15911 Original Application No: - Original Start Date: 28/11/1987 Expiry Date: - Issue No: 101 Version Start Date: 01/04/2006 Version End Date: -
-	1517m W	Status: Active Licence No: NW/074/0005/003 Details: Potable Water Supply - Direct Direct Source: Ground Water - North West Region Point: GULLEY FLATTS - EGREMONT BOREHOLE C Data Type: Point Name: United Utilities Water Ltd Easting: 300222 Northing: 509780	Annual Volume (m³): 3650000 Max Daily Volume (m³): 11000 Original Application No: NPS/WR/038891 Original Start Date: 21/07/2015 Expiry Date: 31/03/2026 Issue No: 4 Version Start Date: 23/03/2023 Version End Date: -
-	1807m W	Status: Active Licence No: NW/074/0005/003 Details: Potable Water Supply - Direct Direct Source: Ground Water - North West Region Point: BLACK LING - EGREMONT BOREHOLE D Data Type: Point Name: United Utilities Water Ltd Easting: 299975 Northing: 509615	Annual Volume (m³): 3650000 Max Daily Volume (m³): 11000 Original Application No: NPS/WR/038891 Original Start Date: 21/07/2015 Expiry Date: 31/03/2026 Issue No: 4 Version Start Date: 23/03/2023 Version End Date: -



ID	Location	Details	
-	1814m SE	Status: Active Licence No: 2774005010 Details: Process Water Direct Source: Ground Water - North West Region Point: BECKERMET MINE AT BECKERMET, CUMBRIA Data Type: Point Name: NUCLEAR DECOMMISSIONING AUTHORITY Easting: 302500 Northing: 508600	Annual Volume (m ³): 3504000 Max Daily Volume (m ³): 14400 Original Application No: 6285 Original Start Date: 28/11/1987 Expiry Date: - Issue No: 103 Version Start Date: 01/04/2007 Version End Date: -
-	1814m SE	Status: Active Licence No: 2774005010 Details: Evaporative Cooling Direct Source: Ground Water - North West Region Point: BECKERMET MINE AT BECKERMET, CUMBRIA Data Type: Point Name: NUCLEAR DECOMMISSIONING AUTHORITY Easting: 302500 Northing: 508600	Annual Volume (m ³): 3504000 Max Daily Volume (m ³): 14400 Original Application No: 6285 Original Start Date: 28/11/1987 Expiry Date: - Issue No: 103 Version Start Date: 01/04/2007 Version End Date: -
-	1814m SE	Status: Historical Licence No: 2774005010 Details: Drinking, Cooking, Sanitary, Washing, (Small Garden) - Commercial/Industrial/Public Services Direct Source: Ground Water - North West Region Point: BECKERMET MINE AT BECKERMET, CUMBRIA B461 Data Type: Point Name: BRITISH NUCLEAR FUELS PLC Easting: 302500 Northing: 508600	Annual Volume (m ³): - Max Daily Volume (m ³): - Original Application No: - Original Start Date: 28/11/1987 Expiry Date: - Issue No: 100 Version Start Date: 28/11/1987 Version End Date: -
-	1814m SE	Status: Historical Licence No: 2774005010 Details: General Cooling (Existing Licences Only) (Low Loss) Direct Source: Ground Water - North West Region Point: BECKERMET MINE AT BECKERMET, CUMBRIA B461 Data Type: Point Name: BRITISH NUCLEAR FUELS PLC Easting: 302500 Northing: 508600	Annual Volume (m ³): - Max Daily Volume (m ³): - Original Application No: - Original Start Date: 28/11/1987 Expiry Date: - Issue No: 100 Version Start Date: 28/11/1987 Version End Date: -



ID	Location	Details	
-	1814m SE	Status: Historical Licence No: 2774005010 Details: Process water Direct Source: Ground Water - North West Region Point: BECKERMET MINE AT BECKERMET, CUMBRIA B461 Data Type: Point Name: BRITISH NUCLEAR FUELS PLC Easting: 302500 Northing: 508600	Annual Volume (m ³): - Max Daily Volume (m ³): - Original Application No: - Original Start Date: 28/11/1987 Expiry Date: - Issue No: 100 Version Start Date: 28/11/1987 Version End Date: -
-	1814m SE	Status: Historical Licence No: 2774005010 Details: Transfer between sources Direct Source: Ground Water - North West Region Point: BECKERMET MINE AT BECKERMET, CUMBRIA B461 Data Type: Point Name: BRITISH NUCLEAR FUELS PLC Easting: 302500 Northing: 508600	Annual Volume (m ³): - Max Daily Volume (m ³): - Original Application No: - Original Start Date: 28/11/1987 Expiry Date: - Issue No: 100 Version Start Date: 28/11/1987 Version End Date: -
-	1814m SE	Status: Historical Licence No: 2774005010 Details: General Cooling (Existing Licences Only) (Low Loss) Direct Source: Ground Water - North West Region Point: "BECKERMET MINE AT BECKERMET, CUMBRIA B\$461" Data Type: Point Name: BRITISH NUCLEAR FUELS PLC Easting: 302500 Northing: 508600	Annual Volume (m ³): - Max Daily Volume (m ³): - Original Application No: - Original Start Date: 28/11/1987 Expiry Date: - Issue No: 100 Version Start Date: 28/11/1987 Version End Date: -
-	1814m SE	Status: Historical Licence No: 2774005010 Details: Transfer between sources Direct Source: Ground Water - North West Region Point: "BECKERMET MINE AT BECKERMET, CUMBRIA B\$461" Data Type: Point Name: BRITISH NUCLEAR FUELS PLC Easting: 302500 Northing: 508600	Annual Volume (m ³): - Max Daily Volume (m ³): - Original Application No: - Original Start Date: 28/11/1987 Expiry Date: - Issue No: 100 Version Start Date: 28/11/1987 Version End Date: -



ID	Location	Details	
-	1814m SE	Status: Historical Licence No: 2774005010 Details: "Drinking, Cooking, Sanitary, Washing, (Small Garden) - Commercial/Industrial/Public Services" Direct Source: Ground Water - North West Region Point: "BECKERMET MINE AT BECKERMET, CUMBRIA B\$461" Data Type: Point Name: BRITISH NUCLEAR FUELS PLC Easting: 302500 Northing: 508600	Annual Volume (m ³): - Max Daily Volume (m ³): - Original Application No: - Original Start Date: 28/11/1987 Expiry Date: - Issue No: 100 Version Start Date: 28/11/1987 Version End Date: -
-	1814m SE	Status: Historical Licence No: 2774005010 Details: Process water Direct Source: Ground Water - North West Region Point: "BECKERMET MINE AT BECKERMET, CUMBRIA B\$461" Data Type: Point Name: BRITISH NUCLEAR FUELS PLC Easting: 302500 Northing: 508600	Annual Volume (m ³): - Max Daily Volume (m ³): - Original Application No: - Original Start Date: 28/11/1987 Expiry Date: - Issue No: 100 Version Start Date: 28/11/1987 Version End Date: -
-	1814m SE	Status: Historical Licence No: 2774005010 Details: Process water Direct Source: Ground Water - North West Region Point: BECKERMET MINE AT BECKERMET, CUMBRIA B\$461 Data Type: Point Name: BRITISH NUCLEAR FUELS PLC Easting: 302500 Northing: 508600	Annual Volume (m ³): - Max Daily Volume (m ³): - Original Application No: - Original Start Date: 28/11/1987 Expiry Date: - Issue No: 100 Version Start Date: 28/11/1987 Version End Date: -
-	1814m SE	Status: Historical Licence No: 2774005010 Details: Transfer between sources Direct Source: Ground Water - North West Region Point: BECKERMET MINE AT BECKERMET, CUMBRIA B\$461 Data Type: Point Name: BRITISH NUCLEAR FUELS PLC Easting: 302500 Northing: 508600	Annual Volume (m ³): - Max Daily Volume (m ³): - Original Application No: - Original Start Date: 28/11/1987 Expiry Date: - Issue No: 100 Version Start Date: 28/11/1987 Version End Date: -



ID	Location	Details	
-	1814m SE	Status: Historical Licence No: 2774005010 Details: Drinking, Cooking, Sanitary, Washing, (Small Garden) - Commercial/Industrial/Public Services Direct Source: Ground Water - North West Region Point: BECKERMET MINE AT BECKERMET, CUMBRIA B\$461 Data Type: Point Name: BRITISH NUCLEAR FUELS PLC Easting: 302500 Northing: 508600	Annual Volume (m ³): - Max Daily Volume (m ³): - Original Application No: - Original Start Date: 28/11/1987 Expiry Date: - Issue No: 100 Version Start Date: 28/11/1987 Version End Date: -
-	1814m SE	Status: Historical Licence No: 2774005010 Details: General Cooling (Existing Licences Only) (Low Loss) Direct Source: Ground Water - North West Region Point: BECKERMET MINE AT BECKERMET, CUMBRIA B\$461 Data Type: Point Name: BRITISH NUCLEAR FUELS PLC Easting: 302500 Northing: 508600	Annual Volume (m ³): - Max Daily Volume (m ³): - Original Application No: - Original Start Date: 28/11/1987 Expiry Date: - Issue No: 100 Version Start Date: 28/11/1987 Version End Date: -
-	1814m SE	Status: Historical Licence No: 2774005010 Details: General Cooling (Existing Licences Only) (Low Loss) Direct Source: Ground Water - North West Region Point: BECKERMET MINE AT BECKERMET, CUMBRIA Data Type: Point Name: NUCLEAR DECOMMISSIONING AUTHORITY Easting: 302500 Northing: 508600	Annual Volume (m ³): 4830125 Max Daily Volume (m ³): 15911 Original Application No: - Original Start Date: 28/11/1987 Expiry Date: - Issue No: 101 Version Start Date: 01/04/2006 Version End Date: -
-	1814m SE	Status: Historical Licence No: 2774005010 Details: Transfer between Sources (Pre Water Act 2003) Direct Source: Ground Water - North West Region Point: BECKERMET MINE AT BECKERMET, CUMBRIA Data Type: Point Name: NUCLEAR DECOMMISSIONING AUTHORITY Easting: 302500 Northing: 508600	Annual Volume (m ³): 4830125 Max Daily Volume (m ³): 15911 Original Application No: - Original Start Date: 28/11/1987 Expiry Date: - Issue No: 101 Version Start Date: 01/04/2006 Version End Date: -



ID	Location	Details	
-	1814m SE	Status: Historical Licence No: 2774005010 Details: Drinking, Cooking, Sanitary, Washing, (Small Garden) - Commercial/Industrial/Public Services Direct Source: Ground Water - North West Region Point: BECKERMET MINE AT BECKERMET, CUMBRIA Data Type: Point Name: NUCLEAR DECOMMISSIONING AUTHORITY Easting: 302500 Northing: 508600	Annual Volume (m ³): 4830125 Max Daily Volume (m ³): 15911 Original Application No: - Original Start Date: 28/11/1987 Expiry Date: - Issue No: 101 Version Start Date: 01/04/2006 Version End Date: -

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

5.7 Surface water abstractions

Records within 2000m	0
-----------------------------	----------

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

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

5.8 Potable abstractions

Records within 2000m	8
-----------------------------	----------

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

Features are displayed on the Abstractions and Source Protection Zones map on [page 44](#) >

ID	Location	Details	
A	On site	Status: Historical Licence No: 2774005010 Details: "Drinking, Cooking, Sanitary, Washing, (Small Garden) - Commercial/Industrial/Public Services" Direct Source: Ground Water - North West Region Point: "FLORENCE MINE AT EGREMONT,CUMBRIA" Data Type: Point Name: BRITISH NUCLEAR FUELS PLC Easting: 301700 Northing: 510300	Annual Volume (m ³): - Max Daily Volume (m ³): - Original Application No: - Original Start Date: 28/11/1987 Expiry Date: - Issue No: 100 Version Start Date: 28/11/1987 Version End Date: -

ID	Location	Details	
A	On site	Status: Historical Licence No: 2774005010 Details: Drinking, Cooking, Sanitary, Washing, (Small Garden) - Commercial/Industrial/Public Services Direct Source: Ground Water - North West Region Point: FLORENCE MINE AT EGREMONT,CUMBRIA Data Type: Point Name: NUCLEAR DECOMMISSIONING AUTHORITY Easting: 301700 Northing: 510300	Annual Volume (m³): 4830125 Max Daily Volume (m³): 15911 Original Application No: - Original Start Date: 28/11/1987 Expiry Date: - Issue No: 101 Version Start Date: 01/04/2006 Version End Date: -
-	1517m W	Status: Active Licence No: NW/074/0005/003 Details: Potable Water Supply - Direct Direct Source: Ground Water - North West Region Point: GULLEY FLATTS - EGREMONT BOREHOLE C Data Type: Point Name: United Utilities Water Ltd Easting: 300222 Northing: 509780	Annual Volume (m ³): 3650000 Max Daily Volume (m ³): 11000 Original Application No: NPS/WR/038891 Original Start Date: 21/07/2015 Expiry Date: 31/03/2026 Issue No: 4 Version Start Date: 23/03/2023 Version End Date: -
-	1807m W	Status: Active Licence No: NW/074/0005/003 Details: Potable Water Supply - Direct Direct Source: Ground Water - North West Region Point: BLACK LING - EGREMONT BOREHOLE D Data Type: Point Name: United Utilities Water Ltd Easting: 299975 Northing: 509615	Annual Volume (m ³): 3650000 Max Daily Volume (m ³): 11000 Original Application No: NPS/WR/038891 Original Start Date: 21/07/2015 Expiry Date: 31/03/2026 Issue No: 4 Version Start Date: 23/03/2023 Version End Date: -
-	1814m SE	Status: Historical Licence No: 2774005010 Details: Drinking, Cooking, Sanitary, Washing, (Small Garden) - Commercial/Industrial/Public Services Direct Source: Ground Water - North West Region Point: BECKERMET MINE AT BECKERMET, CUMBRIA B461 Data Type: Point Name: BRITISH NUCLEAR FUELS PLC Easting: 302500 Northing: 508600	Annual Volume (m ³): - Max Daily Volume (m ³): - Original Application No: - Original Start Date: 28/11/1987 Expiry Date: - Issue No: 100 Version Start Date: 28/11/1987 Version End Date: -



ID	Location	Details	
-	1814m SE	Status: Historical Licence No: 2774005010 Details: "Drinking, Cooking, Sanitary, Washing, (Small Garden) - Commercial/Industrial/Public Services" Direct Source: Ground Water - North West Region Point: "BECKERMET MINE AT BECKERMET, CUMBRIA B\$461" Data Type: Point Name: BRITISH NUCLEAR FUELS PLC Easting: 302500 Northing: 508600	Annual Volume (m ³): - Max Daily Volume (m ³): - Original Application No: - Original Start Date: 28/11/1987 Expiry Date: - Issue No: 100 Version Start Date: 28/11/1987 Version End Date: -
-	1814m SE	Status: Historical Licence No: 2774005010 Details: Drinking, Cooking, Sanitary, Washing, (Small Garden) - Commercial/Industrial/Public Services Direct Source: Ground Water - North West Region Point: BECKERMET MINE AT BECKERMET, CUMBRIA B\$461 Data Type: Point Name: BRITISH NUCLEAR FUELS PLC Easting: 302500 Northing: 508600	Annual Volume (m ³): - Max Daily Volume (m ³): - Original Application No: - Original Start Date: 28/11/1987 Expiry Date: - Issue No: 100 Version Start Date: 28/11/1987 Version End Date: -
-	1814m SE	Status: Historical Licence No: 2774005010 Details: Drinking, Cooking, Sanitary, Washing, (Small Garden) - Commercial/Industrial/Public Services Direct Source: Ground Water - North West Region Point: BECKERMET MINE AT BECKERMET, CUMBRIA Data Type: Point Name: NUCLEAR DECOMMISSIONING AUTHORITY Easting: 302500 Northing: 508600	Annual Volume (m ³): 4830125 Max Daily Volume (m ³): 15911 Original Application No: - Original Start Date: 28/11/1987 Expiry Date: - Issue No: 101 Version Start Date: 01/04/2006 Version End Date: -

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

5.9 Source Protection Zones

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

Source Protection Zones define the sensitivity of an area around a potable abstraction site to contamination. Features are displayed on the Abstractions and Source Protection Zones map on [page 44 >](#)

ID	Location	Type	Description
1	On site	3	Total catchment

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



5.10 Source Protection Zones (confined aquifer)

Records within 500m

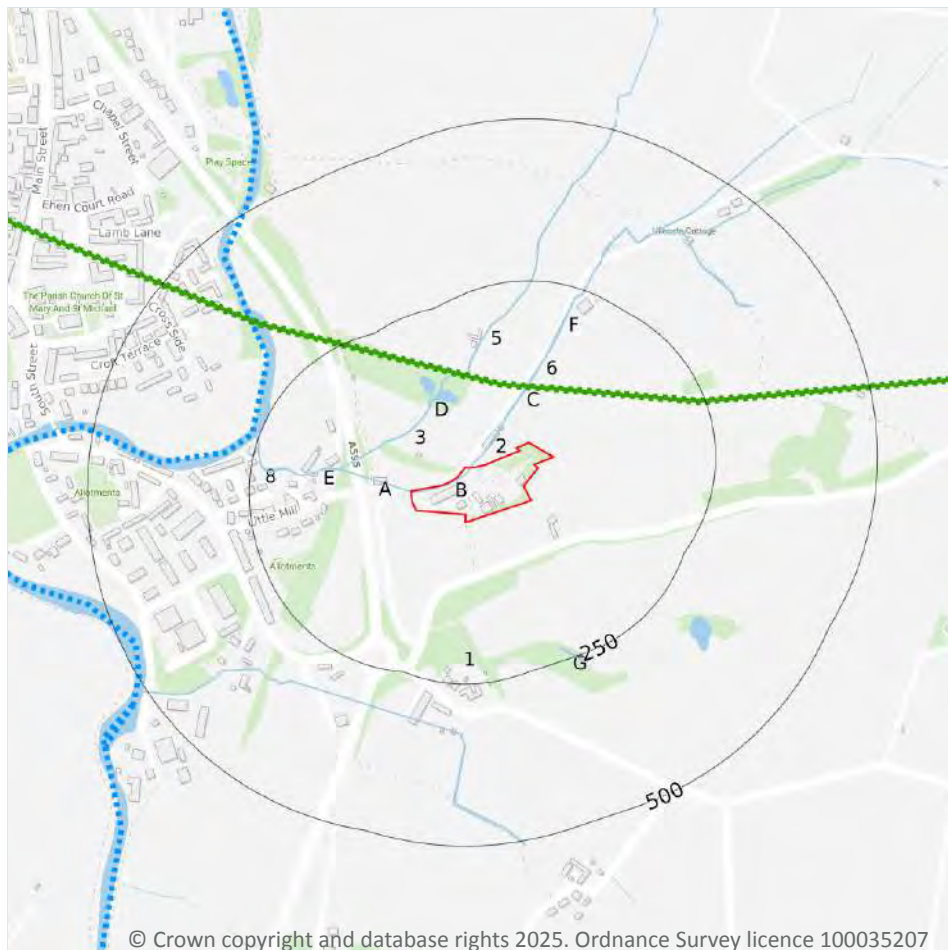
0

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

19

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 55 >](#)

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



ID	Location	Type of water feature	Ground level	Permanence	Name
B	On site	Inland river not influenced by normal tidal action.	On ground surface	Watercourse contains water year round (in normal circumstances)	-
2	16m N	Inland river not influenced by normal tidal action.	Not provided	Watercourse contains water year round (in normal circumstances)	-
C	46m N	Inland river not influenced by normal tidal action.	On ground surface	Watercourse contains water year round (in normal circumstances)	-
A	84m W	Inland river not influenced by normal tidal action.	Underground	Watercourse contains water year round (in normal circumstances)	Black Beck
A	84m W	Inland river not influenced by normal tidal action.	On ground surface	Watercourse contains water year round (in normal circumstances)	Black Beck
3	85m NW	Inland river not influenced by normal tidal action.	On ground surface	Watercourse contains water year round (in normal circumstances)	Black Beck
A	89m W	Inland river not influenced by normal tidal action.	Underground	Watercourse contains water year round (in normal circumstances)	Black Beck
D	111m NW	Inland river not influenced by normal tidal action.	On ground surface	Watercourse contains water year round (in normal circumstances)	Black Beck
D	111m NW	Inland river not influenced by normal tidal action.	On ground surface	Watercourse contains water year round (in normal circumstances)	-
D	115m NW	Lake, loch or reservoir.	On ground surface	Watercourse contains water year round (in normal circumstances)	Black Beck
E	115m W	Inland river not influenced by normal tidal action.	On ground surface	Watercourse contains water year round (in normal circumstances)	Black Beck
D	124m NW	Lake, loch or reservoir.	On ground surface	Watercourse contains water year round (in normal circumstances)	-
5	127m NW	Inland river not influenced by normal tidal action.	On ground surface	Watercourse contains water year round (in normal circumstances)	Black Beck



ID	Location	Type of water feature	Ground level	Permanence	Name
6	129m NE	Inland river not influenced by normal tidal action.	Underground	Watercourse contains water year round (in normal circumstances)	-
F	132m NE	Inland river not influenced by normal tidal action.	On ground surface	Watercourse contains water year round (in normal circumstances)	-
E	169m W	Inland river not influenced by normal tidal action.	Underground	Watercourse contains water year round (in normal circumstances)	Black Beck
8	177m W	Inland river not influenced by normal tidal action.	On ground surface	Watercourse contains water year round (in normal circumstances)	Black Beck
G	227m SE	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	8
----------------------------	----------

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

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

This data is sourced from the Ordnance Survey.

6.3 WFD Surface water body catchments

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

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

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

ID	Location	Type	Water body catchment	Water body ID	Operational catchment	Management catchment
B	On site	River	Ehen (lower)	GB112074069980	Ehen-Calder	South West Lakes



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 55 >](#)

ID	Location	Type	Name	Water body ID	Overall rating	Chemical rating	Ecological rating	Year
11	261m W	River	Ehen (lower)	GB112074069980 ↗	Moderate	Fail	Good	2019

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

6.5 WFD Groundwater bodies

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

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

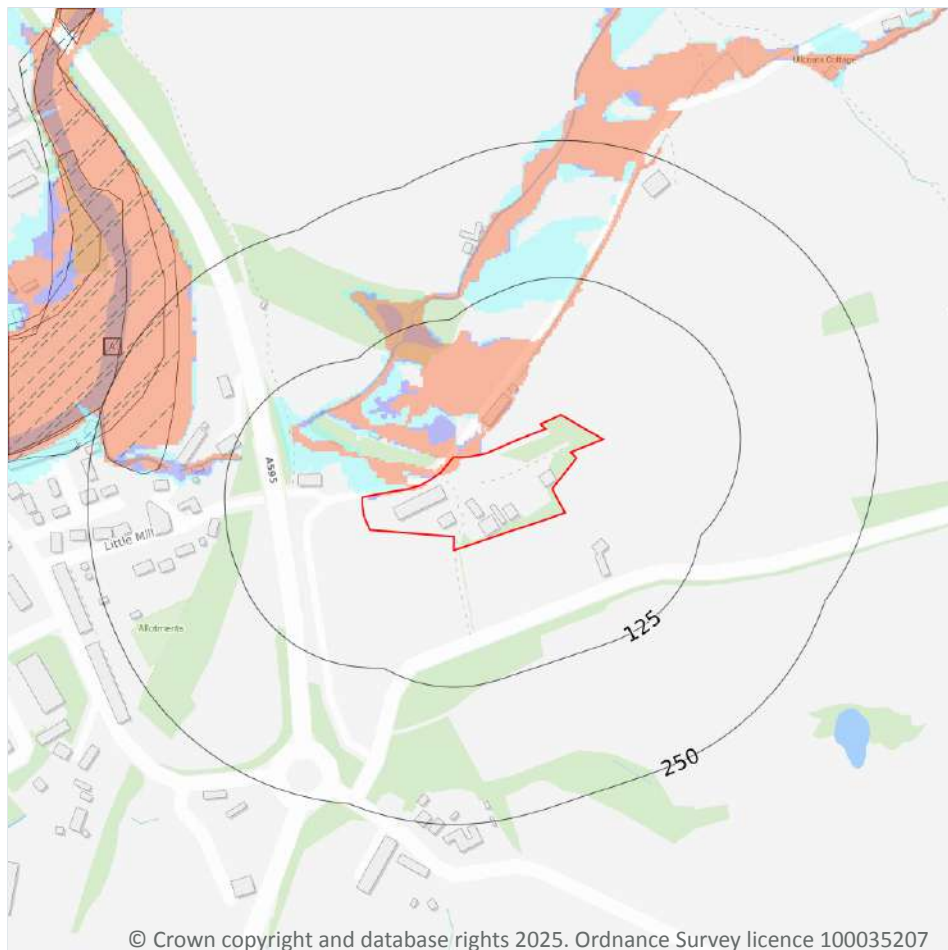
Features are displayed on the Hydrology map on [page 55 >](#)

ID	Location	Name	Water body ID	Overall rating	Chemical rating	Quantitative	Year
1	On site	West Cumbria Permo-Triassic sandstone aquifers	GB41201G102000 ↗	Good	Good	Good	2019

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



7 River and coastal flooding



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

7.1 Risk of flooding from rivers and the sea

Records within 50m

4

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

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



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

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

7.2 Historical Flood Events

Records within 250m	2
----------------------------	----------

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

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

ID	Location	Event name	Date of flood	Flood source	Flood cause	Type of flood
A	184m W	Egremont November 2009 Flooding	2009-11-19 2009-11-22	Main river	Channel capacity exceeded (no raised defences)	Fluvial
A	220m W	Flooding 05_11_1999	1999-11-05 1999-11-05	Main river	Channel capacity exceeded (no raised defences)	Fluvial

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

7.3 Flood Defences

Records within 250m	0
----------------------------	----------

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

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

7.4 Areas Benefiting from Flood Defences

Records within 250m	0
----------------------------	----------

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

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



7.5 Flood Storage Areas

Records within 250m

0

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

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



River and coastal flooding - Flood Zones

7.6 Flood Zone 2

Records within 50m

0

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

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

7.7 Flood Zone 3

Records within 50m

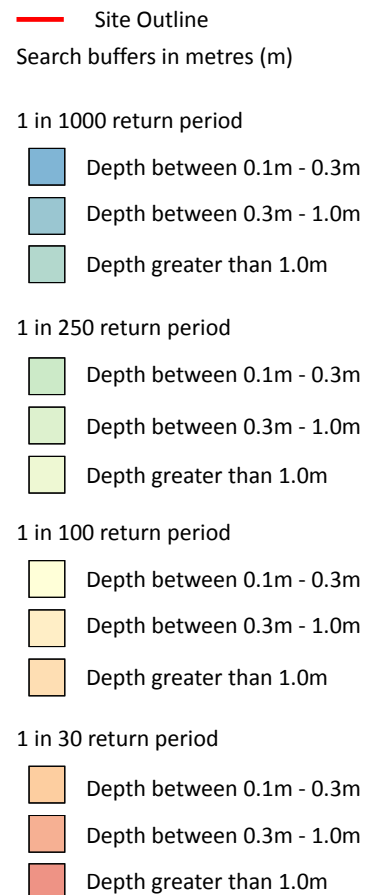
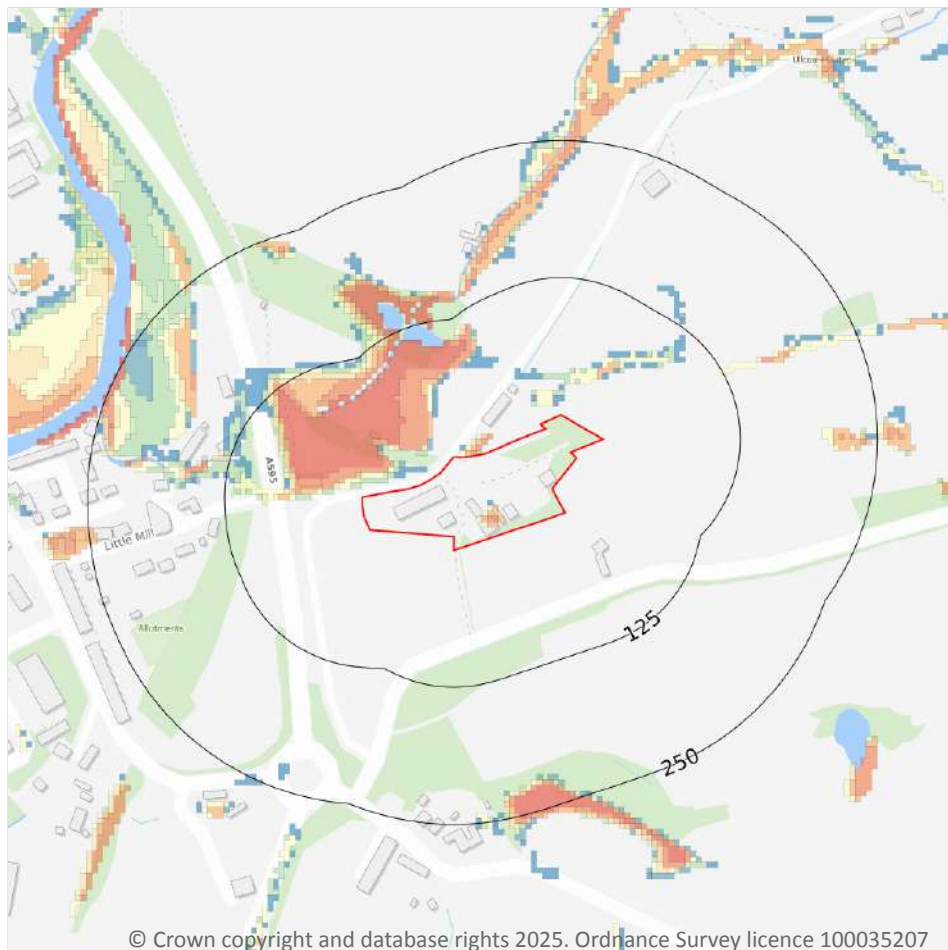
0

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

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



8 Surface water flooding



8.1 Surface water flooding

Highest risk on site

1 in 30 year, 0.3m - 1.0m

Highest risk within 50m

1 in 30 year, Greater than 1.0m

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

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

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

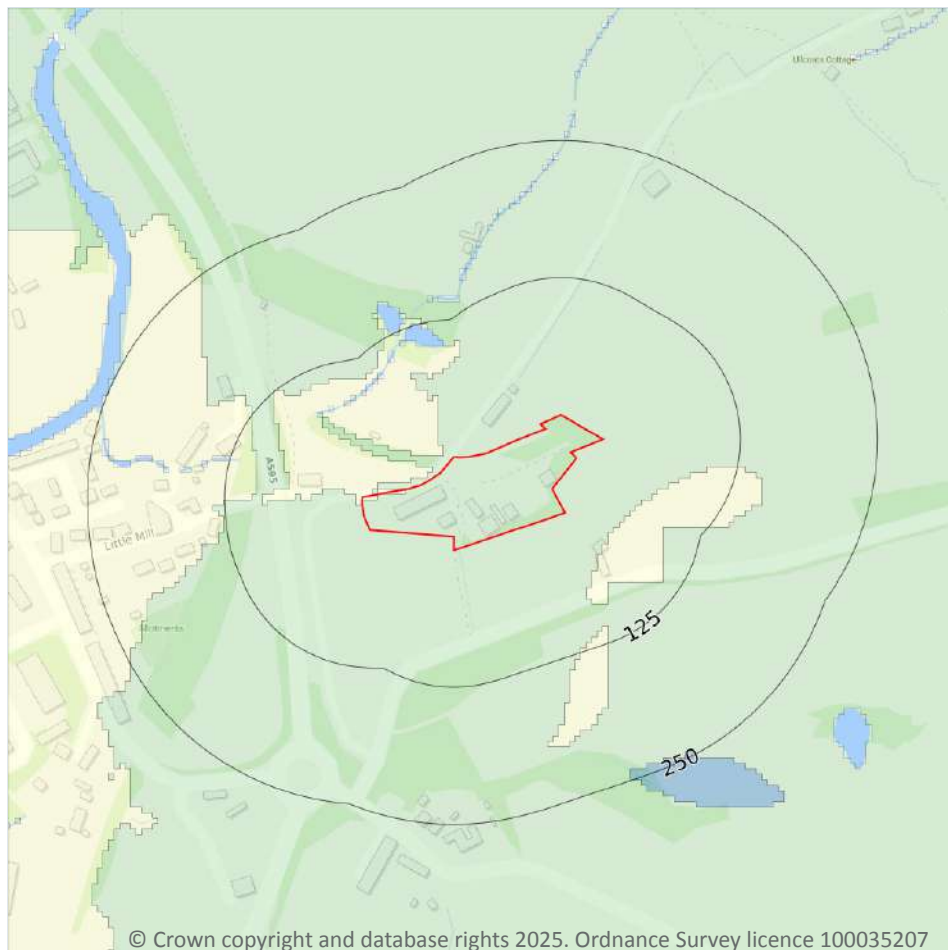
The table below shows the maximum flood depths for a range of return periods for the site.

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

This data is sourced from 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

Moderate

Highest risk within 50m

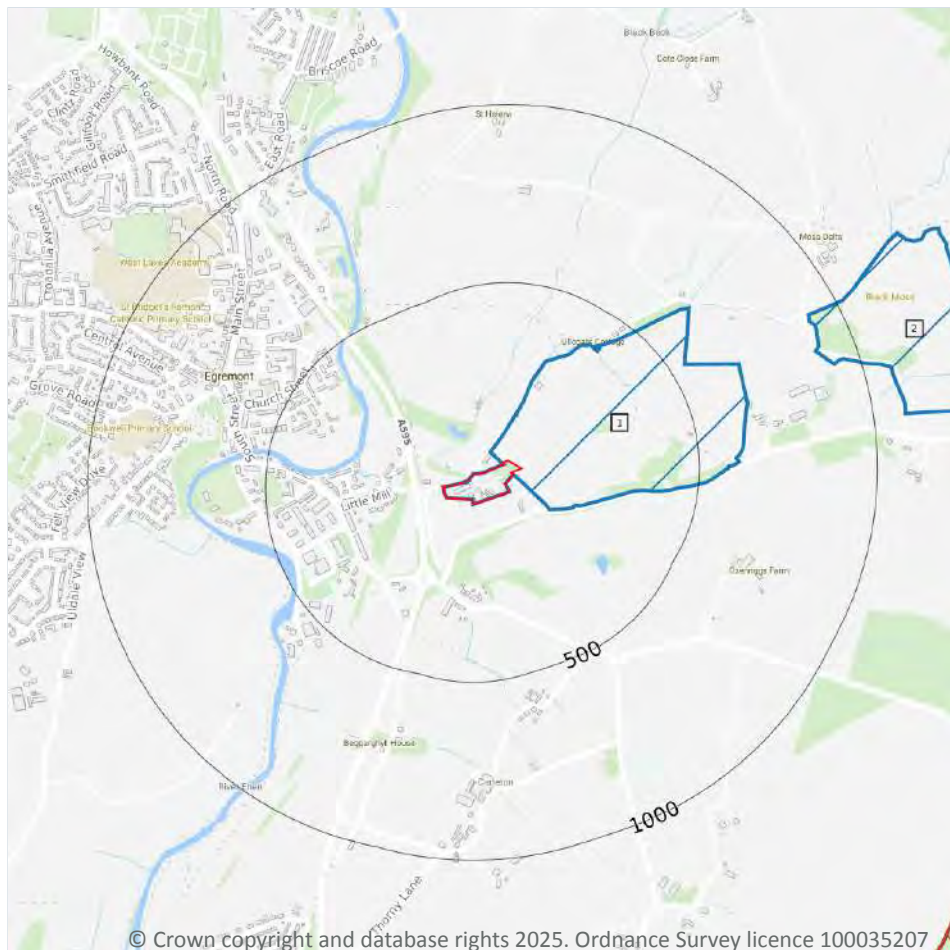
Moderate

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

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

This data is sourced from Ambient Risk Analytics.

10 Environmental designations



- Site Outline
- Search buffers in metres (m)
- Sites of Special Scientific Interest (SSSI)
- Designated Ancient Woodland

10.1 Sites of Special Scientific Interest (SSSI)

Records within 2000m

4

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

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

ID	Location	Name	Data source
1	On site	Florence Mine	Natural England



ID	Location	Name	Data source
2	890m E	Black Moss	Natural England
A	1510m E	Haile Great Wood	Natural England
-	1938m NW	Clints Quarry	Natural England

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

10.2 Conserved wetland sites (Ramsar sites)

Records within 2000m

0

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

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

10.3 Special Areas of Conservation (SAC)

Records within 2000m

0

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

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

10.4 Special Protection Areas (SPA)

Records within 2000m

0

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

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



10.5 National Nature Reserves (NNR)

Records within 2000m**0**

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

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

10.6 Local Nature Reserves (LNR)

Records within 2000m**0**

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

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

10.7 Designated Ancient Woodland

Records within 2000m**4**

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

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

ID	Location	Name	Woodland Type
-	1510m E	Great Wood/+	Ancient & Semi-Natural Woodland
3	1688m SE	Great Wood/+	Ancient & Semi-Natural Woodland
-	1822m E	Great Wood/+	Ancient Replanted Woodland
-	1946m E	Great Wood/+	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

0

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

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

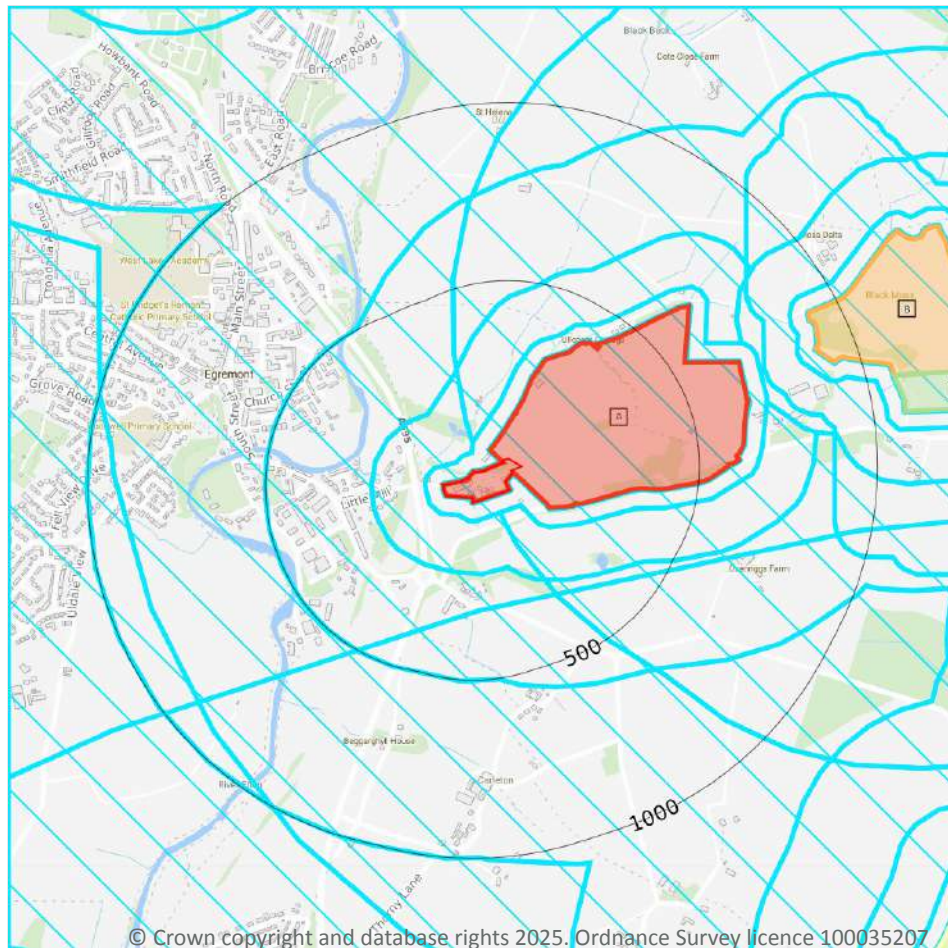
Records within 2000m**0**

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 71](#) >

ID	Location	Type of developments requiring consultation
A	On site	All applications - ALL PLANNING APPLICATIONS.

This data is sourced from Natural England.



10.18 SSSI Units

Records within 2000m

8

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

Features are displayed on the SSSI Impact Zones and Units map on [page 71 >](#)

ID: A
 Location: On site
 SSSI name: Florence Mine
 Unit name: 1
 Broad habitat: Earth Heritage
 Condition: Destroyed
 Reportable features:

Feature name	Feature condition	Date of assessment
EU - Mineralogy	Destroyed	09/01/2009

ID: B
 Location: 890m E
 SSSI name: Black Moss
 Unit name: 1
 Broad habitat: Bogs - Lowland
 Condition: Unfavourable - Declining
 Reportable features:

Feature name	Feature condition	Date of assessment
Raised bog (lowland)	Unfavourable - Declining	22/06/2021

ID: 24
 Location: 1078m E
 SSSI name: Black Moss
 Unit name: 2
 Broad habitat: Neutral Grassland - Lowland
 Condition: Favourable
 Reportable features:

Feature name	Feature condition	Date of assessment
Raised bog (lowland)	Favourable	16/08/2011



ID: -
Location: 1510m E
SSSI name: Haile Great Wood
Unit name: Unit 1
Broad habitat: Broadleaved, Mixed And Yew Woodland - Lowland
Condition: Unfavourable - Declining
Reportable features:

Feature name	Feature condition	Date of assessment
Upland mixed ashwoods	Not Recorded	01/01/1900
Upland oakwood	Unfavourable - Declining	12/03/2010
Wet woodland	Not Recorded	01/01/1900

ID: 31
Location: 1682m SE
SSSI name: Haile Great Wood
Unit name: Unit 5
Broad habitat: Broadleaved, Mixed And Yew Woodland - Lowland
Condition: Unfavourable - Recovering
Reportable features:

Feature name	Feature condition	Date of assessment
Upland mixed ashwoods	Not Recorded	01/01/1900
Upland oakwood	Not Recorded	01/01/1900
Wet woodland	Not Recorded	01/01/1900

ID: -
Location: 1813m E
SSSI name: Haile Great Wood
Unit name: 4 - Great Wood
Broad habitat: Broadleaved, Mixed And Yew Woodland - Lowland
Condition: Unfavourable - Recovering
Reportable features:

Feature name	Feature condition	Date of assessment
Upland mixed ashwoods	Not Recorded	01/01/1900
Upland oakwood	Unfavourable - Recovering	12/03/2010
Wet woodland	Not Recorded	01/01/1900



ID: -
 Location: 1914m E
 SSSI name: Haile Great Wood
 Unit name: Unit 2
 Broad habitat: Broadleaved, Mixed And Yew Woodland - Lowland
 Condition: Unfavourable - Recovering
 Reportable features:

Feature name	Feature condition	Date of assessment
Upland mixed ashwoods	Not Recorded	01/01/1900
Upland oakwood	Unfavourable - Recovering	12/03/2010
Wet woodland	Not Recorded	01/01/1900

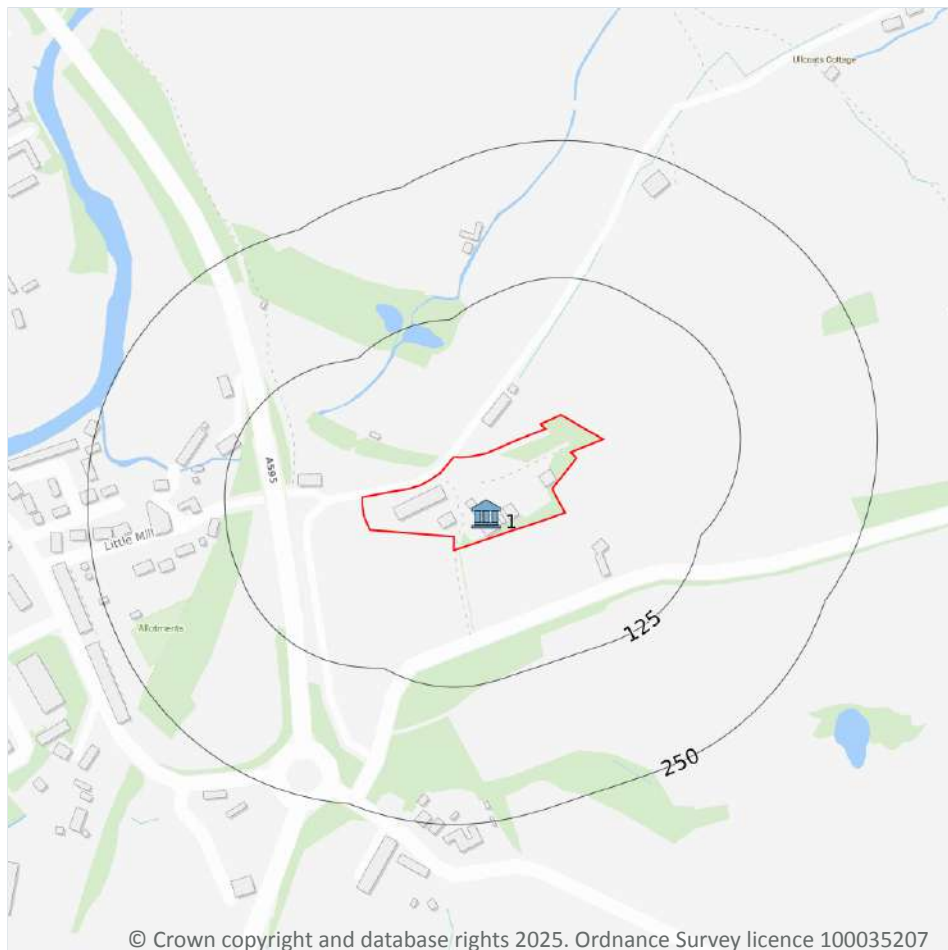
ID: -
 Location: 1938m NW
 SSSI name: Clints Quarry
 Unit name: 2
 Broad habitat: Earth Heritage
 Condition: Unfavourable - Recovering
 Reportable features:

Feature name	Feature condition	Date of assessment
ED - Dinantian	Favourable	03/02/2023
Lowland calcareous grassland (CG7)	Not Recorded	01/01/1900
Lowland dry acid grassland (U1b,c,d,f)	Not Recorded	01/01/1900
Upland neutral grassland (MG3)	Not Recorded	01/01/1900

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



11 Visual and cultural designations



- Site Outline
- Search buffers in metres (m)
- Listed buildings
- Conservation areas
- Conservation areas - no data
- National Parks
- Areas of Outstanding Natural Beauty
- Registered parks and gardens
- Scheduled Monuments
- World Heritage Sites

11.1 World Heritage Sites

Records within 250m

0

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

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

11.2 Area of Outstanding Natural Beauty

Records within 250m

0

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

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

11.3 National Parks

Records within 250m

0

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

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

11.4 Listed Buildings

Records within 250m

1

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

Features are displayed on the Visual and cultural designations map on [page 75 >](#)

ID	Location	Name	Grade	Reference Number	Listed date
1	On site	Florence Iron Mining Pit Head	II	1449212	01/10/2018

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



11.5 Conservation Areas

Records within 250m

0

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

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

11.6 Scheduled Ancient Monuments

Records within 250m

0

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

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

11.7 Registered Parks and Gardens

Records within 250m

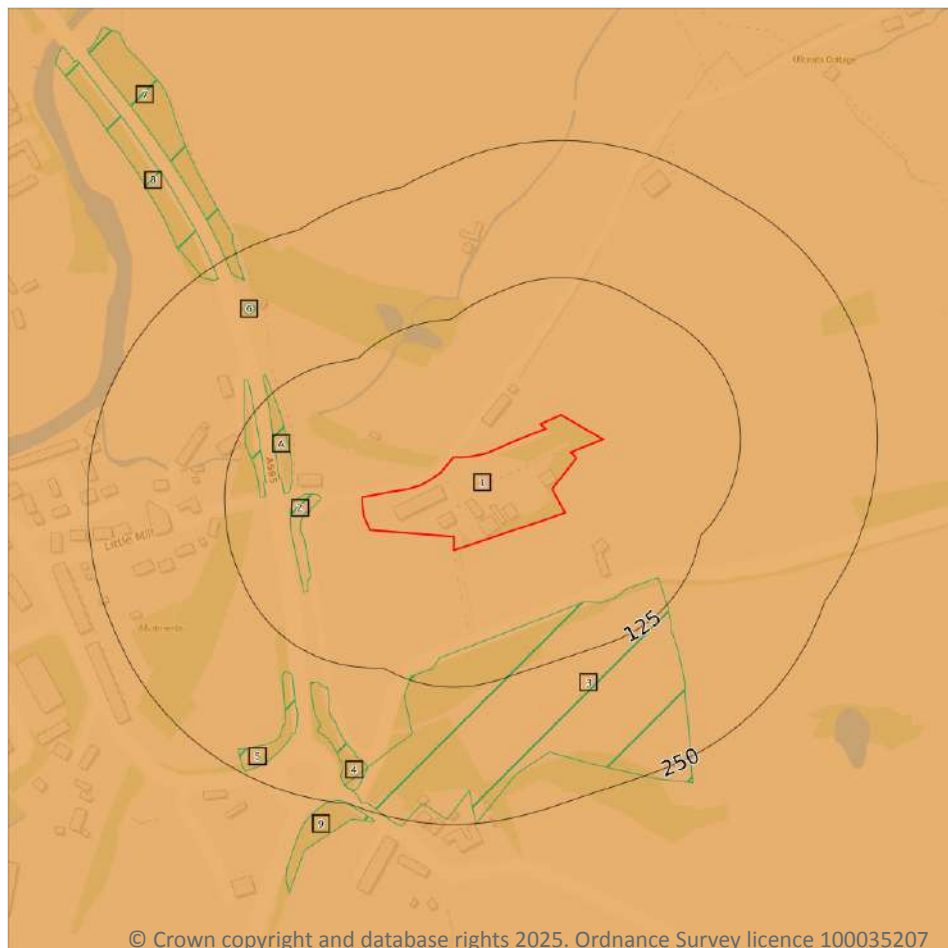
0

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

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



12 Agricultural designations



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

12.1 Agricultural Land Classification

Records within 250m

1

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

Features are displayed on the Agricultural designations map on [page 78](#) >

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

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

10

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

Features are displayed on the Agricultural designations map on [page 78 >](#)

ID	Location	Description	Reference	Application date
2	38m W	Selective Fell/Thin (Unconditional)	018/366/15-16	-
A	66m W	Selective Fell/Thin (Unconditional)	018/366/15-16	-
3	82m SE	Selective Fell/Thin (Unconditional)	010/16/18-19	24/04/2018
A	88m W	Selective Fell/Thin (Unconditional)	018/366/15-16	-
4	147m SW	Selective Fell/Thin (Unconditional)	018/366/15-16	-
5	150m SW	Selective Fell/Thin (Unconditional)	018/366/15-16	-
6	196m NW	Single Tree	018/366/15-16	-
7	225m NW	Selective Fell/Thin (Unconditional)	018/366/15-16	-
8	238m NW	Selective Fell/Thin (Unconditional)	018/366/15-16	-
9	248m SW	Selective Fell/Thin (Unconditional)	018/366/15-16	-

This data is sourced from the Forestry Commission.



12.4 Environmental Stewardship Schemes

Records within 250m

4

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.

Location	Reference	Scheme	Start Date	End date
On site	AG00530957	Entry Level plus Higher Level Stewardship	01/02/2010	31/01/2023
110m SE	AG00530957	Entry Level plus Higher Level Stewardship	01/02/2010	31/01/2023
134m NE	AG00591074	Entry Level Stewardship	01/05/2014	30/04/2019
198m E	AG00530957	Entry Level plus Higher Level Stewardship	01/02/2010	31/01/2023

This data is sourced from Natural England.

12.5 Countryside Stewardship Schemes

Records within 250m

4

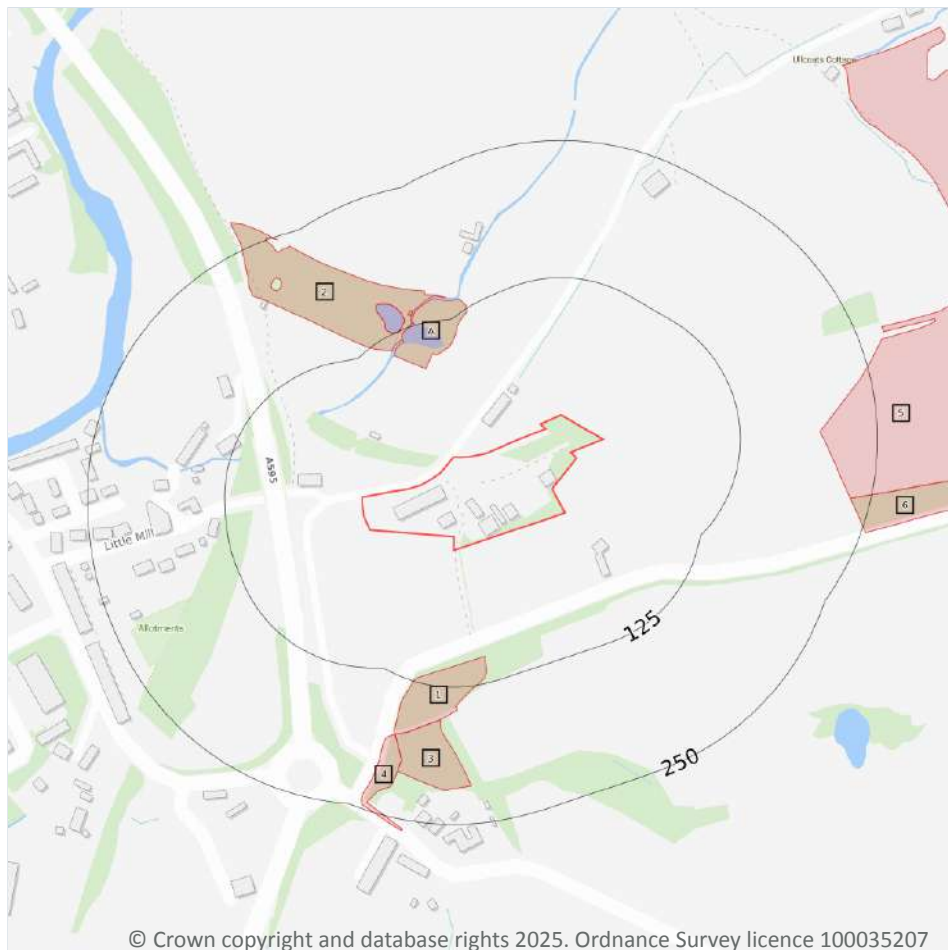
Countryside Stewardship covers a range of schemes that provide financial incentives to farmers, foresters and land managers to look after and improve the environment. Main objectives are to improve the farmed environment for wildlife and to reduce diffuse water pollution.

Location	Reference	Scheme	Start Date	End Date
On site	1636680	Countryside Stewardship (Middle Tier)	01/01/2024	31/12/2028
46m NE	1636680	Countryside Stewardship (Middle Tier)	01/01/2024	31/12/2028
94m W	1636680	Countryside Stewardship (Middle Tier)	01/01/2024	31/12/2028
219m SE	1636680	Countryside Stewardship (Middle Tier)	01/01/2024	31/12/2028

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

9

Habitats of principal importance as named under Natural Environment and Rural Communities Act (2006) Section 41.

Features are displayed on the Habitat designations map on [page 81](#) >

ID	Location	Main Habitat	Other habitats
A	84m NW	Deciduous woodland	Main habitat: DWOOD (INV > 50%)
1	101m S	Deciduous woodland	Main habitat: DWOOD (INV > 50%)
2	112m NW	No main habitat but additional habitats present	Additional: DWOOD (INV 50%)



ID	Location	Main Habitat	Other habitats
A	124m NW	Deciduous woodland	Main habitat: DWOOD (INV > 50%)
A	134m NW	Deciduous woodland	Main habitat: DWOOD (INV > 50%)
3	155m S	Deciduous woodland	Main habitat: DWOOD (INV > 50%)
4	176m S	Deciduous woodland	Main habitat: DWOOD (INV > 50%)
5	198m E	No main habitat but additional habitats present	Additional: LFENS (FEP 50%); GQSIG (FEP 50%)
6	232m E	Deciduous woodland	Main habitat: DWOOD (INV > 50%); Additional: LFENS (FEP 50%); GQSIG (FEP 50%)

This data is sourced from Natural England.

13.2 Habitat Networks

Records within 250m

0

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

This data is sourced from Natural England.

13.3 Open Mosaic Habitat

Records within 250m

0

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

This data is sourced from Natural England.

13.4 Limestone Pavement Orders

Records within 250m

0

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



This data is sourced from Natural England.



14 Geology 1:10,000 scale - Availability



— Site Outline
Search buffers in metres (m)

- Full coverage
- Partial coverage
- No coverage

© Crown copyright and database rights 2025. Ordnance Survey licence 100035207

14.1 10k Availability

Records within 500m

1

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

Features are displayed on the Geology 1:10,000 scale - Availability map on [page 84](#) >

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

This data is sourced from the British Geological Survey.



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

14.2 Artificial and made ground (10k)

Records within 500m

0

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.

This data is sourced from the British Geological Survey.



Geology 1:10,000 scale - Superficial

14.3 Superficial geology (10k)

Records within 500m

0

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.

This data is sourced from the British Geological Survey.

14.4 Landslip (10k)

Records within 500m

0

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

This data is sourced from the British Geological Survey.



Geology 1:10,000 scale - Bedrock

14.5 Bedrock geology (10k)

Records within 500m

0

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.

This data is sourced from the British Geological Survey.

14.6 Bedrock faults and other linear features (10k)

Records within 500m

0

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.

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

2

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 88](#) >

ID	Location	Artificial	Superficial	Bedrock	Mass movement	Sheet No.
1	On site	Full	Full	Full	Full	EW037_gosforth_v4
2	163m N	Full	Full	Full	Full	EW028_whitehaven_v4

This data is sourced from the British Geological Survey.



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

15.2 Artificial and made ground (50k)

Records within 500m

0

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

This data is sourced from the British Geological Survey.

15.3 Artificial ground permeability (50k)

Records within 50m

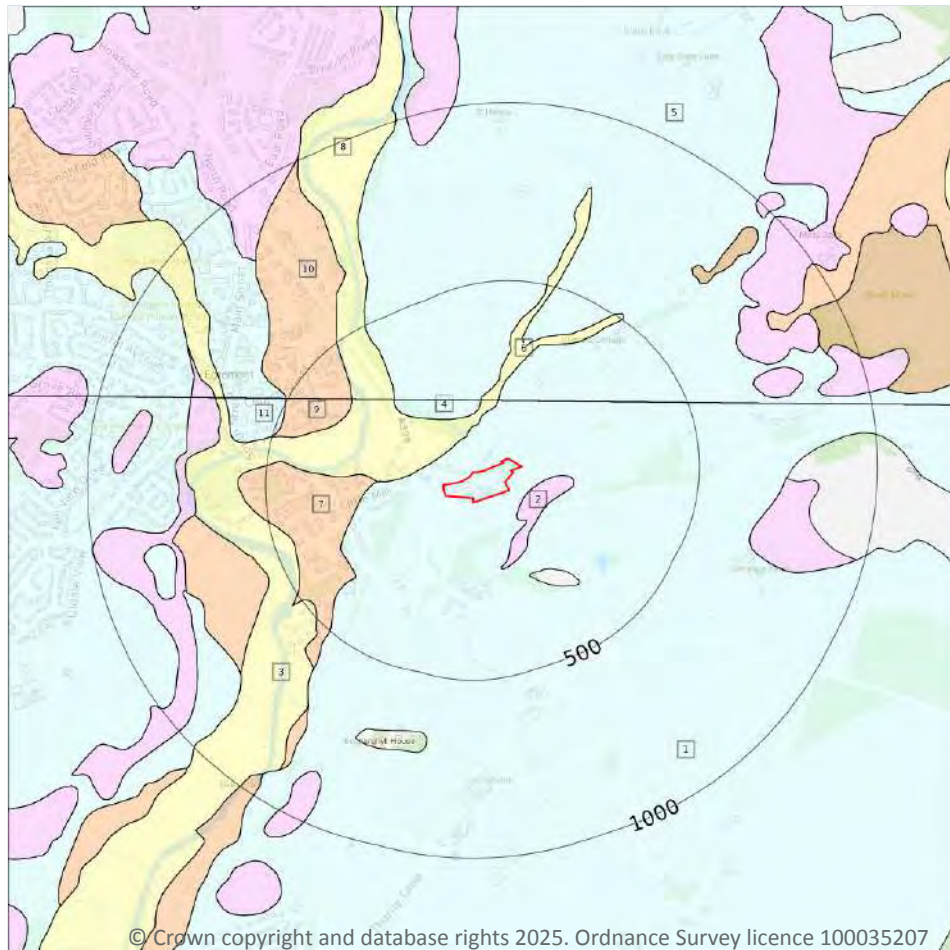
0

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

This data is sourced from the British Geological Survey.



Geology 1:50,000 scale - Superficial



— Site Outline

Search buffers in metres (m)

 Landslip (50k)

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

15.4 Superficial geology (50k)

Records within 500m

11

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 90](#) >

ID	Location	LEX Code	Description	Rock description
1	On site	TILLD-DMTN	TILL, DEVENSIAN	DIAMICTON
2	45m E	GFDUD-XSV	GLACIOFLUVIAL DEPOSITS, DEVENSIAN	SAND AND GRAVEL
3	71m W	ALV-XCZSV	ALLUVIUM	CLAY, SILT, SAND AND GRAVEL



ID	Location	LEX Code	Description	Rock description
4	155m N	TILLD-DMTN	TILL, DEVENSIAN	DIAMICTON
5	163m N	TILLD-DMTN	TILL, DEVENSIAN	DIAMICTON
6	166m N	ALV-XCZSV	ALLUVIUM	CLAY, SILT, SAND AND GRAVEL
7	186m W	RTDU-XSV	RIVER TERRACE DEPOSITS (UNDIFFERENTIATED)	SAND AND GRAVEL
8	277m NW	ALV-XCZSV	ALLUVIUM	CLAY, SILT, SAND AND GRAVEL
9	336m NW	RTDU-XSV	RIVER TERRACE DEPOSITS (UNDIFFERENTIATED)	SAND AND GRAVEL
10	353m NW	RTDU-XCSV	RIVER TERRACE DEPOSITS (UNDIFFERENTIATED)	CLAY, SAND AND GRAVEL
11	485m W	TILLD-DMTN	TILL, DEVENSIAN	DIAMICTON

This data is sourced from the British Geological Survey.

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

Location	Flow type	Maximum permeability	Minimum permeability
On site	Mixed	High	Low
45m E	Intergranular	Very High	High

This data is sourced from the British Geological Survey.

15.6 Landslip (50k)

Records within 500m

0

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

This data is sourced from the British Geological Survey.



15.7 Landslip permeability (50k)

Records within 50m

0

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

This data is sourced from the British Geological Survey.



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

93

ID	Location	LEX Code	Description	Rock age
7	164m N	FRLI-LMST	FRIZINGTON LIMESTONE FORMATION - LIMESTONE	WISEAN
10	301m NW	SBS-SDST	ST BEES SANDSTONE MEMBER - SANDSTONE	-
12	304m N	BUF-MDSD	BUTTERMERE FORMATION - MUDSTONE AND SANDSTONE	-
15	466m NW	FRLI-LMST	FRIZINGTON LIMESTONE FORMATION - LIMESTONE	WISEAN

This data is sourced from the British Geological Survey.

15.9 Bedrock permeability (50k)

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

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

Location	Flow type	Maximum permeability	Minimum permeability
On site	Mixed	High	Moderate

This data is sourced from the British Geological Survey.

15.10 Bedrock faults and other linear features (50k)

Records within 500m	8
----------------------------	----------

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 93](#) >

ID	Location	Category	Description
3	78m NE	FAULT	Fault, inferred, displacement unknown
6	163m N	FAULT	Fault, inferred, displacement unknown
8	164m N	FAULT	Fault, inferred, displacement unknown
9	201m SW	FAULT	Fault, inferred, displacement unknown
11	301m NW	FAULT	Fault, inferred, displacement unknown
13	304m N	FAULT	Fault, inferred, displacement unknown
14	411m SW	FAULT	Fault, inferred, displacement unknown

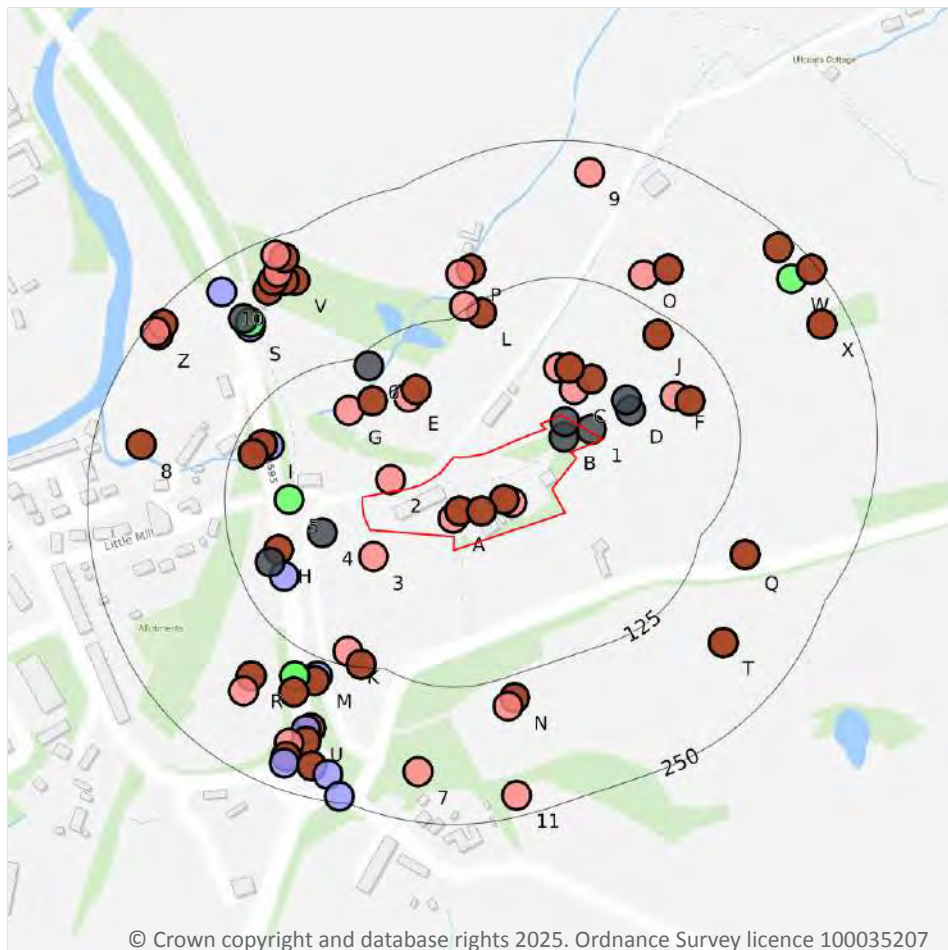


ID	Location	Category	Description
16	466m NW	FAULT	Fault, inferred, displacement unknown

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

89

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 96](#) >

ID	Location	Grid reference	Name	Length	Confidential	Web link
A	On site	301734 510283	BSC 630 BH30 CARLETON	193.0	N	896809 ↗
A	On site	301787 510298	FLORENCE MINE 6	248.11	N	896527 ↗
A	On site	301780 510300	FLORENCE M6	-1.0	N	897013 ↗



ID	Location	Grid reference	Name	Length	Confidential	Web link
A	On site	301740 510290	FLORENCE M30	-1.0	N	897018 ↗
A	On site	301760 510290	FLORENCE NO. 2	-1.0	N	897145 ↗
B	On site	301835 510357	BSC 298	-	Y	N/A
B	On site	301836 510371	BSC 297	-	Y	N/A
1	3m NE	301860 510364	BSC 299	-	Y	N/A
2	11m W	301677 510318	BH NO.33 FLORENCE (MILLOM)	196.0	N	896584 ↗
3	24m SW	301661 510248	BH NO.34 FLORENCE (MILLOM)	251.16	N	896585 ↗
C	26m NE	301844 510400	ULLBANK 34	112.77	N	896468 ↗
D	36m NE	301895 510381	BSC 296 BECKERMET	-	Y	N/A
4	41m W	301615 510270	South Egremont Groundwater Scheme BH109	-	Y	N/A
D	42m NE	301892 510391	BSC 294 AND 295 BECKERMET	-	Y	N/A
C	42m NE	301860 510410	ULLCOATS U34	-1.0	N	897021 ↗
C	43m NE	301830 510420	FLORENCE 36	116.04	N	896587 ↗
C	44m NE	301840 510420	BSC 585 ULLCOATS 35	107.0	N	896782 ↗
C	44m NE	301840 510420	ULLCOATS U35	-1.0	N	897183 ↗
5	67m W	301584 510300	A595 EGREMONT BYPASS 64	12.85	N	897273 ↗
E	68m NW	301693 510393	BSC 609 9 ULLBANK	163.0	N	896811 ↗
E	70m NW	301700 510400	FLORENCE M9	-1.0	N	897146 ↗
F	77m NE	301936 510394	ULLBANK 33	119.17	N	896467 ↗
G	80m NW	301639 510381	FLORENCE MINE 11	215.8	N	896530 ↗
H	84m W	301575 510254	A595 (T) EGREMONT BYPASS 65A	-1.0	N	896970 ↗
G	85m NW	301660 510390	FLORENCE M11	-1.0	N	897017 ↗
F	87m NE	301950 510390	ULLCOATS U33	-1.0	N	897182 ↗
H	89m SW	301580 510230	A595 EGREMONT BYPASS TP65A	3.0	N	897293 ↗
H	95m W	301567 510243	BSC 302	-	Y	N/A
I	97m W	301566 510349	A595 EGREMONT BYPASS TP63	2.7	N	897320 ↗
I	103m W	301560 510350	WYNDHAM W54	-1.0	N	897001 ↗
I	107m W	301552 510342	BSC 954 WYNDHAM W 54	-1.0	N	896844 ↗



ID	Location	Grid reference	Name	Length	Confidential	Web link
J	107m NE	301920 510450	BSC 586 ULLCOATS 36	108.0	N	896783 ↗
J	107m NE	301920 510450	ULLCOATS U36	-1.0	N	897184 ↗
K	112m SW	301638 510162	BH NO.7 FLORENCE	272.44	N	896528 ↗
6	113m NW	301657 510422	BSC 300	-	Y	N/A
L	114m N	301760 510470	FLORENCE M5	-1.0	N	897012 ↗
K	123m SW	301650 510150	FLORENCE M7	-1.0	N	897014 ↗
L	128m N	301744 510476	BH NO.5 ULLBANK	87.78	N	896460 ↗
M	141m SW	301610 510140	A595 EGREMONT BYPASS TP65	3.0	N	897321 ↗
N	145m S	301790 510120	FLORENCE NO. 1	-1.0	N	897028 ↗
M	146m SW	301608 510135	A595 (T) EGREMONT BYPASS 65	-1.0	N	896971 ↗
O	148m NE	301907 510505	ULLBANK 37	80.77	N	896469 ↗
M	149m SW	301590 510140	A595 EGREMONT BYPASS 66	12.6	N	897274 ↗
M	149m SW	301590 510140	A595 EGREMONT BYPASS 66A	12.6	N	897282 ↗
N	150m S	301784 510112	FLORENCE PIT 22	303.58	N	896354 ↗
P	155m N	301750 510510	FLORENCE M4	-1.0	N	897032 ↗
P	155m N	301741 510506	BH NO.4 ULLBANK	71.32	N	896459 ↗
M	163m SW	301589 510125	A595 (T) EGREMONT BYPASS 66	-1.0	N	896972 ↗
O	164m NE	301930 510510	ULLCOATS U37	-1.0	N	897185 ↗
Q	167m E	302000 510250	BSC 595 ULLCOATS BH45	267.0	N	896791 ↗
Q	167m E	302000 510250	ULLCOATS U45	-1.0	N	897095 ↗
R	171m SW	301550 510140	MILLOM XM28	-1.0	N	897068 ↗
S	185m NW	301549 510457	A595 EGREMONT BYPASS TP61A	3.3	N	897292 ↗
R	186m SW	301543 510126	EGREMONT M28	275.85	N	896749 ↗
T	187m SE	301980 510170	BSC 596 ULLCOATS BH46	290.0	N	896792 ↗
T	187m SE	301980 510170	ULLCOATS U46	-1.0	N	897096 ↗
U	188m SW	301604 510092	A595 (T) EGREMONT BYPASS 67	-1.0	N	896973 ↗
S	190m NW	301549 510462	A595 EGREMONT BYPASS 61	27.0	N	897272 ↗
U	191m SW	301600 510090	A595 EGREMONT BYPASS TP67	3.0	N	897322 ↗



ID	Location	Grid reference	Name	Length	Confidential	Web link
S	195m NW	301543 510465	BSC 301	-	Y	N/A
U	201m SW	301600 510080	FLORENCE M8	-1.0	N	897015 ↗
7	205m S	301702 510052	FLORENCE PIT 21	273.4	N	896352 ↗
8	206m W	301450 510350	WYNDHAM W53	-1.0	N	897000 ↗
V	207m NW	301590 510500	FLORENCE M2	-1.0	N	897030 ↗
V	207m NW	301565 510491	BSC 600 ULLBANK SHAFT	-1.0	N	896810 ↗
U	208m SW	301584 510078	BH NO.8 FLORENCE	268.81	N	896529 ↗
V	210m NW	301580 510500	BH 1 ULLBANK	92.02	N	896472 ↗
V	210m NW	301580 510500	FLORENCE M1	-1.0	N	897029 ↗
V	214m NW	301570 510500	ULLBANK SHAFT	-1.0	N	897133 ↗
V	219m NW	301574 510507	ULLBANK 2	87.58	N	896458 ↗
U	220m SW	301582 510066	A595 (T) EGREMONT BYPASS 69H	-1.0	N	896975 ↗
U	221m SW	301605 510058	A595 (T) EGREMONT BYPASS 68H	-1.0	N	896974 ↗
9	222m N	301858 510598	FLORENCE MINE 31	42.97	N	896582 ↗
W	225m NE	302042 510501	ULLBANK 26	23.24	N	896466 ↗
U	226m SW	301620 510050	A595 EGREMONT BYPASS TP68A	1.0	N	897294 ↗
X	226m NE	302070 510460	ULLCOATS 8	93.34	N	896761 ↗
X	226m NE	302070 510460	ULLCOATS U8	-1.0	N	897138 ↗
10	226m NW	301523 510489	A595 EGREMONT BYPASS TP62	3.0	N	897319 ↗
U	226m SW	301580 510060	A595 EGREMONT BYPASS TP69	1.0	N	897324 ↗
V	229m NW	301580 510520	FLORENCE M3	-1.0	N	897031 ↗
11	231m S	301792 510031	FLORENCE PIT 20	255.27	N	896353 ↗
V	235m NW	301572 510523	ULLBANK 3	86.23	N	896473 ↗
Y	237m NE	302030 510530	ULLCOATS BH16	21.71	N	896768 ↗
Y	237m NE	302030 510530	ULLCOATS U16	-1.0	N	897121 ↗
Z	237m NW	301465 510450	BSC 953 WYNDHAM W 53	-1.0	N	896843 ↗
Z	240m NW	301470 510460	WYNDHAM W14	-1.0	N	897100 ↗
Z	241m NW	301463 510453	BSC 914 WYNDHAM W 14	186.0	N	896834 ↗

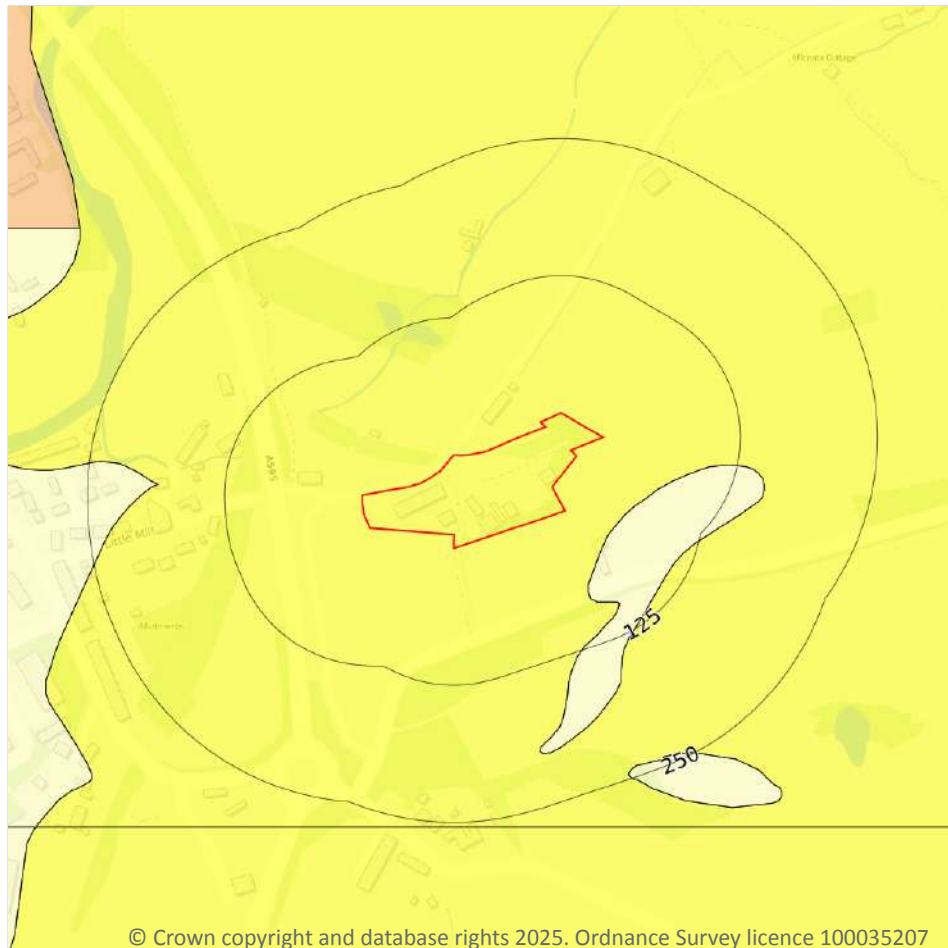


ID	Location	Grid reference	Name	Length	Confidential	Web link
U	244m SW	301630 510030	A595 EGREMONT BYPASS TP68	1.0	N	897323 ↗
W	245m NE	302060 510510	ULLCOATS U26	-1.0	N	897107 ↗

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).

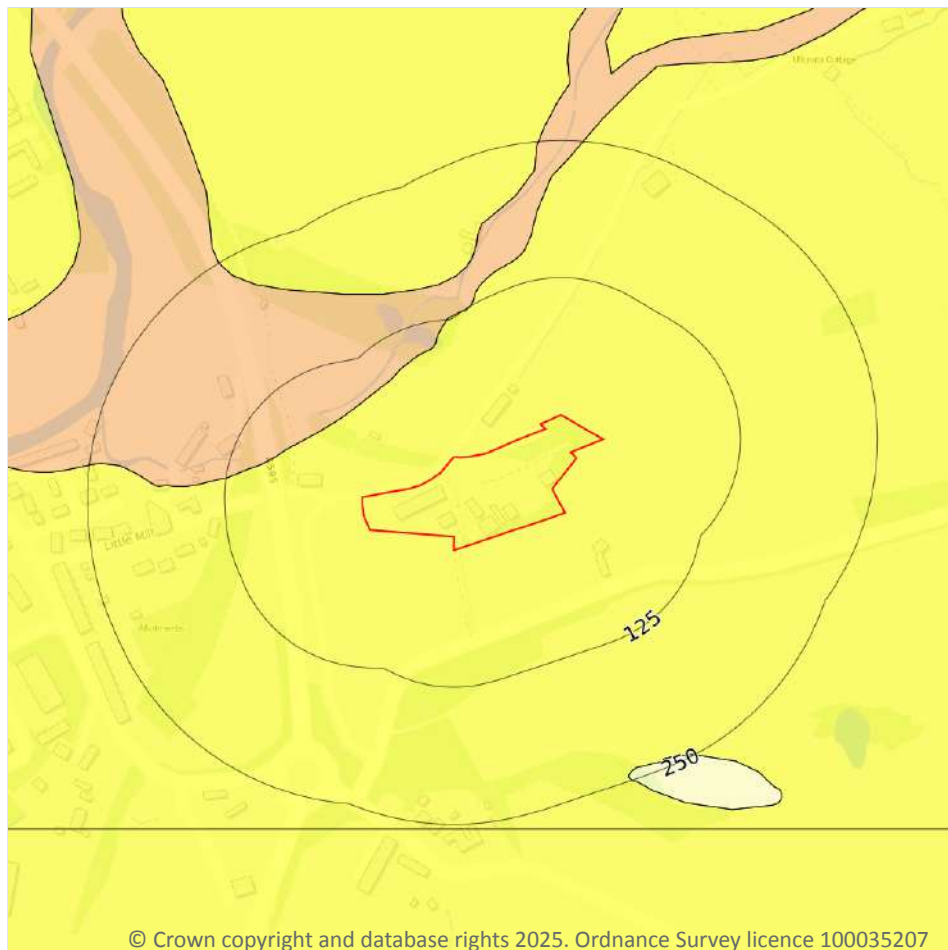
Features are displayed on the Natural ground subsidence - Shrink swell clays map on [page 101](#) >

Location	Hazard rating	Details
On site	Very low	Ground conditions predominantly low plasticity.
45m E	Negligible	Ground conditions predominantly non-plastic.

This data is sourced from the British Geological Survey.



Natural ground subsidence - Running sands



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

© Crown copyright and database rights 2025. Ordnance Survey licence 100035207

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.

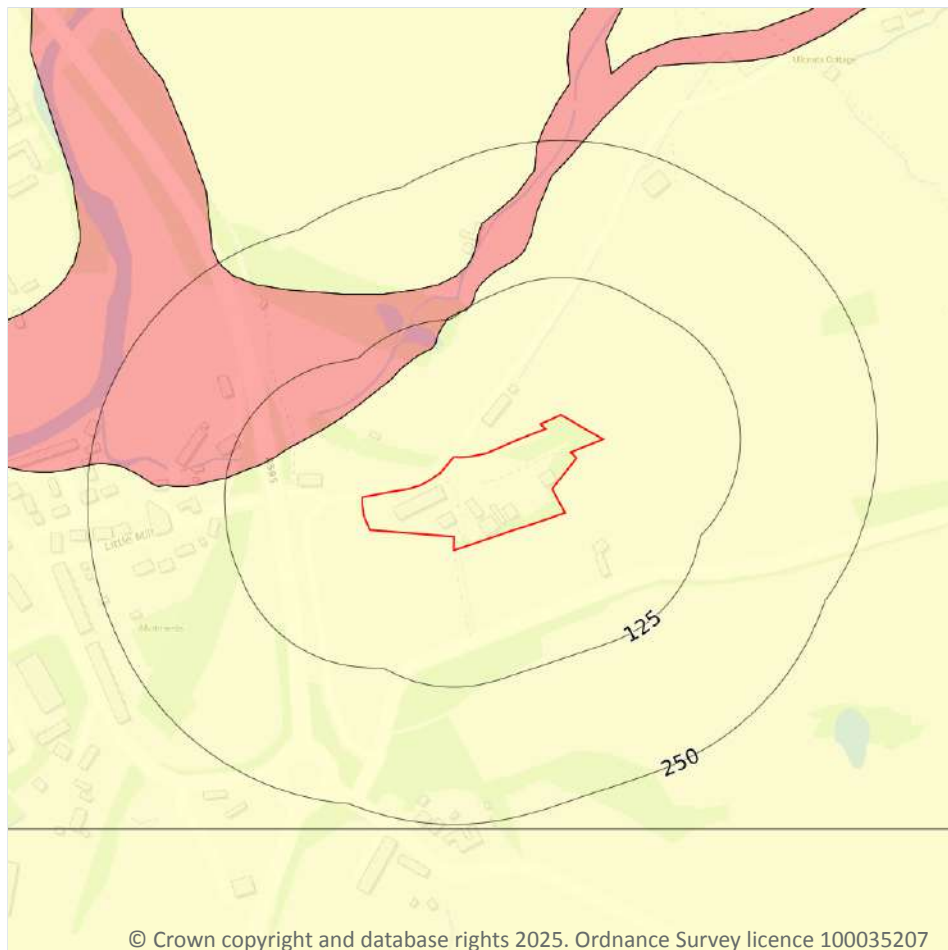
Features are displayed on the Natural ground subsidence - Running sands map on [page 102 >](#)

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

This data is sourced from the British Geological Survey.



Natural ground subsidence - Compressible deposits



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

17.3 Compressible deposits

Records within 50m

1

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

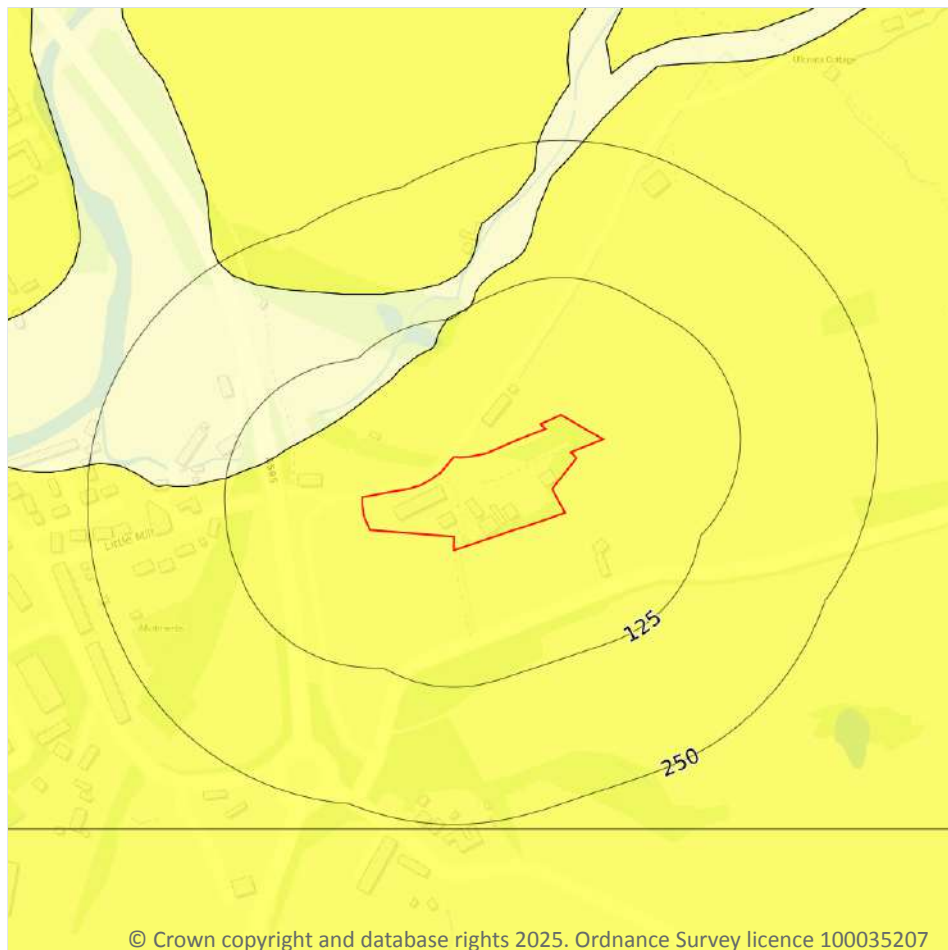
Features are displayed on the Natural ground subsidence - Compressible deposits map on [page 103](#) >

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.

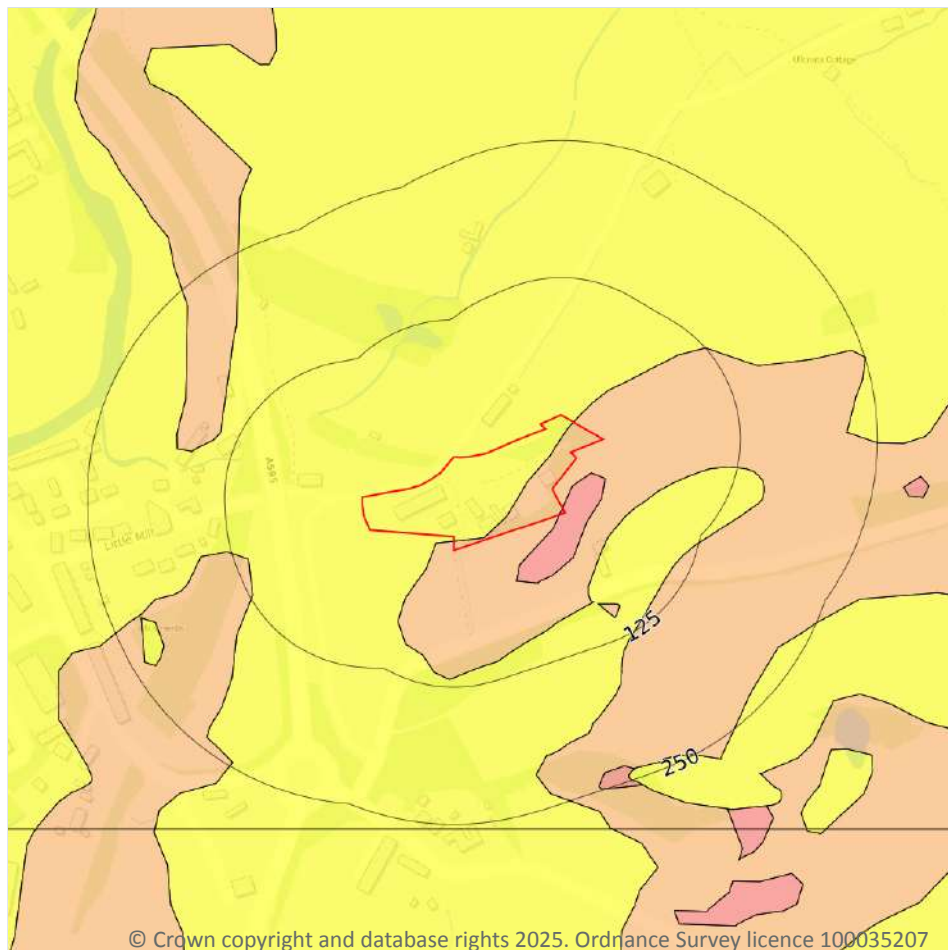
Features are displayed on the Natural ground subsidence - Collapsible deposits map on [page 104](#) >

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

This data is sourced from the British Geological Survey.



Natural ground subsidence - Landslides



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

17.5 Landslides

Records within 50m

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 105 >](#)

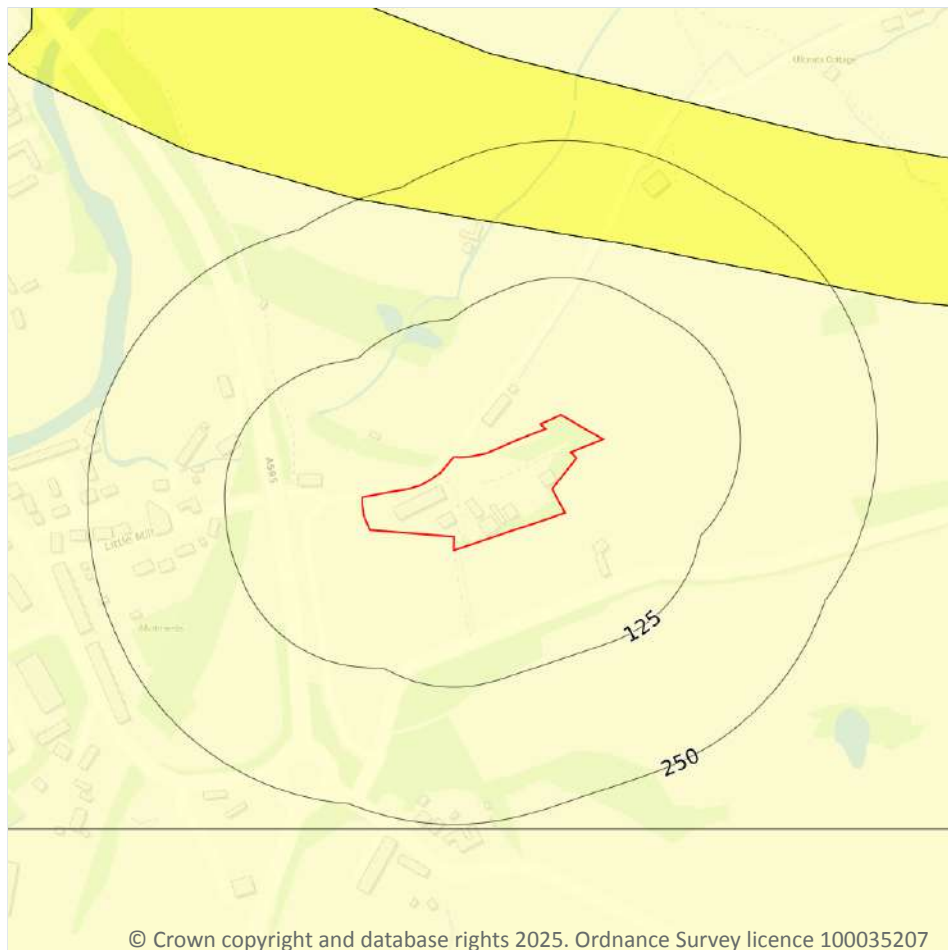
Location	Hazard rating	Details
On site	Very low	Slope instability problems are not likely to occur but consideration to potential problems of adjacent areas impacting on the site should always be considered.

Location	Hazard rating	Details
On site	Low	Slope instability problems may be present or anticipated. Site investigation should consider specifically the slope stability of the site.
On site	Moderate	Slope instability problems are probably present or have occurred in the past. Land use should consider specifically the stability of the site.

This data is sourced from the British Geological Survey.



Natural ground subsidence - Ground dissolution of soluble rocks



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

17.6 Ground dissolution of soluble rocks

Records within 50m

1

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

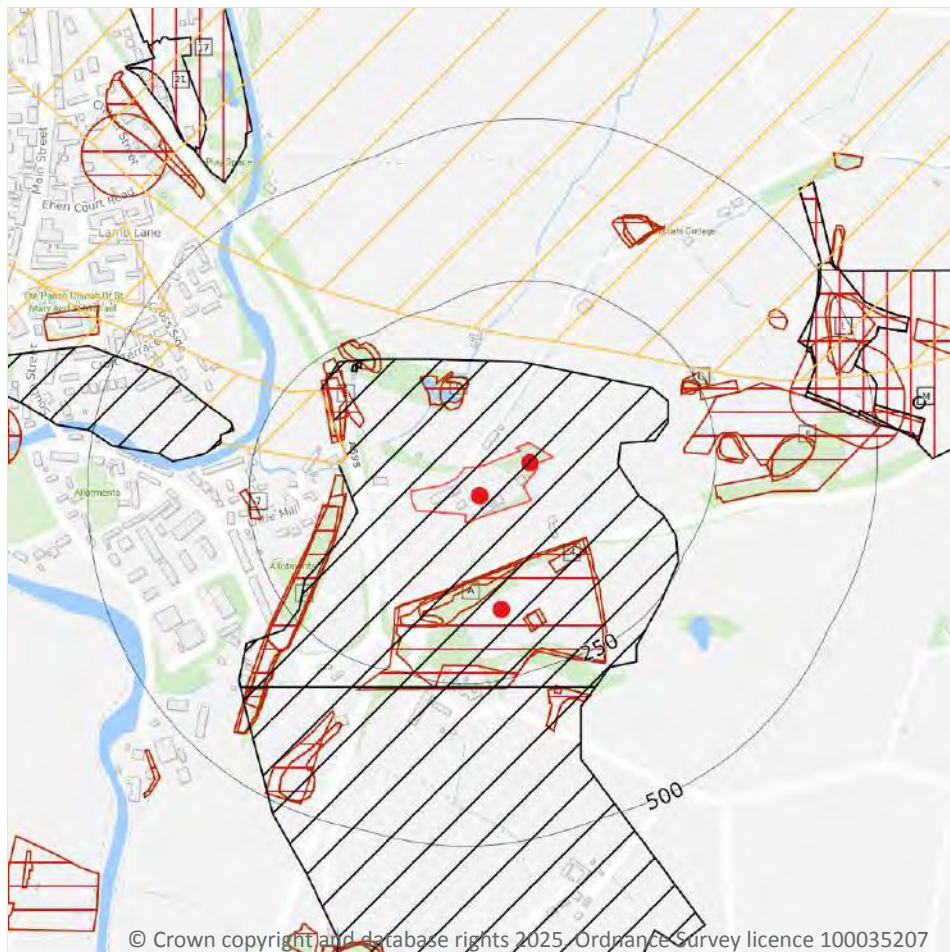
Features are displayed on the Natural ground subsidence - Ground dissolution of soluble rocks map on [page 107](#) >

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

This data is sourced from the British Geological Survey.



18 Mining and ground workings



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

18.1 BritPits

Records within 500m

3

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

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

ID	Location	Details	Description
1	On site	Name: Florence Mine Address: EGREMONT, Cumbria Commodity: Hematite (Iron Ore) Status: Ceased	Type: Working is wholly underground, access by shaft, adit or drift. Working may be termed Colliery, Mine, Drift Mine, Slant, Level, Adit or Ingoing Eye (Ingaun Ee - Scots) Status description: Site which, at date of entry, has ceased to extract minerals. May be considered as Closed by operator. May be considered to have Active, Dormant or Expired planning permissions by Mineral Planning Authority
2	On site	Name: Florence Mine Address: EGREMONT, Cumbria Commodity: Hematite (Iron Ore) Status: Ceased	Type: Working is wholly underground, access by shaft, adit or drift. Working may be termed Colliery, Mine, Drift Mine, Slant, Level, Adit or Ingoing Eye (Ingaun Ee - Scots) Status description: Site which, at date of entry, has ceased to extract minerals. May be considered as Closed by operator. May be considered to have Active, Dormant or Expired planning permissions by Mineral Planning Authority
B	146m S	Name: Florence Pit No. 1 Address: EGREMONT, Cumbria Commodity: Hematite (Iron Ore) Status: Ceased	Type: Working is wholly underground, access by shaft, adit or drift. Working may be termed Colliery, Mine, Drift Mine, Slant, Level, Adit or Ingoing Eye (Ingaun Ee - Scots) Status description: Site which, at date of entry, has ceased to extract minerals. May be considered as Closed by operator. May be considered to have Active, Dormant or Expired planning permissions by Mineral Planning Authority

This data is sourced from the British Geological Survey.

18.2 Surface ground workings

Records within 250m

23

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

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

ID	Location	Land Use	Year of mapping	Mapping scale
A	81m SE	Refuse Heap	1926	1:10560
B	81m SE	Iron Ore Pit	1926	1:10560
B	85m SE	Iron Ore Pit	1956	1:10560
A	86m SE	Refuse Heap	1956	1:10560



ID	Location	Land Use	Year of mapping	Mapping scale
C	92m NW	Refuse Heap	1956	1:10560
4	95m SE	Cuttings	1926	1:10560
D	100m W	Cuttings	1898	1:10560
C	101m N	Pond	1926	1:10560
D	104m W	Cuttings	1926	1:10560
D	113m W	Cuttings	1956	1:10560
E	127m NW	Cuttings	1926	1:10560
E	133m W	Cuttings	1956	1:10560
E	151m NW	Cuttings	1898	1:10560
B	163m SE	Reservoir	1926	1:10560
B	165m S	Reservoir	1956	1:10560
E	190m NW	Refuse Heap	1926	1:10560
E	197m NW	Refuse Heap	1956	1:10560
F	202m E	Unspecified Pit	1926	1:10560
G	220m NE	Unspecified Pit	1926	1:10560
G	221m NE	Refuse Heaps	1956	1:10560
G	226m NE	Refuse Heap	1926	1:10560
7	235m W	Unspecified Ground Workings	1926	1:10560
G	245m E	Cuttings	1926	1:10560

This is data is sourced from Ordnance Survey/Groundsure.

18.3 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 and ground workings map on [page 109 >](#)

ID	Location	Land Use	Year of mapping	Mapping scale
E	203m NW	Unspecified Old Shaft	1956	1:10560



ID	Location	Land Use	Year of mapping	Mapping scale
E	206m NW	Unspecified Old Shaft	1926	1:10560
13	400m E	Iron Ore Mine	1956	1:10560
L	404m E	Iron Ore Mine	1926	1:10560
17	557m NW	Unspecified Mine	1898	1:10560
M	562m E	Unspecified Mine	1898	1:10560
21	621m NW	Unspecified Mine	1926	1:10560
-	965m SE	Iron Ore Mine	1951	1:10560
-	965m SE	Unspecified Mine	1971	1:10000
-	965m NW	Unspecified Mine Quarry	1898	1:10560
-	967m SE	Unspecified Disused Mine	1994	1:10000
-	979m SE	Unspecified Mine	1926	1:10560

This is data is sourced from Ordnance Survey/Groundsure.

18.4 Underground mining extents

Records within 500m

0

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

This data is sourced from Groundsure.

18.5 Historical Mineral Planning Areas

Records within 500m

0

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

This data is sourced from the British Geological Survey.



18.6 Non-coal mining

Records within 1000m

7

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

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

ID	Location	Name	Commodity	Class	Likelihood
3	On site	Not available	Iron Ore (Non Vein)	E	Underground mining is known or considered likely within or very close to the area. The location, extent and nature of mining should be considered in any site investigation. Potential for difficult ground conditions should be considered.
5	113m W	Not available	Iron Ore (Non Vein)	B	Underground mine workings may have occurred in the past or current mines may be working at significant depth to modern engineering standards. Potential for difficult ground conditions are unlikely and are at a level where they need not be considered.
6	160m N	Not available	Vein Mineral	B	Underground mine workings may have occurred in the past or current mines may be working at significant depth to modern engineering standards. Potential for difficult ground conditions are unlikely and are at a level where they need not be considered.
8	254m S	Not available	Iron Ore (Non Vein)	E	Underground mining is known or considered likely within or very close to the area. The location, extent and nature of mining should be considered in any site investigation. Potential for difficult ground conditions should be considered.
9	290m W	Not available	Iron Ore (Non Vein)	E	Underground mining is known or considered likely within or very close to the area. The location, extent and nature of mining should be considered in any site investigation. Potential for difficult ground conditions should be considered.
14	466m NW	Not available	Vein Mineral	B	Underground mine workings may have occurred in the past or current mines may be working at significant depth to modern engineering standards. Potential for difficult ground conditions are unlikely and are at a level where they need not be considered.
-	784m W	Not available	Iron Ore (Non Vein)	E	Underground mining is known or considered likely within or very close to the area. The location, extent and nature of mining should be considered in any site investigation. Potential for difficult ground conditions should be considered.

This data is sourced from the British Geological Survey.



18.7 JPB mining areas

Records on site

0

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

This data is sourced from Johnson Poole and Bloomer.

18.8 The Coal Authority non-coal mining

Records within 500m

0

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

This data is sourced from The Coal Authority.

18.9 Researched mining

Records within 500m

7

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

Location	Mineral type
On site	Unspecified
On site	Unspecified
33m NE	Unspecified
123m NW	Unspecified
149m N	Unspecified
290m NW	Unspecified
453m NE	Unspecified

This data is sourced from Groundsure.



18.10 Mining record office plans

Records within 500m

12

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

Location	Mineral
On site	Iron ore
On site	Iron ore
On site	Iron ore
On site	Iron ore
On site	Iron ore
47m NE	Iron ore
47m N	Hematite
72m S	Iron ore
199m NE	Iron ore
334m NW	Iron ore
354m S	Iron ore
451m NW	Iron ore

This data is sourced from Groundsure.

18.11 BGS mine plans

Records within 500m

11

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

Location	Mineral
17m N	Iron ore
43m SE	Ironstone
127m E	Ironstone
128m S	Iron ore



Location	Mineral
168m E	Ironstone
260m E	Ironstone
326m W	Iron ore
330m W	Iron ore
364m E	Iron ore
373m E	Ironstone
452m E	Iron ore

This data is sourced from Groundsure.

18.12 Coal mining

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

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

This data is sourced from the Coal Authority.

18.13 Brine areas

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

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

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

18.14 Gypsum areas

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

Generalised areas that may be affected by gypsum extraction.

This data is sourced from British Gypsum.



18.15 Tin mining

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

Generalised areas that may be affected by historical tin mining.

This data is sourced from Groundsure.

18.16 Clay mining

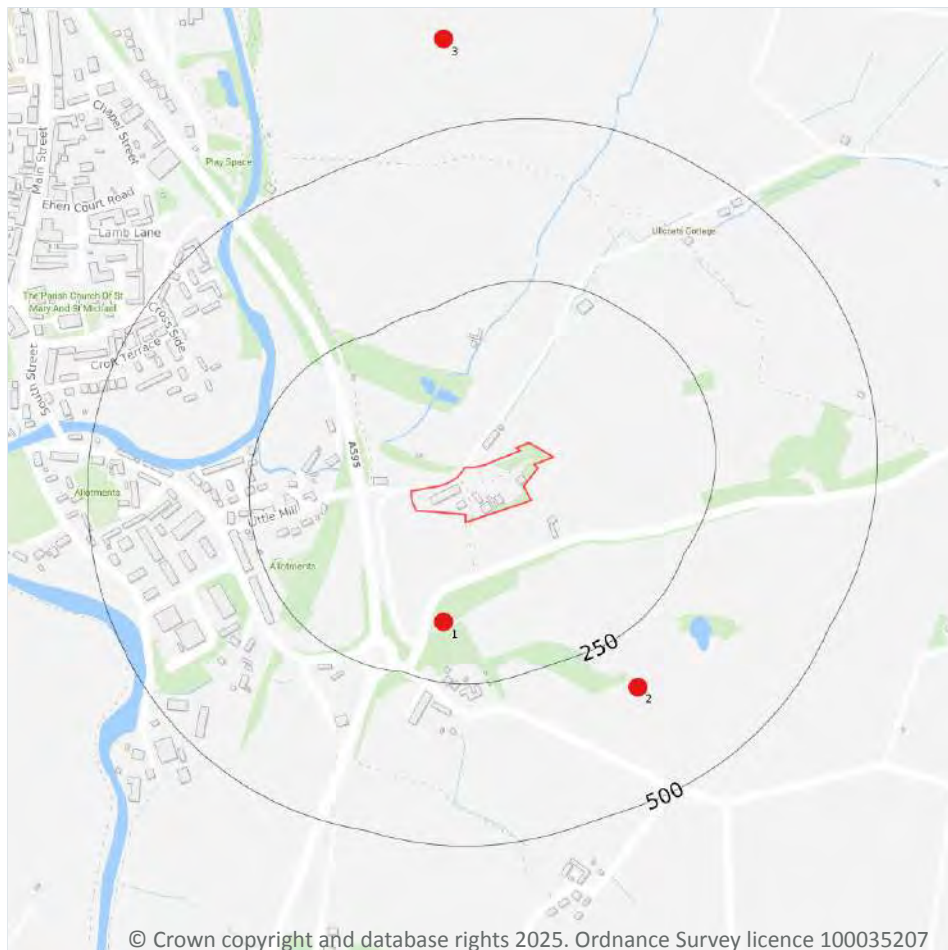
Records on site	0
-----------------	---

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

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



19 Ground cavities and sinkholes



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

19.1 Natural cavities

Records within 500m

0

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

This data is sourced from Stantec UK Ltd.

19.2 Mining cavities

Records within 1000m

4

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

Features are displayed on the Ground cavities and sinkholes map on [page 118](#) >

ID	Location	Mine Address	Mineral	Data source	Publisher
1	158m S	Florence Mine, Cumbria	Hematite	CATALOGUE OF MINING INFORMATION (OTHER THAN COAL, FIRECLAY & SLATE) FOR THE L.D	BGS
2	332m SE	Ullbank Mine, Cumbria	Hematite	CATALOGUE OF MINING INFORMATION (OTHER THAN COAL, FIRECLAY & SLATE) FOR THE L.D	BGS
3	637m N	St Helena, Cumbria	Bornite, Chalcocite, Copper, Malachite, Native Copper, Tetrahedrite	SHEET 26, WOLSINGHAM, 1:50 000	BRITISH GEOLOGICAL SURVEY
-	788m S	Florence, Cumbria	Hematite	DIRECTORY OF MINES AND QUARRIES	BRITISH GEOLOGICAL SURVEY

This data is sourced from Stantec UK Ltd.

19.3 Reported recent incidents

Records within 500m

0

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

This data is sourced from Groundsure.



19.4 Historical incidents

Records within 500m

0

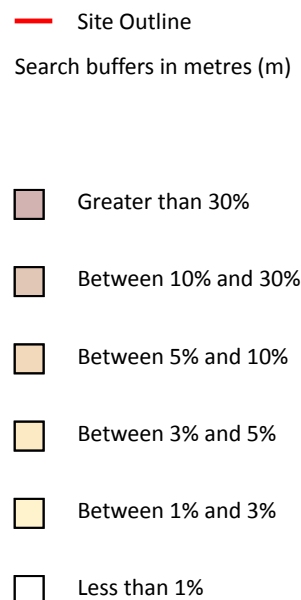
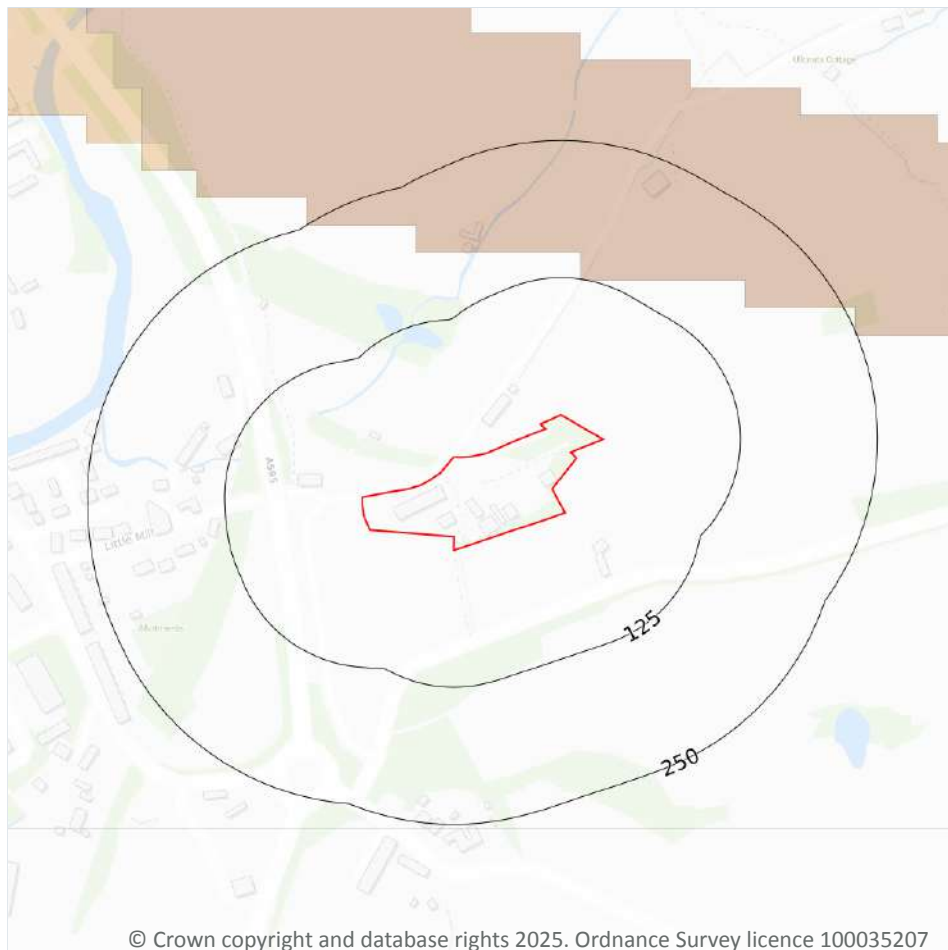
This dataset comprises an extract of 1:10,560, 1:10,000, 1:2,500 and 1:1,250 scale historical Ordnance Survey maps held by Groundsure, dating back to the 1840s. It shows shakeholes, deneholes and other 'holes' as noted on these maps. Dene holes are medieval chalk extraction pits, usually comprising a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

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

This data is sourced from Groundsure.



20 Radon



© Crown copyright and database rights 2025. Ordnance Survey licence 100035207

20.1 Radon

Records on site

1

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

Features are displayed on the Radon map on [page 121](#) >

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



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



21 Soil chemistry

21.1 BGS Estimated Background Soil Chemistry

Records within 50m

2

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

Location	Arsenic	Bioaccessible Arsenic	Lead	Bioaccessible Lead	Cadmium	Chromium	Nickel
On site	15 mg/kg	No data	100 mg/kg	60 mg/kg	1.8 mg/kg	60 - 90 mg/kg	15 mg/kg
45m E	15 mg/kg	No data	100 mg/kg	60 mg/kg	1.8 mg/kg	90 - 120 mg/kg	15 mg/kg

This data is sourced from the British Geological Survey.

21.2 BGS Estimated Urban Soil Chemistry

Records within 50m

0

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

This data is sourced from the British Geological Survey.

21.3 BGS Measured Urban Soil Chemistry

Records within 50m

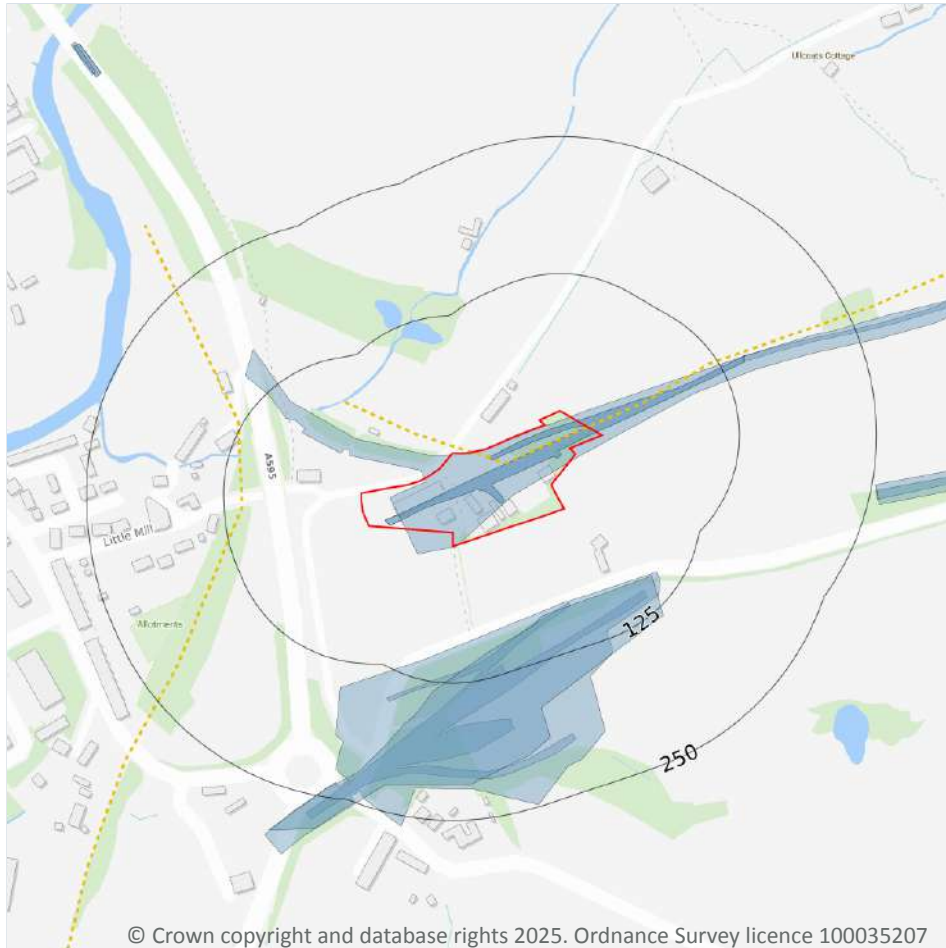
0

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

This data is sourced from the British Geological Survey.



22 Railway infrastructure and projects



- Site Outline
- Search buffers in metres (m)
- C2 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

22.1 Underground railways (London)

Records within 250m

0

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

This data is sourced from publicly available information by Groundsure.

22.2 Underground railways (Non-London)

Records within 250m

0

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



This data is sourced from publicly available information by Groundsure.

22.3 Railway tunnels

Records within 250m

0

Railway tunnels taken from contemporary Ordnance Survey mapping.

This data is sourced from the Ordnance Survey.

22.4 Historical railway and tunnel features

Records within 250m

7

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

Features are displayed on the Railway infrastructure and projects map on [page 124 >](#)

Location	Land Use	Year of mapping	Mapping scale
On site	Mineral Railway Sidings	1969	2500
On site	Mineral Railway Sidings	1963	2500
On site	Railway Sidings	1956	10560
81m SE	Tramway Sidings	1926	10560
82m SE	Railway Sidings	1924	2500
85m SE	Railway Sidings	1956	10560
145m NE	Mineral Railway Sidings	1962	2500

This data is sourced from Ordnance Survey/Groundsure.

22.5 Royal Mail tunnels

Records within 250m

0

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

This data is sourced from Groundsure/the Postal Museum.



22.6 Historical railways

Records within 250m**2**

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

Features are displayed on the Railway infrastructure and projects map on [page 124 >](#)

Location	Description
On site	Abandoned
109m W	Abandoned

This data is sourced from OpenStreetMap.

22.7 Railways

Records within 250m**0**

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

This data is sourced from Ordnance Survey and OpenStreetMap.

22.8 Crossrail 2

Records within 500m**0**

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

This data is sourced from publicly available information by Groundsure.

22.9 HS2

Records within 500m**0**

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

This data is sourced from HS2 Ltd.



Data providers

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

Terms and conditions

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



APPENDIX 4



SPIRE
GEOTECHNICAL
Geologists & Site Investigation
Specialists

27 MAY 01 SW 178

[illegible]

Carry Forward 45 + 1



72NE273 NY01SW178
JOURNAL OF NO. 6. BOREHOLE.

Drill Forward.

Shale	3	-	0	655	-	7	
Red and Grey Lime	45	-	5	658	-	7	
Mottled Shale	1	-	7	703	-	10	broken, with shale jbs.
Red Grey Lime	1	-	0	705	-	5	
Lime & Shale mixed	2	-	9	706	-	5	
Red Grey Lime	27	-	9	709	-	2	
Gritty Limestone	8	-	6	736	-	11	jointy
Grey Lime	30	-	11	743	-	7	
Red Grey Gritty Lime	21	-	2	776	-	6	poor and jointy
" " Sandstone	9	-	0	797	-	8	
Purple Shale	7	-	4	806	-	8	245.87
	814	-	0	814	-	0	

-0-0-0-0-0-0-0-0-0-0-0-0-0-0-0-

797
655
122

797
636
160



(11032) W1.30470/0870 10,000 3/39 A.A.E.W.L.M. Co.485

RECORD OF SHAFT OR BORE FOR MINERALS

NY 01 SW 235

County Cumb.

6" Quarter Sheet

1" N.S. Geol. Map

1" O.S. Geol. Map

Whether Confidential

Name and Number of Shaft or Bore given by Geological Survey:

No. 33 bore

Name and Number given by owner (if different from above):

Town or Village Date of sinking

Exact site near pier on river, agreement

A sketch-map or tracing from a large-scale map is desirable.

Purpose for which made

Level at which bore commenced relative to O.D. c. 50m AOD If not down bore, state if horizontal or up

Made by for Messrs.

Information from Date received

Specimens Dip of strata

GEOLOGICAL CLASSIFICATION	DESCRIPTION	THICKNESS		DEPTH	
<u>Drift</u>					
	Gravel and boulders	1	0	10.67	35
<u>ot. Bed. sandstone</u>					
	Red sandstone	30	0		65
	Red sandy shale	5	0		70
	Red sandstone (Very broken)	5	0		75
	Red sandstone	9	0		84
	Sandy shale	2	0		86
	Red sandy shale	2	0		88
	Red sandstone	27	0		115
	Red sandstone with shale flies	10	0		125
	Red sandstone	21	0		146
	Red sandstone with shale flies	10	0		156
	Red shaly sandstone (Badly broken)	10	0		166
	Red sandstone with shale flies	4	0		170
	Red sandstone with shale flies (Very broken)	10	0		180
	Red shale	10	0		190
	Sandy shale	6	0		196
	Sandstone	2	0		198
	Red shale with sandstone flies	8	0		206
	Red sandstone with shale flies (Very broken)	8	0		214
	Red sandstone (Very broken)	3	0		217
	Red shale with sandstone flies (Very broken)	10	0		227
	Red sandstone with shale flies	10	0		237
	Hard red sandstone	1	6		238
	Red sandstone with red shale flies	8	6		247
	Red sandstone with shale flies	10	0		257
	Hard red sandstone	5	0		262
	Hard red sandstone with shale flies	12	0		274
	Red sandstone and shale (Very broken)	6	0		280
	Red shale with sandstone flies	6	0		286
	Red sandy shale	14	0		300
	Red shale	18	0		318
	Conglomerate (Soft and broken)	5	0		323

GEOLOGICAL SURVEY AND MUSEUM,
SOUTH KENSINGTON,
LONDON, S.W.7.

G.S.M. Office
File No.

Site marked
on 6" Map by

Site marked
on 1" Map by

carried forward .. /



(*11088) WT30370/0070 10.000 0/29 A.A.E.W.Ltd. Gp.605

Name and Number of Shaft or Bore given by Geological Survey:

NY 01 SW 235

No. 35. Leno, near Worsam Mine, 10/10/30.

GEOLOGICAL CLASSIFICATION	DESCRIPTION	THICKNESS		DEPTH	
	Brought forward			323	0
	soft Red shale	11	0	324	0
	Program:-				
	soft Conglomerate	3	0	337	0
	Red shaley Conglomerate	6	0	343	0
	Conglomerate	52	0	395	0
	Conglomerate	36	0	431	0
	Conglomerate (Very broken)	9	0	440	0
	Conglomerate	6	0	446	0
	Conglomerate (Very broken)	15	0	461	0
	Conglomerate (broken)	5	0	466	0
	Conglomerate (broken)	9	0	475	0
	soft Conglomerate	11	0	486	0
	Conglomerate (broken)	8	0	494	0
	Conglomerate	13	0	507	0
	Limestone	6	0	513	0
	Red Limestone (broken)	4	0	517	0
	Red Limestone	6	0	523	0
	Red Limestone (broken)	10	0	533	0
	Limestone	6	0	539	0
	Hard Red and Grey Limestone (Very broken)	4	0	543	0
	Limestone (Very broken)	5	0	548	0
	Limestone	1	0	549	0
	Limestone (Very broken)	5	0	554	0
	Limestone (broken)	5	0	559	0
	Limestone (broken)	13	0	572	0
	Limestone (Very broken)	3	0	575	0
	Hard Grey Limestone	16	0	591	0
	Grey Limestone (broken)	4	0	595	0
	Limestone (Very broken)	4	0	599	0
	Hard Grey Limestone	5	0	604	0
	Limestone (broken)	12	0	616	0
	Chert	6	0	616	6
	Limestone (Very broken)	7	6	624	0
	Limestone (broken)	10	0	634	0
	Limestone (Very broken)	9	0	643	0
	Bore examined 11. 5. 41.				
	Conclusion:-				
	at base limestone:-				
	Normal except for grey limestone from c. 54/6 to 52/6.				
	Program:-				
	Normal except for grey limestone between c. 430 ft. and 436 ft.				
	Barytes also in program.				
	Carboniferous Limestone. 7th Limestone.				
	At 538 ft. there is 1 ft. of purple shale.				
	At 537 ft. 6 ins. there is a 3 inch band of purple shale.				

continued ..

(*11932) Wt.50370/0370 10.000 9/90 A.& E.W.Ltd. Gp.685

Name and Number of Shaft or Bore given by Geological Survey: **MV**

No. 33 Bora. Near Florence Mines. Armonia

NY 01 SW 235

[illegible]



(1932) Wt. 90370/0370 10,000 9/89 A & E.W.L.A., Co. 665

72 NE / 351

7

RECORD OF SHAFT OR BORE FOR MINERAL

NY 01 SW 235

County Cumb.

Quarter 72 NE

1" N.S. Geol. Map

1" O.S. Geol. Map

Whether Confidential

Name and Number of Shaft or Bore given by Geological Survey:

No. 33 Bore

Name and Number given by owner (if different from above):

Town or Village Date of sinking

Exact site Near Florence mines, N. of Great

A sketch-map or tracing from a large-scale map is desirable.

Purpose for which made

Level at which bore commenced relative to O.D. If not down bore, state if horizontal or up

Made by for Messrs.

Information from Date received

Specimens Dip of strata

GEOLOGICAL CLASSIFICATION	DESCRIPTION	THICKNESS		DEPTH	
	<u>Drift:-</u>				
	Gravel and Boulders	1	0	35	0
	<u>St. Bees sandstone:-</u>				
	Red sandstone	30	0	65	0
	Red sandy shale	5	0	70	0
	Red sandstone (Very broken)	5	0	75	0
	Red sandstone	9	0	84	0
	Sandy shale	2	0	86	0
	Red sandy shale	2	0	88	0
	Red sandstone	27	0	115	0
	Red sandstone with shale flies	10	0	125	0
	Red sandstone	21	0	146	0
	Red sandstone with shale flies	10	0	156	0
	Red shaley sandstone (Badley Broken)	10	0	166	0
	Red sandstone with shale flies	4	0	170	0
	Red sandstone with shale flies (Very Broken)	10	0	180	0
	Red shale	10	0	190	0
	Sandy shale	6	0	196	0
	Sandstone	2	0	198	0
	Red shale with sandstone flies	8	0	206	0
	Red sandstone with shale flies (Very Broken)	8	0	214	0
	Red sandstone (Very broken)	3	0	217	0
	Red shale with sandstone flies (Very Broken)	10	0	227	0
	Red sandstone with shale flies	10	0	237	0
	Hard red sandstone	1	6	238	0
	Red sandstone with red shale flies	8	6	247	0
	Red sandstone with shale flies	10	0	257	0
	Hard red sandstone	5	0	262	0
	Hard red sandstone with shale flies	12	0	274	0
	Red sandstone and shale (Very Broken)	6	0	280	0
	Red shale with sandstone flies	6	0	286	0
	Red sandy shale	14	0	300	0
	Red shale	18	0	318	0
	Conglomerate (Soft and Broken)	5	0	323	0

GEOLOGICAL SURVEY AND MUSEUM,
SOUTH KENSINGTON,
LONDON, S.W.7.

G.S.M. Office
File No.

Site marked
on 6" Map by

Site marked
on 1" Map by

carried forward .. /



(*11982) WL30350/0070 10,000 9/39 A.S. B.W.Ltd. Gp.685

Name and Number of Shaft or Bore given by Geological Survey:

NY 01 SW 235

No. 33 Bore, near Florence Mines, Kent.

GEOLOGICAL CLASSIFICATION	DESCRIPTION	THICKNESS		DEPTH	
	Brought forward			323	0
	Soft Red Shale	11	0	324	0
	<u>Brookram:-</u>				
	Soft Conglomerate	3	0	337	0
	Red Shale Conglomerate	6	0	343	0
	Conglomerate	52	0	395	0
	Conglomerate	36	0	431	0
	Conglomerate (Very Broken)	9	0	440	0
	Conglomerate	6	0	446	0
	Conglomerate (Very Broken)	15	0	461	0
	Conglomerate (Broken)	5	0	466	0
	Conglomerate (Broken)	9	0	475	0
	Soft Conglomerate	11	0	486	0
	Conglomerate (Broken)	8	0	494	0
	Conglomerate	13	0	507	0
	Limestone	6	0	513	0
	Red Limestone (Broken)	4	0	517	0
	Red Limestone	6	0	523	0
	Red Limestone (Broken)	10	0	533	0
	Limestone	6	0	539	0
	Hard Red and Grey Limestone (Very Broken)	4	0	543	0
	Limestone (Very Broken)	5	0	548	0
	Limestone	1	0	549	0
	Limestone (Very Broken)	5	0	554	0
	Limestone (Broken)	5	0	559	0
	Limestone (Broken)	13	0	572	0
	Limestone (Very Broken)	3	0	575	0
	Hard Grey Limestone	16	0	591	0
	Grey Limestone (Broken)	4	0	595	0
	Limestone (Very Broken)	4	0	599	0
	Hard Grey Limestone	5	0	604	0
	Limestone (Broken)	12	0	616	0
	Chert		6	616	6
	Limestone (Very Broken)	7	6	624	0
	Limestone (Broken)	10	0	634	0
	Limestone (Very Broken)	9	0	643	0

Cores examined 18. 5. 48.

GEOLOGIST'S NOTES

At base sandstone:-

Normal except for grey sandstone from c. 90/6 to 92/6.

Brookram:-

Normal except for grey Brookram between c. 430 ft. and 436 ft.

Barytes also in Brookram.

Carboniferous Limestone. 7th Limestone.

At 538 ft. there is 1 ft. of purple shale.

At 557 ft. 6 ins. there is a 3 inch band of purple shale.

continued ...

(*1932) Wt.3/1370/0370 10.000 9/39 A.& E.W.Ltd. Gp.685

Name and Number of Shaft or Bore given by Geological

No. 33 Aug.

Dear Florence Jones, Dear Sir,

NY 01 SW 235

87 Quarter Shec

c b4



(*11032) WL30370/0370 10,000 9/89 A.E.E.W.L.L. Gp.655

Name and Number of Shaft or Bore given by Geological

No. 33 Bore, near Florence Minns, Agremont.

NY 01 SW 235
6" Quarter Sheet

GEOLOGICAL CLASSIFICATION	DESCRIPTION	THICKNESS		DEPTH	
	Brought forward			323	0
	Soft Red Shale	11	0	324	0
	<u>Brockram:-</u>				
	Soft Conglomerate	3	0	337	0
	Red Shaley Conglomerate	6	0	343	0
	Conglomerate	52	0	395	0
	Conglomerate	36	0	431	0
	Conglomerate (Very Broken)	9	0	440	0
	Conglomerate	6	0	446	0
	Conglomerate (Very Broken)	15	0	461	0
	Conglomerate (Broken)	5	0	466	0
	Conglomerate (Broken)	9	0	475	0
	Soft Conglomerate	11	0	486	0
	Conglomerate (Broken)	8	0	494	0
	Conglomerate	13	0	507	0
	Limestone	6	0	513	0
	Red Limestone (Broken)	4	0	517	0
	Red Limestone	6	0	523	0
	Red Limestone (Broken)	10	0	533	0
	Limestone	6	0	539	0
	Hard Red and Grey Limestone (Very Broken)	4	0	543	0
	Limestone (Very Broken)	5	0	548	0
	Limestone	1	0	549	0
	Limestone (Very Broken)	5	0	554	0
	Limestone (Broken)	5	0	559	0
	Limestone (Broken)	13	0	572	0
	Limestone (Very Broken)	3	0	575	0
	Hard Grey Limestone	16	0	591	0
	Grey Limestone (Broken)	4	0	595	0
	Limestone (Very Broken)	4	0	599	0
	Hard Grey Limestone	5	0	604	0
	Limestone (Broken)	12	0	616	0
	Chert		6	616	6
	Limestone (Very Broken)	7	6	624	0
	Limestone (Broken)	10	0	634	0
	Limestone (Very Broken)	9	0	643	0

Cores examined 18. 5. 48.

GEOLOGIST'S NOTES

St. Bees Sandstone:-

Normal except for grey sandstone from c. 90/6 to 92/6.

Brockram:-

Normal except for grey Brockram between c. 430 ft. and 436 ft.

Barytes also in Brockram.

Carboniferous limestone. 7th Limestone.

At 538 ft. there is 1 ft. of purple shale.

At 557 ft. 6 ins. there is a 3 inch band of purple shale.

continued ..,

(11959) Wt.80370/0370 10,000 9/89 A.& E.W.Ltd. Cp.485

Name and Number of Shaft or Bore given by Geological Survey

No. 33 Bore. Near Florence Mines, Agrement.

NY 01 34235
6" Quarter Sheet

6" Quarter Sheet

[illegible]

REPORT NY 01 SW 235

ANDREW KYLE, Limited, Mineral Bore,
Airyknowe, GALSTON.

15th January, 1948.

19

REMARKS	STRATA	Thickness of Beds			Total Depth		
		Faths.	Feet	Inches	Faths.	Feet	Inches
	<u>Messrs. The Millem & Askan Hematite Iron Co., Ltd.</u>						
	<u>33 GAS.</u>						
	<u>No. 3 Bore - Near Florence Mines - E O R B & C M T.</u>						
		D/P			43	4	-
	Hard Red Sandstone with Shale Flies	2	-	-	45	4	-
	Red Sandstone and Shale (Very Broken)	1	-	-	46	4	-
	Red Shale with Sandstone Flies	1	-	-	47	4	-
	Red Sandy Shale	2	2	-	50	-	-
	Red Shale	3	-	-	53	-	-
FOR ANDREW KYLE LIMITED,							
<i>Edgewood</i>							

ANDREW KYLE, Limited, Mineral Boreers,
Airyknowe, GALSTON.

9th December, 1947.

19

c b4

At 538' 1 ft shale, purple

50 ft 6 in below base of Brochman 3 in purple shale

54 ft 6

2"

55 ft 7 Syngnathus

59 ft 6 Productus Band

65 ft 1" lili. marline

66 ft 7 in

69 ft 1" band of chert

73 ft 590 ft from Surface

ie 590-591 ft purple shale

at 60 1/2 ft Syngnathus + lili. marline

(97 1/2 ft below Brochman



Contd 72 NE

REPORT NY 01 SW 235

ANDREW KYLE, Limited, Mineral Boreers,
Airyknowe, GALSTON.

5th February, 1948.

19

REMARKS	STRATA	Thickness of Beds			Total Depth		
		Faths.	Feet	Inches	Faths.	Feet	Inches
	<u>Messrs. The Millosm & Askam Hematite Iron Co., Ltd.</u>						
	<u>No. 37 Bore - Near Florence Mines - EGBRUMONT.</u>						
			B/F		53	-	-
	Conglomerate (Soft and broken)		5	-	53	5	-
	Soft Red Shale	1	5	-	55	4	-
	Soft Conglomerate		3	-	56	1	-
	Red Shaley Conglomerate	1	-	-	57	1	-
	Conglomerate	8	4	-	65	5	-

FOR ANDREW KYLE LIMITED,

Andrew Kyle Director

To: Dr. F. M. Trotter,
H.M. Geological Survey,
250 Oxford Road,
Manchester 13.

In continuation of previous monthly progress
reports.

W. Schumann

REPORT NY 01 SW 235 TONE.

Rev 1 Apr 48

ANDREW KYLE, Limited, Mineral Boreers,
Airyknowe, GALSTON.

15th March, 1948. 19

REMARKS	STRATA	Thickness of Beds			Total Depth		
		Faths.	Feet	Inches	Faths.	Feet	Inches
FRONT.	Messrs. Milom & Askam Hematite Iron Co., Ltd.						
	33 No. 3 Bore - Near Florence Mines - EUREMDAT.						
		B/F			65	5	-
	Conglomerate	6	-	-	71	5	-
	Conglomerate (Very Broken)	1	3	-	73	2	-
	Conglomerate	1	-	-	74	2	-
	Conglomerate (Very Broken)	2	3	-	76	5	-
	Conglomerate (Broken)		5	-	77	2	-
	Conglomerate (Broken)	1	3	-	79	1	-
	Soft Conglomerate	1	5	-	81	-	-
	Conglomerate (Broken)	1	2	-	82	2	-
	Conglomerate	2	1	-	84	3	-
	Limestone	1	-	-	85	3	-

FOR ANDREW KYLE LIMITED.

Andrew Kyle



NY 01 SW 235

REPORT.

ANDREW KYLE, Limited, Mineral Boreers,
Alryknows, GALSTON.

7th May, 1948.

19

REMARKS	STRATA	Thickness of Beds			Total Depth		
		Faths.	Feet	Inches	Faths.	Feet	Inches
	<u>Messrs. Millem & Askan Hematite Iron Co., Ltd.</u>						
	<u>No. 33 Bore - Near Florence Mines.</u>						
		B/F			95	2	-
	Limestone (Very Broken)	3	-		95	5	-
	Hard Grey Limestone	2	4	-	98	3	-
	Grey Limestone (Broken)	4	-		99	1	-
	Limestone (Very Broken)	4	-		99	5	-
	Hard Grey Limestone	5	-		100	4	-
	Limestone (Broken)	2	-		102	4	-
	Chert			6	102	4	6
	Limestone (Very Broken)	1	1	6	104	-	-
	Limestone (Broken)	1	4	-	105	4	-
	Limestone (Very Broken)	1	3	-	107	1	-
	FOR ANDREW KYLE LIMITED.						
	Andrew Kyle Director						
	Limes line						
	May 18/48						

Cores examined 18/5/48 351

Geologists Notes:-

St. Peter's Sandstone & Normal except
for very sandstone from 2. 90/6 to 92/6.

Brookman. Normal except for
very Brookman between 4.43 ft to 4.56 ft.
Bryozoa also in Brookman.

Carboniferous limestone 7' in limestone

At 5.38 ft there is 1 ft of purple shale.

At 5.57 ft 3' in. band of purple shale.

At 5.61 ft 6 in. 2 in. "

At 5.62 ft 6 in. Symplocaria

At 5.64 ft 6 in. Productus band

At 5.70 ft to 5.71 ft Lith. mention

At 5.73 ft 1 in. band of chert.

At 5.90 - 5.91 ft purple shale.

At 6.04 ft ~~Symplocaria~~ Symplocaria & Lith. mention.

NY 01 SW 235



Geological Survey and Museum,
ETHINGTON ROAD,
SOUTH KENSINGTON,
LONDON, S.W.7.

NY 01 SW 235

23/7/48

Dear Dr. Toller,

Herewith my notes on the
remaining cores of Florence Mines Bore
No. 33. I received your wire in good
time and your letter the following day.
I went to Epsom immediately on
receipt of your letter and contacted
Dr. Schnellmann, who had also received
a note from you. The cores were
examined in very good weather.

I hope that my notes will
show all you'll want to know about the
lower cores. I return your lower record
sheets.

Yours sincerely
L. J. Fox



RECORD of ~~WELL~~ BORING (continued)

at *Flower Hill Bore No 33, Epsom* County *Surrey*

NY 01 SW 235

GEOLOGICAL CLASSIFICATION.	NATURE OF STRATA.	THICKNESS.		DEPTH	
		Feet.	Inches.	Feet.	Inches.
	<i>Notes for examination of cores by Thompson 16/7/48</i>				
	<i>Brought forward</i>			643	—
	<i>Reddish-grey fine-grained limestone</i>	6	—	649	—
	<i>Reddish-grey limestone with Brachiopods, very ozy at 653 ft.</i>	5	—	654	—
	<i>Grey, fine-grained limestone with occasional ozy shale partings</i>	6	—	660	—
	<i>Grey, fine-grained, occasionally porcellaneous limestone</i>	10	—	670	—
	<i>Reddish-grey, fine-grained limestone</i>	11	—	681	—
	<i>Grey, very fine-grained limestone with ozy shale partings</i>	3	—	684	—
	<i>Grey, fine-grained limestone with Brachiopods brachiopods at 685 ft.</i>	12	—	696	—
	<i>Grey, coarser limestone with vertical ozy joints and ozy shaly partings</i>	5	—	701	—
	<i>Grey, occasionally reddish, very fine-grained limestone, occasionally coarsely crystalline</i>	4	—	705	—
	<i>Grey, very fine-grained limestone with Brachiopod fragments</i>	4	—	709	—
	<i>Reddish limestone with ozy, vertical joints</i>	4	—	713	—
	<i>Red & grey crystalline limestone with many Brachiopods, ozy vertical joints and very ozy bands at 716 & 720 ft.</i>	7	—	720	—
	<i>Grey, crystalline limestone with Brachiopod fragments</i>	8	—	728	—
	<i>Grey, very fine-grained, porcellaneous limestone</i>	4	—	732	—
	<i>Red-grey fine-grained, unfossiliferous limestone with more or less regular ozy shale partings</i>	7	—	739	—
	<i>Red, crystalline, very fossiliferous limestone, with grey fine-grained band at 742 ft.</i>	9	—	748	—
	<i>Red & grey limestone, occasionally coarse, occasionally fine-grained, with many earthy and ozy bands</i>	10	—	758	—
	<i>Red & grey earthy limestone with many purple shaly partings</i>	13	—	771	—
	<i>Purple gummy shale, very broken</i>	6	—	777	—
	<i>Red shale, ground up</i>	4	—	781	—
	<i>Soft red, smooth shale, very broken</i>	4	—	785	—
	<i>Red shale, ground up</i>	5	—	790	—



REPORT. NY 01 SW 235

ANDREW KYLE, Limited, Mineral Boreers,
Airyknowe, GALSTON.

2nd June, 1948. 19

REMARKS	STRATA	Thickness of Beds			Total Depth		
		Faths.	Feet	Inches	Faths.	Feet	Inches
FROM:	Messrs. Milloren & Asken Hematite Iron Co., Ltd.						
	33 No. 5 Bore - Near Florence Mines - BOHLBENT.						
	943.						
		B/F					
	Grey Limestone <i>with greyish dot.</i>	1	-	- 679	107	1	-
<i>the same as 679 ft.</i>	Limestone (Broken)	1	5	- 66	108	1	-
	Limestone	1	4	- 670	110	-	-
	Red and Grey Limestone	1	5	- 681	111	4	-
	Hard Grey Limestone (Very Broken)	1	5	- 684	113	3	-
	Hard Grey Limestone	2	-	- 696	114	-	-
	Hard Grey Limestone (Broken)	5	-	- 701	116	-	-
					116	5	-
FOR ANDREW KYLE LIMITED.							
Andrew Kyle Director							
To: N.M. Geological Survey							
250 Oxford Rd.							
Manchester 13.							



REPORT. NY 01 SW 235

ANDREW KYLE, Limited, Mineral Boreers,
Airyknowe, GALSTON.

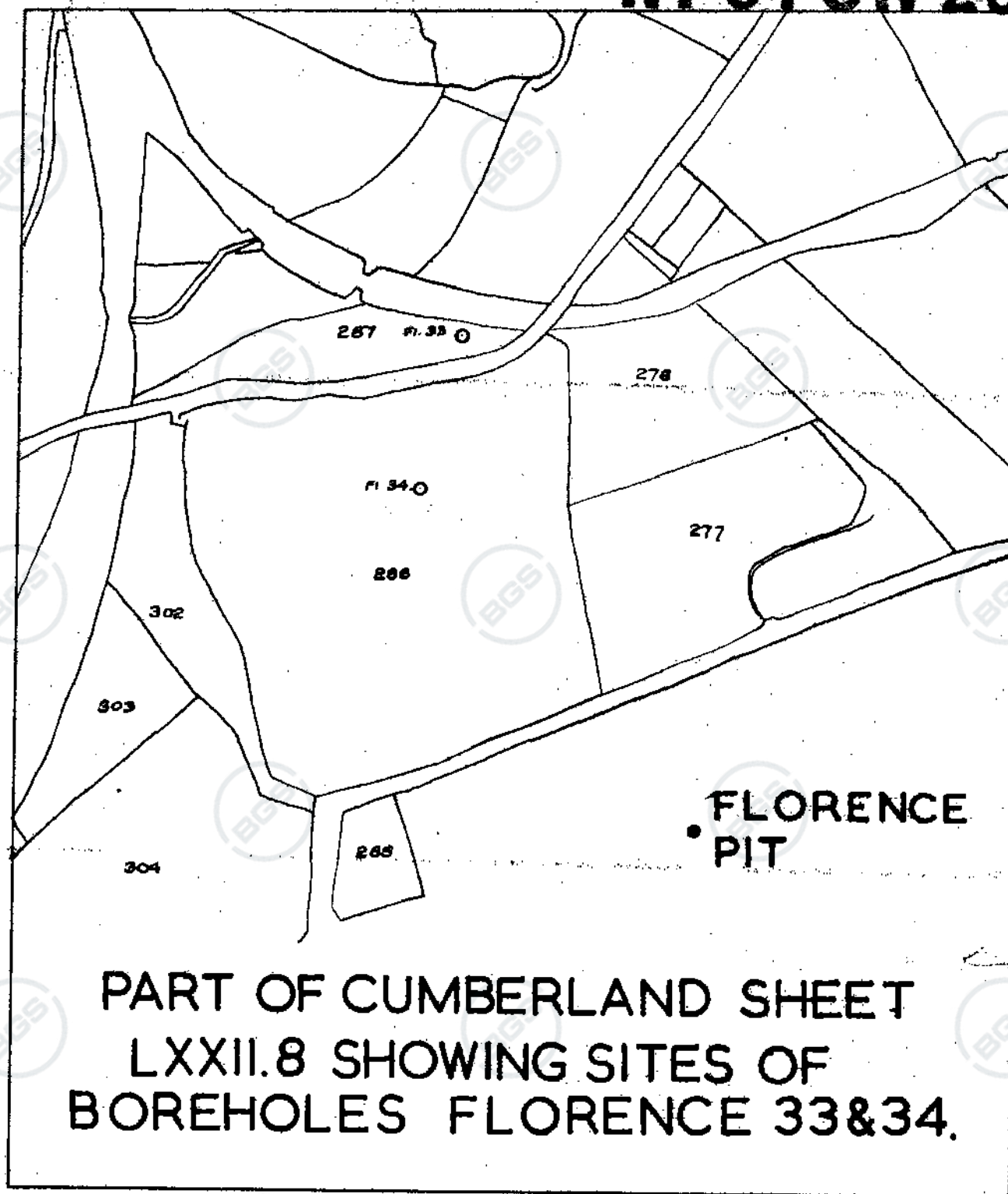
10th July, 1948. 19

REMARKS	STRATA	Thickness of Beds			Total Depth		
		Faths.	Feet	Inches	Faths.	Feet	Inches
FROM:	Messrs. The Millom & Askam Hematite Iron Co., Ltd.						
	No. 33 Bore - Near Florence Mines - EGREMONT.						
	945.						
		B/r	7 1/2		116	5	-
	Red and Grey Limestone	4	-	7 1/2	117	3	-
	Grey Limestone	4	-	7 1/2	118	1	-
	Limestone (Broken)	4	-	7 1/2	118	5	-
	Grey Limestone (Very Broken)	1	1	-	120	-	-
	Grey Limestone	2	-	-	122	-	-
	Limestone (Very Broken)	3	-	-	123	3	-
	Limestone (Broken)	4	-	-	123	1	-
	Limestone	1	3	-	124	4	-
	Limestone with Shale Partings	1	4	-	126	2	-
	Limestone (Very Broken)	1	-	-	127	2	-
	Limestone with Layers of Shale	1	1	-	128	3	-
	Red and Grey Shale (Very Broken)	1	-	-	129	3	-
	Red and Grey Shale	4	-	-	130	1	-
	Soft Red and Grey Shale	4	-	-	130	5	-
	Red Shale (Very Soft)	3	-	-	131	2	-
	Red Shale (Soft)	2	-	-	131	4	-
	Total Depth.....				131.	4.	-

FOR ANDREW KYLE LIMITED,

Andrew Kyle Director.

NY 01 SW 235



REPORT.

NY 01/16⁴
IN CONFIDENCE

ANDREW KYLE, Limited, Mineral Bore's,
Airyknowe, GALSTON.

4th November, 1947. 19

REMARKS	STRATA	Thickness of Beds			Total Depth		
		Faths.	Feet.	Inches.	Faths.	Feet.	Inches.
	<u>Messrs. Milcom & Askan Hematite Iron Co., Ltd.</u>						
	33 9/15.						
	<u>No. 1 Bore - Near Florence Mines - EGREMONT.</u>						
	Soil and Stones		2	-		2	-
	Soil and Gravel		4	-	1	-	-
	Gravel and Boulders	2	2	6	3	2	6
	Sand; Gravel; and Boulders		3	6	4	-	-
	Boulders		1	-	4	1	-
	Sand and Boulders		2	-	4	3	-
	Gravel and Boulders	1	1	-	5	4	-
FOR ANDREW KYLE LIMITED,							
<i>Andrew Kyle</i> Director							



(11835) Wt. 80070/0370 10.001 9/50 A.S.B.W.Ltd. Op. 436

351

NY01116

RECORD OF SHAFT OR BORE FOR MINERALS

County Lincolnshire

8" Quarter Sheet 72 NE.

1" N.S. Geol. Map. _____

1" O.S. Geol. Map. _____

Whether Confidential _____

Name and Number of Shaft or Bore given by Geological Survey:

No. 33 Bore

Name and Number given by owner (if different from above):

Town or Village _____

Date of sinking 1947-

Exact site Near Florence Mines, Egremont.

A sketch-map or tracing from a large-scale map is desirable.

IN CONFIDENCE

Purpose for which made Iron Ore

Level at which bore commenced relative to O.D. +160 If not down bore, state if horizontal or up

Made by Andrew Kyle Ltd for Messrs _____

Information from Florence Mines (M. H. & W. H. & Co.) Date received _____

Specimens Examined by F. M. L. 18/1/48

GEOLOGICAL CLASSIFICATION	DESCRIPTION	THICKNESS		DEPTH	
	<u>Drift:-</u>				
	Gravel and Boulders	1	0	35	0
	<u>St. Bees Sandstone:-</u>				
	Red Sandstone	30	0	65	0
	Red Sandy Shale	5	0	70	0
	Red Sandstone (Very Broken)	5	0	75	0
	Red Sandstone	9	0	84	0
	Sandy Shale	2	0	86	0
	Red Sandy Shale	2	0	88	0
	Red Sandstone	27	0	115	0
	Red Sandstone with Shale Flies	10	0	125	0
	Red Sandstone	21	0	146	0
	Red Sandstone with Shale Flies	10	0	156	0
	Red Shaley Sandstone (Badley Broken)	10	0	166	0
	Red Sandstone with Shale Flies	4	0	170	0
	Red Sandstone with Shale Flies (Very Broken)	10	0	180	0
	Red Shale	10	0	190	0
	Sandy Shale	6	0	196	0
	Sandstone	2	0	198	0
	Red Shale with Sandstone Flies	8	0	206	0
	Red Sandstone with Shale Flies (Very Broken)	8	0	214	0
	Red Sandstone (Very Broken)	3	0	217	0
	Red Shale with Sandstone Flies (Very Broken)	10	0	227	0
	Red Sandstone with Shale Flies	10	0	237	0
	Hard Red Sandstone	1	6	238	0
	Red Sandstone with Red Shale Flies	8	6	247	0
	Red Sandstone with Shale Flies	10	0	257	0
	Hard Red Sandstone	5	0	262	0
	Hard Red Sandstone with Shale Flies	12	0	274	0
	Red Sandstone and Shale (Very Broken)	6	0	280	0
	Red Shale with Sandstone Flies	6	0	286	0
	Red Sandy Shale	14	0	300	0
	Red Shale	18	0	318	0
	Conglomerate (Soft and Broken)	5	0	323	0

GEOLOGICAL SURVEY AND MUSEUM,
SOUTH KENSINGTON,
LONDON, S.W.7.

G.S.M. Office
File No.

Site marked
on 6" Map by

Site marked
on 1" Map by

Carried forward .. /



b4
4

6" Quarter Slicet

6" Quarter Slicet

[illegible]

continued...

Name and Number of Shaft or Bore given by Geological Survey:

No. 33 Bore. Near Florence Mines, Egremont.

NY 0116
Cumbria and

6. Quarter Sheet

IN CONFIDENCE

GEOLOGICAL CLASSIFICATION	DESCRIPTION	THICKNESS		DISTANCE	
	At 561 ft. 6 ins. there is a 2-inch band of purple shale.				
	At 562 ft. 6 ins. Syringopora				
	At 564 ft. 6 ins. Productus Band				
	At 570 ft. and 571/6 Lith. martini				
	At 573 ft. 1-inch band of chert				
	At 590 - 591 ft. Purple shale.				
	At 604 ft. Syringopora and Lith. martini.				



W13032) W130370/0870 10,000 9/39 A.S.E.W.Ltd. Op.655

RECORD OF SHAFT OR BORE FOR MINERALS

NY 01 SW 236

County Derbyshire
6" scale Sheet 72 NE

Name and Number of Shaft or Bore given by Geological Survey:

Willom & Askam, No 34 Bore hole, Florence Mine, Cromford

1" N.S. Geol. Map

1" O.S. Geol. Map

Name and Number given by owner (if different from above):

Whether Confidential

Town or Village

Date of sinking

Exact site See Site Plan See Florence 33

A sketch-map or
tracing from a large-scale map
is desirable.

Purpose for which made

Level at which bore commenced relative to O.D. 54m If not down bore, state if horizontal or up

Made by for Messrs

Information from Date received

Specimens Dip of strata

GEOLOGICAL CLASSIFICATION	DESCRIPTION	THICKNESS		DEPTH	
	Gravel and boulders	11		11	
	Sand; Gravel and boulders	3		14	
	Gravel and boulders	3		17	
	Sand; Gravel and boulders	5		22	
	Sand; Gravel and boulders	5		27	
	Sand and Gravel and Large Boulders	3		30	
	Sand and Gravel	1		31	
	Gravel and Boulders	6		37	
	Red sandstone	30		67	
	Red sandstone (broken)	10		77	
	Red sandstone	17	6	94	6
	Red shale	2	6	97	
	Red sandstone with layers of shale (very broken)	11		108	
	Red sandstone (very broken)	6		114	
	Red shale (very broken)	4		118	
	Sandstone with layers of shale (very broken)	9		127	
	Red sandstone with layers of shale	19		146	
	Red sandstone	9		150	
	Sandstone (very broken)	8		163	
	Red sandstone with layers of shale	30		193	
	Red sandy shale (very broken)	10		203	
	Sandy shale (very broken)	13		216	
	Red shale with layers of sandstone (very broken)	12		228	
	Red sandstone with layers of shale	10		238	
	Red sandstone with layers of shale (very broken)	8		246	
	Red shale and sandstone (broken)	9		255	
	Red sandstone with layers of shale (very broken)	7		262	
	Red sandstone with layers of shale	10		272	
	Red sandstone with shale	8		280	
	Red sandstone with layers of shale	6		286	
	Red sandstone and shale	9		295	
	Red sandstone with layers of shale	8		303	
	Red sandstone and shale (broken)	8		311	
	Red sandstone and shale (very broken)	7		318	

GEOLOGICAL SURVEY AND MUSEUM,
SOUTH KENSINGTON,
LONDON, S.W.7.

G.S.M. Office
File No.

Site marked
on 6" Map by

Site marked
on 1" Map by



(*11932) Wt. 50370/0370 10,000 0/30 J.A. & E.W. Ltd. Gp. 685

Name and Number of Shaft or Bore given by Geological Survey

NY 01 SW 236

GEOLOGICAL CLASSIFICATION	DESCRIPTION	THICKNESS		DEPTH	
	Brt. forward.			318	
	Red shale	4		322	
	Red shale	15	102.72	337	
	Conglomerate (very broken)	9		346	
	Conglomerate (soft)	7		353	
	Conglomerate (soft)	12		365	
	Conglomerate (soft)	6		371	
	Conglomerate (hard)	22		393	
	Conglomerate	7		400	
	Conglomerate (hard)	13		413	
	Conglomerate	20		433	
	Conglomerate (very broken)	12		445	
	Conglomerate (hard)	8		453	
	Conglomerate	27		480	
	Conglomerate (broken)	8		488	
	Conglomerate	22		510	
	Conglomerate	19		529	
	Conglomerate (very broken)	18		547	
	Conglomerate	21	173.0	567	6
	Limestone	6		568	
	Blue shale	4		572	
	Hard grey limestone	12		584	
	Limestone (very broken)	15		599	
	Limestone (broken)	5		604	
	Hard grey limestone	2		606	
	Grey limestone with thin layers of shale	8		614	
	Hard grey limestone	15		629	
	Limestone (very broken)	2		631	
	Grey limestone with layers of shale	6		637	
	Grey limestone with shale	5		642	
	Limestone (very broken)	6		648	
	Grey limestone (broken)	11		659	
	Limestone (very broken)	19		678	
	Hard grey limestone	12		690	
	Limestone (very broken)	9		699	
	Limestone (very broken)	6		705	
	Limestone	3		708	
	Limestone (broken)	12		720	
	Limestone (very broken)	54		774	
	Limestone (broken)	4		778	
	Limestone (very broken)	15		793	
	Limestone (very broken)	6		799	
	Limestone (very broken) with thin layers of shale	12		811	
	Red and grey shale	6		817	
	Red shale (very broken)	7		824	
	Total Depth			824	
				251.16	

72/NE/352

Millom and Askam No. 14 Florence Mine

Notes by W.L. Trester

NY 01 SW 236

		Ft.	In.
<u>Drift</u>	to	37	0
<u>St. Bees Sandstone Series</u>	to	337	0
Haematitized ore sandstone at 84/- to 87/6			
8 in Conglomerate band at 213/- St. Bees Shales			
317/- to 337/- . Normal junction with Conglomerate			
Dip very gentle, not more than 2° to 4°.			
<u>Conglomerate or Brockram</u>	to	567	6
Haematitized at 452/- to 466/-, 490/- to 492/-			
and at 559/- . Normal junction with Carboniferous			
Limestone.			
<u>Carboniferous Limestone Series</u>	to	819	
6 in. of 5th Limestone 5th Shale 566/- to 572/-			
<u>6th Limestone</u>	Thin Beds 599/- to 631/-	631	0
Spiriferina abundant at 610/-			
<u>6th Shale</u>	to	634	0
<u>7th Limestone</u>	to	819	0
From 699/- to 709/- very ore, from			
731/- to 733/- very ore and brecciated,			
734/- 737/- very ore, broken and brecciated.			
Ore joints with barytes at 737/- to 743/-,			
757/- to 760/-, 781 to 784, 790/- to 793/-.			
Producted bands at 769/- to 771/-; 796/- to			
797/-; 811/- 814/- and 815/-.			
Cyrtina carbonaria at 811/-			
Grits and sandstone 815/- to 819/-			
<u>Skiddaw Slates, weathered</u>	to	824	0



(11822) WLB0270/0570 10,000 9/20 A.B.W.L.A. Op. 428

RECORD OF SHAFT OR BORE FOR MINERALS

352

Name and Number of Shaft or Bore given by Geological Survey:

Millom & Askam. No 34 Bore hole, Florence Mine, Egremont.

Name and Number given by owner (if different from above):

Town or Village

Date of sinking

Exact site

In the Plan of Florence 33

County

Cumbria

6" Quarter Sheet 72 NE

1" N.S. Geol. Map

1" O.S. Geol. Map

Whether Confidential

A sketch-map or tracing from a large-scale map is desirable.

Purpose for which made

Level at which bore commenced relative to O.D. 8 + 160 If not down bore, state if horizontal or up

Made by for Messrs

Information from Date received

Specimens Dip of strata

GEOLOGICAL CLASSIFICATION	DESCRIPTION	THICKNESS			DEPTH		
DRIFT See Plan of	Gravel and boulders	11			11		
	Sand; Gravel and boulders	3			14		
	Gravel and boulders	3			17		
	Sand; Gravel and boulders	5			22		
	Sand; Gravel and boulders	5			27		
	Sand and Gravel and large Boulders	3			30		
	Sand and Gravel	1			31		
	Gravel and Boulders	6			37		
	Red sandstone	30			67		
	Red sandstone (broken)	10			77		
	Red sandstone	17	6		94	6	
	Red shale	2	6		97		
	Red sandstone with layers of shale (very broken)	11			108		
	Red sandstone (very broken)	6			114		
	Red shale (very broken)	4			118		
	Sandstone with layers of shale (very broken)	9			127		
	Red sandstone with layers of shale	19			146		
	Red sandstone	9			150		
	Sandstone (very broken)	8			163		
	Red sandstone with layers of shale	30			193		
	Red sandy shale (very broken)	10			203		
	Sandy shale (very broken)	13			216		
	Red shale with layers of sandstone (very broken)	12			228		
	Red sandstone with layers of shale	10			238		
	Red sandstone with layers of shale (very broken)	8			246		
	Red shale and sandstone (broken)	9			255		
	Red sandstone with layers of shale (very broken)	7			262		
	Red sandstone with layers of shale	10			272		
	Red sandstone with shale	8			280		
	Red sandstone with layers of shale	6			286		
	Red sandstone and shale	9			295		
	Red sandstone with layers of shale	8			303		
	Red sandstone and shale (broken)	8			311		
	Red sandstone and shale (very broken)	7			318		

GEOLOGICAL SURVEY AND MUSEUM,
SOUTH KENSINGTON,
LONDON, S.W.7.

G.S.M. Office
File No.

Site marked
on 6" Map by

Site marked
on 1" Map by

6" Quarter Sheet

$$\begin{array}{r} 327 \\ 160 \\ \hline -157 \end{array}$$



SECTION OF BORE HOLE, No. 30 *Barleton* 280

Situate at *Field No. 276 near Shewen's Terrace. (SITE OF NEW SHAFT.)*

SL 2180 ft AMD. BSE N° 630

54.16 ADD

No.	DESCRIPTION OF STRATA.	TOTAL.		REMARKS.
		FEET.	IN.	
	<i>Soil</i>	<i>1</i>	<i>0</i>	<i>April 1943.</i>
	<i>Boulder clay and Boulders</i>	<i>6</i>	<i>6</i>	
	<i>Boulders and Sand</i>	<i>1</i>	<i>6</i>	
	<i>Sandy Boulder clay.</i>	<i>2</i>	<i>0</i>	
	<i>Gravel and Boulders</i>	<i>3</i>	<i>0</i>	
	<i>Boulders</i>	<i>4</i>	<i>0</i>	
	<i>" + Sandy clay</i>	<i>8</i>	<i>0</i>	
	<i>Gravel & Sand</i>	<i>2</i>	<i>0</i>	
	<i>" + Boulders.</i>	<i>2</i>	<i>0</i>	
	<i>Boulders + Light grey Sandy clay.</i>	<i>7</i>	<i>0</i>	
	<i>" + Sand.</i>	<i>9</i>	<i>0</i>	<i>2134 ft AMD</i>
	<i>Red Sandstone</i>	<i>6</i>	<i>46</i>	<i>6</i>
	<i>" - Longly & jointy</i>	<i>45</i>	<i>6</i>	<i>92 0</i>
	<i>" - + Broken</i>	<i>27</i>	<i>0</i>	<i>119 0</i>
	<i>Sandy Shale</i>	<i>4</i>	<i>0</i>	<i>123 0</i>
	<i>Dark Red Shaly Sandstone</i>	<i>2</i>	<i>0</i>	<i>125 0</i>
	<i>" Sandstone (Broken)</i>	<i>10</i>	<i>0</i>	<i>135 0</i>
	<i>Red Sandstone</i>	<i>14</i>	<i>0</i>	<i>149 0</i>
	<i>Dark Red Sandstone</i>	<i>38</i>	<i>0</i>	<i>187 0</i>
	<i>Red Sandstone</i>	<i>7</i>	<i>0</i>	<i>194 0</i>
	<i>" with Marl joints</i>	<i>5</i>	<i>0</i>	<i>199 0</i>
	<i>Red Marl</i>	<i>1</i>	<i>6</i>	<i>200 6</i>
	<i>" Sandstone</i>	<i>3</i>	<i>0</i>	<i>203 6</i>
	<i>" Marl with Sandstone joints</i>	<i>12</i>	<i>0</i>	<i>215 6</i>
	<i>" Sandstone</i>	<i>21</i>	<i>7</i>	<i>237 1</i>
	<i>" Marl.</i>	<i>2</i>	<i>5</i>	<i>239 6</i>
	<i>" Sandstone</i>	<i>14</i>	<i>7</i>	<i>254 1</i>
	<i>" Marl</i>	<i>1</i>	<i>6</i>	<i>255 6</i>
	<i>" Sandstone</i>	<i>8</i>	<i>3</i>	<i>264 9</i>
	<i>" with Red Sand & Soil.</i>	<i>27</i>	<i>7</i>	<i>292 6</i>
	<i>Boring Forward.</i>	<i>7</i>	<i>0</i>	

251

SECTION OF BORE HOLE, No.

NY 013W/455

Situate at

No.	DESCRIPTION OF STRATA.	TOTAL.		REMARKS.
		FEET.	IN.	
	Brought Forward	292	4	
	Red Shale and Sandstone	13	10	306 2
	" Shaly Sandstone	32	8	338 10
	Bonglomerate	112	0	450 10
	Shaly Bonglomerate (soft).	8	0	458 10
	Bonglomerate	33	0	491 10
	Broken and Hard	71	10	563 8
	Reddish Grey Limestone (very brittle)	6	7	572 3
	Grey Shale		10	573 1
	Reddish Grey Limestone - jointy	1	8	574 9
	Shaly Limestone	1	0	575 9
	Red Shale	1	0	576 9
	Shaly Limestone	5	0	581 9
	Red Shale	1	0	582 9
	Shaly Limestone	3	0	585 9
	Reddish Grey Limestone	10	0	595 9
	Red Shale	3	6	599 8
	Reddish Grey Limestone	4	6	603 9
	Red Shale	1	0	604 9
	Grey Limestone with Shale Partings	4	6	609 3
	Red Shale - Broken	1	5	610 8
	Grey Limestone Hard	6	7	617 3
	Red Shale	1	6	618 9
	Grey Limestone	1	4	620 1
	Red Shale		8	620 9
	Grey Limestone	1	3	622 0
	Red Shale	2	0	624 0
	Grey Limestone	2	1	626 1
	Red Shale		7	626 8
	Grey Limestone hard	9	7	636 3
	Brought Forward			193.85

SPIRE GEOTECHNICAL LTD (SGL)

NORTH EAST (HQ)
NORTH SANDS BUSINESS CENTRE
ROKER | SUNDERLAND | SR6 0QA

SCOTLAND
HILL STREET | NEW TOWN |
EDINBURGH | EH2 3JP

YORKSHIRE
INTERNATIONAL HOUSE | KING STREET
LEEDS | LS1 2HL

CONTACT
0191 549 7384
hello@spire-geo.com
spire-geo.com



**SPIRE
GEOTECHNICAL**
Geologists & Site Investigation
Specialists