

## Appendix F

Groundsure report for land at Hollow Road Farm, Bury St Edmunds



# Groundsure

LOCATION INTELLIGENCE

Geosphere Environmental Ltd

BRIGHTWELL BARNES, IPSWICH ROAD,  
Needham Market,  
Brightwell, IP10 0BJ

Groundsure Reference: HMD-369-2436218

Your Reference: Hollow\_Road\_Farm\_

Report Date 11 Sep 2015

Report Delivery Method: Email - pdf

## Groundsure Geoinsight

Address: HOLLOW ROAD FARM, BURY ST. EDMUNDS, IP31 1TB

Dear Sir/ Madam,

Thank you for placing your order with Groundsure. Please find enclosed the **Groundsure Geoinsight** as requested.

If you need any further assistance, please do not hesitate to contact our helpline on 08444 159000 quoting the above Groundsure reference number.

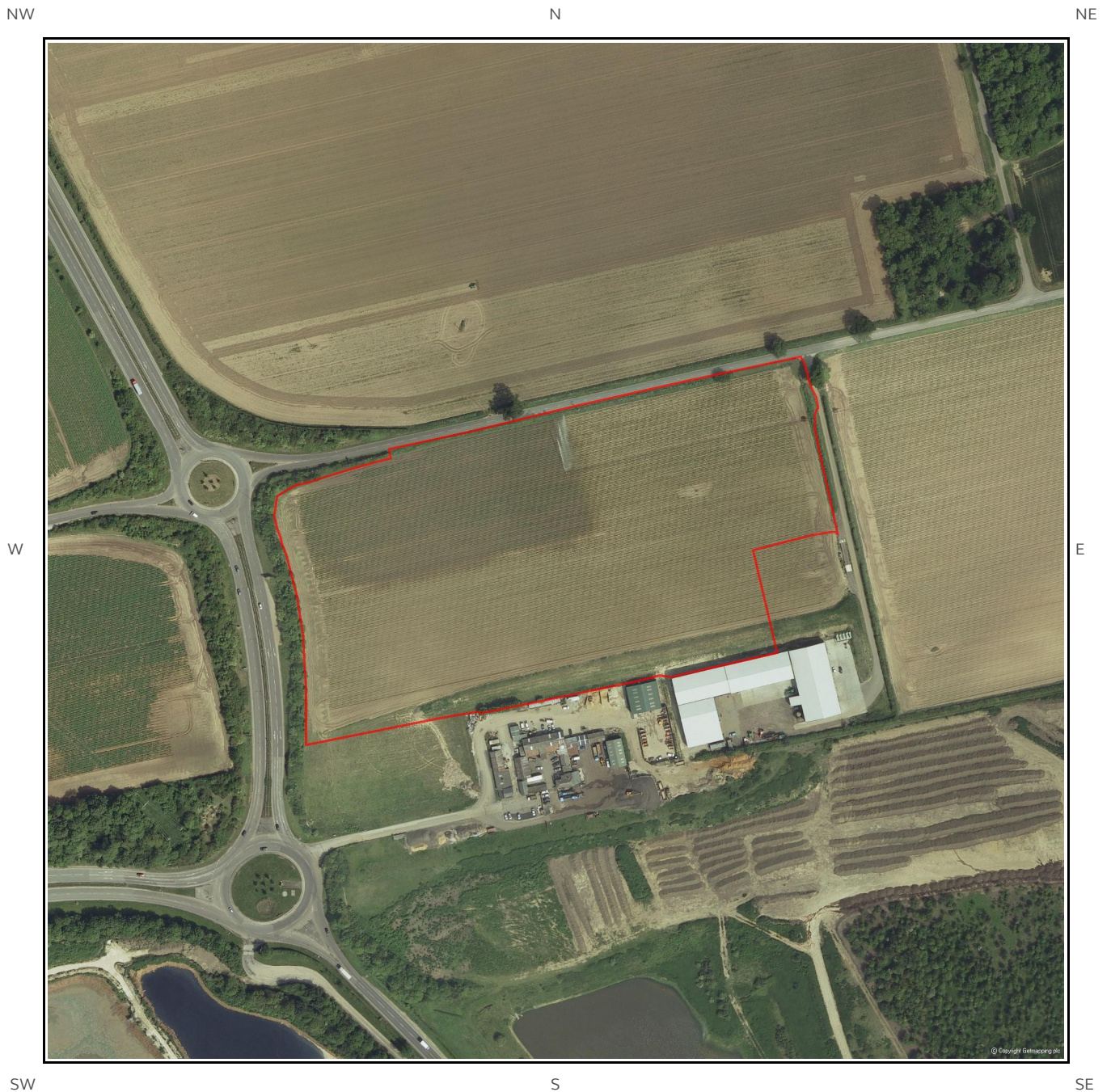
Yours faithfully,

Managing Director  
Groundsure Limited

Enc.  
Groundsure Geoinsight

# Groundsure Geoinsight

**Address:** HOLLOW ROAD FARM, BURY ST. EDMUNDS, IP31 1TB  
**Date:** 11 Sep 2015  
**Reference:** HMD-369-2436218  
**Client:** Geosphere Environmental Ltd



Aerial Photograph Capture date: 25-Jul-2008  
Grid Reference: 586269,266368  
Site Size: 6.26ha

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# Overview of Findings

The Groundsure Geosight provides high quality geo-environmental information that allows geo-environmental professionals and their clients to make informed decisions and be forewarned of potential ground instability problems that may affect the ground investigation, foundation design and possibly remediation options that could lead to possible additional costs.

The report is based on the BGS 1:50,000 Digital Geological Map of Great Britain, BGS Geosure data; BRITPITS database; Shallow Mining data and Borehole Records, Coal Authority data including brine extraction areas, PBA non-coal mining and natural cavities database, Johnson Poole and Bloomer mining data and Groundsure's unique database including historical surface ground and underground workings.

For further details on each dataset, please refer to each individual section in the report as listed. Where the database has been searched a numerical result will be recorded. Where the database has not been searched '-' will be recorded.

## Section 1:Geology

1.1 Artificial Ground	1.1.1 Is there any Artificial Ground/ Made Ground present beneath the study site?	No
	1.1.2 Are there any records relating to permeability of artificial ground within the study site* boundary?	No
1.2 Superficial Geology and Landslips	1.2.1 Is there any Superficial Ground/Drift Geology present beneath the study site?	Yes
	1.2.2 Are there any records relating to permeability of superficial geology within the study site boundary?	Yes
	1.2.3 Are there any records of landslip within 500m of the study site boundary?	No
	1.2.4 Are there any records relating to permeability of landslips within the study site boundary?	No
1.3 Bedrock, Solid Geology & Faults	1.3.1 For records of Bedrock and Solid Geology beneath the study site* see the detailed findings section.	
	1.3.2 Are there any records relating to permeability of bedrock within the study site boundary?	Yes
	1.3.3 Are there any records of faults within 500m of the study site boundary?	No
1.4 Radon data	1.4.1 Is the property in a Radon Affected Area as defined by the Health Protection Agency (HPA) and if so what percentage of homes are above the Action Level?	The property is not in a Radon Affected Area, as less than 1% of properties are above the Action Level
	1.4.2 Is the property in an area where Radon Protection Measures are required for new properties or extensions to existing ones as described in publication BR211 by the Building Research Establishment?	No radon protective measures are necessary

Section 2:Ground Workings	On-site	0-50m	51-250	251-500	501-1000
2.1 Historical Surface Ground Working Features from Small Scale Mapping	0	1	19	Not Searched	Not Searched
2.2 Historical Underground Workings from Small Scale Mapping	0	0	3	2	6
2.3 Current Ground Workings	0	0	0	0	0

Section 3: Mining, Extraction & Natural Cavities	On-site	0-50m	51-250	251-500	501-1000
3.1 Historical Mining	0	0	3	2	6
3.2 Coal Mining	0	0	0	0	0
3.3 Johnson Poole and Bloomer Mining Area	0	0	0	0	0
3.4 Non-Coal Mining	1	0	1	2	2
3.5 Non-Coal Mining Cavities	0	0	0	0	0
3.6 Natural Cavities	0	0	0	0	0
3.7 Brine Extraction	0	0	0	0	0
3.8 Gypsum Extraction	0	0	0	0	0
3.9 Tin Mining	0	0	0	0	0
3.10 Clay Mining	0	0	0	0	0
Section 4: Natural Ground Subsidence	On-site				
4.1 Shrink Swell Clay	Low				
4.2 Landslides	Very Low				
4.3 Ground Dissolution of Soluble Rocks	Low				
4.4 Compressible Deposits	Negligible				
4.5 Collapsible Deposits	Very Low				
4.6 Running Sand	Very Low				
Section 5: Borehole Records	On-site	0-50m	51-250		
5 BGS Recorded Boreholes	0	1	2		
Section 6: Estimated Background Soil Chemistry	On-site	0-50m	51-250		
6 Records of Background Soil Chemistry	6	1	15		
Section 7: Railways and Tunnels	On-site	0-50m	51-250	251-500	
7.1 Tunnels	0	0	0	Not Searched	
7.2 Historical Railway and Tunnel Features	0	0	0	Not Searched	
7.3 Historical Railways	0	0	0	Not Searched	
7.4 Active Railways	0	0	0	Not Searched	

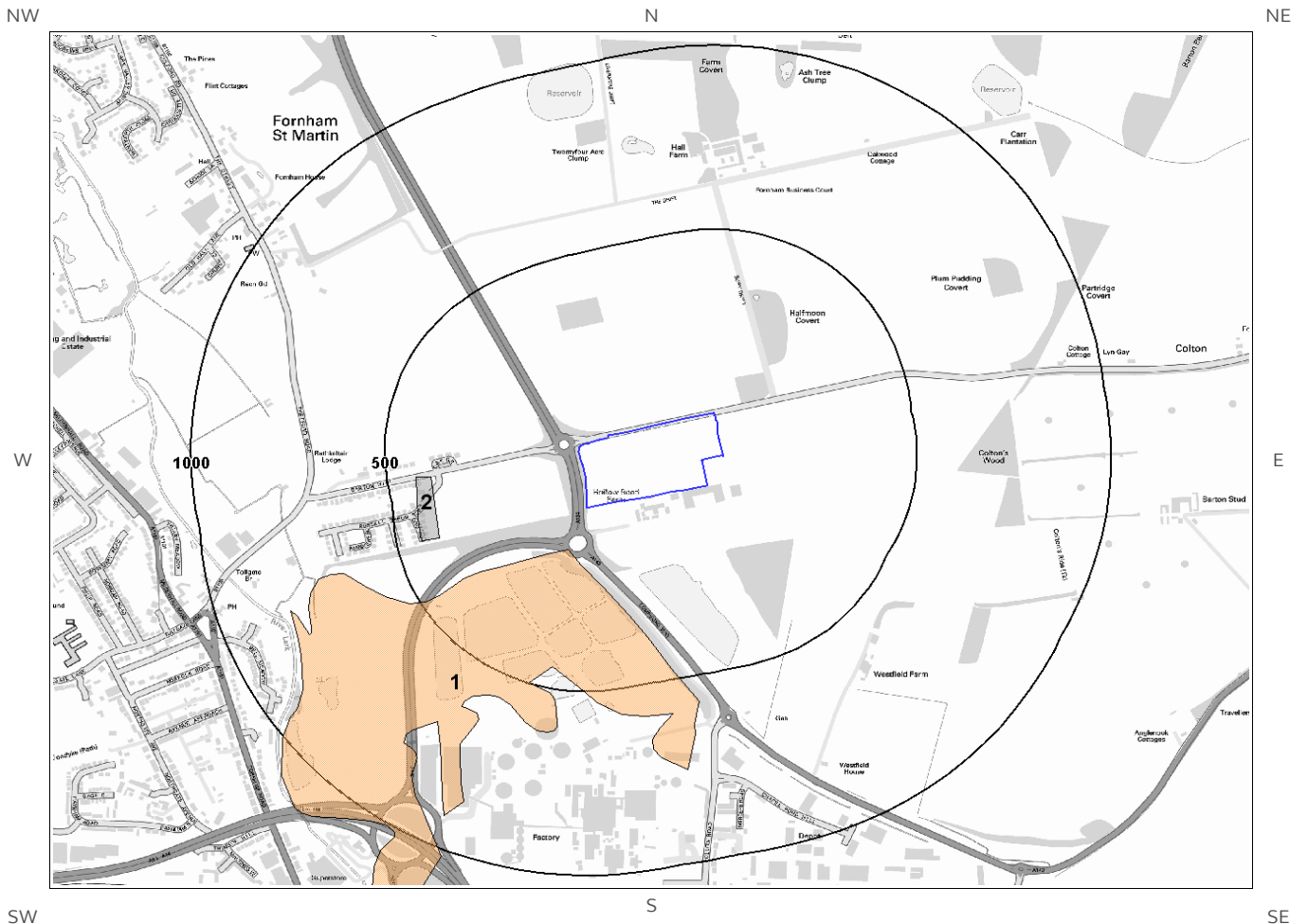
Section 7:Railways and Tunnels	On-site	0-50m	51-250	251-500
7.5 Railway Projects	0	0	0	0

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# 1 Geology




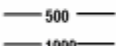




## 1.1 Artificial Ground Map



Artificial Ground Legend



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	Site Outline		Made Ground (undivided)		Disturbed Ground (undivided)
	Search Buffers (m)		Worked Ground (undivided)		Landscaped Ground (undivided)
			Infilled Ground		Reclaimed Ground

# 1 Geology

## 1.1 Artificial Ground

### 1.1.1 Artificial/ Made Ground

The following geological information represented on the mapping is derived from 1:50,000 scale BGS Geological mapping, Sheet No:189

Are there any records of Artificial/Made Ground within 500m of the study site boundary? Yes

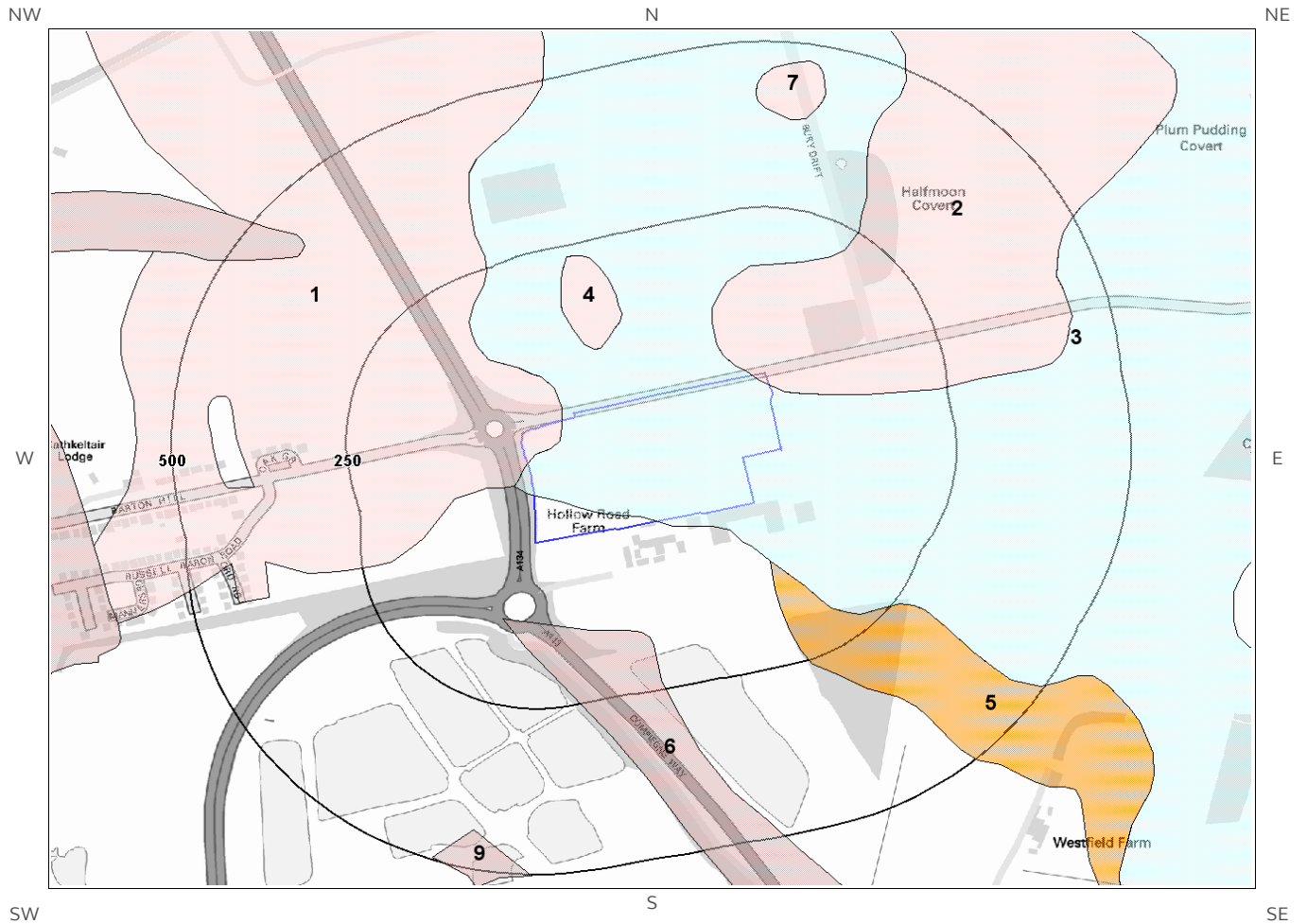
ID	Distance (m)	Direction	LEX Code	Description	Rock Description
1	123.0	S	MGR-MGRD	MADE GROUND (UNDIVIDED)	ARTIFICIAL DEPOSIT
2	388.0	W	WGR-OPEN	WORKED GROUND (UNDIVIDED)	VOID

### 1.1.2 Permeability of Artificial Ground

Are there any records relating to permeability of artificial ground within the study site boundary? No

Database searched and no data found.

# 1.2 Superficial Deposits and Landslips Map



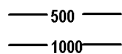
Superficial Deposits and Landslips Legend



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Site Outline



Search Buffers (m)

# 1.2 Superficial Deposits and Landslips

## 1.2.1 Superficial Deposits/ Drift Geology

Are there any records of Superficial Deposits/ Drift Geology within 500m of the study site boundary? Yes

ID	Distance (m)	Direction	LEX Code	Description	Rock Description
1	0.0	On Site	CXSG	CROXTON SAND AND GRAVEL MEMBER	SAND AND GRAVEL [UNLITHIFIED DEPOSITS CODING SCHEME]
2	0.0	On Site	CXSG	CROXTON SAND AND GRAVEL MEMBER	SAND AND GRAVEL [UNLITHIFIED DEPOSITS CODING SCHEME]
3	0.0	On Site	LOFT	LOWESTOFT FORMATION	DIAMICTON
4	88.0	N	CXSG	CROXTON SAND AND GRAVEL MEMBER	SAND AND GRAVEL [UNLITHIFIED DEPOSITS CODING SCHEME]
5	90.0	S	LOFT	LOWESTOFT FORMATION	CLAY AND SILT [UNLITHIFIED DEPOSITS CODING SCHEME]
6	119.0	S	HEAD	HEAD	CLAY, SILT, SAND AND GRAVEL [UNLITHIFIED DEPOSITS CODING SCHEME]
7	384.0	N	CXSG	CROXTON SAND AND GRAVEL MEMBER	SAND AND GRAVEL [UNLITHIFIED DEPOSITS CODING SCHEME]
8	418.0	NW	HEAD	HEAD	CLAY, SILT, SAND AND GRAVEL [UNLITHIFIED DEPOSITS CODING SCHEME]
9	441.0	S	HEAD	HEAD	CLAY, SILT, SAND AND GRAVEL [UNLITHIFIED DEPOSITS CODING SCHEME]

## 1.2.2 Permeability of Superficial Ground

Are there any records relating to permeability of superficial ground within the study site boundary? Yes

Distance (m)	Direction	Flow Type	Maximum Permeability	Minimum Permeability
0.0	On Site	Intergranular	Very High	High
0.0	On Site	Mixed	Moderate	Low
0.0	On Site	Intergranular	Very High	High



### 1.2.3 Landslip

Are there any records of Landslip within 500m of the study site boundary? No

Database searched and no data found.

This Geology shows the main components as discrete layers, these are: Artificial / Made Ground, Superficial / Drift Geology and Landslips. These are all displayed with the BGS Lexicon code for the rock unit and BGS sheet number. Not all of the main geological components have nationwide coverage.

---

### 1.2.4 Landslip Permeability

Are there any records relating to permeability of landslips within the study site\*\* boundary? No

Database searched and no data found.

---

\* This includes an automatically generated 50m buffer zone around the site

# 1.3 Bedrock and Faults Map



**Bedrock and Faults Legend**



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# 1.3 Bedrock, Solid Geology & Faults

The following geological information represented on the mapping is derived from 1:50,000 scale BGS Geological mapping, Sheet No:189

## 1.3.1 Bedrock/ Solid Geology

Records of Bedrock/ Solid Geology within 500m of the study site boundary:

ID	Distance (m)	Direction	LEX Code	Description	Rock Age
1	0.0	On Site	LCCK-CHLK	Lewes Nodular Chalk Formation, Seaford Chalk Formation, Newhaven Chalk Formation And Culver Chalk Formation (undifferent	Campanian / Turonian

## 1.3.2 Permeability of Bedrock Ground

Are there any records relating to permeability of bedrock ground within the study site\* boundary? Yes

Distance (m)	Direction	Flow Type	Maximum Permeability	Minimum Permeability
0.0	On Site	Fracture	Very High	Very High

## 1.3.3 Faults

Are there any records of Faults within 500m of the study site boundary? No

Database searched and no data found.

The geology map for the site and surrounding area are extracted from the BGS Digital Geological Map of Great Britain at 1:50,000 scale.

This Geology shows the main components as discrete layers, these are: Bedrock/ Solid Geology and linear features such as Faults. These are all displayed with the BGS Lexicon code for the rock unit and BGS sheet number. Not all of the main geological components have nationwide coverage.

\* This includes an automatically generated 50m buffer zone around the site

# 1.4 Radon Data

## 1.4.1 Radon Affected Areas

Is the property in a Radon Affected Area as defined by the Health Protection Agency (HPA) and if so what percentage of homes are above the Action Level?      The property is not in a Radon Affected Area, as less than 1% of properties are above the Action Level

---

## 1.4.2 Radon Protection

Is the property in an area where Radon Protection are required for new properties or extensions to existing ones as described in publication BR211 by the Building Research Establishment?      No radon protective measures are necessary

---




# 2 Ground Workings Map



Ground Workings Legend



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-  Site Outline
-  Search Buffers (m)
-  Historic Surface Ground Workings
-  Historic Underground Workings
-  Current Ground Workings

# 2 Ground Workings

## 2.1 Historical Surface Ground Working Features derived from Historical Mapping

This dataset is based on Groundsure's unique Historical Land Use Database derived from 1:10,560 and 1:10,000 scale historical mapping.

Are there any Historical Surface Ground Working Features within 250m of the study site boundary? Yes

The following Historical Surface Ground Working Features are provided by Groundsure:

ID	Distance (m)	Direction	NGR	Use	Date
1	3.0	N	586400 266541	Gravel Pit	1884
2A	59.0	W	586032 266249	Old Chalk Pit	1884
3A	59.0	W	586032 266249	Unspecified Pit	1924
4A	59.0	W	586032 266249	Unspecified Pit	1903
5A	60.0	W	586031 266251	Unspecified Pit	1950
6	79.0	S	586270 266190	Unspecified Heap	1994
7B	121.0	NE	586542 266586	Unspecified Pit	1884
8B	121.0	NE	586542 266586	Unspecified Pit	1924
9B	121.0	NE	586542 266586	Unspecified Pit	1903
10B	123.0	NE	586539 266592	Unspecified Pit	1950
11	131.0	S	585888 265880	Unspecified Pits	1976
12C	144.0	NE	586523 266633	Unspecified Pit	1924
13C	144.0	NE	586523 266633	Unspecified Pit	1903
14C	145.0	NE	586523 266632	Unspecified Pit	1950
15D	149.0	E	586504 266837	Unspecified Drift	1976
16D	149.0	E	586504 266837	Unspecified Drift	1994
17D	149.0	E	586504 266837	Unspecified Drift	1950
18	163.0	SW	586057 265873	Ponds	1994
19	188.0	S	586341 266058	Water Body	1994
20	197.0	SW	585867 266065	Unspecified Ground Workings	1994

## 2.2 Historical Underground Working Features derived from Historical Mapping

This data is derived from the Groundsure unique Historical Land Use Database. It contains data derived from 1:10,000 and 1:10,560 historical Ordnance Survey Mapping and includes some natural topographical features (Shake Holes for example) as well as manmade features that may have implications for ground stability. Underground and mining features have been identified from surface features such as shafts. The distance that these extend underground is not shown.

Are there any Historical Underground Working Features within 1000m of the study site boundary? Yes

The following Historical Underground Working Features are provided by Groundsure:

ID	Distance (m)	Direction	NGR	Use	Date
21D	149.0	E	586504 266837	Unspecified Drift	1994
22D	149.0	E	586504 266837	Unspecified Drift	1950
23D	149.0	E	586504 266837	Unspecified Drift	1976
Not shown	304.0	NE	586556 266810	Unspecified Drift	1924
Not shown	304.0	NE	586556 266810	Unspecified Drift	1903
Not shown	602.0	N	586481 267148	Unspecified Drift	1994
Not shown	602.0	N	586481 267148	Unspecified Drift	1976
Not shown	603.0	N	586367 267123	Unspecified Drift	1950
Not shown	616.0	N	586115 267597	Unspecified Drift	1950
Not shown	618.0	N	586125 267598	Unspecified Drift	1994
Not shown	618.0	N	586125 267598	Unspecified Drift	1976

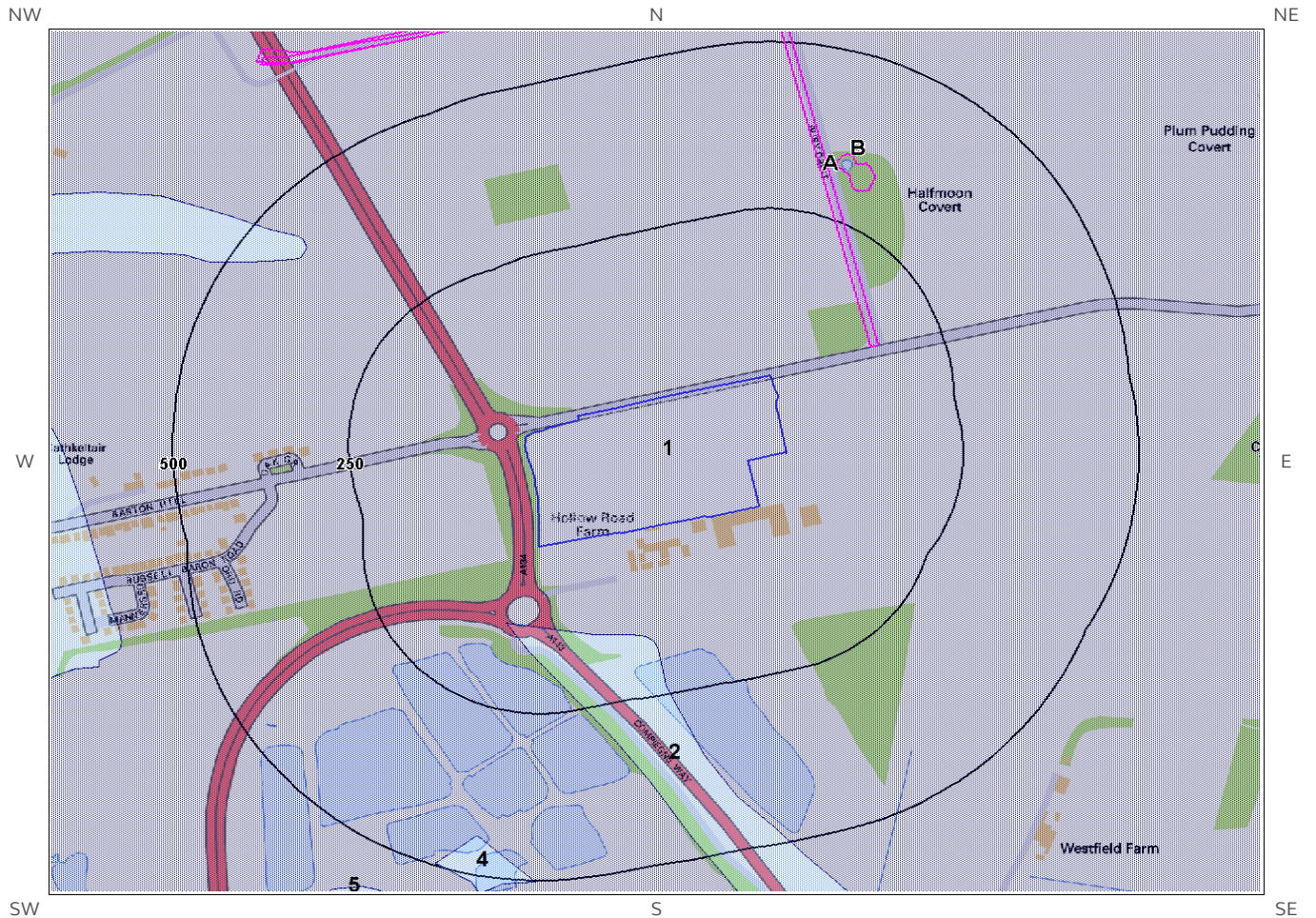
## 2.3 Current Ground Workings

This dataset is derived from the BGS BRITPITS database covering active; inactive mines; quarries; oil wells; gas wells and mineral wharves; and rail deposits throughout the British Isles.

Are there any BGS Current Ground Workings within 1000m of the study site boundary? No

Database searched and no data found.




# 3 Mining, Extraction & Natural Cavities Map



**Mining, Extraction and Natural Cavities Legend**








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-  Site Outline
-  250 Search Buffers (m)
-  500 Search Buffers (m)

-  Historical Mining
-  Non-Coal Mining Cavities
-  Natural Cavities

**Non-Coal Mining**

-  Highly likely
-  Likely
-  Unlikely
-  Highly unlikely
-  Rare

# 3 Mining, Extraction & Natural Cavities

## 3.1 Historical Mining

This dataset is derived from Groundsure unique Historical Land-use Database that are indicative of mining or extraction activities.

Are there any Historical Mining areas within 1000m of the study site boundary? Yes

The following Historical Mining information is provided by Groundsure:

ID	Distance (m)	Direction	NGR	Details	Date
7A	149.0	E	586504 266837	Unspecified Drift	1994
8A	149.0	E	586504 266837	Unspecified Drift	1950
9A	149.0	E	586504 266837	Unspecified Drift	1976
10B	304.0	NE	586556 266810	Unspecified Drift	1924
11B	304.0	NE	586556 266810	Unspecified Drift	1903
12C	602.0	N	586481 267148	Unspecified Drift	1994
13C	602.0	N	586481 267148	Unspecified Drift	1976
14	603.0	N	586367 267123	Unspecified Drift	1950
Not shown	616.0	N	586115 267597	Unspecified Drift	1950
Not shown	618.0	N	586125 267598	Unspecified Drift	1994
Not shown	618.0	N	586125 267598	Unspecified Drift	1976

## 3.2 Coal Mining

This dataset provides information as to whether the study site lies within a known coal mining affected area as defined by the coal authority.

Are there any Coal Mining areas within 1000m of the study site boundary? No

Database searched and no data found.

### 3.3 Johnson Poole and Bloomer

This dataset provides information as to whether the study site lies within an area where JPB hold information relating to mining.

Are there any JPB Mining areas within 1000m of the study site boundary? No

The following information provided by JPB is not represented on mapping: Database searched and no data found.

### 3.4 Non-Coal Mining

This dataset provides information as to whether the study site lies within an area which may have been subject to non-coal historic mining.

Are there any Non-Coal Mining areas within 1000m of the study site boundary? Yes

The following non-coal mining information is provided by the BGS:

ID	Distance (m)	Direction	Name	Commodity	Assessment of likelihood
1	0.0	On Site	Not available	Chalk	Occasional minor mining may have occurred but of restricted extent.
2	119.0	S	Not available	Chalk	Rare and localised small scale mining may have occurred.
3	418.0	NW	Not available	Chalk	Rare and localised small scale mining may have occurred.
4	441.0	S	Not available	Chalk	Rare and localised small scale mining may have occurred.
5	562.0	SW	Not available	Chalk	Rare and localised small scale mining may have occurred.
Not shown	696.0	SW	Not available	Chalk	Rare and localised small scale mining may have occurred.

### 3.5 Non-Coal Mining Cavities

This dataset provides information from the Peter Brett Associates (PBA) mining cavities database (compiled for the national study entitled “Review of mining instability in Great Britain, 1990” PBA has also continued adding to this database) on mineral extraction by mining.

Are there any Non-Coal Mining cavities within 1000m of the study site boundary? No

Database searched and no data found.

### 3.6 Natural Cavities

This dataset provides information based on Peter Brett Associates natural cavities database.

Are there any Natural Cavities within 1000m of the study site boundary? No

Database searched and no data found.

### 3.7 Brine Extraction

This data provides information from the Coal Authority issued on behalf of the Cheshire Brine Subsidence Compensation Board.

Are there any Brine Extraction areas within 1000m of the study site boundary? No

Database searched and no data found.

---

### 3.8 Gypsum Extraction

This dataset provides information on Gypsum extraction from British Gypsum records.

Are there any Gypsum Extraction areas within 1000m of the study site boundary? No

Database searched and no data found.

---

### 3.9 Tin Mining

This dataset provides information on tin mining areas and is derived from tin mining records. This search is based upon postcode information to a sector level.

Are there any Tin Mining areas within 1000m of the study site boundary? No

Database searched and no data found.

---

### 3.10 Clay Mining

This dataset provides information on Kaolin and Ball Clay mining from relevant mining records.

Are there any Clay Mining areas within 1000m of the study site boundary? No

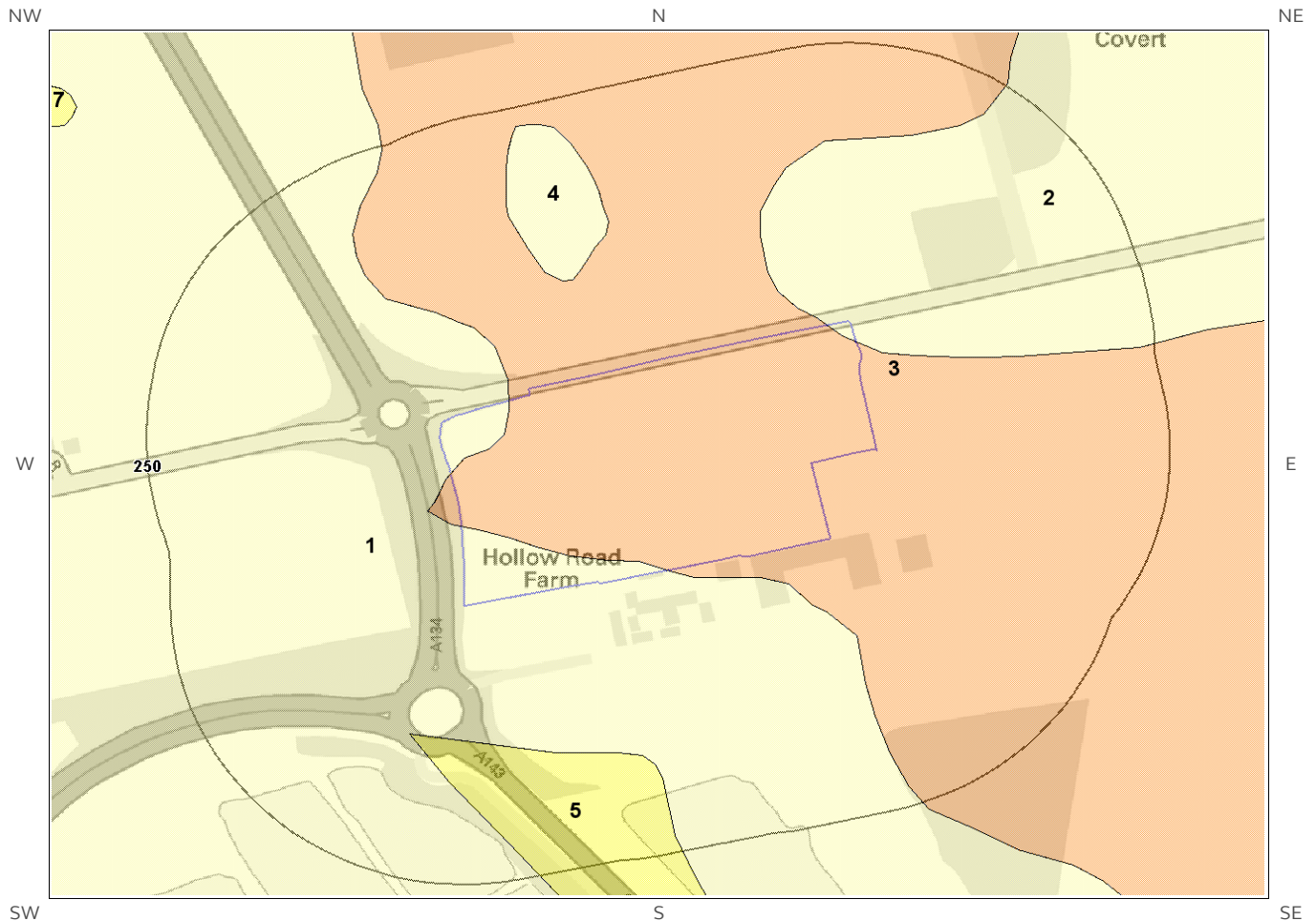
Database searched and no data found.

---



# 4 Natural Ground Subsidence

## 4.1 Shrink-Swell Clay Map



Shrink Swell Clay Legend

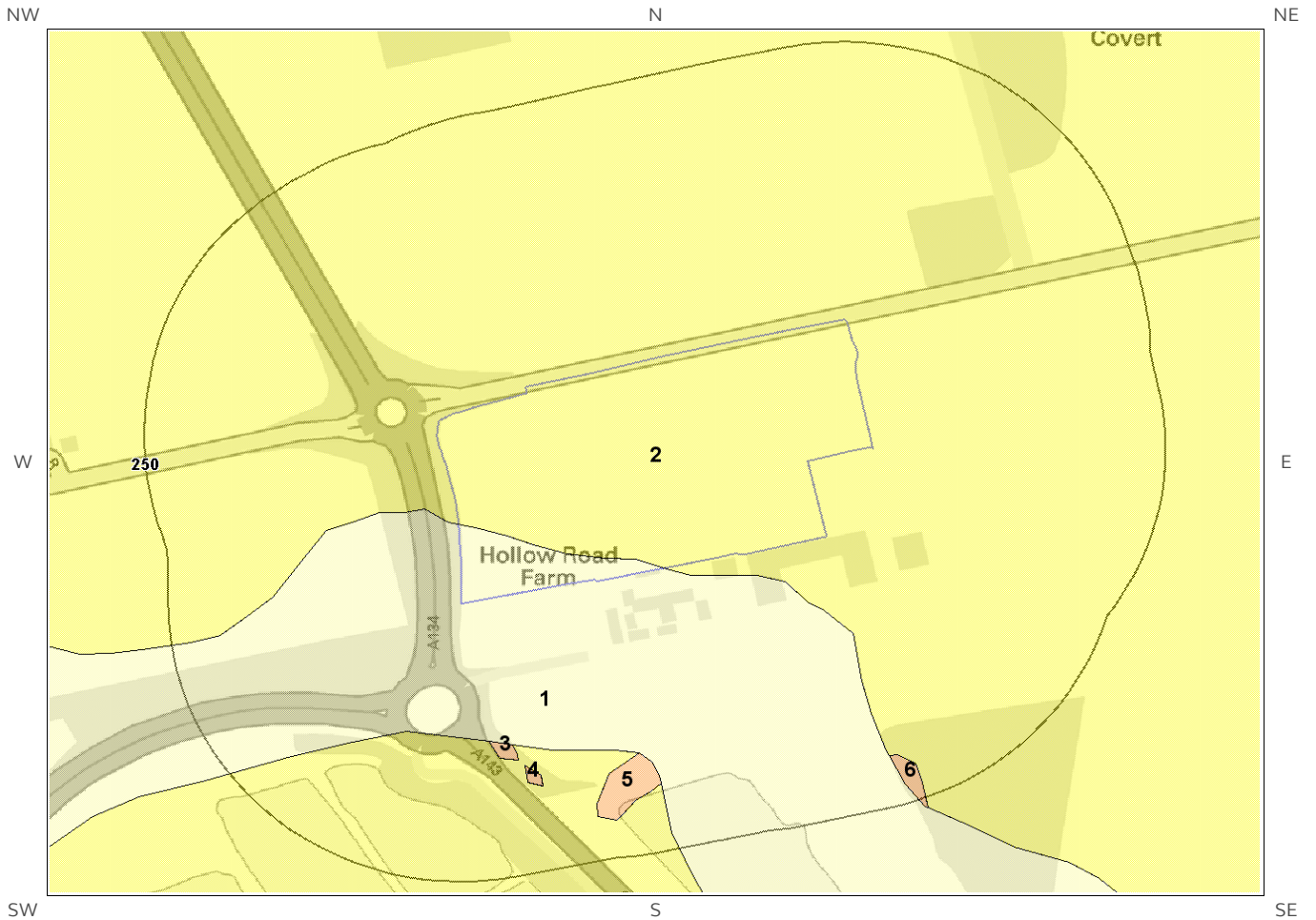


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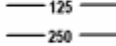


# 4.2 Landslides Map



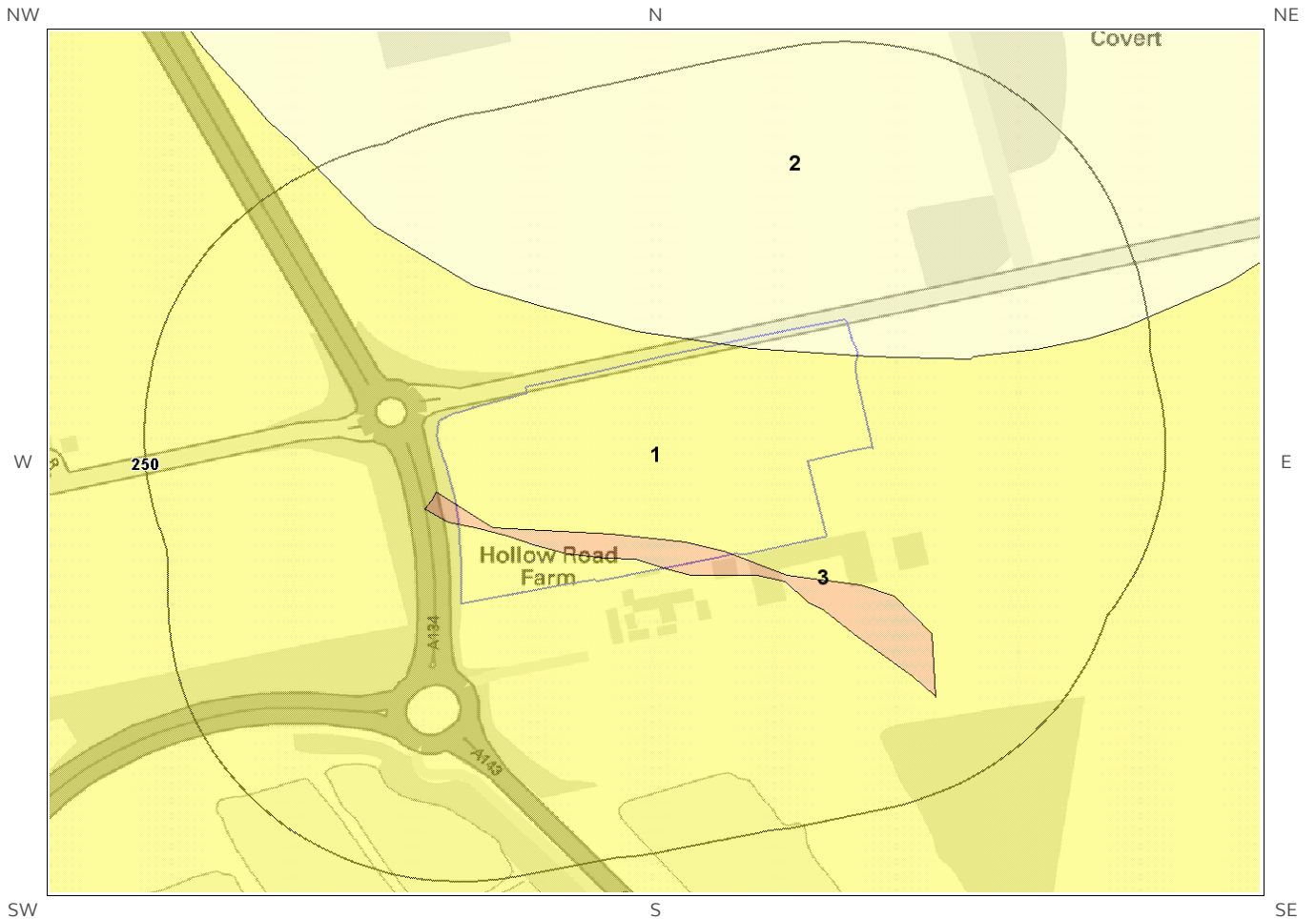
Landslides Legend



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	Site Outline		No Data / Null		Low
	Search Buffers (m)		Negligible		Moderate
			Very Low		High

# 4.3 Ground Dissolution Soluble Rocks Map



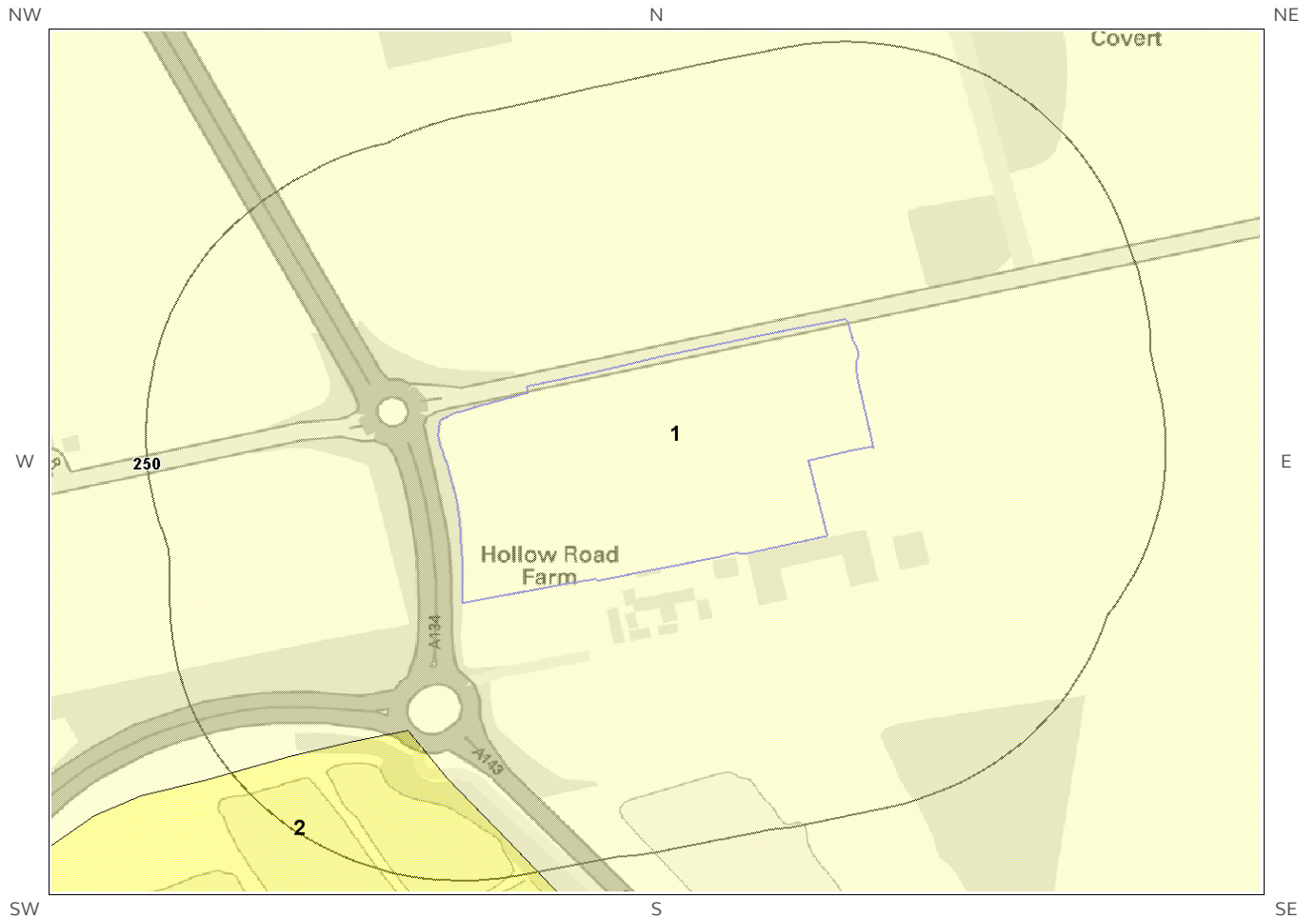
Ground Dissolution Soluble Rocks Legend



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# 4.4 Compressible Deposits Map



Compressible Deposits Legend



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	Site Outline		No Data / Null		Low
	Search Buffers (m)		Negligible		Moderate
			Very Low		High

# 4.5 Collapsible Deposits Map



Collapsible Deposits Legend

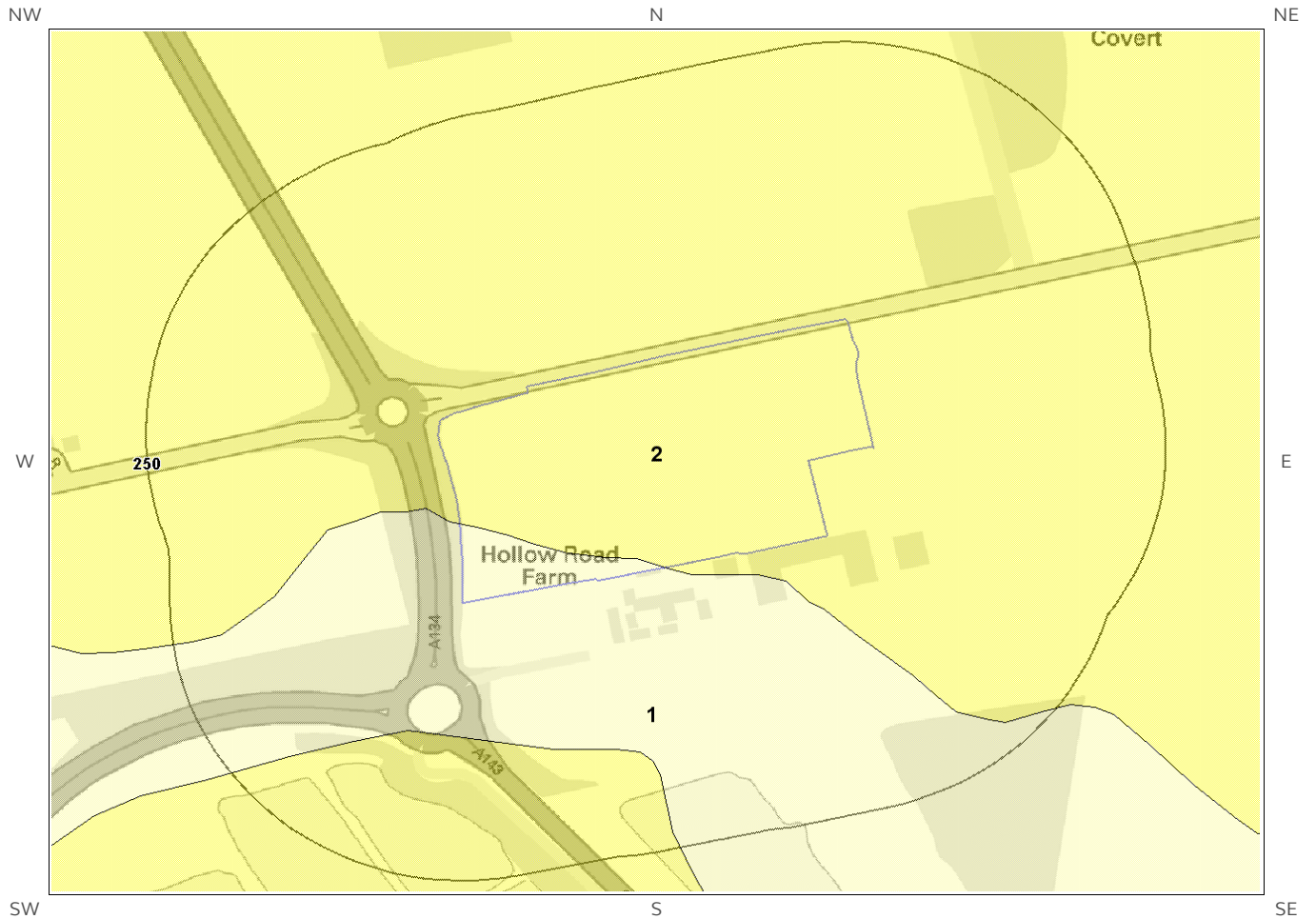


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	Site Outline		No Data / Null		Low
	Search Buffers (m)		Negligible		Moderate
			Very Low		High



# 4.6 Running Sand Map



Running Sand Legend



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	Site Outline		No Data / Null		Low
	Search Buffers (m)		Negligible		Moderate
			Very Low		High

## 4 Natural Ground Subsidence

The National Ground Subsidence rating is obtained through the 6 natural ground stability hazard datasets, which are supplied by the British Geological Survey (BGS).

The following GeoSure data represented on the mapping is derived from the BGS Digital Geological map of Great Britain at 1:50,000 scale.

What is the maximum hazard rating of natural subsidence within the study site\*\* boundary? Low

### 4.1 Shrink-Swell Clays

The following Shrink Swell information provided by the British Geological Survey:

ID	Distance (m)	Direction	Hazard Rating	Details
1	0.0	On Site	Negligible	Ground conditions predominantly non-plastic. No special actions required to avoid problems due to shrink-swell clays. No special ground investigation required, and increased construction costs or increased financial risks are unlikely due to potential problems with shrink-swell clays.
2	0.0	On Site	Negligible	Ground conditions predominantly non-plastic. No special actions required to avoid problems due to shrink-swell clays. No special ground investigation required, and increased construction costs or increased financial risks are unlikely due to potential problems with shrink-swell clays.
3	0.0	On Site	Low	Ground conditions predominantly medium plasticity. Do not plant trees with high soil moisture demands near to buildings. For new build, consideration should be given to advice published by the National House Building Council (NHBC) and the Building Research Establishment (BRE). There is a possible increase in construction cost to reduce potential shrink swell problems. For existing property, there is a possible increase in insurance risk, especially during droughts or where vegetation with high moisture demands is present.

### 4.2 Landslides

The following Landslides information provided by the British Geological Survey:

ID	Distance (m)	Direction	Hazard Rating	Details
1	0.0	On Site	Negligible	No indicators for slope instability identified. No special actions required to avoid problems due to landslides. No special ground investigation required, and increased construction costs or increased financial risks are unlikely due to potential problems with landslides.
2	0.0	On Site	Very Low	Slope instability problems are unlikely to be present. No special actions required to avoid problems due to landslides. No special ground investigation required, and increased construction costs or increased financial risks are unlikely due to potential problems with landslides.

\* This includes an automatically generated 50m buffer zone around the site

### 4.3 Ground Dissolution of Soluble Rocks

The following Ground Dissolution information provided by the British Geological Survey:

ID	Distance (m)	Direction	Hazard Rating	Details
1	0.0	On Site	Very Low	Significant soluble rocks are present. Problems unlikely except with considerable surface or subsurface water flow. No special actions required to avoid problems due to soluble rocks. No special ground investigation required, or increased construction costs are likely. An increase in financial risk due to potential problems with soluble rocks is unlikely.
2	0.0	On Site	Negligible	Soluble rocks are present, but unlikely to cause problems except under exceptional conditions. No special actions required to avoid problems due to soluble rocks. No special ground investigation required, and increased construction costs or increased financial risks are unlikely due to potential problems with soluble rocks.
3	0.0	On Site	Low	Significant soluble rocks are present. Low possibility of subsidence occurring naturally, but may be possible in adverse conditions such as high surface or subsurface water flow. Consider implications for stability when changes to drainage or new construction are planned. For new build, site investigation should consider potential for dissolution problems on the site and its surroundings. Care should be taken with local drainage into the bedrock. Some possibility groundwater pollution. For existing property, possible increase in insurance risk due to soluble rocks.

### 4.4 Compressible Deposits

The following Compressible Deposits information provided by the British Geological Survey:

ID	Distance (m)	Direction	Hazard Rating	Details
1	0.0	On Site	Negligible	No indicators for compressible ground identified. No special actions required to avoid problems due to compressible ground. No special ground investigation required, and increased construction costs or increased financial risks are unlikely due to potential problems with compressible ground.

### 4.5 Collapsible Deposits

The following Collapsible Rocks information provided by the British Geological Survey:

ID	Distance (m)	Direction	Hazard Rating	Details
1	0.0	On Site	Very Low	Deposits with potential to collapse when loaded and saturated are unlikely to be present. No special ground investigation required or increased construction costs or increased financial risk due to potential problems with collapsible deposits.

## 4.6 Running Sands

The following Running Sands information provided by the British Geological Survey:

ID	Distance (m)	Direction	Hazard Rating	Details
1	0.0	On Site	Negligible	No indicators for running sand identified. No special actions required to avoid problems due to running sand. No special ground investigation required, and increased construction costs or increased financial risks are unlikely due to potential problems with running sand.
2	0.0	On Site	Very Low	Very low potential for running sand problems if water table rises or if sandy strata are exposed to water. No special actions required to avoid problems due to running sand. No special ground investigation required, and increased construction costs or increased financial risks are unlikely due to potential problems with running sand.







# 5 Borehole Records Map



Borehole Records Legend



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-  Site Outline
-  Borehole Locations
-  125
-  250 Search Buffers (m)

## 5 Borehole Records

The systematic analysis of data extracted from the BGS Borehole Records database provides the following information.

Records of boreholes within 250m of the study site boundary: 3

ID	Distance (m)	Direction	NGR	BGS Reference	Drilled Length	Borehole Name
1	43.0	S	586240 266230	TL86NE124	-1.0	HOLLOW ROAD FARM, FORNHAM ST MARTIN
2	67.0	S	586260 266210	TL86NE63	48.76	HALLOW RD FARM FOMHAM ST MARTIN
3	144.0	SW	586000 266150	TL86NE11	15.0	A143 DIVERSION BURY ST EDMUNDS 5

The borehole records are available using the hyperlinks below: Please note that if the donor of the borehole record has requested the information be held as commercial-in-confidence, the additional data will be held separately by the BGS and a formal request must be made for its release.

#1: [scans.bgs.ac.uk/sobi\\_scans/boreholes/553772](https://scans.bgs.ac.uk/sobi_scans/boreholes/553772)

#2: [scans.bgs.ac.uk/sobi\\_scans/boreholes/553711](https://scans.bgs.ac.uk/sobi_scans/boreholes/553711)

#3: [scans.bgs.ac.uk/sobi\\_scans/boreholes/553659](https://scans.bgs.ac.uk/sobi_scans/boreholes/553659)

# 6 Estimated Background Soil Chemistry

Records of background estimated soil chemistry within 250m of the study site boundary:

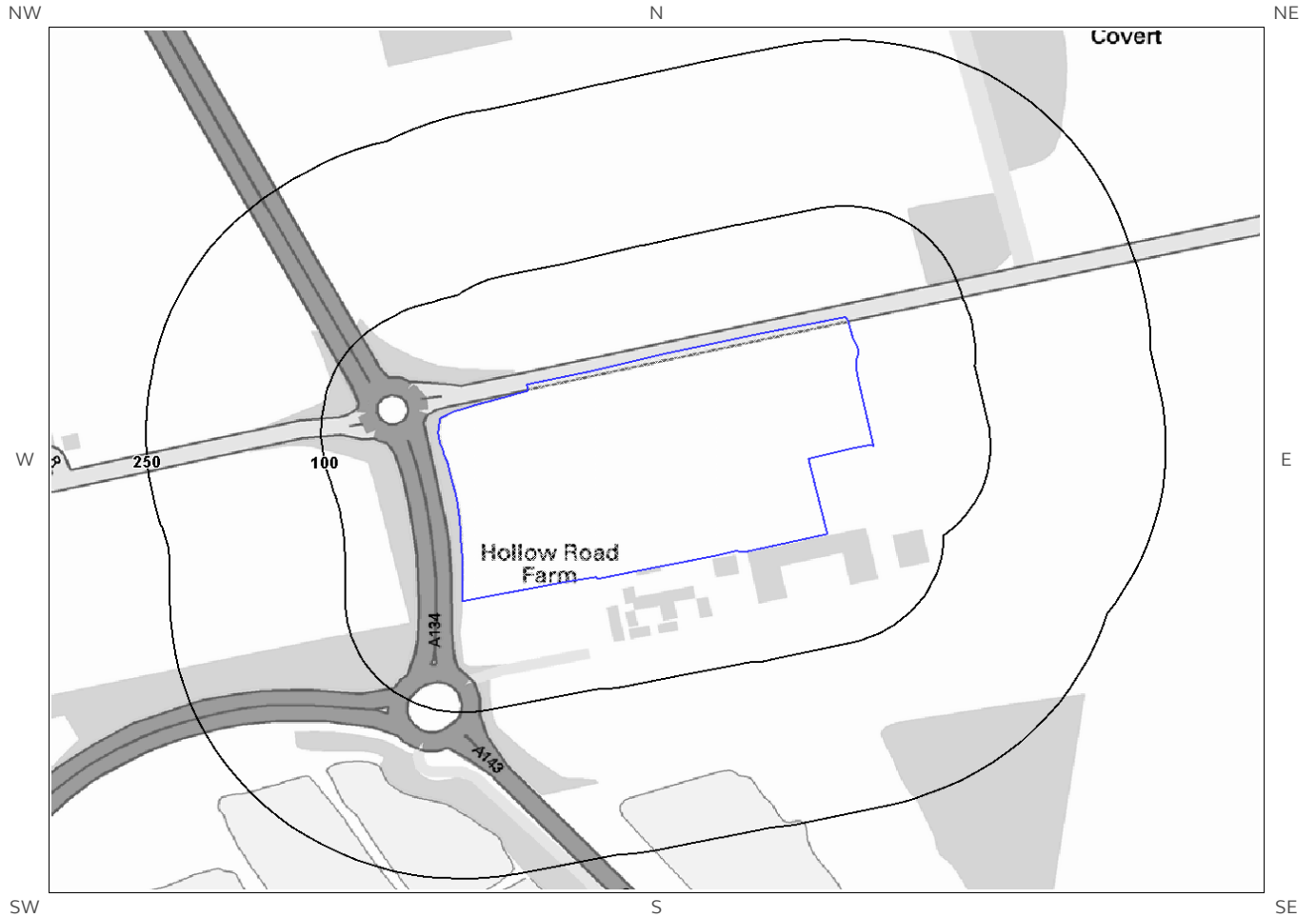
22

For further information on how this data is calculated and limitations upon its use, please see the Groundsure Geosight User Guide, available on request.

Distance (m)	Direction	Sample Type	Arsenic (As)	Cadmium (Cd)	Chromium (Cr)	Nickel (Ni)	Lead (Pb)
0.0	On Site	RuralSoil	<15 mg/kg	<1.8 mg/kg	20 - 40 mg/kg	15 - 30 mg/kg	<100 mg/kg
0.0	On Site	RuralSoil	<15 mg/kg	<1.8 mg/kg	40 - 60 mg/kg	15 - 30 mg/kg	<100 mg/kg
0.0	On Site	RuralSoil	<15 mg/kg	<1.8 mg/kg	20 - 40 mg/kg	<15 mg/kg	<100 mg/kg
0.0	On Site	RuralSoil	<15 mg/kg	<1.8 mg/kg	20 - 40 mg/kg	<15 mg/kg	<100 mg/kg
0.0	On Site	RuralSoil	<15 mg/kg	<1.8 mg/kg	20 - 40 mg/kg	<15 mg/kg	<100 mg/kg
0.0	On Site	RuralSoil	<15 mg/kg	<1.8 mg/kg	40 - 60 mg/kg	15 - 30 mg/kg	<100 mg/kg
43.0	E	RuralSoil	<15 mg/kg	<1.8 mg/kg	40 - 60 mg/kg	15 - 30 mg/kg	<100 mg/kg
56.0	E	RuralSoil	<15 mg/kg	<1.8 mg/kg	20 - 40 mg/kg	<15 mg/kg	<100 mg/kg
61.0	E	RuralSoil	<15 mg/kg	<1.8 mg/kg	20 - 40 mg/kg	<15 mg/kg	<100 mg/kg
72.0	N	RuralSoil	<15 mg/kg	<1.8 mg/kg	20 - 40 mg/kg	<15 mg/kg	<100 mg/kg
84.0	W	RuralSoil	<15 mg/kg	<1.8 mg/kg	20 - 40 mg/kg	<15 mg/kg	<100 mg/kg
84.0	W	RuralSoil	<15 mg/kg	<1.8 mg/kg	20 - 40 mg/kg	<15 mg/kg	<100 mg/kg
88.0	N	RuralSoil	<15 mg/kg	<1.8 mg/kg	20 - 40 mg/kg	<15 mg/kg	<100 mg/kg
90.0	S	RuralSoil	<15 mg/kg	<1.8 mg/kg	40 - 60 mg/kg	15 - 30 mg/kg	<100 mg/kg
102.0	W	RuralSoil	<15 mg/kg	<1.8 mg/kg	20 - 40 mg/kg	15 - 30 mg/kg	<100 mg/kg
102.0	W	RuralSoil	<15 mg/kg	<1.8 mg/kg	20 - 40 mg/kg	15 - 30 mg/kg	<100 mg/kg
119.0	S	RuralSoil	<15 mg/kg	<1.8 mg/kg	40 - 60 mg/kg	15 - 30 mg/kg	<100 mg/kg
122.0	NW	RuralSoil	<15 mg/kg	<1.8 mg/kg	20 - 40 mg/kg	<15 mg/kg	<100 mg/kg
122.0	NW	RuralSoil	<15 mg/kg	<1.8 mg/kg	20 - 40 mg/kg	<15 mg/kg	<100 mg/kg
158.0	SE	RuralSoil	<15 mg/kg	<1.8 mg/kg	40 - 60 mg/kg	15 - 30 mg/kg	<100 mg/kg
183.0	N	RuralSoil	<15 mg/kg	<1.8 mg/kg	40 - 60 mg/kg	15 - 30 mg/kg	<100 mg/kg
249.0	S	RuralSoil	<15 mg/kg	<1.8 mg/kg	20 - 40 mg/kg	15 - 30 mg/kg	<100 mg/kg

\*As this data is based upon underlying 1:50,000 scale geological information, a 50m buffer has been added to the search radius.











# 7 Railways and Tunnels Map



**Railways and Tunnels Legend**



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- |   |                    |   |  |   |   |
|---|--------------------|---|--|---|---|
|  | Site Outline       |  | Underground or Partially Underground Railway / Subway System |  | Railway Track (OpenStreetMap)                         |
|  | Search Buffers (m) |  | Railway Tunnel (OS Mapping)                                  |  | High Speed 2  |
|   |                    |  | Abandoned or Dismantled Railway (OpenStreetMap)              |  | Crossrail 1   |
|   |                    |  | Railway Track (OS Mapping)                                   |  | Railway and/or Tunnel Feature from Historical Mapping |

# 7 Railways and Tunnels

## 7.1 Tunnels

This data is derived from OpenStreetMap and provides information on the possible locations of underground railway systems in the UK - the London Underground, the Tyne & Wear Metro and the Glasgow Subway.

Have any underground railway lines been identified within the study site boundary? No

Have any underground railway lines been identified within 250m of the study site boundary? No

Database searched and no data found.

*Any records that have been identified are represented on the Railways and Tunnels Map.*

---

This data is derived from Ordnance Survey mapping and provides information on the possible locations of railway tunnels forming part of the UK overground railway network.

Have any other railway tunnels been identified within the site boundary? No

Have any other railway tunnels been identified within 250m of the site boundary? No

Database searched and no data found.

*Any records that have been identified are represented on the Railways and Tunnels Map.*

---

## 7.2 Historical Railway and Tunnel Features

This data is derived from Groundsure's unique Historical Land-use Database and contains features relating to tunnels, railway tracks or associated works that have been identified from historical Ordnance Survey mapping.

Have any historical railway or tunnel features been identified within the study site boundary? No

Have any historical railway or tunnel features been identified within 250m of the study site boundary? No

Database searched and no data found.

*Any records that have been identified are represented on the Railways and Tunnels Map.*

---

### 7.3 Historical Railways

This data is derived from OpenStreetMap and provides information on the possible alignments of abandoned or dismantled railway lines in proximity to the study site.

Have any historical railway lines been identified within the study site boundary?	No
Have any historical railway lines been identified within 250m of the study site boundary?	No

Database searched and no data found.

Note: multiple sections of the same track may be listed in the detail above

*Any records that have been identified are represented on the Railways and Tunnels Map.*

---

### 7.4 Active Railways

These datasets are derived from Ordnance Survey mapping and OpenStreetMap and provide information on the possible locations of active railway lines in proximity to the study site.

Have any active railway lines been identified within the study site boundary?	No
Have any active railway lines been identified within 250m of the study site boundary?	No

Database searched and no data found.

Note: multiple sections of the same track may be listed in the detail above

*Any records that have been identified are represented on the Railways and Tunnels Map.*

---

### 7.5 Railway Projects

These datasets provide information on the location of large scale railway projects High Speed 2 and Crossrail 1 .

Is the study site within 5km of the route of the High Speed 2 rail project?	No
Is the study site within 500m of the route of the Crossrail 1 rail project?	No

*Further information on proximity to these routes, the project construction status and associated works can be obtained through the purchase of a Groundsure HS2 and Crossrail 1 Report.*

---

The route data has been digitised from publicly available maps by Groundsure. The route as provided relates to the Crossrail 1 project only, and does not include any details of the Crossrail 2 project, as final details of the route for Crossrail 2 are still under consultation.

# Contact Details

**Groundsure Helpline**  
Telephone: 08444 159 000  
info@groundsure.com



## British Geological Survey Enquiries

Kingsley Dunham Centre  
Keyworth, Nottingham NG12 5GG  
Tel: 0115 936 3143.  
Fax: 0115 936 3276.  
Email: [enquiries@bgs.ac.uk](mailto:enquiries@bgs.ac.uk)  
Web: [www.bgs.ac.uk](http://www.bgs.ac.uk)

BGS Geological Hazards Reports and general geological enquiries



## British Gypsum

British Gypsum Ltd  
East Leake  
Loughborough  
Leicestershire  
LE12 6HX



## The Coal Authority

200 Lichfield Lane  
Mansfield  
Notts NG18 4RG  
Tel: 0345 7626 848  
DX 716176 Mansfield 5  
[www.coal.gov.uk](http://www.coal.gov.uk)



## Public Health England

Public information access office  
Public Health England, Wellington House  
133-155 Waterloo Road, London, SE1 8UG  
<https://www.gov.uk/government/organisations/public-health-england>  
Email: [enquiries@phe.gov.uk](mailto:enquiries@phe.gov.uk)  
Main switchboard: 020 7654 8000



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Brierley Hill, West Midlands  
DY5 3LH  
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Website: [www.jpb.co.uk](http://www.jpb.co.uk)



## Ordnance Survey

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Website: <http://www.peterbrett.com/home>



# Contact Details



Acknowledgements: Ordnance Survey © Crown Copyright and/or Database Right. All Rights Reserved. Licence Number [03421028]. This report has been prepared in accordance with the Groundsure Ltd standard Terms and Conditions of business for work of this nature.



## Standard Terms and Conditions

### 1 Definitions

In these terms and conditions unless the context otherwise requires:

**“Beneficiary”** means the person or entity for whose benefit the Client has obtained the Services.

**“Client”** means the party or parties entering into a Contract with Groundsure.

**“Commercial”** means any building or property which is not Residential.

**“Confidential Information”** means the contents of this Contract and all information received from the Client as a result of, or in connection with, this Contract other than

(i) information which the Client can prove was rightfully in its possession prior to disclosure by Groundsure and

(ii) any information which is in the public domain (other than by virtue of a breach of this Contract).

**“Support Services”** means Support Services provided by Groundsure including, without limitation, interpreting third party and in-house environmental data, providing environmental support advice, undertaking environmental audits and assessments, Site investigation, Site monitoring and related items.

**“Contract”** means the contract between Groundsure and the Client for the provision of the Services, and which shall incorporate these terms and conditions, the Order, and the relevant User Guide.

**“Third Party Data Provider”** means any third party providing Third Party Content to Groundsure.

**“Data Reports”** means reports comprising factual data with no accompanying interpretation.

**“Fees”** has the meaning set out in clause 5.1.

**“Groundsure”** means Groundsure Limited, a company registered in England and Wales under number 03421028.

**“Groundsure Materials”** means all materials prepared by Groundsure and provided as part of the Services, including but not limited to Third Party Content, Data Reports, Mapping, and Risk Screening Reports.

**“Intellectual Property”** means any patent, copyright, design rights, trade or service mark, moral rights, data protection rights, know-how or trade mark in each case whether registered or not and including applications for the same or any other rights of a similar nature anywhere in the world.

**“Mapping”** means a map, map data or a combination of historical maps of various ages, time periods and scales.

**“Order”** means an electronic, written or other order form submitted by the Client requesting Services from Groundsure in respect of a specified Site.

**“Ordnance Survey”** means the Secretary of State for Business, Innovation and Skills, acting through Ordnance Survey, Adanac Drive, Southampton, SO16 0AS, UK.

**“Order Website”** means the online platform through which Orders may be placed by the Client and accepted by Groundsure.

**“Report”** means a Risk Screening Report or Data Report for Commercial or Residential property.

**“Residential”** means any building or property used as or intended to be used as a single dwelling.

**“Risk Screening Report”** means a risk screening report comprising factual data with an accompanying interpretation by Groundsure.

**“Services”** means any Report, Mapping and/or Support Services which Groundsure has agreed to provide by accepting an Order pursuant to clause 2.6.

**“Site”** means the area of land in respect of which the Client has requested Groundsure to provide the Services.

**“Third Party Content”** means data, database information or other information which is provided to Groundsure by a Third Party Data Provider.

**“User Guide”** means the user guide, as amended from time to time, available upon request from Groundsure and on the website ([www.Groundsure.com](http://www.Groundsure.com)) and forming part of this Contract.

### 2 Scope of Services, terms and conditions, requests for insurance and quotations

2.1 Groundsure agrees to provide the Services in accordance with the Contract.

2.2 Groundsure shall exercise reasonable skill and care in the provision of the Services.

2.3 Subject to clause 7.3 the Client acknowledges that it has not relied on any statement or representation made by or on behalf of Groundsure which is not set out and expressly agreed in writing in the Contract and all such statements and representations are hereby excluded to the fullest extent permitted by law.

2.4 The Client acknowledges that terms and conditions appearing on a Client's order form, printed stationery or other communication, or any terms or conditions implied by custom, practice or course of dealing shall be of no effect, and that this Contract shall prevail over all others in relation to the Order.

2.5 If the Client or Beneficiary requests insurance in conjunction with or as a result of the Services, Groundsure shall use reasonable endeavours to recommend such insurance, but makes no warranty that such insurance shall be available from insurers or that it will be offered on reasonable terms. Any insurance purchased by the Client or Beneficiary shall be subject solely to the terms of the policy issued by insurers and Groundsure will have no liability therefor. In addition you acknowledge and agree that Groundsure does not act as an agent or broker for any insurance providers. The Client should take (and ensure that the Beneficiary takes) independent advice to ensure that the insurance policy requested or offered is suitable for its requirements.

2.6 Groundsure's quotations or proposals are valid for a period of 30 days only unless an alternative period of time is explicitly stipulated by Groundsure.

Groundsure reserves the right to withdraw any quotation or proposal at any time before an Order is accepted by Groundsure. Groundsure's acceptance of an Order shall be binding only when made in writing and signed by Groundsure's authorised representative or when accepted through the Order Website.

### 3 The Client's obligations

3.1 The Client shall comply with the terms of this Contract and

(i) procure that the Beneficiary or any third party relying on the Services complies with and acts as if it is bound by the Contract and

(ii) be liable to Groundsure for the acts and omissions of the Beneficiary or any third party relying on the Services as if such acts and omissions were those of the Client.

3.2 The Client shall be solely responsible for ensuring that the Services are appropriate and suitable for its and/or the Beneficiary's needs.

3.3 The Client shall supply to Groundsure as soon as practicable and without charge all requisite information (and the Client warrants that such information is accurate, complete and appropriate), including without limitation any environmental information relating to the Site and shall give such assistance as Groundsure shall reasonably require in the provision of the Services including, without limitation, access to the Site, facilities and equipment.

3.4 Where the Client's approval or decision is required to enable Groundsure to carry out work in order to provide the Services, such approval or decision shall be given or procured in reasonable time and so as not to delay or disrupt the performance of the Services.

3.5 Save as expressly permitted by this Contract the Client shall not, and shall procure that the Beneficiary shall not, re-sell, alter, add to, or amend the Groundsure Materials, or use the Groundsure Materials in a manner for which they were not intended. The Client may make the Groundsure Materials available to a third party who is considering acquiring some or all of, or providing funding in relation to, the Site, but such third party cannot rely on the same unless expressly permitted under clause 4.

3.6 The Client is responsible for maintaining the confidentiality of its user name and password if using the Order Website and the Client acknowledges that Groundsure accepts no liability of any kind for any loss or damage suffered by the Client as a consequence of using the Order Website.

### 4 Reliance

4.1 The Client acknowledges that the Services provided by Groundsure consist of the presentation and analysis of Third Party Content and other content and that information obtained from a Third Party Data Provider cannot be guaranteed or warranted by Groundsure to be reliable.

4.2 In respect of Data Reports, Mapping and Risk Screening Reports, the following classes of person and no other are entitled to rely on their contents;

(i) the Beneficiary,  
(ii) the Beneficiary's professional advisers, (iii) any person providing funding to the Beneficiary in relation to the Site (whether directly or as part of a lending syndicate),  
(iv) the first purchaser or first tenant of the Site, and  
(v) the professional advisers and lenders of the first purchaser or tenant of the Site.

4.3 In respect of Support Services, only the Client, Beneficiary and parties expressly named in a Report and no other parties are entitled to rely on its contents.

4.4 Save as set out in clauses 4.2 and 4.3 and unless otherwise expressly agreed in writing, no other person or entity of any kind is entitled to rely on any Services or Report issued or provided by Groundsure. Any party considering such Reports and Services does so at their own risk.

### 5 Fees and Disbursements

5.1 Groundsure shall charge and the Client shall pay fees at the rate and frequency specified in the written proposal, Order Website or Order acknowledgement form, plus (in the case of Support Services) all proper disbursements incurred by Groundsure. The Client shall in addition pay all value added tax or other tax payable on such fees and disbursements in relation to the provision of the Services (together “Fees”).

5.2 The Client shall pay all outstanding Fees to Groundsure in full without deduction, counterclaim or set off within 30 days of the date of Groundsure's invoice or such other period as may be agreed in writing between Groundsure and the Client (“Payment Date”). Interest on late payments will accrue on a daily basis from the Payment Date until the date of payment (whether before or after judgment) at the rate of 8% per annum.

5.3 The Client shall be deemed to have agreed the amount of any invoice unless an objection is made in writing within 28 days of the date of the invoice. As soon as reasonably practicable after being notified of an objection, without prejudice to clause 5.2 a member of Groundsure's management team will contact the Client and the parties shall then use all reasonable endeavours to resolve the dispute within 15 days.

### 6 Intellectual Property and Confidentiality

6.1 Subject to

(i) full payment of all relevant Fees and  
(ii) compliance with this Contract, the Client is granted (and is permitted to sub-licence to the Beneficiary) a royalty-free, worldwide, non-assignable and (save to the extent set out in this Contract) non-transferable licence to make use of the Groundsure Materials.

6.2 All Intellectual Property in the Groundsure Materials are and shall remain owned by Groundsure or Groundsure's licensors (including without limitation the Third Party Data Providers) the Client acknowledges, and shall procure

acknowledgement by the Beneficiary of, such ownership. Nothing in this Contract purports to transfer or assign any rights to the Client or the Beneficiary in respect of such Intellectual Property.

6.3 Third Party Data Providers may enforce any breach of clauses 6.1 and 6.2 against the Client or Beneficiary.

6.4 The Client shall, and shall procure that any recipients of the Groundsure Materials shall:

(i) not remove, suppress or modify any trade mark, copyright or other proprietary marking belonging to Groundsure or any third party from the Services;

(ii) use the information obtained as part of the Services in respect of the subject Site only, and shall not store or reuse any information obtained as part of the Services provided in respect of adjacent or nearby sites;

(iii) not create any product or report which is derived directly or indirectly from the Services (save that those acting in a professional capacity to the Beneficiary may provide advice based upon the Services);

(iv) not combine the Services with or incorporate such Services into any other information data or service;

(v) not reformat or otherwise change (whether by modification, addition or enhancement), the Services (save that those acting for the Beneficiary in a professional capacity shall not be in breach of this clause 6.4(v) where such reformatting is in the normal course of providing advice based upon the Services);

(vi) where a Report and/or Mapping contains material belonging to Ordnance Survey, acknowledge and agree that such content is protected by Crown Copyright and shall not use such content for any purpose outside of receiving the Services; and

(vii) not copy in whole or in part by any means any map prints or run-on copies containing content belonging to Ordnance Survey (other than that contained within Ordnance Survey's OS Street Map) without first being in possession of a valid Paper Map Copying Licence from Ordnance Survey,

6.5 Notwithstanding clause 6.4, the Client may make reasonable use of the Groundsure Materials in order to advise the Beneficiary in a professional capacity. However, Groundsure shall have no liability in respect of any advice, opinion or report given or provided to Beneficiaries by the Client.

6.6 The Client shall procure that any person to whom the Services are made available shall notify Groundsure of any request or requirement to disclose, publish or disseminate any information contained in the Services in accordance with the Freedom of Information Act 2000, the Environmental Information Regulations 2004 or any associated legislation or regulations in force from time to time.

#### **7. Liability: Particular Attention Should Be Paid To This Clause**

7.1 This Clause 7 sets out the entire liability of Groundsure, including any liability for the acts or omissions of its employees, agents, consultants, subcontractors and Third Party Content, in respect of:

(i) any breach of contract, including any deliberate breach of the Contract by Groundsure or its employees, agents or subcontractors;

(ii) any use made of the Reports, Services, Materials or any part of them; and

(iii) any representation, statement or tortious act or omission (including negligence) arising under or in connection with the Contract.

7.2 All warranties, conditions and other terms implied by statute or common law are, to the fullest extent permitted by law, excluded from the Contract.

7.3 Nothing in the Contract limits or excludes the liability of the Supplier for death or personal injury resulting from negligence, or for any damage or liability incurred by the Client or Beneficiary as a result of fraud or fraudulent misrepresentation.

7.4 Groundsure shall not be liable for

(i) loss of profits;

(ii) loss of business;

(iii) depletion of goodwill and/or similar losses;

(iv) loss of anticipated savings;

(v) loss of goods;

(vi) loss of contract;

(vii) loss of use;

(viii) loss or corruption of data or information;

(ix) business interruption;

(x) any kind of special, indirect, consequential or pure economic loss, costs, damages, charges or expenses;

(xi) loss or damage that arise as a result of the use of all or part of the Groundsure Materials in breach of the Contract;

(xii) loss or damage arising as a result of any error, omission or inaccuracy in any part of the Groundsure Materials where such error, omission or inaccuracy is caused by any Third Party Content or any reasonable interpretation of Third Party Content;

(xiii) loss or damage to a computer, software, modem, telephone or other property; and

(xiv) loss or damage caused by a delay or loss of use of Groundsure's internet ordering service.

7.5 Groundsure's total liability in relation to or under the Contract shall be limited to £10 million for any claim or claims.

7.6 Groundsure shall procure that the Beneficiary shall be bound by limitations and exclusions of liability in favour of Groundsure which accord with those detailed in clauses 7.4 and 7.5 (subject to clause 7.3) in respect of all claims which the Beneficiary may bring against Groundsure in relation to the Services or other matters arising pursuant to the Contract.

#### **8 Groundsure's right to suspend or terminate**

8.1 If Groundsure reasonably believes that the Client or Beneficiary has not provided the information or assistance required to enable the proper provision of the Services, Groundsure shall be entitled to suspend all further performance of the Services until such time as any such deficiency has been made good.

8.2 Groundsure shall be entitled to terminate the Contract immediately on written notice in the event that:

(i) the Client fails to pay any sum due to Groundsure within 30 days of the Payment Date; or

(ii) the Client (being an individual) has a bankruptcy order made against him or (being a company) shall enter into liquidation whether compulsory or voluntary or have an administration order made against it or if a receiver shall be appointed over the whole or any part of its property assets or undertaking or if the Client is struck off the Register of Companies or dissolved; or

(iii) the Client being a company is unable to pay its debts within the meaning of Section 123 of the Insolvency Act 1986 or being an individual appears unable to pay his debts within the meaning of Section 268 of the Insolvency Act 1986 or if the Client shall enter into a composition or arrangement with the Client's creditors or shall suffer distress or execution to be levied on his goods; or

(iv) the Client or the Beneficiary breaches any term of the Contract (including, but not limited to, the obligations in clause 4) which is incapable of remedy or if remediable, is not remedied within five days of notice of the breach.

#### **9. Client's Right to Terminate and Suspend**

9.1 Subject to clause 10.1, the Client may at any time upon written notice terminate or suspend the provision of all or any of the Services.

9.2 In any event, where the Client is a consumer (and not a business) he/she hereby expressly acknowledges and agrees that:

(i) the supply of Services under this Contract (and therefore the performance of this Contract) commences immediately upon Groundsure's acceptance of the Order; and

(ii) the Reports and/or Mapping provided under this Contract are

(a) supplied to the Client's specification(s) and in any event  
(b) by their nature cannot be returned.

#### **10 Consequences of Withdrawal, Termination or Suspension**

10.1 Upon termination of the Contract:

(i) Groundsure shall take steps to bring to an end the Services in an orderly manner, vacate any Site with all reasonable speed and shall deliver to the Client and/or Beneficiary any property of the Client and/or Beneficiary in Groundsure's possession or control; and

(ii) the Client shall pay to Groundsure all and any Fees payable in respect of the performance of the Services up to the date of termination or suspension. In respect of any Support Services provided, the Client shall also pay Groundsure any additional costs incurred in relation to the termination or suspension of the Contract.

#### **11 Anti-Bribery**

11.1 The Client warrants that it shall:

(i) comply with all applicable laws, statutes and regulations relating to anti-bribery and anti-corruption including but not limited to the Bribery Act 2010;

(ii) comply with such of Groundsure's anti-bribery and anti-corruption policies as are notified to the Client from time to time; and

(iii) promptly report to Groundsure any request or demand for any undue financial or other advantage of any kind received by or on behalf of the Client in connection with the performance of this Contract.

11.2 Breach of this Clause 11 shall be deemed a material breach of this Contract.

#### **12 General**

12.1 The Mapping contained in the Services is protected by Crown copyright and must not be used for any purpose other than as part of the Services or as specifically provided in the Contract.

12.2 The Client shall be permitted to make one copy only of each Report or Mapping Order. Thereafter the Client shall be entitled to make unlimited copies of the Report or Mapping Order only in accordance with an Ordnance Survey paper map copy license available through Groundsure.

12.3 Groundsure reserves the right to amend or vary this Contract. No amendment or variation to this Contract shall be valid unless signed by an authorised representative of Groundsure.

12.4 No failure on the part of Groundsure to exercise, and no delay in exercising, any right, power or provision under this Contract shall operate as a waiver thereof.

12.5 Save as expressly provided in this Contract, no person other than the persons set out therein shall have any right under the Contract (Rights of Third Parties) Act 1999 to enforce any terms of the Contract.

12.6 The Secretary of State for Business, Innovation and Skills ("BIS") or BIS' successor body, as the case may be, acting through Ordnance Survey may enforce a breach of clause 6.4(vi) and clause 6.4(vii) of these terms and conditions against the Client in accordance with the provisions of the Contracts (Rights of Third Parties) Act 1999.

12.7 Groundsure shall not be liable to the Client if the provision of the Services is delayed or prevented by one or more of the following circumstances:

- (i) the Client or Beneficiary's failure to provide facilities, access or information;
- (ii) fire, storm, flood, tempest or epidemic;
- (iii) Acts of God or the public enemy;
- (iv) riot, civil commotion or war;
- (v) strikes, labour disputes or industrial action;
- (vi) acts or regulations of any governmental or other agency;
- (vii) suspension or delay of services at public registries by Third Party Data Providers;
- (viii) changes in law; or
- (ix) any other reason beyond Groundsure's reasonable control.

In the event that Groundsure is prevented from performing the Services (or any part thereof) in accordance with this clause 12.6 for a period of not less than 30 days then Groundsure shall be entitled to terminate this Contract immediately on written notice to the Client.

12.8 Any notice provided shall be in writing and shall be deemed to be properly given if delivered by hand or sent by first class post, facsimile or by email to the address, facsimile number or email address of the relevant party as may have been notified by each party to the other for such purpose or in the absence of such notification the last known address.

12.9 Such notice shall be deemed to have been received on the day of delivery if delivered by hand, facsimile or email (save to the extent such day is not a working day where it shall be deemed to have been delivered on the next working day) and on the second working day after the day of posting if sent by first class post.

12.10 The Contract constitutes the entire agreement between the parties and shall supersede all previous arrangements between the parties relating to the subject matter hereof.

12.11 Each of the provisions of the Contract is severable and distinct from the others and if one or more provisions is or should become invalid, illegal or unenforceable, the validity and enforceability of the remaining provisions shall not in any way be tainted or impaired.

12.12 This Contract shall be governed by and construed in accordance with English law and any proceedings arising out of or connected with this Contract shall be subject to the exclusive jurisdiction of the English courts.

12.13 Groundsure is an executive member of the Council of Property Search Organisation (CoPSO) and has signed up to the Search Code administered by the Property Codes Compliance Board (PCCB). All Risk Screening Reports shall be supplied in accordance with the provisions of the Search Code.

12.14 If the Client or Beneficiary has a complaint about the Services, written notice should be given to the Compliance Officer at Groundsure who will respond in a timely manner.

12.15 The Client agrees that it shall, and shall procure that each Beneficiary shall, treat in confidence all Confidential Information and shall not, and shall procure that each Beneficiary shall not (i) disclose any Confidential Information to any third party other than in accordance with the terms of this Contract; and (ii) use Confidential Information for a purpose other than the exercise of its rights and obligations under this Contract. Subject to clause 6.6, nothing shall prevent the Client or any Beneficiary from disclosing Confidential Information to the extent required by law

# Appendix G

Site area requirement justification schedule

## Delivering New Waste Management and Operational Facilities for West Suffolk

### Site Size Requirements – Further Information

The table below sets out the site area requirements for Option 4 (fully co-located waste and operational facilities). The requirements are likely to be further developed and changed during design development and can be site-dependent due to the shape, topography and access to a particular site.

Element	Requirement (m <sup>2</sup> )	Rationale
Waste Transfer Station	9100 m <sup>2</sup>	WTS sized according to current volumes of waste and expected increase over next 20 yrs.
Household Waste Recycling Centre	5600 m <sup>2</sup>	HWRC sized according to current volumes of waste and expected increase over next 20 yrs.
Depot Buildings (Office and Workshop Areas)	4750 m <sup>2</sup>	Area of workshop sized by number of work bays required and by size of vehicles to be serviced. Office area based on number of people working on site and number of different functions within workforce.

Element	Requirement (m <sup>2</sup> )	Justification
Refuse Freighter and Large Vehicle Parking	9600 m <sup>2</sup>	Area based on number of vehicles to be parked, size of vehicles and circulation space required to provide a safe working area.
Staff Car Parking	3800 m <sup>2</sup>	Number of parking spaces based on number of people expected to be working on site (taking into account sustainable transport requirements), visitor parking requirements and parking standards.
Fuelling and Vehicle Washdown	1800 m <sup>2</sup>	Allowance made for sizes of vehicles, manoeuvring space required, type of washdown equipment (under body wash or superstructure wash). Fuel bays sized to fuel vehicles both sides of a pump with fuel tanks large enough to purchase fuel economically.
Storage Areas, Access Roads and Site Circulation Space	10800 m <sup>2</sup>	Allowance made for number and size of vehicles and attachable implements that require storage. Sheds provided for safe storage of small items of equipment. Wheeled bin storage sized for both new bins that are stackable and used bins that require repair which are not stackable. Road to provide safe circulation around site with adequate turning radiuses for large vehicles and suitable visibility.
Contingency	4545m <sup>2</sup>	10% contingency sum to deal with site-specific requirements such as shape, topography and landscaping.
Total	49995 m <sup>2</sup> 5 hectares	

# Appendix H

Report on locational criteria for waste management and operational facilities

## **Delivering New Waste Management and Operational Facilities for West Suffolk**

### **Site Location Criteria – Further Information**

#### **1. Introduction**

One of the site selection criteria used in the Identification and Assessment of Potential Options and Sites report is “proximity/relationship with Bury St Edmunds” based on:

- Distance from Bury St Edmunds
- Proximity / ease of access to the A14
- Nearest A14 junction

This is one of the ‘exclusionary’ criteria for both the stage 1 assessment of brownfield sites and stage 2 assessment of greenfield sites. The reasoning behind the criterion is set out below.

#### **2. Background**

The rationale for focusing on sites close to and with good access to junctions 42, 43 and 44 is that this ensures they are close enough to West Suffolk’s major centre of population (Bury St. Edmunds), in addition to being well located in relation to the other population centres, to offer the most effective and efficient waste collection and transfer processes.

Following feedback from the West Suffolk Operational Hub/Hollow Road Farm public consultation in March/April 2015 a review of the junction criteria was undertaken. This included detailed analysis using Routesmart for both Junctions 41 (Risby) and 45 (Rookery Crossroads / Rougham); these are the junctions either side of the three (Bury St Edmunds) junctions identified by the councils as being as suitable to serve a fully co-located facility. Further information about Routesmart can be found at Appendix A.

Routesmart analysis for Junction 43, Central Bury St Edmunds, was also conducted for comparison purposes (see Appendix B).



The Routesmart analyses are based on existing levels of service provision. Housing growth, in particular, will lead to increases in the figures (including costs) identified in this report.

### **3. Sites Utilising Junction 41 (Risby / Saxham)**

If the optimal solution (Option 4 – co-location of all facilities) were located on a site utilising Junction 41 there would be an associated impact on operational efficiency (an additional distance of approximately 3.7 miles in each direction for the majority of the vehicle fleet when compared with a junction 43 site), particularly for operational activities involving Bury St Edmunds Waste and Street Scene services.

This would:

- lead to the need for an additional refuse collection vehicle and crew (£165,000 per year at today's rates) when compared to a site located close to J43;
- increase fuel costs;
- have a negative impact on the ability of commercial waste services to increase income;
- have a negative impact on the wider efficiency of West Suffolk's fleet - street cleansing and landscape services will have to travel further; and
- be less sustainable.

Additionally, a junction 41 based site would be further from the Materials Recovery Facility and the Energy from Waste (EfW) facility which would incur additional bulk haulage costs of around £22,000 per annum when compared to a site located close to J43.

### **4. Sites Utilising Junction 45 (Rookery Crossroads / Rougham)**

If the optimal solution (Option 4 – co-location of all facilities) was located on a site utilising Junction 45 there would be an associated impact on operational efficiency, particularly for Waste and Street Scene service activities in Bury St Edmunds and in the western parts of West Suffolk (Newmarket and Mildenhall) as they would have to travel to and from a site east of Bury St Edmunds.

Junction 45 is 3.4 miles further (via the A14) from Forest Heath than sites in the vicinity of Junction 43, leading to a 12.5% increase in mileage overall (calculated using Routesmart software – see appendix B).

This would mean:

- the need for an additional refuse collection vehicle and crew (£165,000 per year at today's rates) when compared to a site located close to J43;
- an increase fuel costs;
- a negative impact on the ability of commercial waste services to increase income;
- a negative impact on the wider efficiency of West Suffolk's fleet - street cleansing and landscape services will have to travel further; and
- less sustainable waste and operational facilities.

A junction 45 site would be closer to the EfW and the MRF, realising a saving on bulk haulage costs of around £32,000 per annum when compared to a J43 site.

## **APPENDIX A**

### **Routesmart**

In 2010 Integrated Skills Limited (ISL) were chosen as the Suffolk Waste Partnership's provider of the route optimisation software package RouteSmart. ISL are a waste management consultancy company with expertise in the development and supply of related Geographic Information Systems (GIS) and IT systems.

The ISL team are RouteSmart specialists with comprehensive combined skills in training, consultancy, project management and programming with a thorough technical and operational knowledge of refuse and recycling collection and other services (RouteSmart is also used for postal deliveries, newspaper distribution and utility meter reading).

RouteSmart is primed with road network and property/facility location data which generates balanced daily 'zones' for collections and detailed routes within them. This means that each day of the week the refuse collection service focuses on a specific geographic zone for collection which aids operational efficiency.

The RouteSmart software is currently used by over 40 local authorities in the UK for routing on waste and recycling collection, street cleaning, grounds and winter maintenance and by over 200 organisations across Europe and the Middle East.

St Edmundsbury Borough Council is the Primary RouteSmart Licence holder for the SWP. Secondary licence holders are Forest Heath, Ipswich, Waveney and Suffolk Coastal councils.

Suffolk County Council commissioned ISL to carry out routing for the SWP's Waste Transfer Station project in 2012 which helped to identify optimum locations for these facilities across Suffolk (including Bury St Edmunds in West Suffolk).

RouteSmart has been used on the following SEBC/FHDC projects:

- Comprehensive round reorganisation 2010;
- Cleansing routing review 2011;
- Brown bin subscription charging project 2015; and
- Commercial Waste route planning.

The above projects were assisted by a support package provided by ISL to ensure maximum efficiency is gained from RouteSmart (which included staff training).

## APPENDIX B

### Scenario based on 60508 properties (Mildenhall and Bury St Edmunds) and 5 working days

#### 1- Black Bins

Depot	Total RCVs	Total staff	Total Routes	Total Mileage	Total Time	Travel Time	Service Time	Number of Trips
Junction 41	11	33	51	3643	379:52:00	85:51:00	263:21:00	121
Junction 43	10	30	48	3286	341:57:00	69:50:00	263:21:00	111
Junction 45	11	33	52	3920	365:00:00	92:09:00	263:21:00	117

#### 2-Blue Bins

Depot	Total RCVs	Total staff	Total Routes	Total Mileage	Total Time	Travel Time	Service Time	Number of Trips
Junction 41	10	30	45	2922	342:02:00	57:33:00	263:21:00	84
Junction 43	10	30	45	2866	321:10:00	54:30:00	263:21:00	85
Junction 45	10	30	45	3241	334:53:00	68:13:00	263:21:00	85

#### 3-Brown Bins (Tipping point at Lackford)

Depot	Total RCVs	Total staff	Total Routes	Total Mileage	Total Time	Travel Time	Service Time	Number of Trips
Junction 41	10	30	48	3825	389:45:00	95:21:00	263:21:00	119
Junction 43	10	30	47	3568	374:09:00	88:24:00	263:21:00	114
Junction 45	10	30	49	4000	388:53:00	102:30:00	263:21:00	115

RCV = Refuse Collection Vehicle

## Appendix I

Groundsure report for McRae Estates land between River Lark and A14, Bury St Edmunds



# Groundsure

LOCATION INTELLIGENCE

Geosphere Environmental Ltd

BRIGHTWELL BARNES, IPSWICH ROAD,  
Needham Market,  
Brightwell, IP10 0BJ

Groundsure Reference: HMD-369-2951908

Your Reference: Site\_K\_CJ

Report Date 29 Apr 2016

Report Delivery Method: Email - pdf

## Groundsure Geoinsight

Address: McRae Estates land, IP33,

Dear Sir/ Madam,

Thank you for placing your order with Groundsure. Please find enclosed the **Groundsure Geoinsight** as requested.

If you need any further assistance, please do not hesitate to contact our helpline on 08444 159000 quoting the above Groundsure reference number.

Yours faithfully,

Managing Director  
Groundsure Limited

Enc.  
Groundsure Geoinsight



# Groundsure Geoinsight

**Address:** McRae Estates land, IP33,  
**Date:** 29 Apr 2016  
**Reference:** HMD-369-2951908  
**Client:** Geosphere Environmental Ltd

NW N NE



Aerial Photograph Capture date: 22-May-2007  
Grid Reference: 586315,263807  
Site Size: 14.55ha

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# Overview of Findings

The Groundsure Geosight provides high quality geo-environmental information that allows geo-environmental professionals and their clients to make informed decisions and be forewarned of potential ground instability problems that may affect the ground investigation, foundation design and possibly remediation options that could lead to possible additional costs.

The report is based on the BGS 1:50,000 Digital Geological Map of Great Britain, BGS Geosure data; BRITPITS database; Shallow Mining data and Borehole Records, Coal Authority data including brine extraction areas, PBA non-coal mining and natural cavities database, Johnson Poole and Bloomer mining data and Groundsure's unique database including historical surface ground and underground workings.

For further details on each dataset, please refer to each individual section in the report as listed. Where the database has been searched a numerical result will be recorded. Where the database has not been searched '-' will be recorded.

## Section 1:Geology

1.1 Artificial Ground	1.1.1 Is there any Artificial Ground/ Made Ground present beneath the study site?	Yes
	1.1.2 Are there any records relating to permeability of artificial ground within the study site* boundary?	Yes
1.2 Superficial Geology and Landslips	1.2.1 Is there any Superficial Ground/Drift Geology present beneath the study site?	Yes
	1.2.2 Are there any records relating to permeability of superficial geology within the study site boundary?	Yes
	1.2.3 Are there any records of landslip within 500m of the study site boundary?	No
	1.2.4 Are there any records relating to permeability of landslips within the study site boundary?	No
1.3 Bedrock, Solid Geology & Faults	1.3.1 For records of Bedrock and Solid Geology beneath the study site* see the detailed findings section.	
	1.3.2 Are there any records relating to permeability of bedrock within the study site boundary?	Yes
	1.3.3 Are there any records of faults within 500m of the study site boundary?	No
1.4 Radon data	1.4.1 Is the property in a Radon Affected Area as defined by the Health Protection Agency (HPA) and if so what percentage of homes are above the Action Level?	The property is not in a Radon Affected Area, as less than 1% of properties are above the Action Level
	1.4.2 Is the property in an area where Radon Protection Measures are required for new properties or extensions to existing ones as described in publication BR211 by the Building Research Establishment?	No radon protective measures are necessary

Section 2:Ground Workings	On-site	0-50m	51-250	251-500	501-1000
2.1 Historical Surface Ground Working Features from Small Scale Mapping	5	3	49	Not Searched	Not Searched
2.2 Historical Underground Workings from Small Scale Mapping	0	0	0	0	0
2.3 Current Ground Workings	0	0	3	2	10

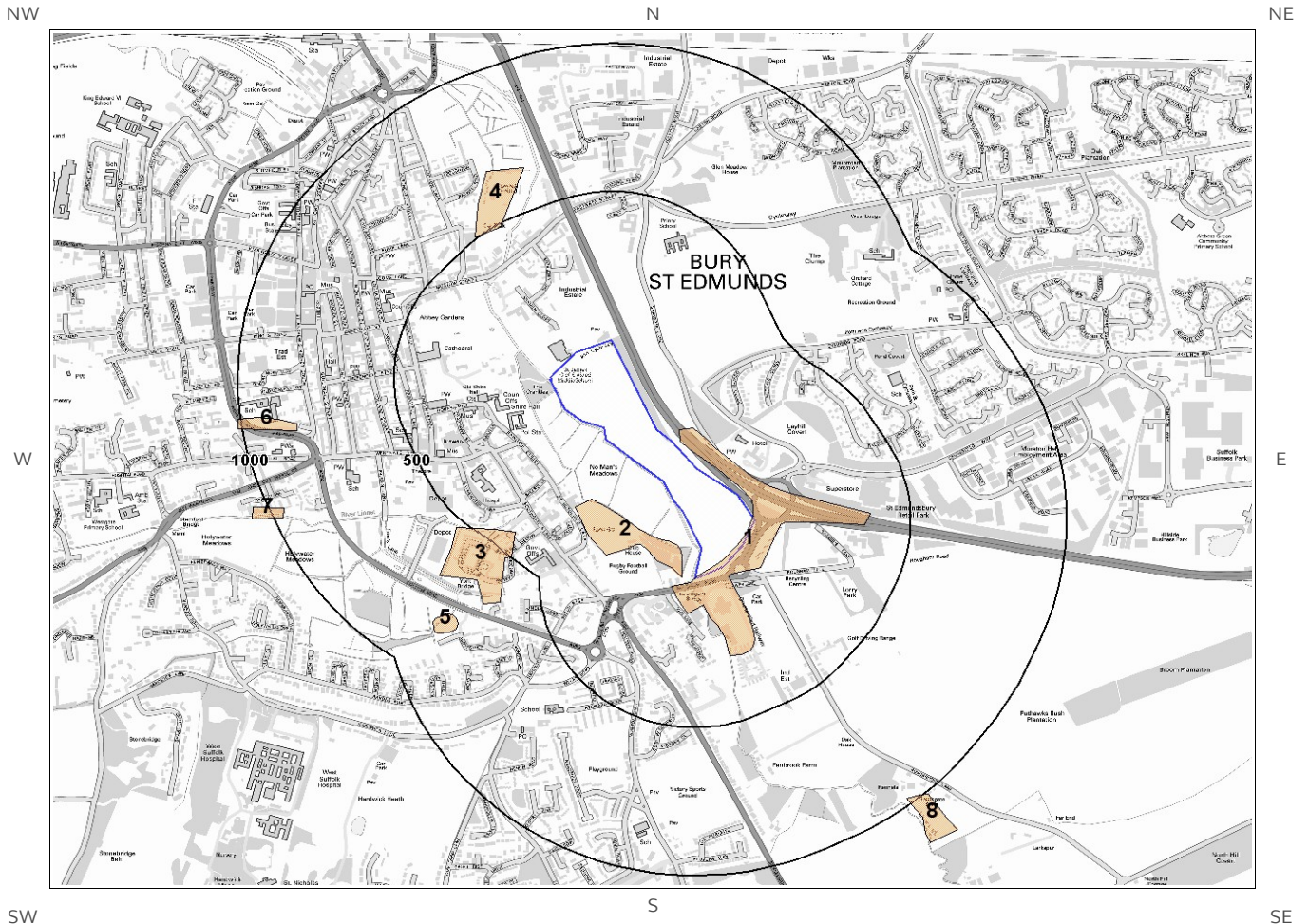
Section 3: Mining, Extraction & Natural Cavities	On-site	0-50m	51-250	251-500	501-1000
3.1 Historical Mining	0	0	0	0	0
3.2 Coal Mining	0	0	0	0	0
3.3 Johnson Poole and Bloomer Mining Area	0	0	0	0	0
3.4 Non-Coal Mining	1	0	1	1	7
3.5 Non-Coal Mining Cavities	0	0	0	0	7
3.6 Natural Cavities	0	0	0	0	0
3.7 Brine Extraction	0	0	0	0	0
3.8 Gypsum Extraction	0	0	0	0	0
3.9 Tin Mining	0	0	0	0	0
3.10 Clay Mining	0	0	0	0	0
Section 4: Natural Ground Subsidence	On-site				
4.1 Shrink Swell Clay	Very Low				
4.2 Landslides	Moderate				
4.3 Ground Dissolution of Soluble Rocks	Very Low				
4.4 Compressible Deposits	Moderate				
4.5 Collapsible Deposits	Very Low				
4.6 Running Sand	Low				
Section 5: Borehole Records	On-site	0-50m	51-250		
5 BGS Recorded Boreholes	1	7	26		
Section 6: Estimated Background Soil Chemistry	On-site	0-50m	51-250		
6 Records of Background Soil Chemistry	17	11	20		
Section 7: Railways and Tunnels	On-site	0-50m	51-250	251-500	
7.1 Tunnels	0	0	0	Not Searched	
7.2 Historical Railway and Tunnel Features	0	0	4	Not Searched	
7.3 Historical Railways	1	1	0	Not Searched	
7.4 Active Railways	0	0	0	Not Searched	

Section 7:Railways and Tunnels	On-site	0-50m	51-250	251-500
7.5 Railway Projects	0	0	0	0

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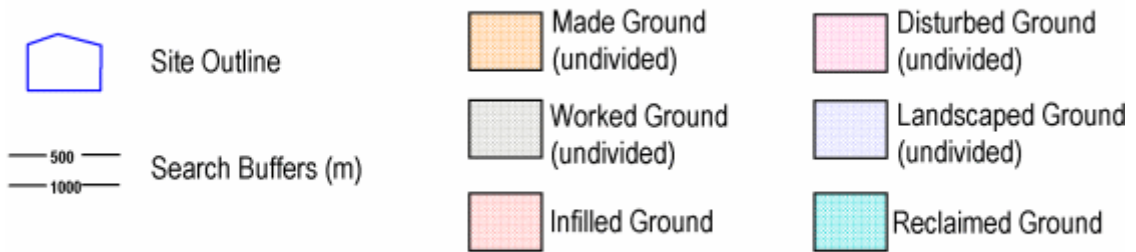
# 1 Geology

## 1.1 Artificial Ground Map



Artificial Ground Legend

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# 1 Geology

## 1.1 Artificial Ground

### 1.1.1 Artificial/ Made Ground

The following geological information represented on the mapping is derived from 1:50,000 scale BGS Geological mapping, Sheet No:189

Are there any records of Artificial/Made Ground within 500m of the study site boundary? Yes

ID	Distance (m)	Direction	LEX Code	Description	Rock Description
1	0.0	On Site	MGR-MGRD	MADE GROUND (UNDIVIDED)	ARTIFICIAL DEPOSIT
2	43.0	W	MGR-MGRD	MADE GROUND (UNDIVIDED)	ARTIFICIAL DEPOSIT
3	427.0	SW	MGR-MGRD	MADE GROUND (UNDIVIDED)	ARTIFICIAL DEPOSIT
4	488.0	NW	MGR-MGRD	MADE GROUND (UNDIVIDED)	ARTIFICIAL DEPOSIT

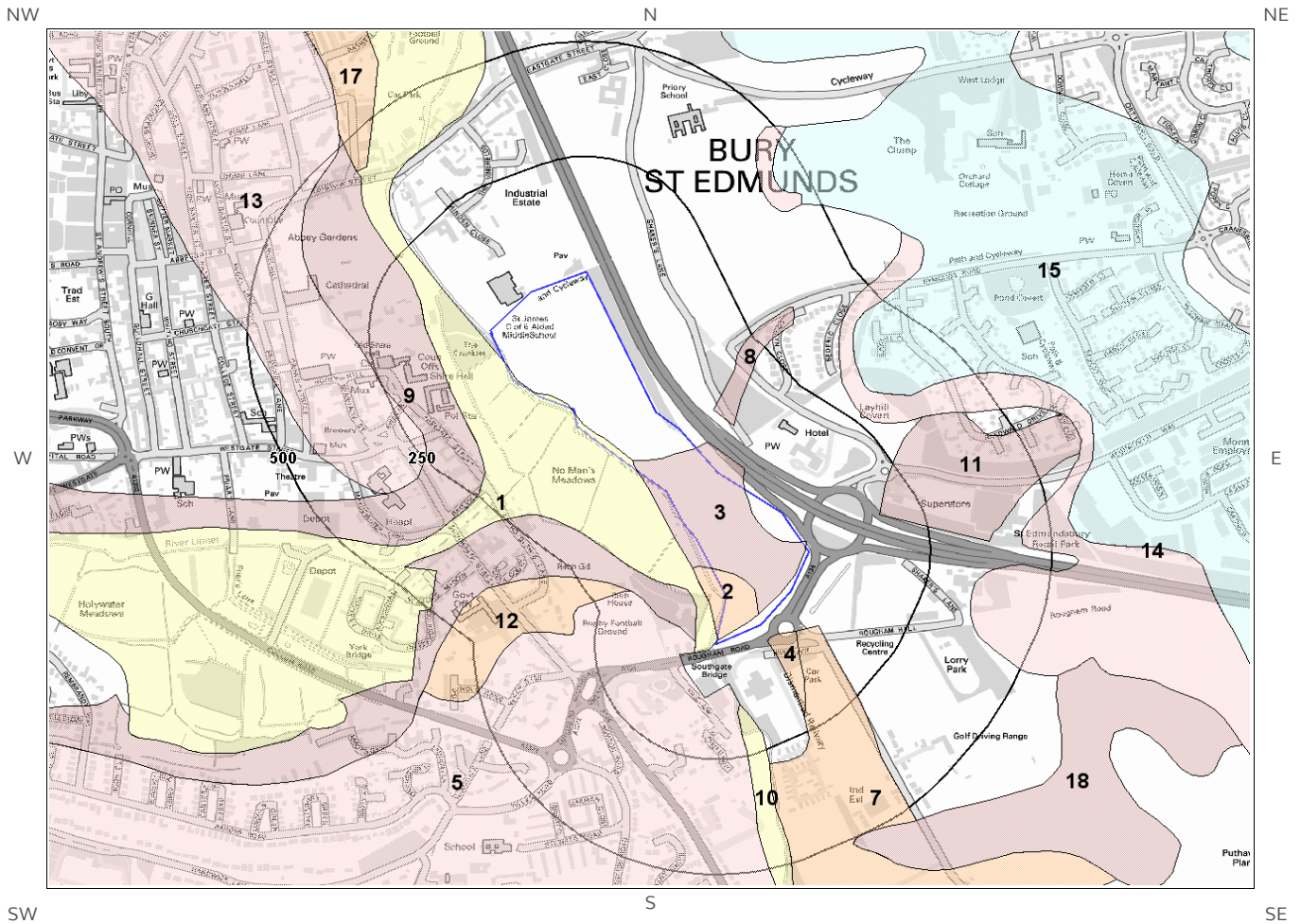
### 1.1.2 Permeability of Artificial Ground

Are there any records relating to permeability of artificial ground within the study site boundary? Yes

Distance (m)	Direction	Flow Type	Maximum Permeability	Minimum Permeability
0.0	On Site	Mixed	Very High	Low
43.0	W	Mixed	Very High	Low



# 1.2 Superficial Deposits and Landslips Map

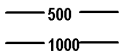


**Superficial Deposits and Landslips Legend**

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Site Outline



Search Buffers (m)

# 1.2 Superficial Deposits and Landslips

## 1.2.1 Superficial Deposits/ Drift Geology

Are there any records of Superficial Deposits/ Drift Geology within 500m of the study site boundary? Yes

ID	Distance (m)	Direction	LEX Code	Description	Rock Description
1	0.0	On Site	ALV	ALLUVIUM	CLAY, SILT, SAND AND GRAVEL [UNLITHIFIED DEPOSITS CODING SCHEME]
2	0.0	On Site	RTD1	RIVER TERRACE DEPOSITS, 1	SAND AND GRAVEL [UNLITHIFIED DEPOSITS CODING SCHEME]
3	0.0	On Site	HEAD	HEAD	CLAY, SILT, SAND AND GRAVEL [UNLITHIFIED DEPOSITS CODING SCHEME]
4	32.0	SE	RTD1	RIVER TERRACE DEPOSITS, 1	SAND AND GRAVEL [UNLITHIFIED DEPOSITS CODING SCHEME]
5	43.0	W	CXSG	CROXTON SAND AND GRAVEL MEMBER	SAND AND GRAVEL [UNLITHIFIED DEPOSITS CODING SCHEME]
6	43.0	W	HEAD	HEAD	CLAY, SILT, SAND AND GRAVEL [UNLITHIFIED DEPOSITS CODING SCHEME]
7	62.0	SE	RTD2	RIVER TERRACE DEPOSITS, 2	SAND AND GRAVEL [UNLITHIFIED DEPOSITS CODING SCHEME]
8	81.0	NE	HEAD	HEAD	CLAY, SILT, SAND AND GRAVEL [UNLITHIFIED DEPOSITS CODING SCHEME]
9	120.0	W	HEAD	HEAD	CLAY, SILT, SAND AND GRAVEL [UNLITHIFIED DEPOSITS CODING SCHEME]
10	138.0	S	ALV	ALLUVIUM	CLAY, SILT, SAND AND GRAVEL [UNLITHIFIED DEPOSITS CODING SCHEME]
11	167.0	NE	HEAD	HEAD	CLAY, SILT, SAND AND GRAVEL [UNLITHIFIED DEPOSITS CODING SCHEME]
12	170.0	SW	RTD2	RIVER TERRACE DEPOSITS, 2	SAND AND GRAVEL [UNLITHIFIED DEPOSITS CODING SCHEME]
13	218.0	SW	CXSG	CROXTON SAND AND GRAVEL MEMBER	SAND AND GRAVEL [UNLITHIFIED DEPOSITS CODING SCHEME]



ID	Distance (m)	Direction	LEX Code	Description	Rock Description
14	269.0	NE	CXSG	CROXTON SAND AND GRAVEL MEMBER	SAND AND GRAVEL [UNLITHIFIED DEPOSITS CODING SCHEME]
15	321.0	NE	LOFT	LOWESTOFT FORMATION	DIAMICTON
16	403.0	NE	CXSG	CROXTON SAND AND GRAVEL MEMBER	SAND AND GRAVEL [UNLITHIFIED DEPOSITS CODING SCHEME]
17	432.0	NW	RTD1	RIVER TERRACE DEPOSITS, 1	SAND AND GRAVEL [UNLITHIFIED DEPOSITS CODING SCHEME]
18	499.0	SE	HEAD	HEAD	CLAY, SILT, SAND AND GRAVEL [UNLITHIFIED DEPOSITS CODING SCHEME]

### 1.2.2 Permeability of Superficial Ground

Are there any records relating to permeability of superficial ground within the study site boundary? Yes

Distance (m)	Direction	Flow Type	Maximum Permeability	Minimum Permeability
0.0	On Site	Intergranular	Very High	High
0.0	On Site	Intergranular	High	Very Low
0.0	On Site	Mixed	High	Very Low
32.0	SE	Intergranular	Very High	High
43.0	W	Intergranular	Very High	High
43.0	W	Mixed	High	Very Low

### 1.2.3 Landslip

Are there any records of Landslip within 500m of the study site boundary? No

Database searched and no data found.

This Geology shows the main components as discrete layers, these are: Artificial / Made Ground, Superficial / Drift Geology and Landslips. These are all displayed with the BGS Lexicon code for the rock unit and BGS sheet number. Not all of the main geological components have nationwide coverage.

### 1.2.4 Landslip Permeability

Are there any records relating to permeability of landslips within the study site\*\* boundary? No

Database searched and no data found.


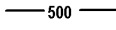

\* This includes an automatically generated 50m buffer zone around the site

# 1.3 Bedrock and Faults Map



**Bedrock and Faults Legend**

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-  Site Outline
-  500
-  1000 Search Buffers (m)

# 1.3 Bedrock, Solid Geology & Faults

The following geological information represented on the mapping is derived from 1:50,000 scale BGS Geological mapping, Sheet No:189

## 1.3.1 Bedrock/ Solid Geology

Records of Bedrock/ Solid Geology within 500m of the study site boundary:

ID	Distance (m)	Direction	LEX Code	Description	Rock Age
1	0.0	On Site	LCCK-CHLK	Lewes Nodular Chalk Formation, Seaford Chalk Formation, Newhaven Chalk Formation And Culver Chalk Formation (undifferent)	Campanian / Turonian
2	348.0	NW	CKR-CHLK	Chalk Rock Member - Chalk	Turonian
3	404.0	NW	HNCK-CHLK	Holywell Nodular Chalk Formation And New Pit Chalk Formation (undifferentiated) - Chalk	Turonian / Cenomanian

## 1.3.2 Permeability of Bedrock Ground

Are there any records relating to permeability of bedrock ground within the study site\* boundary? Yes

Distance (m)	Direction	Flow Type	Maximum Permeability	Minimum Permeability
0.0	On Site	Fracture	Very High	Very High

## 1.3.3 Faults

Are there any records of Faults within 500m of the study site boundary? No

Database searched and no data found.

The geology map for the site and surrounding area are extracted from the BGS Digital Geological Map of Great Britain at 1:50,000 scale.

This Geology shows the main components as discrete layers, these are: Bedrock/ Solid Geology and linear features such as Faults. These are all displayed with the BGS Lexicon code for the rock unit and BGS sheet number. Not all of the main geological components have nationwide coverage.

\* This includes an automatically generated 50m buffer zone around the site

# 1.4 Radon Data

## 1.4.1 Radon Affected Areas

Is the property in a Radon Affected Area as defined by the Health Protection Agency (HPA) and if so what percentage of homes are above the Action Level?      The property is not in a Radon Affected Area, as less than 1% of properties are above the Action Level

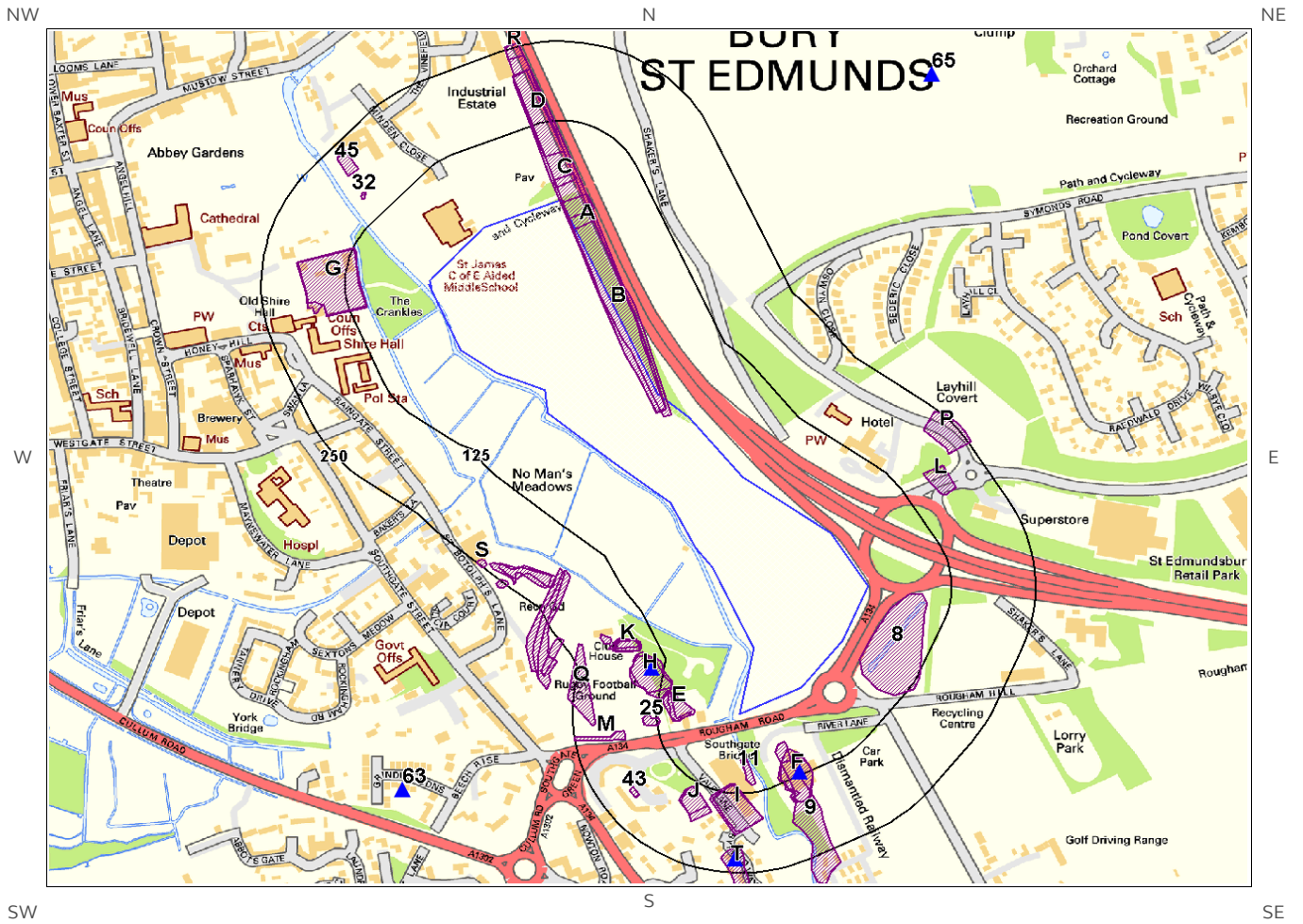
---

## 1.4.2 Radon Protection

Is the property in an area where Radon Protection are required for new properties or extensions to existing ones as described in publication BR211 by the Building Research Establishment?      No radon protective measures are necessary



---

# 2 Ground Workings Map



Ground Workings Legend

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-  Site Outline
-  Historic Surface Ground Workings
-  Historic Underground Workings
-  Current Ground Workings
-  Search Buffers (m)



# 2 Ground Workings

## 2.1 Historical Surface Ground Working Features derived from Historical Mapping

This dataset is based on Groundsure's unique Historical Land Use Database derived from 1:10,560 and 1:10,000 scale historical mapping.

Are there any Historical Surface Ground Working Features within 250m of the study site boundary? Yes

The following Historical Surface Ground Working Features are provided by Groundsure:

ID	Distance (m)	Direction	NGR	Use	Date
1A	0.0	On Site	586248 264062	Cuttings	1884
2A	0.0	On Site	586226 264101	Cuttings	1950
3B	0.0	On Site	586271 263983	Cuttings	1903
4B	0.0	On Site	586271 263983	Cuttings	1924
5A	0.0	On Site	586210 264157	Cuttings	1924
6C	21.0	N	586190 264196	Cuttings	1903
7C	21.0	N	586190 264196	Cuttings	1924
8	36.0	SE	586681 263465	Unspecified Pit	1991
9	67.0	SE	586554 263200	Refuse Heap	1976
10E	68.0	W	586363 263368	Unspecified Heap	1938
11	71.0	S	586464 263265	Unspecified Ground Workings	1976
12D	72.0	N	586151 264303	Cuttings	1903
13D	72.0	N	586151 264303	Cuttings	1924
14E	74.0	W	586346 263369	Unspecified Ground Workings	1950
15F	81.0	SE	586535 263259	Gravel Pit	1938
16F	96.0	SE	586536 263253	Gravel Pit	1950
17G	98.0	W	585843 264037	Site of Cemetery	1924
18G	99.0	W	585842 264036	Burial Ground	1950
19H	107.0	W	586320 263419	Gravel Pit	1950
20H	109.0	W	586319 263418	Gravel Pit	1938

ID	Distance (m)	Direction	NGR	Use	Date
21I	109.0	S	586448 263209	Unspecified Pit	1950
22I	109.0	S	586447 263207	Unspecified Pit	1903
23I	109.0	S	586447 263207	Unspecified Pit	1883
24I	109.0	S	586447 263207	Unspecified Pit	1938
25	120.0	W	586319 263347	Unspecified Heap	1883
26J	134.0	SW	586385 263214	Unspecified Pit	1938
27J	134.0	SW	586384 263220	Unspecified Pit	1950
28K	148.0	SW	586284 263464	Unspecified Pit	1903
29K	148.0	SW	586284 263464	Unspecified Pit	1938
30K	152.0	SW	586278 263466	Unspecified Pit	1883
31K	152.0	SW	586282 263464	Unspecified Pit	1950
32	159.0	NW	585890 264172	Gravel Pit	1884
33L	166.0	NE	586750 263725	Cuttings	1991
34L	166.0	NE	586750 263725	Cuttings	1976
35M	175.0	W	586270 263321	Unspecified Pit	1903
36M	175.0	W	586270 263321	Unspecified Pit	1938
37N	179.0	SW	586158 263489	Unspecified Ground Workings	1903
38N	179.0	SW	586158 263489	Unspecified Ground Workings	1938
39N	181.0	SW	586161 263502	Cuttings	1883
40K	185.0	SW	586251 263474	Unspecified Pit	1883
41O	195.0	SW	586117 263574	Unspecified Pits	1903
42O	195.0	SW	586117 263574	Unspecified Pits	1938
43	197.0	SW	586295 263233	Pool	1976
44O	198.0	SW	586111 263574	Unspecified Pits	1883
45	199.0	NW	585866 264223	Unspecified Heap	1976
46T	206.0	S	586453 263096	Gravel Pit	1903
47P	213.0	NE	586758 263803	Cuttings	1991
48P	213.0	NE	586758 263803	Cuttings	1976

ID	Distance (m)	Direction	NGR	Use	Date
49Q	217.0	W	586215 263402	Unspecified Pit	1903
50Q	217.0	W	586215 263402	Unspecified Pit	1938
51R	234.0	N	586114 264400	Cuttings	1903
52R	234.0	N	586114 264400	Cuttings	1924
53S	240.0	SW	586066 263593	Unspecified Pit	1903
54S	240.0	SW	586066 263593	Unspecified Pit	1938
55S	245.0	SW	586097 263561	Unspecified Pit	1903
56S	245.0	SW	586097 263561	Unspecified Pit	1938
57N	245.0	SW	586172 263446	Unspecified Ground Workings	1883

## 2.2 Historical Underground Working Features derived from Historical Mapping

This data is derived from the Groundsure unique Historical Land Use Database. It contains data derived from 1:10,000 and 1:10,560 historical Ordnance Survey Mapping and includes some natural topographical features (Shake Holes for example) as well as manmade features that may have implications for ground stability. Underground and mining features have been identified from surface features such as shafts. The distance that these extend underground is not shown.

Are there any Historical Underground Working Features within 1000m of the study site boundary? No

Database searched and no data found.

## 2.3 Current Ground Workings

This dataset is derived from the BGS BRITPITS database covering active; inactive mines; quarries; oil wells; gas wells and mineral wharves; and rail deposits throughout the British Isles.

Are there any BGS Current Ground Workings within 1000m of the study site boundary? Yes

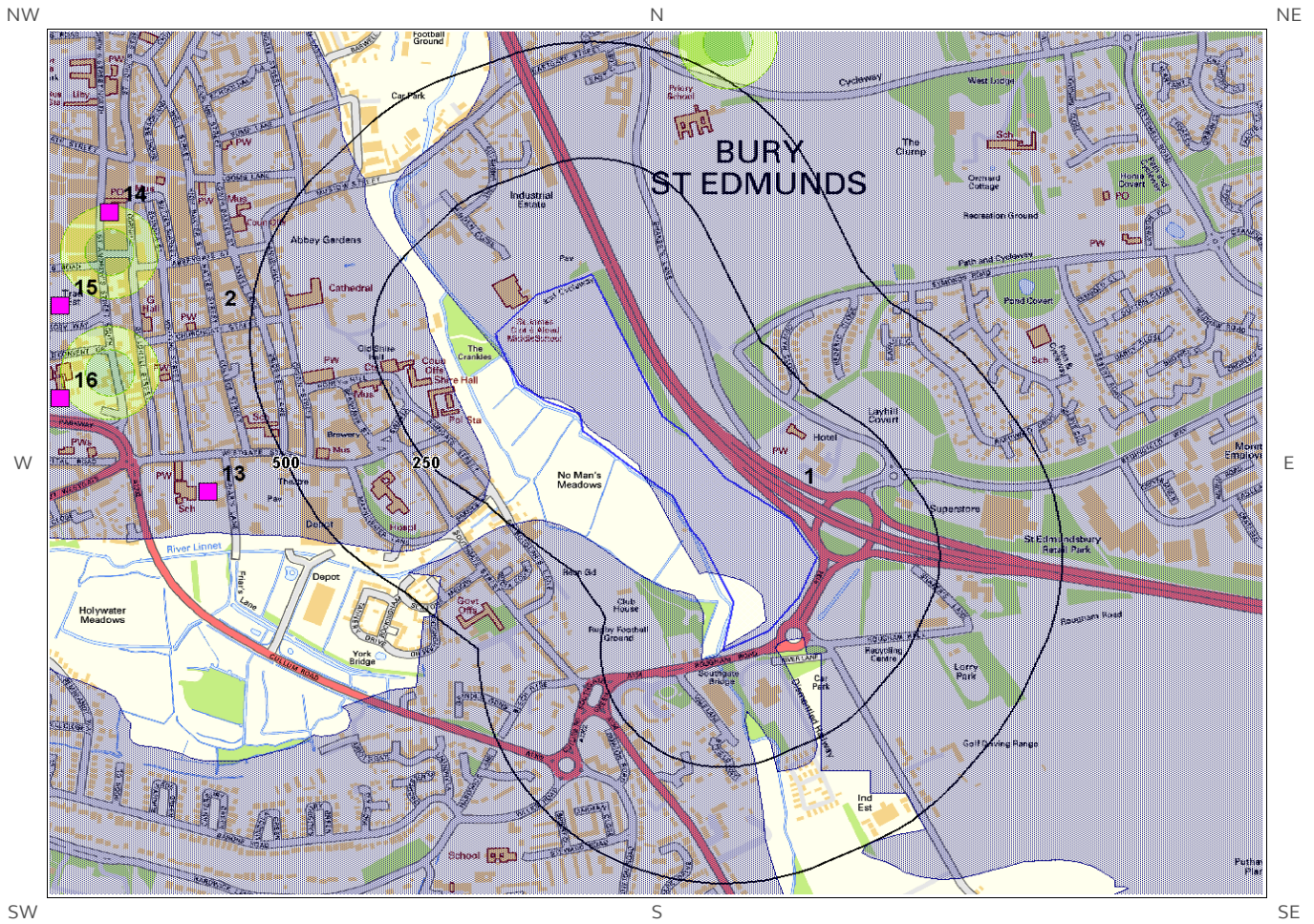
The following Current Ground Workings information is provided by British Geological Survey:

ID	Distance (m)	Direction	NGR	Commodity Produced	Pit Name	Type of working	Status
58F	120.0	SE	586540 263264	Sand & Gravel	Southgate Bridge Gravel Pit	A surface mineral working. It may be termed Quarry, Sand Pit, Clay Pit or Opencast Coal Site	Ceased
59H	144.0	W	586319 263428	Sand & Gravel	Haberden Gravel Pit	A surface mineral working. It may be termed Quarry, Sand Pit, Clay Pit or Opencast Coal Site	Ceased
60T	228.0	S	586444 263128	Sand & Gravel	Southgate Gravel Pit	A surface mineral working. It may be termed Quarry, Sand Pit, Clay Pit or Opencast Coal Site	Ceased



ID	Distance (m)	Direction	NGR	Commodity Produced	Pit Name	Type of working	Status
Not shown	323.0	S	586448 263033	Sand & Gravel	Southgate Gravel Pits	A surface mineral working. It may be termed Quarry, Sand Pit, Clay Pit or Opencast Coal Site	Ceased
Not shown	364.0	S	586434 262992	Sand & Gravel	Southgate Gravel Pits	A surface mineral working. It may be termed Quarry, Sand Pit, Clay Pit or Opencast Coal Site	Ceased
63	519.0	W	585947 263236	Sand & Gravel	The Grindle Pit	A surface mineral working. It may be termed Quarry, Sand Pit, Clay Pit or Opencast Coal Site	Ceased
Not shown	563.0	NE	586456 264659	Chalk	The Glen Chalk Pit	A surface mineral working. It may be termed Quarry, Sand Pit, Clay Pit or Opencast Coal Site	Ceased
65	585.0	NE	586737 264364	Chalk	St Edmunds Hill Chalk Pit	A surface mineral working. It may be termed Quarry, Sand Pit, Clay Pit or Opencast Coal Site	Ceased
Not shown	633.0	SW	586197 262777	Clay & Shale	Southgate Works	A surface mineral working. It may be termed Quarry, Sand Pit, Clay Pit or Opencast Coal Site	Ceased
Not shown	725.0	SW	586108 262718	Sand & Gravel	Southgate Gravel Pits	A surface mineral working. It may be termed Quarry, Sand Pit, Clay Pit or Opencast Coal Site	Ceased
Not shown	728.0	N	586099 264889	Sand & Gravel	Grange Farm Gravel Pits	A surface mineral working. It may be termed Quarry, Sand Pit, Clay Pit or Opencast Coal Site	Ceased
Not shown	775.0	N	586079 264934	Sand & Gravel	Grange Farm Gravel Pits	A surface mineral working. It may be termed Quarry, Sand Pit, Clay Pit or Opencast Coal Site	Ceased
Not shown	841.0	W	585165 263855	Chalk	St Andrew's Chalk Pit	A surface mineral working. It may be termed Quarry, Sand Pit, Clay Pit or Opencast Coal Site	Ceased
Not shown	871.0	N	586440 264999	Clay & Shale	Eastgate Works	A surface mineral working. It may be termed Quarry, Sand Pit, Clay Pit or Opencast Coal Site	Ceased
Not shown	975.0	W	585030 263845	Chalk	St Andrew's Chalk Pit	A surface mineral working. It may be termed Quarry, Sand Pit, Clay Pit or Opencast Coal Site	Ceased

# 3 Mining, Extraction & Natural Cavities Map



Mining, Extraction and Natural Cavities Legend

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# 3 Mining, Extraction & Natural Cavities

## 3.1 Historical Mining

This dataset is derived from Groundsure unique Historical Land-use Database that are indicative of mining or extraction activities.

Are there any Historical Mining areas within 1000m of the study site boundary? No

Database searched and no data found.

---

## 3.2 Coal Mining

This dataset provides information as to whether the study site lies within a known coal mining affected area as defined by the coal authority.

Are there any Coal Mining areas within 1000m of the study site boundary? No

Database searched and no data found.

---

## 3.3 Johnson Poole and Bloomer

This dataset provides information as to whether the study site lies within an area where JPB hold information relating to mining.

Are there any JPB Mining areas within 1000m of the study site boundary? No

The following information provided by JPB is not represented on mapping: Database searched and no data found.

---

## 3.4 Non-Coal Mining

This dataset provides information as to whether the study site lies within an area which may have been subject to non-coal historic mining.

Are there any Non-Coal Mining areas within 1000m of the study site boundary? Yes

The following non-coal mining information is provided by the BGS:

ID	Distance (m)	Direction	Name	Commodity	Assessment of likelihood
1	0.0	On Site	Not available	Chalk	Sporadic underground mining of restricted extent may have occurred. Potential for difficult ground conditions are unlikely and localised and are at a level where they need not be considered

ID	Distance (m)	Direction	Name	Commodity	Assessment of likelihood
2	120.0	W	Not available	Chalk	Sporadic underground mining of restricted extent may have occurred. Potential for difficult ground conditions are unlikely and localised and are at a level where they need not be considered
3A	471.0	NE	Not available	Chalk	Underground mining is known or considered likely to have occurred within or close to the area. Potential for difficult ground conditions are at a level where they should be considered
4A	520.0	NE	Not available	Chalk	Underground mining is known to have occurred within or very close to the area. Potential for difficult ground conditions should be investigated. Potential for localised subsidence is at a level where it should be considered
5B	690.0	W	Not available	Chalk	Underground mining is known or considered likely to have occurred within or close to the area. Potential for difficult ground conditions are at a level where they should be considered
6C	707.0	W	Not available	Chalk	Underground mining is known or considered likely to have occurred within or close to the area. Potential for difficult ground conditions are at a level where they should be considered
7B	740.0	W	Not available	Chalk	Underground mining is known to have occurred within or very close to the area. Potential for difficult ground conditions should be investigated. Potential for localised subsidence is at a level where it should be considered
8C	757.0	W	Not available	Chalk	Underground mining is known to have occurred within or very close to the area. Potential for difficult ground conditions should be investigated. Potential for localised subsidence is at a level where it should be considered
Not shown	834.0	N	Not available	Chalk	Sporadic underground mining of restricted extent may have occurred. Potential for difficult ground conditions are unlikely and localised and are at a level where they need not be considered
Not shown	987.0	W	Not available	Chalk	Sporadic underground mining of restricted extent may have occurred. Potential for difficult ground conditions are unlikely and localised and are at a level where they need not be considered

### 3.5 Non-Coal Mining Cavities

This dataset provides information from the Peter Brett Associates (PBA) mining cavities database (compiled for the national study entitled “Review of mining instability in Great Britain, 1990” PBA has also continued adding to this database) on mineral extraction by mining.

Are there any Non-Coal Mining cavities within 1000m of the study site boundary? Yes

The following Non-Coal Mining Cavities information provided by Peter Brett Associates:

ID	Distance (m)	Direction	NGR	Address	Superficial Deposits	Bedrock Deposits	Extracted Mineral
Not shown	534.0	N	586200 264700	Bury St Edmonds, Suffolk	Boulder Clay	Chalk Group	Chalk
Not shown	576.0	N	586400 264700	'The Glen/Eastgate?', Bury St. Edmunds, Suffolk	Boulder Clay	Chalk Group	Chalk
13	672.0	SW	585400 263700	Bury St. Edmunds, Suffolk	Head	Chalk Group	Chalk

ID	Distance (m)	Direction	NGR	Address	Superficial Deposits	Bedrock Deposits	Extracted Mineral
14	830.0	W	585200 264300	Bury St. Edmunds, Suffolk	-	Chalk Group	Chalk
15	890.0	W	585100 264100	Bury St Edmunds, Suffolk	-	Chalk Group	Chalk
16	897.0	W	585100 263900	'St Andrews Pit', Bury St. Edmunds, Suffolk	Made Ground	Chalk Group	Chalk
Not shown	988.0	W	585000 264000	Bury St. Edmunds, Suffolk	-	Chalk Group	Chalk

---

### 3.6 Natural Cavities

This dataset provides information based on Peter Brett Associates natural cavities database.

Are there any Natural Cavities within 1000m of the study site boundary? No

Database searched and no data found.

---

### 3.7 Brine Extraction

This data provides information from the Coal Authority issued on behalf of the Cheshire Brine Subsidence Compensation Board.

Are there any Brine Extraction areas within 1000m of the study site boundary? No

Database searched and no data found.

---

### 3.8 Gypsum Extraction

This dataset provides information on Gypsum extraction from British Gypsum records.

Are there any Gypsum Extraction areas within 1000m of the study site boundary? No

Database searched and no data found.

---

### 3.9 Tin Mining

This dataset provides information on tin mining areas and is derived from tin mining records. This search is based upon postcode information to a sector level.

Are there any Tin Mining areas within 1000m of the study site boundary? No

Database searched and no data found.

---

### 3.10 Clay Mining

This dataset provides information on Kaolin and Ball Clay mining from relevant mining records.

Are there any Clay Mining areas within 1000m of the study site boundary?

No

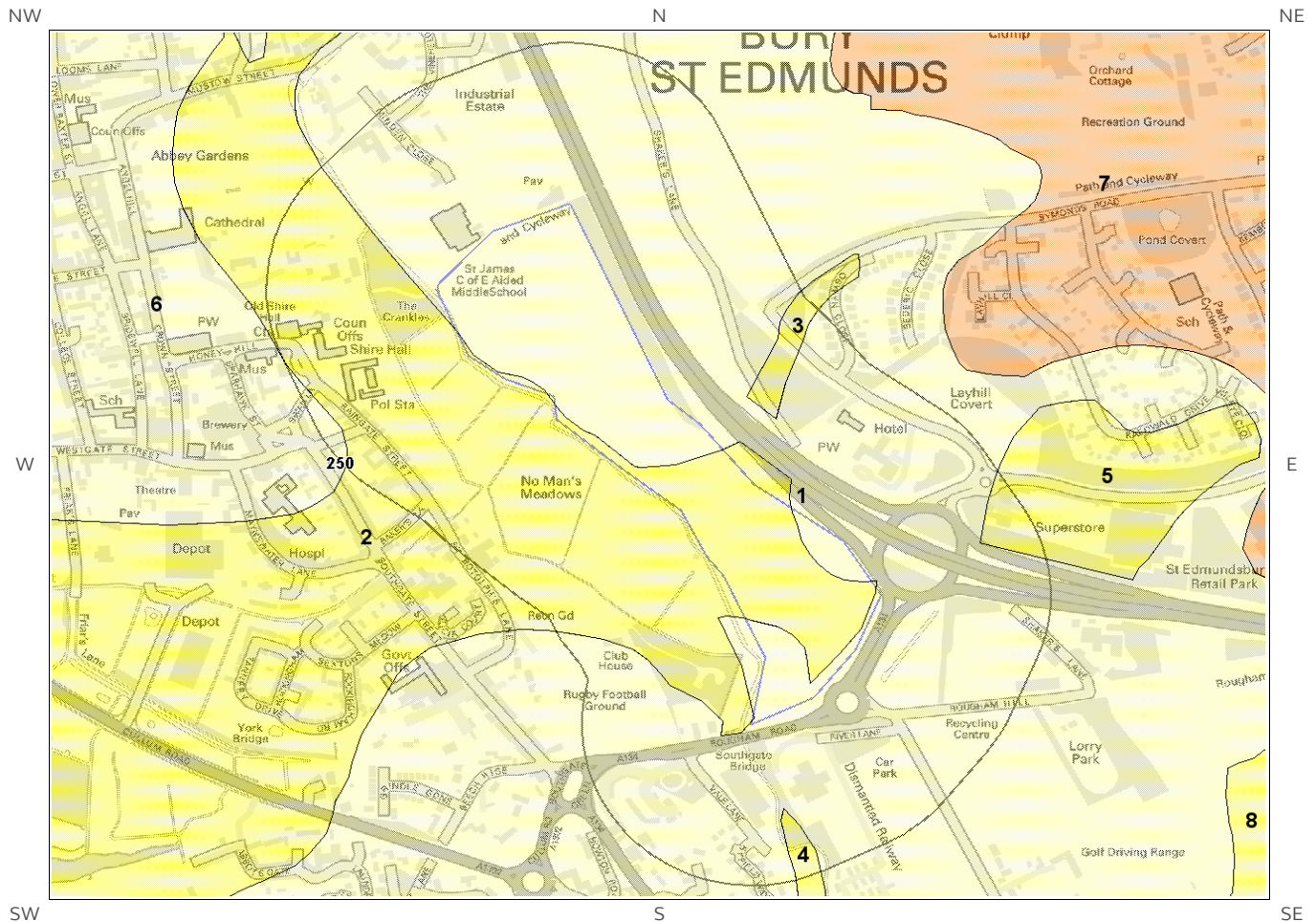
Database searched and no data found.

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# 4 Natural Ground Subsidence

## 4.1 Shrink-Swell Clay Map

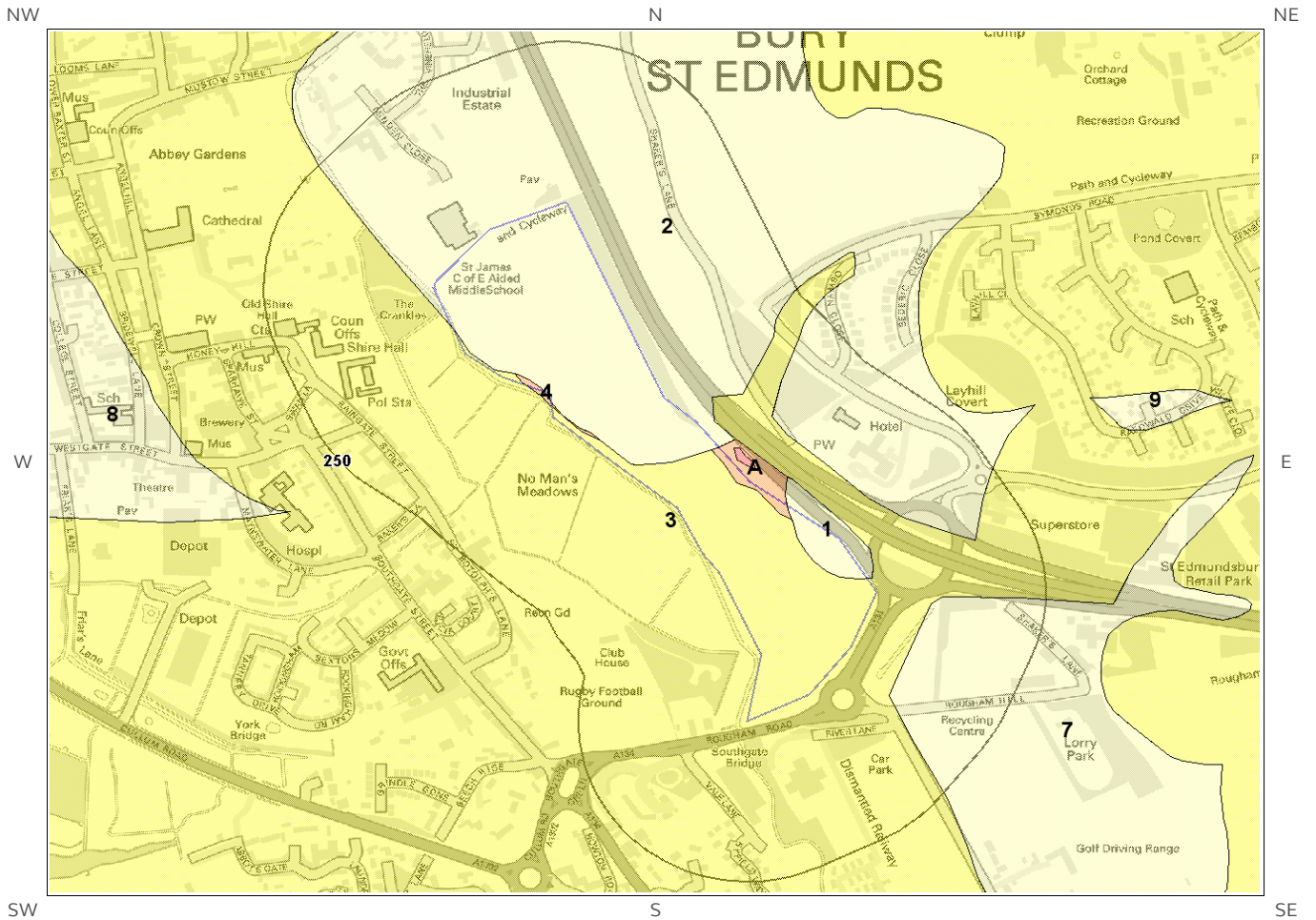


Shrink Swell Clay Legend

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# 4.2 Landslides Map



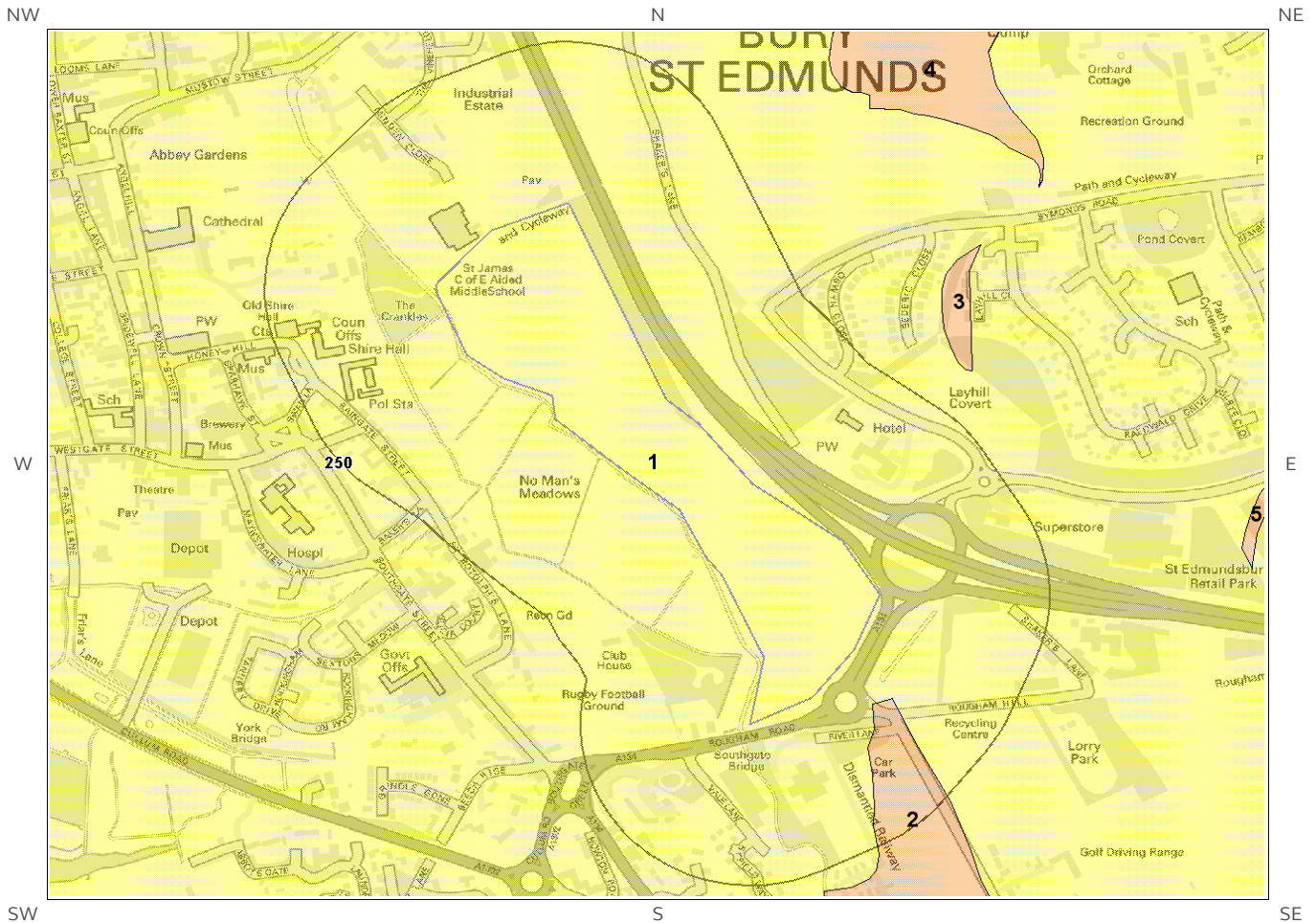
Landslides Legend

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# 4.3 Ground Dissolution Soluble Rocks Map

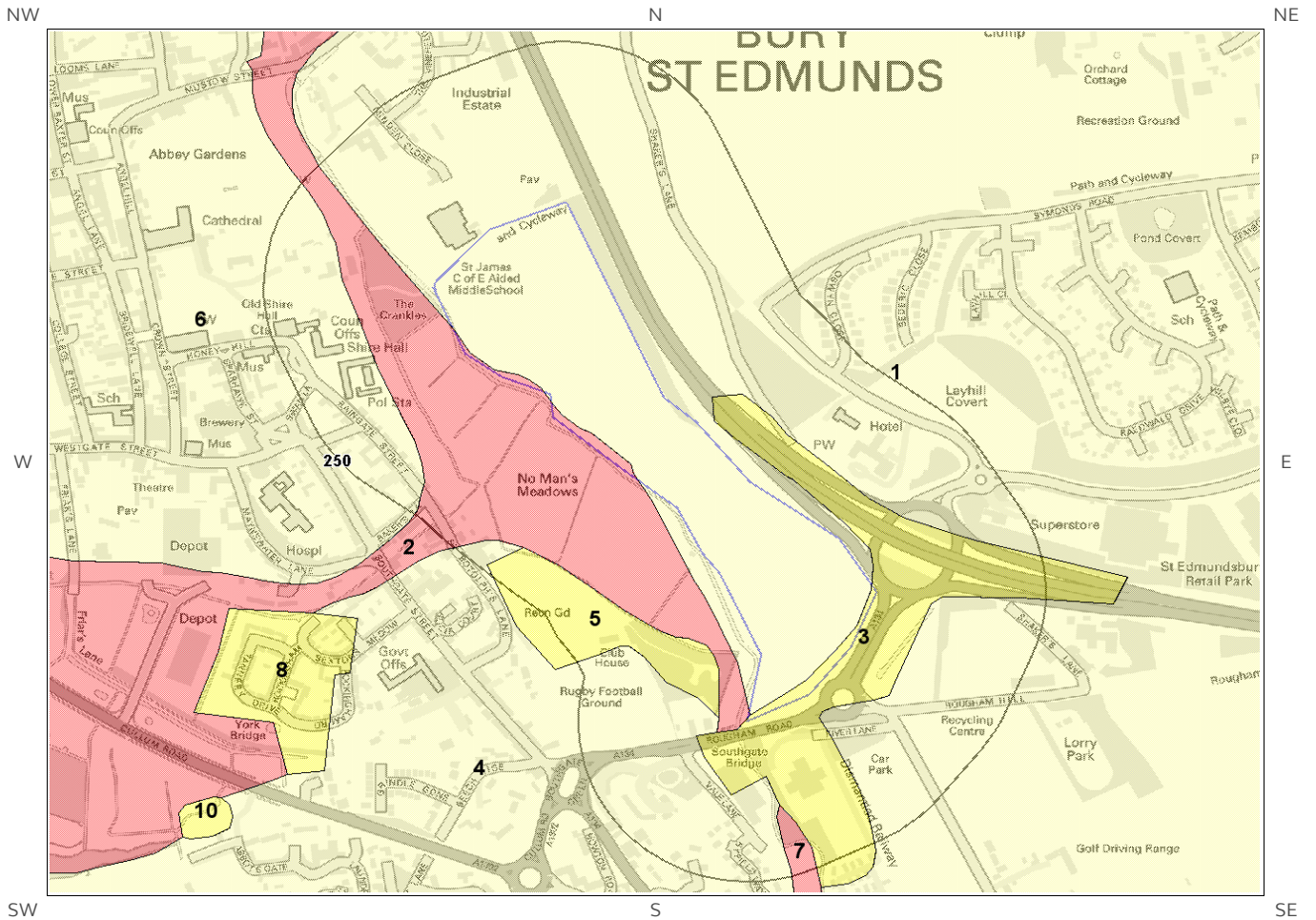


**Ground Dissolution Soluble Rocks Legend**

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# 4.4 Compressible Deposits Map



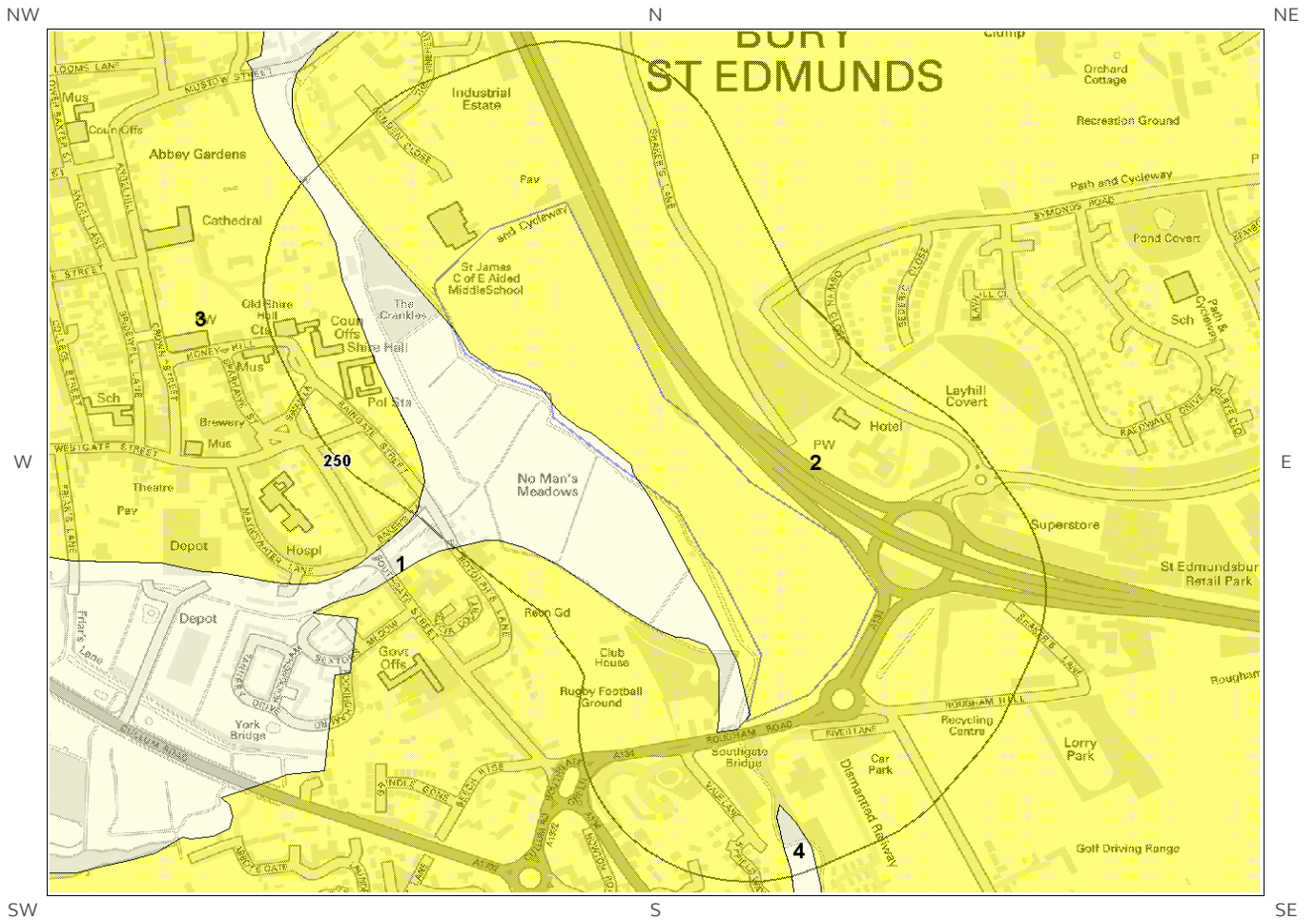
Compressible Deposits Legend

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# 4.5 Collapsible Deposits Map

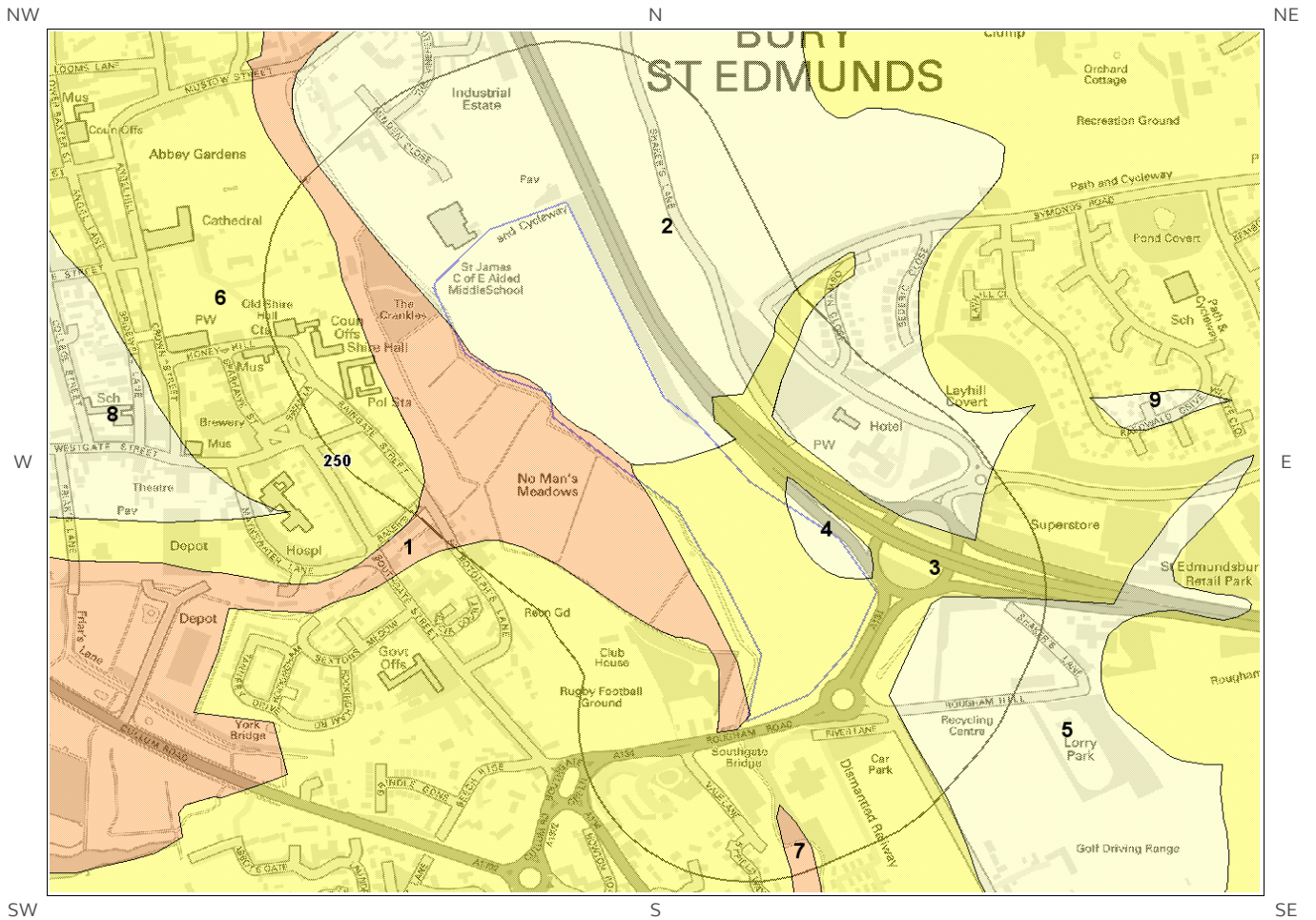


**Collapsible Deposits Legend**

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# 4.6 Running Sand Map



Running Sand Legend

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# 4 Natural Ground Subsidence

The National Ground Subsidence rating is obtained through the 6 natural ground stability hazard datasets, which are supplied by the British Geological Survey (BGS).

The following GeoSure data represented on the mapping is derived from the BGS Digital Geological map of Great Britain at 1:50,000 scale.

What is the maximum hazard rating of natural subsidence within the study site\*\* boundary?      Moderate

## 4.1 Shrink-Swell Clays

The following Shrink Swell information provided by the British Geological Survey:

ID	Distance (m)	Direction	Hazard Rating	Details
1	0.0	On Site	Negligible	Ground conditions predominantly non-plastic. No special actions required to avoid problems due to shrink-swell clays. No special ground investigation required, and increased construction costs or increased financial risks are unlikely due to potential problems with shrink-swell clays.
2	0.0	On Site	Very Low	Ground conditions predominantly low plasticity. No special actions required to avoid problems due to shrink-swell clays. No special ground investigation required, and increased construction costs or increased financial risks are unlikely due to potential problems with shrink-swell clays.

## 4.2 Landslides

The following Landslides information provided by the British Geological Survey:

ID	Distance (m)	Direction	Hazard Rating	Details
1	0.0	On Site	Negligible	No indicators for slope instability identified. No special actions required to avoid problems due to landslides. No special ground investigation required, and increased construction costs or increased financial risks are unlikely due to potential problems with landslides.
2	0.0	On Site	Negligible	No indicators for slope instability identified. No special actions required to avoid problems due to landslides. No special ground investigation required, and increased construction costs or increased financial risks are unlikely due to potential problems with landslides.
3	0.0	On Site	Very Low	Slope instability problems are unlikely to be present. No special actions required to avoid problems due to landslides. No special ground investigation required, and increased construction costs or increased financial risks are unlikely due to potential problems with landslides.
4	0.0	On Site	Low	Possibility of slope instability problems after major changes in ground conditions. Consideration should be given to stability if changes to the ground, such as drainage or excavations, take place. Possible increase in construction cost to reduce potential slope stability problems. For existing property, no significant increase in insurance risk due to natural slope instability problems.

\* This includes an automatically generated 50m buffer zone around the site



ID	Distance (m)	Direction	Hazard Rating	Details
5A	0.0	On Site	Low	Possibility of slope instability problems after major changes in ground conditions. Consideration should be given to stability if changes to the ground, such as drainage or excavations, take place. Possible increase in construction cost to reduce potential slope stability problems. For existing property, no significant increase in insurance risk due to natural slope instability problems.
6A	7.0	NE	Moderate	Significant potential for slope instability with relatively small changes in ground conditions. Avoid large amounts of water entering the ground through pipe leakage or soak-aways. Do not cut or place material on slopes without technical advice. For new build, consider the potential and consequences of ground movement during excavations, or consequence of changes to loading or drainage. For existing property, probable increase in insurance risk is likely due to potential natural slope instability after changes to ground conditions such as a very long, excessively wet winter.

### 4.3 Ground Dissolution of Soluble Rocks

The following Ground Dissolution information provided by the British Geological Survey:

ID	Distance (m)	Direction	Hazard Rating	Details
1	0.0	On Site	Very Low	Significant soluble rocks are present. Problems unlikely except with considerable surface or subsurface water flow. No special actions required to avoid problems due to soluble rocks. No special ground investigation required, or increased construction costs are likely. An increase in financial risk due to potential problems with soluble rocks is unlikely.

### 4.4 Compressible Deposits

The following Compressible Deposits information provided by the British Geological Survey:

ID	Distance (m)	Direction	Hazard Rating	Details
1	0.0	On Site	Negligible	No indicators for compressible ground identified. No special actions required to avoid problems due to compressible ground. No special ground investigation required, and increased construction costs or increased financial risks are unlikely due to potential problems with compressible ground.
2	0.0	On Site	Moderate	Significant potential for compressibility problems. Do not drain, load or de-water ground near the property without technical advice. For new build, consider possibility of compressible ground in ground investigation, construction and building design. Consider effects of groundwater changes. Extra construction costs are likely. For existing property, possible increase in insurance risk from compressibility, especially if water conditions or loading of the ground change significantly.
3	0.0	On Site	Very Low	Very low potential for compressible ground to be present. No special actions required to avoid problems due to compressible ground. No special ground investigation required, and increased construction costs or increased financial risks are unlikely due to potential problems with compressible ground.
4	43.0	W	Negligible	No indicators for compressible ground identified. No special actions required to avoid problems due to compressible ground. No special ground investigation required, and increased construction costs or increased financial risks are unlikely due to potential problems with compressible ground.
5	43.0	W	Very Low	Very low potential for compressible ground to be present. No special actions required to avoid problems due to compressible ground. No special ground investigation required, and increased construction costs or increased financial risks are unlikely due to potential problems with compressible ground.

## 4.5 Collapsible Deposits

The following Collapsible Rocks information provided by the British Geological Survey:

ID	Distance (m)	Direction	Hazard Rating	Details
1	0.0	On Site	Negligible	No indicators for collapsible deposits identified. No actions required to avoid problems due to collapsible deposits. No special ground investigation required, or increased construction costs or increased financial risk due to potential problems with collapsible deposits.
2	0.0	On Site	Very Low	Deposits with potential to collapse when loaded and saturated are unlikely to be present. No special ground investigation required or increased construction costs or increased financial risk due to potential problems with collapsible deposits.

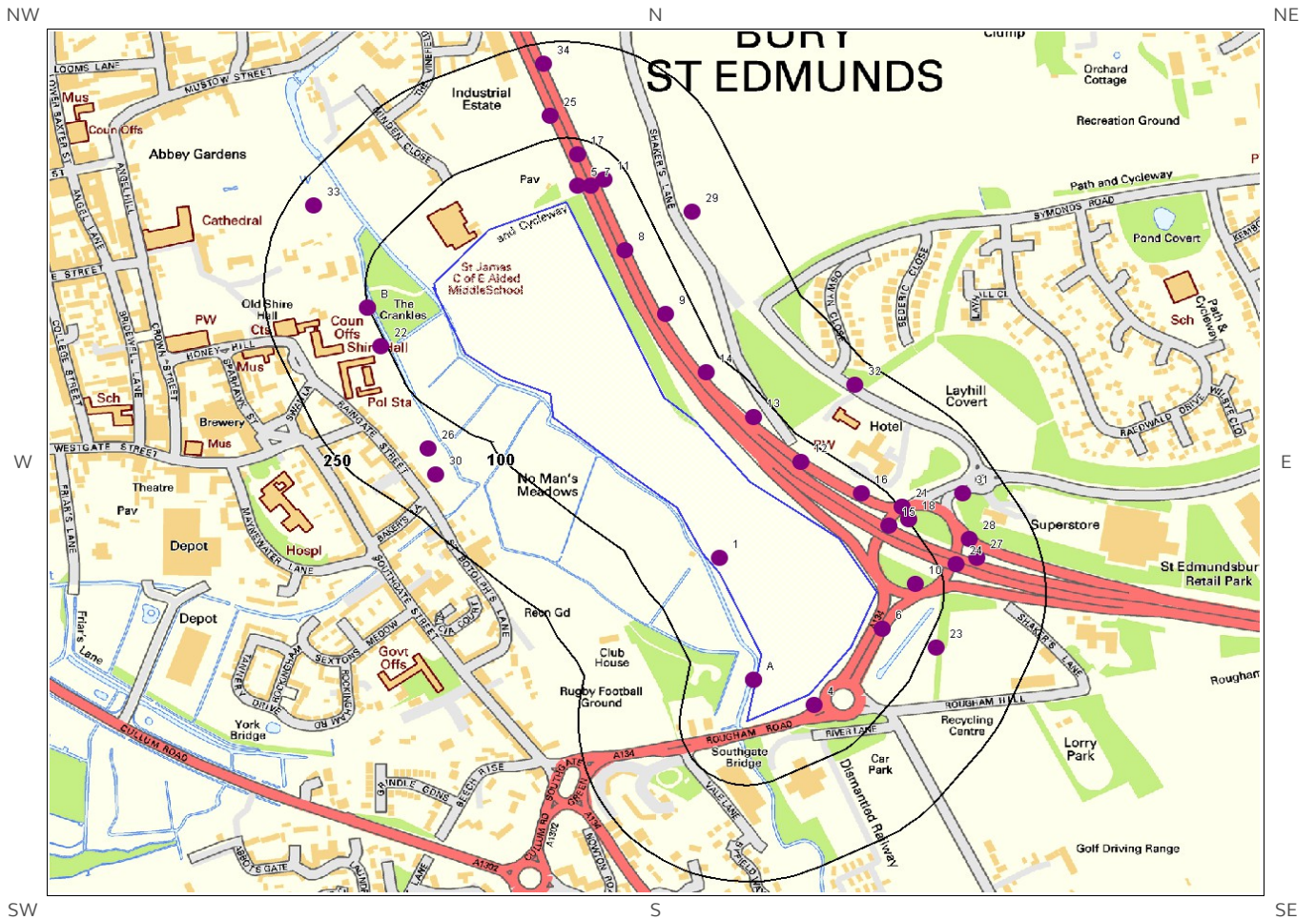
## 4.6 Running Sands

The following Running Sands information provided by the British Geological Survey:

ID	Distance (m)	Direction	Hazard Rating	Details
1	0.0	On Site	Low	Possibility of running sand problems after major changes in ground conditions. Normal maintenance to avoid leakage of water-bearing services or water bodies (ponds, swimming pools) should reduce likelihood of problems due to running sand. For new build, consider possibility of running sand into trenches or excavations if water table is high or sandy strata are exposed to water. Avoid concentrated water inputs to site. Unlikely to be an increase in construction costs due to potential for running sand. For existing property, no significant increase in insurance risk due to running sand problems is likely.
2	0.0	On Site	Negligible	No indicators for running sand identified. No special actions required to avoid problems due to running sand. No special ground investigation required, and increased construction costs or increased financial risks are unlikely due to potential problems with running sand.
3	0.0	On Site	Very Low	Very low potential for running sand problems if water table rises or if sandy strata are exposed to water. No special actions required to avoid problems due to running sand. No special ground investigation required, and increased construction costs or increased financial risks are unlikely due to potential problems with running sand.
4	0.0	On Site	Negligible	No indicators for running sand identified. No special actions required to avoid problems due to running sand. No special ground investigation required, and increased construction costs or increased financial risks are unlikely due to potential problems with running sand.



# 5 Borehole Records Map



Borehole Records Legend

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## 5 Borehole Records

The systematic analysis of data extracted from the BGS Borehole Records database provides the following information.

Records of boreholes within 250m of the study site boundary:

34

ID	Distance (m)	Direction	NGR	BGS Reference	Drilled Length	Borehole Name
1	0.0	On Site	586410 263610	TL86SE101	6.3	BURY ST.EDMUNDS BY-PASS NO.6.8-6
2A	4.0	W	586460 263420	TL86SE266	9.0	SOUTHGATE BRIDGE - DRIFT
3A	4.0	W	586460 263420	TL86SE267	27.0	SOUTHGATE BRIDGE - CHALK
4	19.0	SE	586550 263380	TL86SE102	5.0	BURY ST.EDMUNDS BY-PASS NO.6.8-7
5	29.0	NE	586200 264190	TL86SE85	12.0	BURY ST.EDMUNDS BY-PASS NO.6.0-3
6	30.0	SE	586650 263500	TL86SE100	5.25	BURY ST.EDMUNDS BY-PASS NO.6.8-5
7	43.0	NE	586220 264190	TL86SE86	18.5	BURY ST.EDMUNDS BY-PASS NO.6.0-4
8	45.0	NE	586270 264090	TL86SE87	10.15	BURY ST.EDMUNDS BY-PASS NO.6.2-1
9	57.0	NE	586330 263990	TL86SE88	8.0	BURY ST.EDMUNDS BY-PASS NO.6.3-1
10	58.0	E	586700 263570	TL86SE99	6.5	BURY ST.EDMUNDS BY-PASS NO.6.8-4
11	66.0	NE	586240 264200	TL86SE84	14.4	BURY ST.EDMUNDS BY-PASS NO.6.0-2
12	67.0	NE	586530 263760	TL86SE91	5.15	BURY ST.EDMUNDS BY-PASS NO.6.6-1
13	69.0	NE	586460 263830	TL86SE90	5.0	BURY ST.EDMUNDS BY-PASS NO.6.5-1
14	69.0	NE	586390 263900	TL86SE89	5.0	BURY ST.EDMUNDS BY-PASS NO.6.4-1
15	71.0	NE	586660 263660	TL86SE94	18.3	BURY ST.EDMUNDS BY-PASS NO.6.7-3
16	75.0	NE	586620 263710	TL86SE92	8.0	BURY ST.EDMUNDS BY-PASS NO.6.7-1
17	76.0	N	586200 264240	TL86SE83	10.0	BURY ST.EDMUNDS BY-PASS NO.6.0-1
18	101.0	NE	586690 263670	TL86SE95	18.3	BURY ST.EDMUNDS BY-PASS NO.6.7-5
19B	102.0	W	585890 264000	TL86SE269	25.0	ABBAY GARDENS - CHALK
20B	102.0	W	585890 264000	TL86SE268	9.0	ABBAY GARDENS - DRIFT
21	104.0	NE	586680 263690	TL86SE93	18.3	BURY ST.EDMUNDS BY-PASS NO.6.7-2

ID	Distance (m)	Direction	NGR	BGS Reference	Drilled Length	Borehole Name
22	109.0	SW	585910 263940	TL86SE6	4.26	MAIN OUTFALL SEWER NO.26 BURY ST EDMUNDS
23	115.0	SE	586730 263470	TL86SE56	6.0	MORETON HILL SUPPL REPORT VOL II BH101/6
24	125.0	E	586760 263600	TL86SE98	18.3	BURY ST.EDMUNDS BY- PASS NO.6.8-3
25	136.0	N	586160 264300	TL86SE82	7.05	BURY ST.EDMUNDS BY- PASS NO.5.9-1
26	155.0	SW	585980 263780	TL86SE55	10.5	MORETON HILL SUPPL REPORT VOL II BH100
27	156.0	E	586790 263610	TL86SE103	18.3	BURY ST.EDMUNDS BY- PASS NO.6.9-2
28	160.0	NE	586780 263640	TL86SE97	18.3	BURY ST.EDMUNDS BY- PASS NO.6.8-2
29	161.0	NE	586370 264150	TL86SE21	3.0	MORETON HALL VOL II 3 BURY ST EDMUNDS
30	182.0	SW	585990 263740	TL86SE7	4.26	MAIN OUTFALL SEWER NO.27 BURY ST EDMUNDS
31	190.0	NE	586770 263710	TL86SE96	10.0	BURY ST.EDMUNDS BY- PASS NO.6.8-1
32	211.0	NE	586610 263880	TL86SE22	3.0	MORETON HALL VOL II 5 BURY ST EDMUNDS
33	215.0	NW	585810 264160	TL86SE5	4.26	MAIN OUTFALL SEWER NO.25 BURY ST EDMUNDS
34	217.0	N	586150 264380	TL86SE81	8.1	BURY ST.EDMUNDS BY- PASS NO.5.8-1

The borehole records are available using the hyperlinks below: Please note that if the donor of the borehole record has requested the information be held as commercial-in-confidence, the additional data will be held separately by the BGS and a formal request must be made for its release.

- #1: [scans.bgs.ac.uk/sobi\\_scans/boreholes/553988](https://scans.bgs.ac.uk/sobi_scans/boreholes/553988)
- #2A: [scans.bgs.ac.uk/sobi\\_scans/boreholes/17518501](https://scans.bgs.ac.uk/sobi_scans/boreholes/17518501)
- #3A: [scans.bgs.ac.uk/sobi\\_scans/boreholes/17518502](https://scans.bgs.ac.uk/sobi_scans/boreholes/17518502)
- #4: [scans.bgs.ac.uk/sobi\\_scans/boreholes/553989](https://scans.bgs.ac.uk/sobi_scans/boreholes/553989)
- #5: [scans.bgs.ac.uk/sobi\\_scans/boreholes/553972](https://scans.bgs.ac.uk/sobi_scans/boreholes/553972)
- #6: [scans.bgs.ac.uk/sobi\\_scans/boreholes/553987](https://scans.bgs.ac.uk/sobi_scans/boreholes/553987)
- #7: [scans.bgs.ac.uk/sobi\\_scans/boreholes/553973](https://scans.bgs.ac.uk/sobi_scans/boreholes/553973)
- #8: [scans.bgs.ac.uk/sobi\\_scans/boreholes/553974](https://scans.bgs.ac.uk/sobi_scans/boreholes/553974)
- #9: [scans.bgs.ac.uk/sobi\\_scans/boreholes/553975](https://scans.bgs.ac.uk/sobi_scans/boreholes/553975)
- #10: [scans.bgs.ac.uk/sobi\\_scans/boreholes/553986](https://scans.bgs.ac.uk/sobi_scans/boreholes/553986)
- #11: [scans.bgs.ac.uk/sobi\\_scans/boreholes/553971](https://scans.bgs.ac.uk/sobi_scans/boreholes/553971)
- #12: [scans.bgs.ac.uk/sobi\\_scans/boreholes/553978](https://scans.bgs.ac.uk/sobi_scans/boreholes/553978)
- #13: [scans.bgs.ac.uk/sobi\\_scans/boreholes/553977](https://scans.bgs.ac.uk/sobi_scans/boreholes/553977)
- #14: [scans.bgs.ac.uk/sobi\\_scans/boreholes/553976](https://scans.bgs.ac.uk/sobi_scans/boreholes/553976)
- #15: [scans.bgs.ac.uk/sobi\\_scans/boreholes/553981](https://scans.bgs.ac.uk/sobi_scans/boreholes/553981)
- #16: [scans.bgs.ac.uk/sobi\\_scans/boreholes/553979](https://scans.bgs.ac.uk/sobi_scans/boreholes/553979)
- #17: [scans.bgs.ac.uk/sobi\\_scans/boreholes/553970](https://scans.bgs.ac.uk/sobi_scans/boreholes/553970)
- #18: [scans.bgs.ac.uk/sobi\\_scans/boreholes/553982](https://scans.bgs.ac.uk/sobi_scans/boreholes/553982)
- #19B: [scans.bgs.ac.uk/sobi\\_scans/boreholes/17518504](https://scans.bgs.ac.uk/sobi_scans/boreholes/17518504)
- #20B: [scans.bgs.ac.uk/sobi\\_scans/boreholes/17518503](https://scans.bgs.ac.uk/sobi_scans/boreholes/17518503)
- #21: [scans.bgs.ac.uk/sobi\\_scans/boreholes/553980](https://scans.bgs.ac.uk/sobi_scans/boreholes/553980)

#22: scans.bgs.ac.uk/sobi\_scans/boreholes/553893  
#23: scans.bgs.ac.uk/sobi\_scans/boreholes/553943  
#24: scans.bgs.ac.uk/sobi\_scans/boreholes/553985  
#25: scans.bgs.ac.uk/sobi\_scans/boreholes/553969  
#26: scans.bgs.ac.uk/sobi\_scans/boreholes/553942  
#27: scans.bgs.ac.uk/sobi\_scans/boreholes/553990  
#28: scans.bgs.ac.uk/sobi\_scans/boreholes/553984  
#29: scans.bgs.ac.uk/sobi\_scans/boreholes/553908  
#30: scans.bgs.ac.uk/sobi\_scans/boreholes/553894  
#31: scans.bgs.ac.uk/sobi\_scans/boreholes/553983  
#32: scans.bgs.ac.uk/sobi\_scans/boreholes/553909  
#33: scans.bgs.ac.uk/sobi\_scans/boreholes/553892  
#34: scans.bgs.ac.uk/sobi\_scans/boreholes/553968

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# 6 Estimated Background Soil Chemistry

Records of background estimated soil chemistry within 250m of the study site boundary:

48

For further information on how this data is calculated and limitations upon its use, please see the Groundsure Geosight User Guide, available on request.

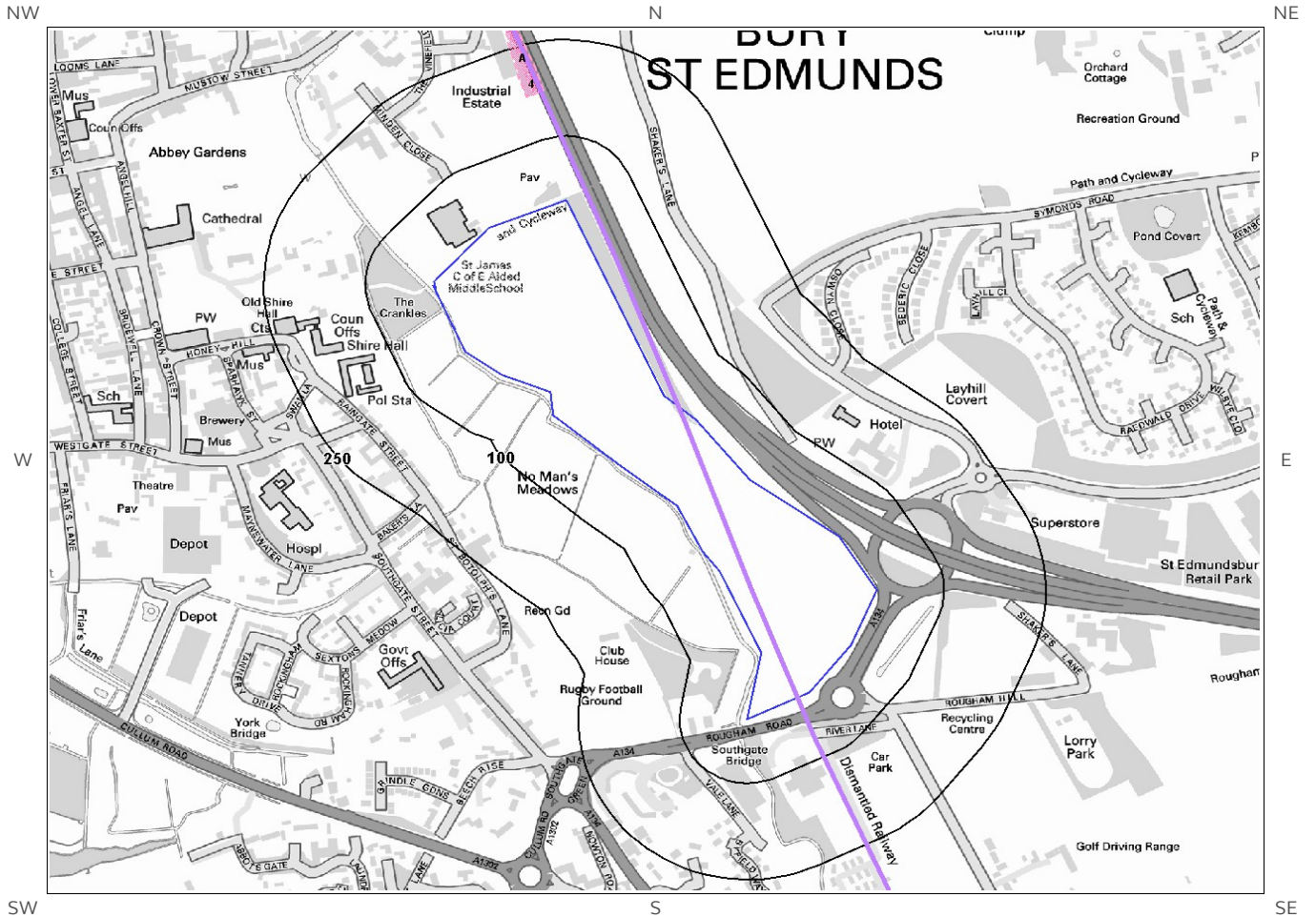
Distance (m)	Direction	Sample Type	Arsenic (As)	Cadmium (Cd)	Chromium (Cr)	Nickel (Ni)	Lead (Pb)
0.0	On Site	RuralSoil	<15 mg/kg	<1.8 mg/kg	20 - 40 mg/kg	15 - 30 mg/kg	100 - 200 mg/kg
0.0	On Site	RuralSoil	<15 mg/kg	<1.8 mg/kg	20 - 40 mg/kg	15 - 30 mg/kg	100 - 200 mg/kg
0.0	On Site	RuralSoil	<15 mg/kg	<1.8 mg/kg	20 - 40 mg/kg	15 - 30 mg/kg	<100 mg/kg
0.0	On Site	RuralSoil	<15 mg/kg	<1.8 mg/kg	20 - 40 mg/kg	15 - 30 mg/kg	<100 mg/kg
0.0	On Site	RuralSoil	<15 mg/kg	<1.8 mg/kg	20 - 40 mg/kg	15 - 30 mg/kg	<100 mg/kg
0.0	On Site	RuralSoil	<15 mg/kg	<1.8 mg/kg	40 - 60 mg/kg	15 - 30 mg/kg	<100 mg/kg
0.0	On Site	RuralSoil	<15 mg/kg	<1.8 mg/kg	40 - 60 mg/kg	15 - 30 mg/kg	<100 mg/kg
0.0	On Site	RuralSoil	<15 mg/kg	<1.8 mg/kg	20 - 40 mg/kg	15 - 30 mg/kg	<100 mg/kg
0.0	On Site	RuralSoil	<15 mg/kg	<1.8 mg/kg	40 - 60 mg/kg	15 - 30 mg/kg	<100 mg/kg
0.0	On Site	RuralSoil	<15 mg/kg	<1.8 mg/kg	20 - 40 mg/kg	15 - 30 mg/kg	<100 mg/kg
0.0	On Site	RuralSoil	15 - 25 mg/kg	<1.8 mg/kg	60 - 90 mg/kg	15 - 30 mg/kg	<100 mg/kg
0.0	On Site	RuralSoil	<15 mg/kg	<1.8 mg/kg	20 - 40 mg/kg	15 - 30 mg/kg	<100 mg/kg
0.0	On Site	RuralSoil	<15 mg/kg	<1.8 mg/kg	20 - 40 mg/kg	15 - 30 mg/kg	<100 mg/kg
0.0	On Site	RuralSoil	<15 mg/kg	<1.8 mg/kg	20 - 40 mg/kg	15 - 30 mg/kg	100 - 200 mg/kg
0.0	On Site	RuralSoil	15 - 25 mg/kg	<1.8 mg/kg	60 - 90 mg/kg	15 - 30 mg/kg	<100 mg/kg
0.0	On Site	RuralSoil	<15 mg/kg	<1.8 mg/kg	20 - 40 mg/kg	15 - 30 mg/kg	<100 mg/kg
2.0	SW	RuralSoil	<15 mg/kg	<1.8 mg/kg	20 - 40 mg/kg	15 - 30 mg/kg	<100 mg/kg
2.0	SW	RuralSoil	<15 mg/kg	<1.8 mg/kg	20 - 40 mg/kg	15 - 30 mg/kg	<100 mg/kg
2.0	SW	RuralSoil	<15 mg/kg	<1.8 mg/kg	20 - 40 mg/kg	15 - 30 mg/kg	100 - 200 mg/kg
2.0	SW	RuralSoil	<15 mg/kg	<1.8 mg/kg	20 - 40 mg/kg	15 - 30 mg/kg	100 - 200 mg/kg
7.0	SW	RuralSoil	<15 mg/kg	<1.8 mg/kg	40 - 60 mg/kg	15 - 30 mg/kg	<100 mg/kg
7.0	SW	RuralSoil	<15 mg/kg	<1.8 mg/kg	40 - 60 mg/kg	15 - 30 mg/kg	100 - 200 mg/kg
11.0	SW	RuralSoil	<15 mg/kg	<1.8 mg/kg	40 - 60 mg/kg	15 - 30 mg/kg	100 - 200 mg/kg
11.0	SW	RuralSoil	<15 mg/kg	<1.8 mg/kg	40 - 60 mg/kg	15 - 30 mg/kg	100 - 200 mg/kg
32.0	SE	RuralSoil	<15 mg/kg	<1.8 mg/kg	20 - 40 mg/kg	15 - 30 mg/kg	<100 mg/kg
43.0	W	RuralSoil	<15 mg/kg	<1.8 mg/kg	20 - 40 mg/kg	15 - 30 mg/kg	<100 mg/kg
43.0	W	RuralSoil	<15 mg/kg	<1.8 mg/kg	40 - 60 mg/kg	15 - 30 mg/kg	<100 mg/kg
62.0	SE	RuralSoil	<15 mg/kg	<1.8 mg/kg	20 - 40 mg/kg	15 - 30 mg/kg	<100 mg/kg
81.0	NE	RuralSoil	<15 mg/kg	<1.8 mg/kg	40 - 60 mg/kg	15 - 30 mg/kg	<100 mg/kg
120.0	W	RuralSoil	<15 mg/kg	<1.8 mg/kg	40 - 60 mg/kg	15 - 30 mg/kg	100 - 200 mg/kg
121.0	W	RuralSoil	<15 mg/kg	<1.8 mg/kg	40 - 60 mg/kg	15 - 30 mg/kg	100 - 200 mg/kg
121.0	W	RuralSoil	<15 mg/kg	<1.8 mg/kg	40 - 60 mg/kg	15 - 30 mg/kg	100 - 200 mg/kg
122.0	SW	RuralSoil	<15 mg/kg	<1.8 mg/kg	40 - 60 mg/kg	15 - 30 mg/kg	<100 mg/kg
131.0	NE	RuralSoil	<15 mg/kg	<1.8 mg/kg	40 - 60 mg/kg	15 - 30 mg/kg	<100 mg/kg
138.0	S	RuralSoil	15 - 25 mg/kg	<1.8 mg/kg	60 - 90 mg/kg	15 - 30 mg/kg	<100 mg/kg
140.0	S	RuralSoil	15 - 25 mg/kg	<1.8 mg/kg	60 - 90 mg/kg	15 - 30 mg/kg	<100 mg/kg
167.0	NE	RuralSoil	<15 mg/kg	<1.8 mg/kg	40 - 60 mg/kg	15 - 30 mg/kg	<100 mg/kg
170.0	SW	RuralSoil	<15 mg/kg	<1.8 mg/kg	20 - 40 mg/kg	15 - 30 mg/kg	<100 mg/kg

Distance (m)	Direction	Sample Type	Arsenic (As)	Cadmium (Cd)	Chromium (Cr)	Nickel (Ni)	Lead (Pb)
178.0	S	RuralSoil	<15 mg/kg	<1.8 mg/kg	20 - 40 mg/kg	15 - 30 mg/kg	<100 mg/kg
213.0	NE	RuralSoil	<15 mg/kg	<1.8 mg/kg	20 - 40 mg/kg	15 - 30 mg/kg	<100 mg/kg
215.0	NE	RuralSoil	<15 mg/kg	<1.8 mg/kg	20 - 40 mg/kg	15 - 30 mg/kg	<100 mg/kg
215.0	NE	RuralSoil	<15 mg/kg	<1.8 mg/kg	20 - 40 mg/kg	15 - 30 mg/kg	100 - 200 mg/kg
217.0	NE	RuralSoil	<15 mg/kg	<1.8 mg/kg	40 - 60 mg/kg	15 - 30 mg/kg	<100 mg/kg
217.0	NE	RuralSoil	<15 mg/kg	<1.8 mg/kg	40 - 60 mg/kg	15 - 30 mg/kg	100 - 200 mg/kg
218.0	SW	RuralSoil	<15 mg/kg	<1.8 mg/kg	20 - 40 mg/kg	15 - 30 mg/kg	100 - 200 mg/kg
246.0	SW	RuralSoil	<15 mg/kg	<1.8 mg/kg	20 - 40 mg/kg	15 - 30 mg/kg	<100 mg/kg
247.0	NE	RuralSoil	<15 mg/kg	<1.8 mg/kg	20 - 40 mg/kg	15 - 30 mg/kg	<100 mg/kg

\*As this data is based upon underlying 1:50,000 scale geological information, a 50m buffer has been added to the search radius.













# 7 Railways and Tunnels Map



**Railways and Tunnels Legend**

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-  Underground or Partially Underground Railway / Subway System
-  Railway Track (OpenStreetMap)
-  Site Outline
-  Railway Tunnel (OS Mapping)
-  High Speed 2
-  Search Buffers (m)
-  Abandoned or Dismantled Railway (OpenStreetMap)
-  Crossrail 1
-  Railway Track (OS Mapping)
-  Railway and/or Tunnel Feature from Historical Mapping



# 7 Railways and Tunnels

## 7.1 Tunnels

This data is derived from OpenStreetMap and provides information on the possible locations of underground railway systems in the UK - the London Underground, the Tyne & Wear Metro and the Glasgow Subway.

Have any underground railway lines been identified within the study site boundary? No

Have any underground railway lines been identified within 250m of the study site boundary? No

Database searched and no data found.

*Any records that have been identified are represented on the Railways and Tunnels Map.*

---

This data is derived from Ordnance Survey mapping and provides information on the possible locations of railway tunnels forming part of the UK overground railway network.

Have any other railway tunnels been identified within the site boundary? No

Have any other railway tunnels been identified within 250m of the site boundary? No

Database searched and no data found.

*Any records that have been identified are represented on the Railways and Tunnels Map.*

---

## 7.2 Historical Railway and Tunnel Features

This data is derived from Groundsure's unique Historical Land-use Database and contains features relating to tunnels, railway tracks or associated works that have been identified from historical Ordnance Survey mapping.

Have any historical railway or tunnel features been identified within the study site boundary? No

Have any historical railway or tunnel features been identified within 250m of the study site boundary? Yes

ID	Distance (m)	Direction	NGR	Details	Date
1A	171	N	586101 264434	Railway Sidings	1903
2A	177	N	586098 264434	Railway Sidings	1903
3A	179	N	586098 264437	Railway Sidings	1883
4	179	N	586133 264341	Railway Sidings	1885

*Any records that have been identified are represented on the Railways and Tunnels Map.*

---

### 7.3 Historical Railways

This data is derived from OpenStreetMap and provides information on the possible alignments of abandoned or dismantled railway lines in proximity to the study site.

- Have any historical railway lines been identified within the study site boundary? Yes
- Have any historical railway lines been identified within 250m of the study site boundary? Yes

Distance (m)	Direction	Status
0	On Site	Dismantled
27	NE	Abandoned

Note: multiple sections of the same track may be listed in the detail above

*Any records that have been identified are represented on the Railways and Tunnels Map.*

### 7.4 Active Railways

These datasets are derived from Ordnance Survey mapping and OpenStreetMap and provide information on the possible locations of active railway lines in proximity to the study site.

- Have any active railway lines been identified within the study site boundary? No
- Have any active railway lines been identified within 250m of the study site boundary? No

Database searched and no data found.

Note: multiple sections of the same track may be listed in the detail above

*Any records that have been identified are represented on the Railways and Tunnels Map.*

### 7.5 Railway Projects

These datasets provide information on the location of large scale railway projects High Speed 2 and Crossrail 1 .

- Is the study site within 5km of the route of the High Speed 2 rail project? No
- Is the study site within 500m of the route of the Crossrail 1 rail project? No

*Further information on proximity to these routes, the project construction status and associated works can be obtained through the purchase of a Groundsure HS2 and Crossrail 1 Report.*

The route data has been digitised from publicly available maps by Groundsure. The route as provided relates to the Crossrail 1 project only, and does not include any details of the Crossrail 2 project, as final details of the route for Crossrail 2 are still under consultation.

# Contact Details

**Groundsure Helpline**  
Telephone: 08444 159 000  
info@groundsure.com



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Keyworth, Nottingham NG12 5GG  
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Fax: 0115 936 3276.  
Email: [enquiries@bgs.ac.uk](mailto:enquiries@bgs.ac.uk)  
Web: [www.bgs.ac.uk](http://www.bgs.ac.uk)

BGS Geological Hazards Reports and general geological enquiries



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## The Coal Authority

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DX 716176 Mansfield 5  
[www.coal.gov.uk](http://www.coal.gov.uk)



## Public Health England

Public information access office  
Public Health England, Wellington House  
133-155 Waterloo Road, London, SE1 8UG  
<https://www.gov.uk/government/organisations/public-health-england>  
Email: [enquiries@phe.gov.uk](mailto:enquiries@phe.gov.uk)  
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## Johnson Poole & Bloomer Limited

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## Ordnance Survey

Adanac Drive, Southampton  
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Tel: 08456 050505  
Website: <http://www.ordnancesurvey.co.uk/>



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Website: <http://www1.getmapping.com/>



# Contact Details



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## Standard Terms and Conditions

### 1 Definitions

In these terms and conditions unless the context otherwise requires:

**“Beneficiary”** means the person or entity for whose benefit the Client has obtained the Services.

**“Client”** means the party or parties entering into a Contract with Groundsure.

**“Commercial”** means any building or property which is not Residential.

**“Confidential Information”** means the contents of this Contract and all information received from the Client as a result of, or in connection with, this Contract other than

(i) information which the Client can prove was rightfully in its possession prior to disclosure by Groundsure and

(ii) any information which is in the public domain (other than by virtue of a breach of this Contract).

**“Support Services”** means Support Services provided by Groundsure including, without limitation, interpreting third party and in-house environmental data, providing environmental support advice, undertaking environmental audits and assessments, Site investigation, Site monitoring and related items.

**“Contract”** means the contract between Groundsure and the Client for the provision of the Services, and which shall incorporate these terms and conditions, the Order, and the relevant User Guide.

**“Third Party Data Provider”** means any third party providing Third Party Content to Groundsure.

**“Data Reports”** means reports comprising factual data with no accompanying interpretation.

**“Fees”** has the meaning set out in clause 5.1.

**“Groundsure”** means Groundsure Limited, a company registered in England and Wales under number 03421028.

**“Groundsure Materials”** means all materials prepared by Groundsure and provided as part of the Services, including but not limited to Third Party Content, Data Reports, Mapping, and Risk Screening Reports.

**“Intellectual Property”** means any patent, copyright, design rights, trade or service mark, moral rights, data protection rights, know-how or trade mark in each case whether registered or not and including applications for the same or any other rights of a similar nature anywhere in the world.

**“Mapping”** means a map, map data or a combination of historical maps of various ages, time periods and scales.

**“Order”** means an electronic, written or other order form submitted by the Client requesting Services from Groundsure in respect of a specified Site.

**“Ordnance Survey”** means the Secretary of State for Business, Innovation and Skills, acting through Ordnance Survey, Adanac Drive, Southampton, SO16 0AS, UK.

**“Order Website”** means the online platform through which Orders may be placed by the Client and accepted by Groundsure.

**“Report”** means a Risk Screening Report or Data Report for Commercial or Residential property.

**“Residential”** means any building or property used as or intended to be used as a single dwelling.

**“Risk Screening Report”** means a risk screening report comprising factual data with an accompanying interpretation by Groundsure.

**“Services”** means any Report, Mapping and/or Support Services which Groundsure has agreed to provide by accepting an Order pursuant to clause 2.6.

**“Site”** means the area of land in respect of which the Client has requested Groundsure to provide the Services.

**“Third Party Content”** means data, database information or other information which is provided to Groundsure by a Third Party Data Provider.

**“User Guide”** means the user guide, as amended from time to time, available upon request from Groundsure and on the website ([www.Groundsure.com](http://www.Groundsure.com)) and forming part of this Contract.

### 2 Scope of Services, terms and conditions, requests for insurance and quotations

2.1 Groundsure agrees to provide the Services in accordance with the Contract.

2.2 Groundsure shall exercise reasonable skill and care in the provision of the Services.

2.3 Subject to clause 7.3 the Client acknowledges that it has not relied on any statement or representation made by or on behalf of Groundsure which is not set out and expressly agreed in writing in the Contract and all such statements and representations are hereby excluded to the fullest extent permitted by law.

2.4 The Client acknowledges that terms and conditions appearing on a Client's order form, printed stationery or other communication, or any terms or conditions implied by custom, practice or course of dealing shall be of no effect, and that this Contract shall prevail over all others in relation to the Order.

2.5 If the Client or Beneficiary requests insurance in conjunction with or as a result of the Services, Groundsure shall use reasonable endeavours to recommend such insurance, but makes no warranty that such insurance shall be available from insurers or that it will be offered on reasonable terms. Any insurance purchased by the Client or Beneficiary shall be subject solely to the terms of the policy issued by insurers and Groundsure will have no liability therefor. In addition you acknowledge and agree that Groundsure does not act as an agent or broker for any insurance providers. The Client should take (and ensure that the Beneficiary takes) independent advice to ensure that the insurance policy requested or offered is suitable for its requirements.

2.6 Groundsure's quotations or proposals are valid for a period of 30 days only unless an alternative period of time is explicitly stipulated by Groundsure.

Groundsure reserves the right to withdraw any quotation or proposal at any time before an Order is accepted by Groundsure. Groundsure's acceptance of an Order shall be binding only when made in writing and signed by Groundsure's authorised representative or when accepted through the Order Website.

### 3 The Client's obligations

3.1 The Client shall comply with the terms of this Contract and

(i) procure that the Beneficiary or any third party relying on the Services complies with and acts as if it is bound by the Contract and

(ii) be liable to Groundsure for the acts and omissions of the Beneficiary or any third party relying on the Services as if such acts and omissions were those of the Client.

3.2 The Client shall be solely responsible for ensuring that the Services are appropriate and suitable for its and/or the Beneficiary's needs.

3.3 The Client shall supply to Groundsure as soon as practicable and without charge all requisite information (and the Client warrants that such information is accurate, complete and appropriate), including without limitation any environmental information relating to the Site and shall give such assistance as Groundsure shall reasonably require in the provision of the Services including, without limitation, access to the Site, facilities and equipment.

3.4 Where the Client's approval or decision is required to enable Groundsure to carry out work in order to provide the Services, such approval or decision shall be given or procured in reasonable time and so as not to delay or disrupt the performance of the Services.

3.5 Save as expressly permitted by this Contract the Client shall not, and shall procure that the Beneficiary shall not, re-sell, alter, add to, or amend the Groundsure Materials, or use the Groundsure Materials in a manner for which they were not intended. The Client may make the Groundsure Materials available to a third party who is considering acquiring some or all of, or providing funding in relation to, the Site, but such third party cannot rely on the same unless expressly permitted under clause 4.

3.6 The Client is responsible for maintaining the confidentiality of its user name and password if using the Order Website and the Client acknowledges that Groundsure accepts no liability of any kind for any loss or damage suffered by the Client as a consequence of using the Order Website.

### 4 Reliance

4.1 The Client acknowledges that the Services provided by Groundsure consist of the presentation and analysis of Third Party Content and other content and that information obtained from a Third Party Data Provider cannot be guaranteed or warranted by Groundsure to be reliable.

4.2 In respect of Data Reports, Mapping and Risk Screening Reports, the following classes of person and no other are entitled to rely on their contents;

(i) the Beneficiary,  
(ii) the Beneficiary's professional advisers, (iii) any person providing funding to the Beneficiary in relation to the Site (whether directly or as part of a lending syndicate),  
(iv) the first purchaser or first tenant of the Site, and  
(v) the professional advisers and lenders of the first purchaser or tenant of the Site.

4.3 In respect of Support Services, only the Client, Beneficiary and parties expressly named in a Report and no other parties are entitled to rely on its contents.

4.4 Save as set out in clauses 4.2 and 4.3 and unless otherwise expressly agreed in writing, no other person or entity of any kind is entitled to rely on any Services or Report issued or provided by Groundsure. Any party considering such Reports and Services does so at their own risk.

### 5 Fees and Disbursements

5.1 Groundsure shall charge and the Client shall pay fees at the rate and frequency specified in the written proposal, Order Website or Order acknowledgement form, plus (in the case of Support Services) all proper disbursements incurred by Groundsure. The Client shall in addition pay all value added tax or other tax payable on such fees and disbursements in relation to the provision of the Services (together “Fees”).

5.2 The Client shall pay all outstanding Fees to Groundsure in full without deduction, counterclaim or set off within 30 days of the date of Groundsure's invoice or such other period as may be agreed in writing between Groundsure and the Client (“Payment Date”). Interest on late payments will accrue on a daily basis from the Payment Date until the date of payment (whether before or after judgment) at the rate of 8% per annum.

5.3 The Client shall be deemed to have agreed the amount of any invoice unless an objection is made in writing within 28 days of the date of the invoice. As soon as reasonably practicable after being notified of an objection, without prejudice to clause 5.2 a member of Groundsure's management team will contact the Client and the parties shall then use all reasonable endeavours to resolve the dispute within 15 days.

### 6 Intellectual Property and Confidentiality

6.1 Subject to

(i) full payment of all relevant Fees and  
(ii) compliance with this Contract, the Client is granted (and is permitted to sub-licence to the Beneficiary) a royalty-free, worldwide, non-assignable and (save to the extent set out in this Contract) non-transferable licence to make use of the Groundsure Materials.

6.2 All Intellectual Property in the Groundsure Materials are and shall remain owned by Groundsure or Groundsure's licensors (including without limitation the Third Party Data Providers) the Client acknowledges, and shall procure

acknowledgement by the Beneficiary of, such ownership. Nothing in this Contract purports to transfer or assign any rights to the Client or the Beneficiary in respect of such Intellectual Property.

6.3 Third Party Data Providers may enforce any breach of clauses 6.1 and 6.2 against the Client or Beneficiary.

6.4 The Client shall, and shall procure that any recipients of the Groundsure Materials shall:

(i) not remove, suppress or modify any trade mark, copyright or other proprietary marking belonging to Groundsure or any third party from the Services;

(ii) use the information obtained as part of the Services in respect of the subject Site only, and shall not store or reuse any information obtained as part of the Services provided in respect of adjacent or nearby sites;

(iii) not create any product or report which is derived directly or indirectly from the Services (save that those acting in a professional capacity to the Beneficiary may provide advice based upon the Services);

(iv) not combine the Services with or incorporate such Services into any other information data or service;

(v) not reformat or otherwise change (whether by modification, addition or enhancement), the Services (save that those acting for the Beneficiary in a professional capacity shall not be in breach of this clause 6.4(v) where such reformatting is in the normal course of providing advice based upon the Services);

(vi) where a Report and/or Mapping contains material belonging to Ordnance Survey, acknowledge and agree that such content is protected by Crown Copyright and shall not use such content for any purpose outside of receiving the Services; and

(vii) not copy in whole or in part by any means any map prints or run-on copies containing content belonging to Ordnance Survey (other than that contained within Ordnance Survey's OS Street Map) without first being in possession of a valid Paper Map Copying Licence from Ordnance Survey,

6.5 Notwithstanding clause 6.4, the Client may make reasonable use of the Groundsure Materials in order to advise the Beneficiary in a professional capacity. However, Groundsure shall have no liability in respect of any advice, opinion or report given or provided to Beneficiaries by the Client.

6.6 The Client shall procure that any person to whom the Services are made available shall notify Groundsure of any request or requirement to disclose, publish or disseminate any information contained in the Services in accordance with the Freedom of Information Act 2000, the Environmental Information Regulations 2004 or any associated legislation or regulations in force from time to time.

#### **7. Liability: Particular Attention Should Be Paid To This Clause**

7.1 This Clause 7 sets out the entire liability of Groundsure, including any liability for the acts or omissions of its employees, agents, consultants, subcontractors and Third Party Content, in respect of:

(i) any breach of contract, including any deliberate breach of the Contract by Groundsure or its employees, agents or subcontractors;

(ii) any use made of the Reports, Services, Materials or any part of them; and

(iii) any representation, statement or tortious act or omission (including negligence) arising under or in connection with the Contract.

7.2 All warranties, conditions and other terms implied by statute or common law are, to the fullest extent permitted by law, excluded from the Contract.

7.3 Nothing in the Contract limits or excludes the liability of the Supplier for death or personal injury resulting from negligence, or for any damage or liability incurred by the Client or Beneficiary as a result of fraud or fraudulent misrepresentation.

7.4 Groundsure shall not be liable for

(i) loss of profits;

(ii) loss of business;

(iii) depletion of goodwill and/or similar losses;

(iv) loss of anticipated savings;

(v) loss of goods;

(vi) loss of contract;

(vii) loss of use;

(viii) loss or corruption of data or information;

(ix) business interruption;

(x) any kind of special, indirect, consequential or pure economic loss, costs, damages, charges or expenses;

(xi) loss or damage that arise as a result of the use of all or part of the Groundsure Materials in breach of the Contract;

(xii) loss or damage arising as a result of any error, omission or inaccuracy in any part of the Groundsure Materials where such error, omission or inaccuracy is caused by any Third Party Content or any reasonable interpretation of Third Party Content;

(xiii) loss or damage to a computer, software, modem, telephone or other property; and

(xiv) loss or damage caused by a delay or loss of use of Groundsure's internet ordering service.

7.5 Groundsure's total liability in relation to or under the Contract shall be limited to £10 million for any claim or claims.

7.6 Groundsure shall procure that the Beneficiary shall be bound by limitations and exclusions of liability in favour of Groundsure which accord with those detailed in clauses 7.4 and 7.5 (subject to clause 7.3) in respect of all claims which the Beneficiary may bring against Groundsure in relation to the Services or other matters arising pursuant to the Contract.

#### **8 Groundsure's right to suspend or terminate**

8.1 If Groundsure reasonably believes that the Client or Beneficiary has not provided the information or assistance required to enable the proper provision of the Services, Groundsure shall be entitled to suspend all further performance of the Services until such time as any such deficiency has been made good.

8.2 Groundsure shall be entitled to terminate the Contract immediately on written notice in the event that:

(i) the Client fails to pay any sum due to Groundsure within 30 days of the Payment Date; or

(ii) the Client (being an individual) has a bankruptcy order made against him or (being a company) shall enter into liquidation whether compulsory or voluntary or have an administration order made against it or if a receiver shall be appointed over the whole or any part of its property assets or undertaking or if the Client is struck off the Register of Companies or dissolved; or

(iii) the Client being a company is unable to pay its debts within the meaning of Section 123 of the Insolvency Act 1986 or being an individual appears unable to pay his debts within the meaning of Section 268 of the Insolvency Act 1986 or if the Client shall enter into a composition or arrangement with the Client's creditors or shall suffer distress or execution to be levied on his goods; or

(iv) the Client or the Beneficiary breaches any term of the Contract (including, but not limited to, the obligations in clause 4) which is incapable of remedy or if remediable, is not remedied within five days of notice of the breach.

#### **9. Client's Right to Terminate and Suspend**

9.1 Subject to clause 10.1, the Client may at any time upon written notice terminate or suspend the provision of all or any of the Services.

9.2 In any event, where the Client is a consumer (and not a business) he/she hereby expressly acknowledges and agrees that:

(i) the supply of Services under this Contract (and therefore the performance of this Contract) commences immediately upon Groundsure's acceptance of the Order; and

(ii) the Reports and/or Mapping provided under this Contract are

(a) supplied to the Client's specification(s) and in any event  
(b) by their nature cannot be returned.

#### **10 Consequences of Withdrawal, Termination or Suspension**

10.1 Upon termination of the Contract:

(i) Groundsure shall take steps to bring to an end the Services in an orderly manner, vacate any Site with all reasonable speed and shall deliver to the Client and/or Beneficiary any property of the Client and/or Beneficiary in Groundsure's possession or control; and

(ii) the Client shall pay to Groundsure all and any Fees payable in respect of the performance of the Services up to the date of termination or suspension. In respect of any Support Services provided, the Client shall also pay Groundsure any additional costs incurred in relation to the termination or suspension of the Contract.

#### **11 Anti-Bribery**

11.1 The Client warrants that it shall:

(i) comply with all applicable laws, statutes and regulations relating to anti-bribery and anti-corruption including but not limited to the Bribery Act 2010;

(ii) comply with such of Groundsure's anti-bribery and anti-corruption policies as are notified to the Client from time to time; and

(iii) promptly report to Groundsure any request or demand for any undue financial or other advantage of any kind received by or on behalf of the Client in connection with the performance of this Contract.

11.2 Breach of this Clause 11 shall be deemed a material breach of this Contract.

#### **12 General**

12.1 The Mapping contained in the Services is protected by Crown copyright and must not be used for any purpose other than as part of the Services or as specifically provided in the Contract.

12.2 The Client shall be permitted to make one copy only of each Report or Mapping Order. Thereafter the Client shall be entitled to make unlimited copies of the Report or Mapping Order only in accordance with an Ordnance Survey paper map copy license available through Groundsure.

12.3 Groundsure reserves the right to amend or vary this Contract. No amendment or variation to this Contract shall be valid unless signed by an authorised representative of Groundsure.

12.4 No failure on the part of Groundsure to exercise, and no delay in exercising, any right, power or provision under this Contract shall operate as a waiver thereof.

12.5 Save as expressly provided in this Contract, no person other than the persons set out therein shall have any right under the Contract (Rights of Third Parties) Act 1999 to enforce any terms of the Contract.

12.6 The Secretary of State for Business, Innovation and Skills ("BIS") or BIS' successor body, as the case may be, acting through Ordnance Survey may enforce a breach of clause 6.4(vi) and clause 6.4(vii) of these terms and conditions against the Client in accordance with the provisions of the Contracts (Rights of Third Parties) Act 1999.

12.7 Groundsure shall not be liable to the Client if the provision of the Services is delayed or prevented by one or more of the following circumstances:

- (i) the Client or Beneficiary's failure to provide facilities, access or information;
- (ii) fire, storm, flood, tempest or epidemic;
- (iii) Acts of God or the public enemy;
- (iv) riot, civil commotion or war;
- (v) strikes, labour disputes or industrial action;
- (vi) acts or regulations of any governmental or other agency;
- (vii) suspension or delay of services at public registries by Third Party Data Providers;
- (viii) changes in law; or
- (ix) any other reason beyond Groundsure's reasonable control.

In the event that Groundsure is prevented from performing the Services (or any part thereof) in accordance with this clause 12.6 for a period of not less than 30 days then Groundsure shall be entitled to terminate this Contract immediately on written notice to the Client.

12.8 Any notice provided shall be in writing and shall be deemed to be properly given if delivered by hand or sent by first class post, facsimile or by email to the address, facsimile number or email address of the relevant party as may have been notified by each party to the other for such purpose or in the absence of such notification the last known address.

12.9 Such notice shall be deemed to have been received on the day of delivery if delivered by hand, facsimile or email (save to the extent such day is not a working day where it shall be deemed to have been delivered on the next working day) and on the second working day after the day of posting if sent by first class post.

12.10 The Contract constitutes the entire agreement between the parties and shall supersede all previous arrangements between the parties relating to the subject matter hereof.

12.11 Each of the provisions of the Contract is severable and distinct from the others and if one or more provisions is or should become invalid, illegal or unenforceable, the validity and enforceability of the remaining provisions shall not in any way be tainted or impaired.

12.12 This Contract shall be governed by and construed in accordance with English law and any proceedings arising out of or connected with this Contract shall be subject to the exclusive jurisdiction of the English courts.

12.13 Groundsure is an executive member of the Council of Property Search Organisation (CoPSO) and has signed up to the Search Code administered by the Property Codes Compliance Board (PCCB). All Risk Screening Reports shall be supplied in accordance with the provisions of the Search Code.

12.14 If the Client or Beneficiary has a complaint about the Services, written notice should be given to the Compliance Officer at Groundsure who will respond in a timely manner. In the event you are not satisfied with Groundsure's complaints handling process or you are unable to resolve the complaint, at your discretion you may refer the complaint to The Property Ombudsman Scheme at the following URL/email: website [www.tpos.co.uk](http://www.tpos.co.uk) or email: [admin@tpos.co.uk](mailto:admin@tpos.co.uk)

12.15 The Client agrees that it shall, and shall procure that each Beneficiary shall, treat in confidence all Confidential Information and shall not, and shall procure that each Beneficiary shall not (i) disclose any Confidential Information to any third party other than in accordance with the terms of this Contract; and (ii) use Confidential Information for a purpose other than the exercise of its rights and obligations under this Contract. Subject to clause 6.6, nothing shall prevent the Client or any Beneficiary from disclosing Confidential Information to the extent required by law



## Appendix J

Groundsure report for land between Rougham Hill, A14 and  
Rushbrooke Lane, Bury St Edmunds



# Groundsure

LOCATION INTELLIGENCE

Geosphere Environmental Ltd

BRIGHTWELL BARNES, IPSWICH ROAD,  
Needham Market,  
Brightwell, IP10 0BJ

Groundsure Reference: HMD-369-2952276

Your Reference: Site\_N\_CJ

Report Date 29 Apr 2016

Report Delivery Method: Email - pdf

## Groundsure Geoinsight

Address: Site N, IP32,

Dear Sir/ Madam,

Thank you for placing your order with Groundsure. Please find enclosed the **Groundsure Geoinsight** as requested.

If you need any further assistance, please do not hesitate to contact our helpline on 08444 159000 quoting the above Groundsure reference number.

Yours faithfully,

Managing Director  
Groundsure Limited

Enc.  
Groundsure Geoinsight

# Groundsure Geoinsight

**Address:** Site N, IP32,  
**Date:** 29 Apr 2016  
**Reference:** HMD-369-2952276  
**Client:** Geosphere Environmental Ltd



Aerial Photograph Capture date: 22-May-2007  
Grid Reference: 587657,263233  
Site Size: 39.30ha

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# Overview of Findings

The Groundsure Geosight provides high quality geo-environmental information that allows geo-environmental professionals and their clients to make informed decisions and be forewarned of potential ground instability problems that may affect the ground investigation, foundation design and possibly remediation options that could lead to possible additional costs.

The report is based on the BGS 1:50,000 Digital Geological Map of Great Britain, BGS Geosure data; BRITPITS database; Shallow Mining data and Borehole Records, Coal Authority data including brine extraction areas, PBA non-coal mining and natural cavities database, Johnson Poole and Bloomer mining data and Groundsure's unique database including historical surface ground and underground workings.

For further details on each dataset, please refer to each individual section in the report as listed. Where the database has been searched a numerical result will be recorded. Where the database has not been searched '-' will be recorded.

## Section 1:Geology

1.1 Artificial Ground	1.1.1 Is there any Artificial Ground/ Made Ground present beneath the study site?	No
	1.1.2 Are there any records relating to permeability of artificial ground within the study site* boundary?	No
1.2 Superficial Geology and Landslips	1.2.1 Is there any Superficial Ground/Drift Geology present beneath the study site?	Yes
	1.2.2 Are there any records relating to permeability of superficial geology within the study site boundary?	Yes
	1.2.3 Are there any records of landslip within 500m of the study site boundary?	No
	1.2.4 Are there any records relating to permeability of landslips within the study site boundary?	No
1.3 Bedrock, Solid Geology & Faults	1.3.1 For records of Bedrock and Solid Geology beneath the study site* see the detailed findings section.	
	1.3.2 Are there any records relating to permeability of bedrock within the study site boundary?	Yes
	1.3.3 Are there any records of faults within 500m of the study site boundary?	No
1.4 Radon data	1.4.1 Is the property in a Radon Affected Area as defined by the Health Protection Agency (HPA) and if so what percentage of homes are above the Action Level?	The property is not in a Radon Affected Area, as less than 1% of properties are above the Action Level
	1.4.2 Is the property in an area where Radon Protection Measures are required for new properties or extensions to existing ones as described in publication BR211 by the Building Research Establishment?	No radon protective measures are necessary

Section 2:Ground Workings	On-site	0-50m	51-250	251-500	501-1000
2.1 Historical Surface Ground Working Features from Small Scale Mapping	3	8	11	Not Searched	Not Searched
2.2 Historical Underground Workings from Small Scale Mapping	0	0	0	0	0
2.3 Current Ground Workings	2	0	2	3	15



Section 3: Mining, Extraction & Natural Cavities	On-site	0-50m	51-250	251-500	501-1000
3.1 Historical Mining	0	0	0	0	0
3.2 Coal Mining	0	0	0	0	0
3.3 Johnson Poole and Bloomer Mining Area	0	0	0	0	0
3.4 Non-Coal Mining	1	0	0	1	0
3.5 Non-Coal Mining Cavities	0	0	0	0	0
3.6 Natural Cavities	1	0	1	0	2
3.7 Brine Extraction	0	0	0	0	0
3.8 Gypsum Extraction	0	0	0	0	0
3.9 Tin Mining	0	0	0	0	0
3.10 Clay Mining	0	0	0	0	0
Section 4: Natural Ground Subsidence	On-site				
4.1 Shrink Swell Clay	Low				
4.2 Landslides	Very Low				
4.3 Ground Dissolution of Soluble Rocks	Low				
4.4 Compressible Deposits	Negligible				
4.5 Collapsible Deposits	Very Low				
4.6 Running Sand	Very Low				
Section 5: Borehole Records	On-site	0-50m	51-250		
5 BGS Recorded Boreholes	1	11	17		
Section 6: Estimated Background Soil Chemistry	On-site	0-50m	51-250		
6 Records of Background Soil Chemistry	15	5	25		
Section 7: Railways and Tunnels	On-site	0-50m	51-250	251-500	
7.1 Tunnels	0	0	0	Not Searched	
7.2 Historical Railway and Tunnel Features	0	0	1	Not Searched	
7.3 Historical Railways	0	0	0	Not Searched	
7.4 Active Railways	0	0	0	Not Searched	



Section 7:Railways and Tunnels	On-site	0-50m	51-250	251-500
7.5 Railway Projects	0	0	0	0

---



# 1 Geology

## 1.1 Artificial Ground

### 1.1.1 Artificial/ Made Ground

The following geological information represented on the mapping is derived from 1:50,000 scale BGS Geological mapping, Sheet No:189

Are there any records of Artificial/Made Ground within 500m of the study site boundary? Yes

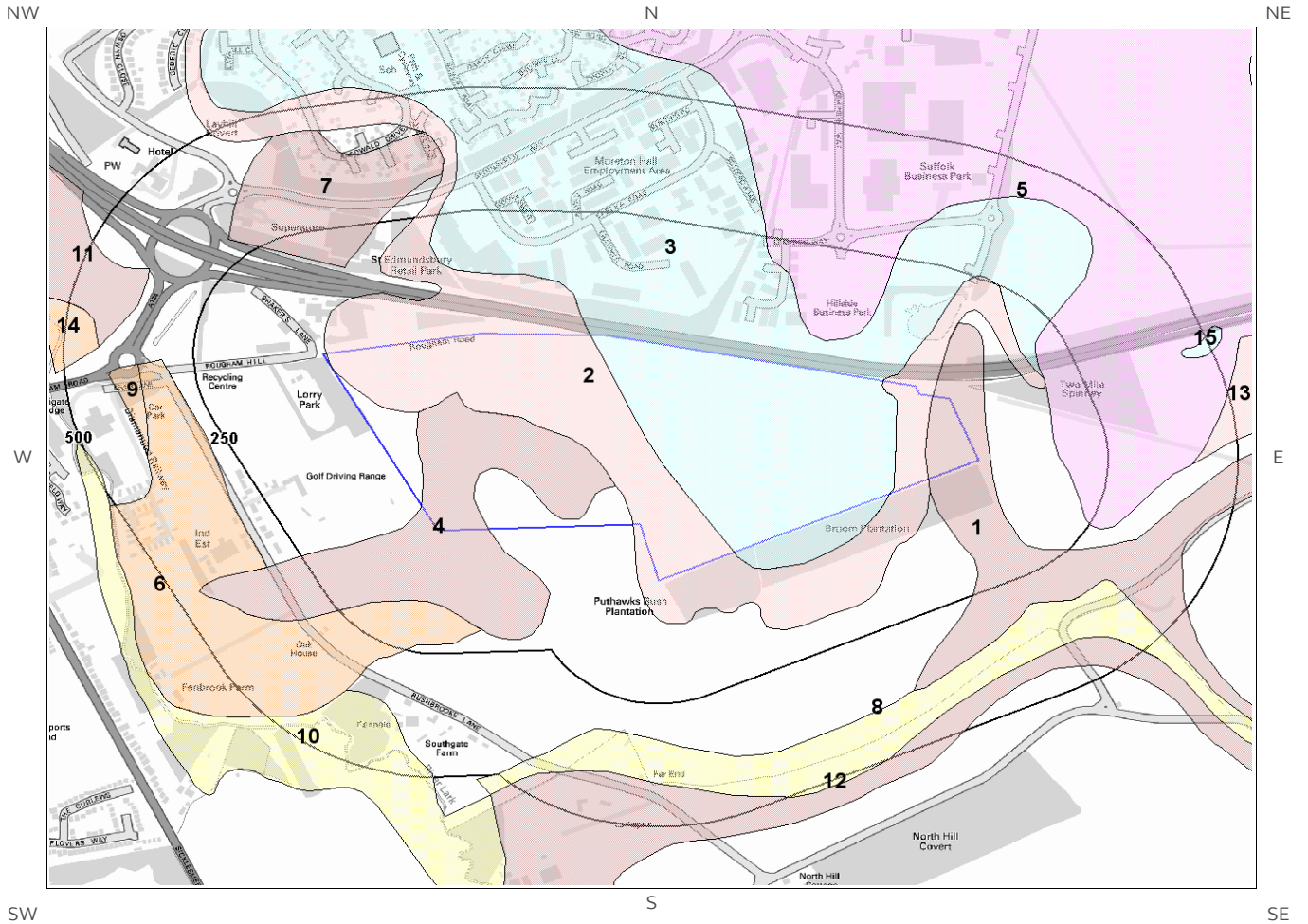
ID	Distance (m)	Direction	LEX Code	Description	Rock Description
1	130.0	N	MGR-MGRD	MADE GROUND (UNDIVIDED)	ARTIFICIAL DEPOSIT
2	415.0	S	MGR-MGRD	MADE GROUND (UNDIVIDED)	ARTIFICIAL DEPOSIT

### 1.1.2 Permeability of Artificial Ground

Are there any records relating to permeability of artificial ground within the study site boundary? No




Database searched and no data found.

# 1.2 Superficial Deposits and Landslips Map



**Superficial Deposits and Landslips Legend**

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-  Site Outline
-  500 Search Buffers (m)
-  1000 Search Buffers (m)

# 1.2 Superficial Deposits and Landslips

## 1.2.1 Superficial Deposits/ Drift Geology

Are there any records of Superficial Deposits/ Drift Geology within 500m of the study site boundary? Yes

ID	Distance (m)	Direction	LEX Code	Description	Rock Description
1	0.0	On Site	HEAD	HEAD	CLAY, SILT, SAND AND GRAVEL [UNLITHIFIED DEPOSITS CODING SCHEME]
2	0.0	On Site	CXSG	CROXTON SAND AND GRAVEL MEMBER	SAND AND GRAVEL [UNLITHIFIED DEPOSITS CODING SCHEME]
3	0.0	On Site	LOFT	LOWESTOFT FORMATION	DIAMICTON
4	0.0	On Site	HEAD	HEAD	CLAY, SILT, SAND AND GRAVEL [UNLITHIFIED DEPOSITS CODING SCHEME]
5	61.0	N	CSD	COVER SAND	SAND [UNLITHIFIED DEPOSITS CODING SCHEME]
6	145.0	S	RTD2	RIVER TERRACE DEPOSITS, 2	SAND AND GRAVEL [UNLITHIFIED DEPOSITS CODING SCHEME]
7	168.0	N	HEAD	HEAD	CLAY, SILT, SAND AND GRAVEL [UNLITHIFIED DEPOSITS CODING SCHEME]
8	307.0	S	ALV	ALLUVIUM	CLAY, SILT, SAND AND GRAVEL [UNLITHIFIED DEPOSITS CODING SCHEME]
9	356.0	W	RTD1	RIVER TERRACE DEPOSITS, 1	SAND AND GRAVEL [UNLITHIFIED DEPOSITS CODING SCHEME]
10	357.0	S	ALV	ALLUVIUM	CLAY, SILT, SAND AND GRAVEL [UNLITHIFIED DEPOSITS CODING SCHEME]
11	370.0	W	HEAD	HEAD	CLAY, SILT, SAND AND GRAVEL [UNLITHIFIED DEPOSITS CODING SCHEME]
12	399.0	S	HEAD	HEAD	CLAY, SILT, SAND AND GRAVEL [UNLITHIFIED DEPOSITS CODING SCHEME]
13	409.0	E	CXSG	CROXTON SAND AND GRAVEL MEMBER	SAND AND GRAVEL [UNLITHIFIED DEPOSITS CODING SCHEME]
14	434.0	W	RTD1	RIVER TERRACE DEPOSITS, 1	SAND AND GRAVEL [UNLITHIFIED DEPOSITS CODING SCHEME]

ID	Distance (m)	Direction	LEX Code	Description	Rock Description
15	445.0	NE	LOFT	LOWESTOFT FORMATION	DIAMICTON

### 1.2.2 Permeability of Superficial Ground

Are there any records relating to permeability of superficial ground within the study site boundary? Yes

Distance (m)	Direction	Flow Type	Maximum Permeability	Minimum Permeability
0.0	On Site	Mixed	High	Very Low
0.0	On Site	Mixed	High	Very Low
0.0	On Site	Intergranular	Very High	High
0.0	On Site	Mixed	Moderate	Low

### 1.2.3 Landslip

Are there any records of Landslip within 500m of the study site boundary? No

Database searched and no data found.

This Geology shows the main components as discrete layers, these are: Artificial / Made Ground, Superficial / Drift Geology and Landslips. These are all displayed with the BGS Lexicon code for the rock unit and BGS sheet number. Not all of the main geological components have nationwide coverage.

### 1.2.4 Landslip Permeability

Are there any records relating to permeability of landslips within the study site\*\* boundary? No

Database searched and no data found.

\* This includes an automatically generated 50m buffer zone around the site






# 1.3 Bedrock and Faults Map



**Bedrock and Faults Legend**

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-  Site Outline
  -  500
  -  1000
- Search Buffers (m)

# 1.3 Bedrock, Solid Geology & Faults

The following geological information represented on the mapping is derived from 1:50,000 scale BGS Geological mapping, Sheet No:189

## 1.3.1 Bedrock/ Solid Geology

Records of Bedrock/ Solid Geology within 500m of the study site boundary:

ID	Distance (m)	Direction	LEX Code	Description	Rock Age
1	0.0	On Site	LCCK-CHLK	Lewes Nodular Chalk Formation, Seaford Chalk Formation, Newhaven Chalk Formation And Culver Chalk Formation (undifferent	Campanian / Turonian

## 1.3.2 Permeability of Bedrock Ground

Are there any records relating to permeability of bedrock ground within the study site\* boundary? Yes

Distance (m)	Direction	Flow Type	Maximum Permeability	Minimum Permeability
0.0	On Site	Fracture	Very High	Very High

## 1.3.3 Faults

Are there any records of Faults within 500m of the study site boundary? No

Database searched and no data found.

The geology map for the site and surrounding area are extracted from the BGS Digital Geological Map of Great Britain at 1:50,000 scale.

This Geology shows the main components as discrete layers, these are: Bedrock/ Solid Geology and linear features such as Faults. These are all displayed with the BGS Lexicon code for the rock unit and BGS sheet number. Not all of the main geological components have nationwide coverage.

\* This includes an automatically generated 50m buffer zone around the site

# 1.4 Radon Data

## 1.4.1 Radon Affected Areas

Is the property in a Radon Affected Area as defined by the Health Protection Agency (HPA) and if so what percentage of homes are above the Action Level?      The property is not in a Radon Affected Area, as less than 1% of properties are above the Action Level

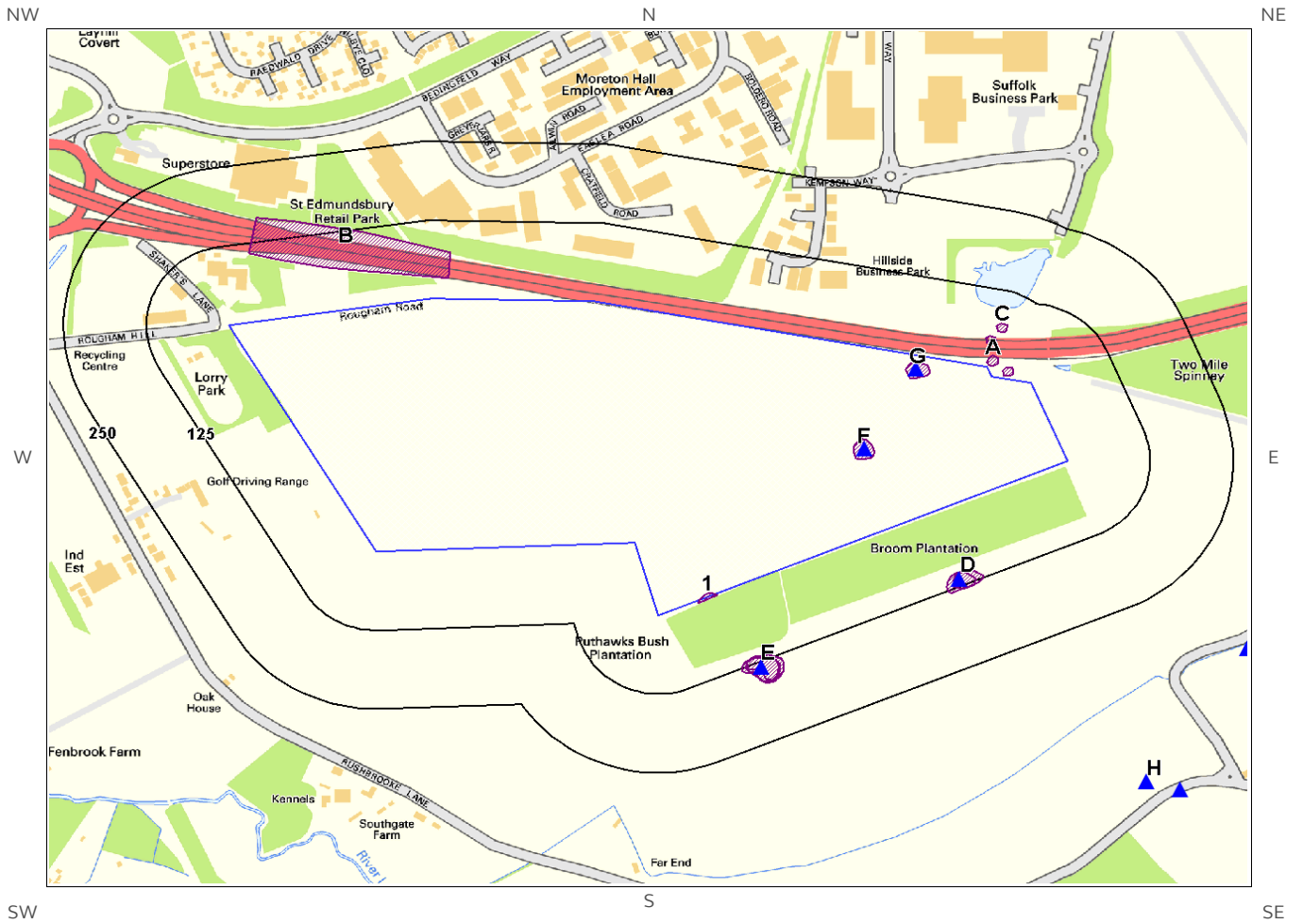
---

## 1.4.2 Radon Protection

Is the property in an area where Radon Protection are required for new properties or extensions to existing ones as described in publication BR211 by the Building Research Establishment?      No radon protective measures are necessary




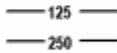
---

# 2 Ground Workings Map



Ground Workings Legend

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-  Site Outline
-  Historic Surface Ground Workings
-  Historic Underground Workings
-  Current Ground Workings
-  Search Buffers (m)

# 2 Ground Workings

## 2.1 Historical Surface Ground Working Features derived from Historical Mapping

This dataset is based on Groundsure's unique Historical Land Use Database derived from 1:10,560 and 1:10,000 scale historical mapping.

Are there any Historical Surface Ground Working Features within 250m of the study site boundary? Yes

The following Historical Surface Ground Working Features are provided by Groundsure:

ID	Distance (m)	Direction	NGR	Use	Date
1	0.0	On Site	587692 262973	Unspecified Pit	1883
2F	0.0	On Site	587927 263209	Old Gravel Pit	1883
3G	0.0	On Site	588007 263336	Old Gravel Pit	1883
4A	4.0	NE	588120 263350	Unspecified Heap	1903
5A	4.0	NE	588120 263350	Unspecified Heap	1938
6A	4.0	N	588144 263332	Unspecified Heap	1903
7A	4.0	N	588144 263332	Unspecified Heap	1938
8B	34.0	N	587149 263529	Cuttings	1991
9B	34.0	N	587149 263529	Cuttings	1976
10A	36.0	N	588118 263382	Unspecified Heap	1903
11A	36.0	N	588118 263382	Unspecified Heap	1938
12C	60.0	N	588134 263402	Unspecified Heap	1903
13C	60.0	N	588134 263402	Unspecified Heap	1938
14D	103.0	S	588083 263003	Unspecified Pit	1950
15D	103.0	S	588073 262998	Unspecified Pit	1903
16D	103.0	S	588073 262998	Old Gravel Pit	1883
17D	103.0	S	588073 262998	Unspecified Pit	1938
18E	114.0	S	587778 262863	Unspecified Quarry	1950
19E	114.0	S	587778 262863	Unspecified Quarry	1976
20E	115.0	S	587773 262860	Unspecified Pit	1903

ID	Distance (m)	Direction	NGR	Use	Date
21E	115.0	S	587773 262860	Old Chalk Pit	1883
22E	117.0	S	587772 262859	Unspecified Quarry	1938

## 2.2 Historical Underground Working Features derived from Historical Mapping

This data is derived from the Groundsure unique Historical Land Use Database. It contains data derived from 1:10,000 and 1:10,560 historical Ordnance Survey Mapping and includes some natural topographical features (Shake Holes for example) as well as manmade features that may have implications for ground stability. Underground and mining features have been identified from surface features such as shafts. The distance that these extend underground is not shown.

Are there any Historical Underground Working Features within 1000m of the study site boundary? No

Database searched and no data found.

## 2.3 Current Ground Workings

This dataset is derived from the BGS BRITPITS database covering active; inactive mines; quarries; oil wells; gas wells and mineral wharves; and rail deposits throughout the British Isles.

Are there any BGS Current Ground Workings within 1000m of the study site boundary? Yes

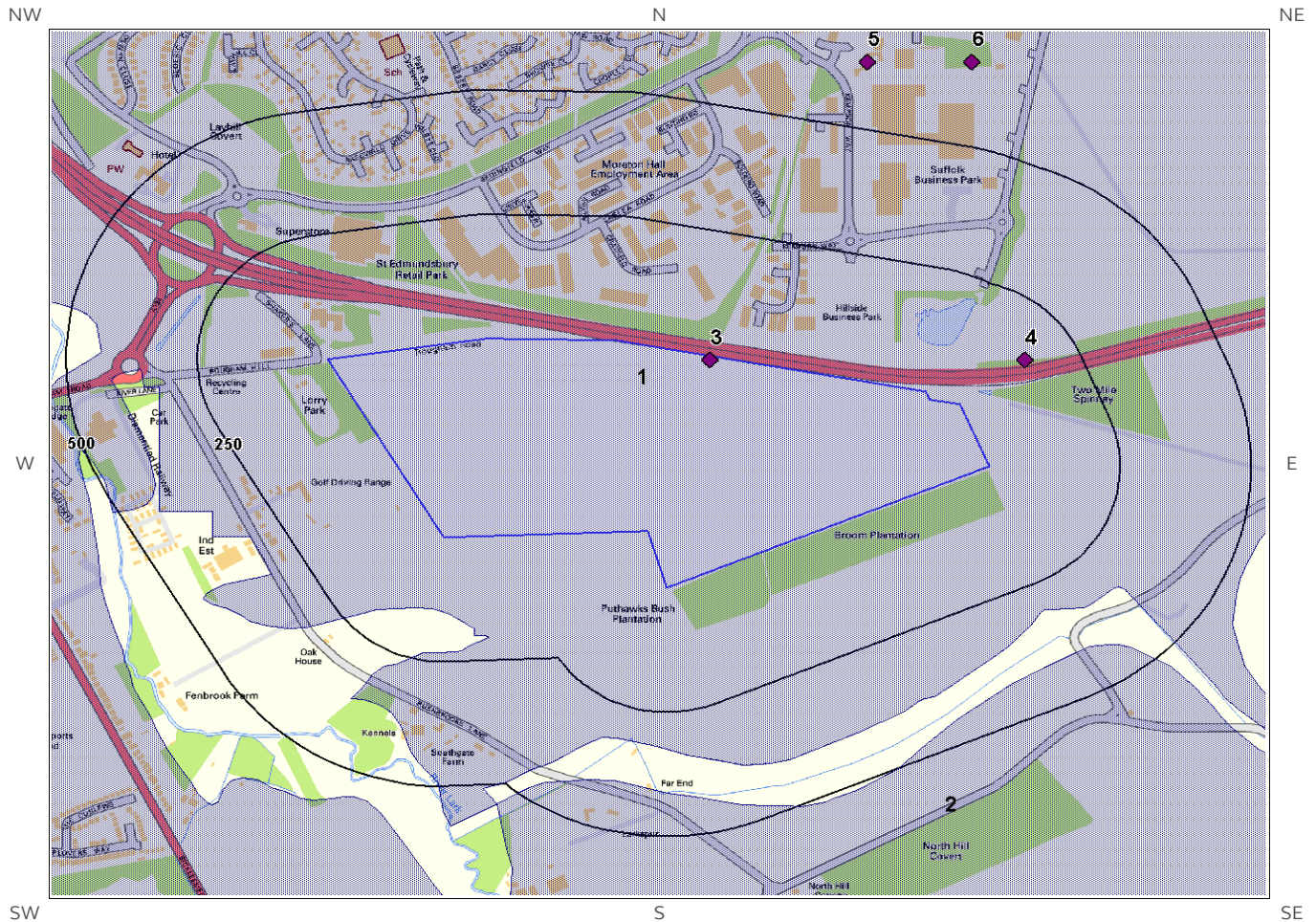
The following Current Ground Workings information is provided by British Geological Survey:

ID	Distance (m)	Direction	NGR	Commodity Produced	Pit Name	Type of working	Status
23F	0.0	On Site	587926 263209	Sand & Gravel	Broom Covert Gravel Pit	A surface mineral working. It may be termed Quarry, Sand Pit, Clay Pit or Opencast Coal Site	Ceased
24G	0.0	On Site	588003 263336	Sand & Gravel	Broom Covert Gravel Pit	A surface mineral working. It may be termed Quarry, Sand Pit, Clay Pit or Opencast Coal Site	Ceased
25D	115.0	S	588069 263002	Sand & Gravel	Broom Covert Gravel Pit	A surface mineral working. It may be termed Quarry, Sand Pit, Clay Pit or Opencast Coal Site	Ceased
26E	134.0	S	587771 262863	Chalk	Broom Covert Chalk Pit	A surface mineral working. It may be termed Quarry, Sand Pit, Clay Pit or Opencast Coal Site	Ceased
27	402.0	SE	588502 262892	Sand & Gravel	North Hill Cottages Pit	A surface mineral working. It may be termed Quarry, Sand Pit, Clay Pit or Opencast Coal Site	Ceased
Not shown	450.0	NE	588619 263427	Sand & Gravel	Two Mile Spinney Pit	A surface mineral working. It may be termed Quarry, Sand Pit, Clay Pit or Opencast Coal Site	Ceased
Not shown	455.0	W	586540 263264	Sand & Gravel	Southgate Bridge Gravel Pit	A surface mineral working. It may be termed Quarry, Sand Pit, Clay Pit or Opencast Coal Site	Ceased
30H	517.0	S	588351 262681	Sand & Gravel	North Hill Cottages Gravel Pit	A surface mineral working. It may be termed Quarry, Sand Pit, Clay Pit or Opencast Coal Site	Ceased



ID	Distance (m)	Direction	NGR	Commodity Produced	Pit Name	Type of working	Status
31H	548.0	S	588401 262668	Sand & Gravel	North Hill Cottages Gravel Pit	A surface mineral working. It may be termed Quarry, Sand Pit, Clay Pit or Opencast Coal Site	Ceased
Not shown	567.0	SE	588663 262822	Sand & Gravel	North Hill Cottages Gravel Pit	A surface mineral working. It may be termed Quarry, Sand Pit, Clay Pit or Opencast Coal Site	Ceased
Not shown	597.0	SW	586444 263128	Sand & Gravel	Southgate Gravel Pit	A surface mineral working. It may be termed Quarry, Sand Pit, Clay Pit or Opencast Coal Site	Ceased
Not shown	599.0	NE	588675 263648	Sand & Gravel	Two Mile Spinney Gravel Pit	A surface mineral working. It may be termed Quarry, Sand Pit, Clay Pit or Opencast Coal Site	Ceased
Not shown	641.0	SW	586448 263033	Sand & Gravel	Southgate Gravel Pits	A surface mineral working. It may be termed Quarry, Sand Pit, Clay Pit or Opencast Coal Site	Ceased
Not shown	653.0	W	586319 263428	Sand & Gravel	Haberden Gravel Pit	A surface mineral working. It may be termed Quarry, Sand Pit, Clay Pit or Opencast Coal Site	Ceased
Not shown	674.0	SW	586434 262992	Sand & Gravel	Southgate Gravel Pits	A surface mineral working. It may be termed Quarry, Sand Pit, Clay Pit or Opencast Coal Site	Ceased
Not shown	769.0	S	587669 262179	Chalk	Little Spinney Chalk Pit	A surface mineral working. It may be termed Quarry, Sand Pit, Clay Pit or Opencast Coal Site	Ceased
Not shown	773.0	N	587677 264201	Sand & Gravel	Mount Farm Gravel Pit	A surface mineral working. It may be termed Quarry, Sand Pit, Clay Pit or Opencast Coal Site	Ceased
Not shown	779.0	SE	588861 262730	Sand	North Hill Cottages Pit	A surface mineral working. It may be termed Quarry, Sand Pit, Clay Pit or Opencast Coal Site	Ceased
Not shown	957.0	S	586886 262140	Clay & Shale	Nowton Court Pit	A surface mineral working. It may be termed Quarry, Sand Pit, Clay Pit or Opencast Coal Site	Ceased
Not shown	960.0	S	587728 261992	Sand & Gravel	Great Spinney Gravel Pit	A surface mineral working. It may be termed Quarry, Sand Pit, Clay Pit or Opencast Coal Site	Ceased
Not shown	986.0	N	586737 264364	Chalk	St Edmunds Hill Chalk Pit	A surface mineral working. It may be termed Quarry, Sand Pit, Clay Pit or Opencast Coal Site	Ceased
Not shown	989.0	SW	586197 262777	Clay & Shale	Southgate Works	A surface mineral working. It may be termed Quarry, Sand Pit, Clay Pit or Opencast Coal Site	Ceased

# 3 Mining, Extraction & Natural Cavities Map



**Mining, Extraction and Natural Cavities Legend**

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# 3 Mining, Extraction & Natural Cavities

## 3.1 Historical Mining

This dataset is derived from Groundsure unique Historical Land-use Database that are indicative of mining or extraction activities.

Are there any Historical Mining areas within 1000m of the study site boundary? No

Database searched and no data found.

---

## 3.2 Coal Mining

This dataset provides information as to whether the study site lies within a known coal mining affected area as defined by the coal authority.

Are there any Coal Mining areas within 1000m of the study site boundary? No

Database searched and no data found.

---

## 3.3 Johnson Poole and Bloomer

This dataset provides information as to whether the study site lies within an area where JPB hold information relating to mining.

Are there any JPB Mining areas within 1000m of the study site boundary? No

The following information provided by JPB is not represented on mapping: Database searched and no data found.

---

## 3.4 Non-Coal Mining

This dataset provides information as to whether the study site lies within an area which may have been subject to non-coal historic mining.

Are there any Non-Coal Mining areas within 1000m of the study site boundary? Yes

The following non-coal mining information is provided by the BGS:

ID	Distance (m)	Direction	Name	Commodity	Assessment of likelihood
1	0.0	On Site	Not available	Chalk	Sporadic underground mining of restricted extent may have occurred. Potential for difficult ground conditions are unlikely and localised and are at a level where they need not be considered

ID	Distance (m)	Direction	Name	Commodity	Assessment of likelihood
2	399.0	S	Not available	Chalk	Sporadic underground mining of restricted extent may have occurred. Potential for difficult ground conditions are unlikely and localised and are at a level where they need not be considered

### 3.5 Non-Coal Mining Cavities

This dataset provides information from the Peter Brett Associates (PBA) mining cavities database (compiled for the national study entitled “Review of mining instability in Great Britain, 1990” PBA has also continued adding to this database) on mineral extraction by mining.

Are there any Non-Coal Mining cavities within 1000m of the study site boundary? No

Database searched and no data found.

### 3.6 Natural Cavities

This dataset provides information based on Peter Brett Associates natural cavities database.

Are there any Natural Cavities within 1000m of the study site boundary? Yes

The following Natural Cavities information provided by Peter Brett Associates:

ID	Distance (m)	Direction	NGR	Superficial Deposits	Bedrock Deposits	Cavity Type and Number
3	0.0	On Site	587700 263400	Glacial Sand, Glacial Till and morainic drift	Chalk Group	Solution Pipe x 8
4	150.0	NE	588300 263400	Glacial Sand, Glacial Till and morainic drift	Chalk Group	Solution Pipe x 8
5	631.0	N	588000 264000	Glacial Sand, Glacial Till and morainic drift	Chalk Group	Solution Pipe x 8
6	665.0	N	588200 264000	Glacial Sand, Glacial Till and morainic drift	Chalk Group	Solution Pipe x 8

### 3.7 Brine Extraction

This data provides information from the Coal Authority issued on behalf of the Cheshire Brine Subsidence Compensation Board.

Are there any Brine Extraction areas within 1000m of the study site boundary? No

Database searched and no data found.

### 3.8 Gypsum Extraction

This dataset provides information on Gypsum extraction from British Gypsum records.

Are there any Gypsum Extraction areas within 1000m of the study site boundary? No

Database searched and no data found.

---

### 3.9 Tin Mining

This dataset provides information on tin mining areas and is derived from tin mining records. This search is based upon postcode information to a sector level.

Are there any Tin Mining areas within 1000m of the study site boundary? No

Database searched and no data found.

---

### 3.10 Clay Mining

This dataset provides information on Kaolin and Ball Clay mining from relevant mining records.

Are there any Clay Mining areas within 1000m of the study site boundary? No

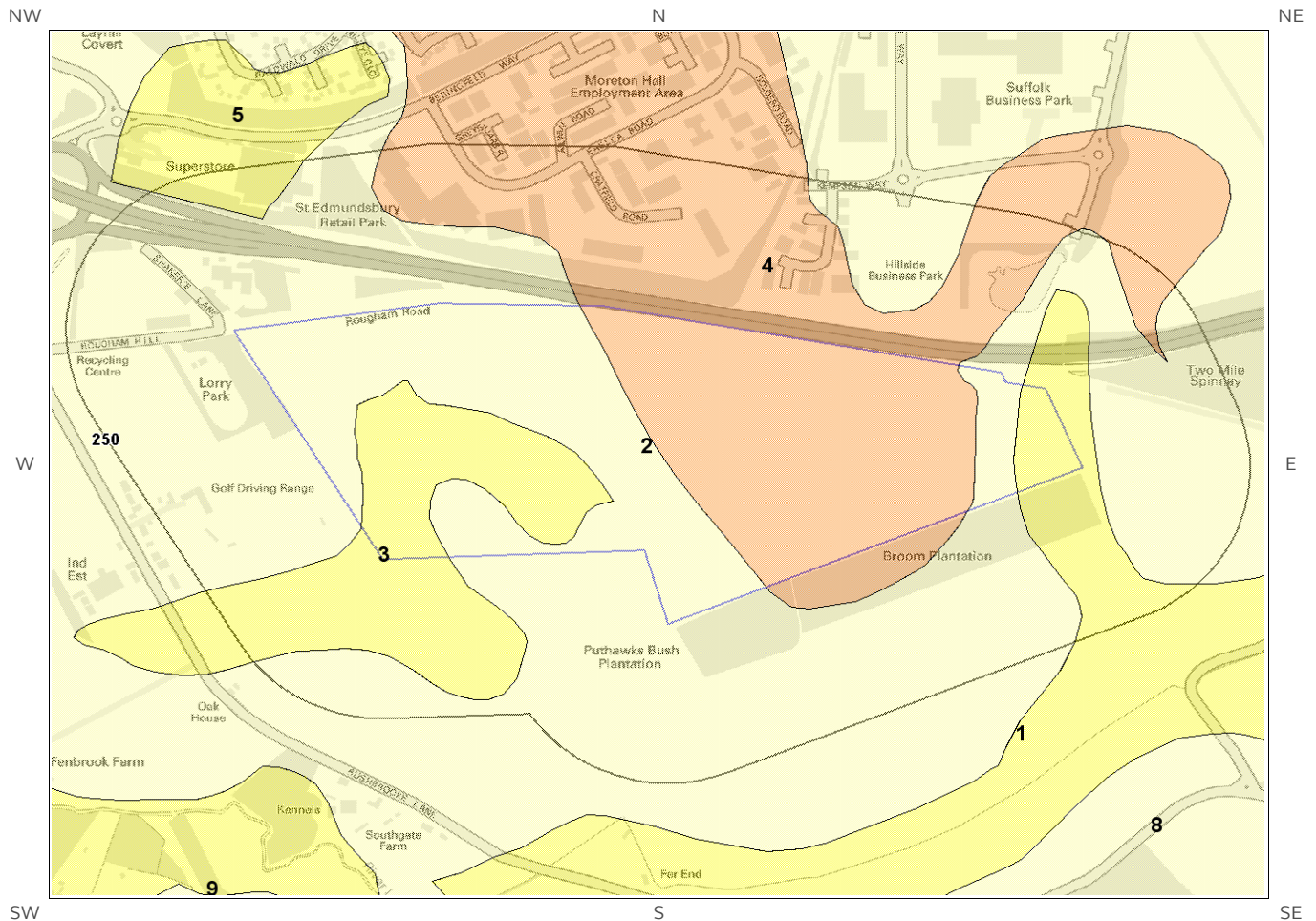
Database searched and no data found.

---



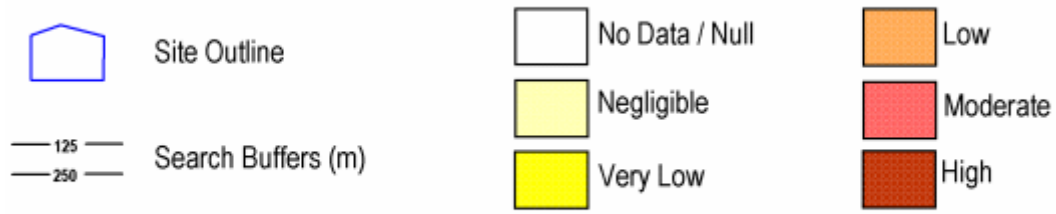
# 4 Natural Ground Subsidence

## 4.1 Shrink-Swell Clay Map



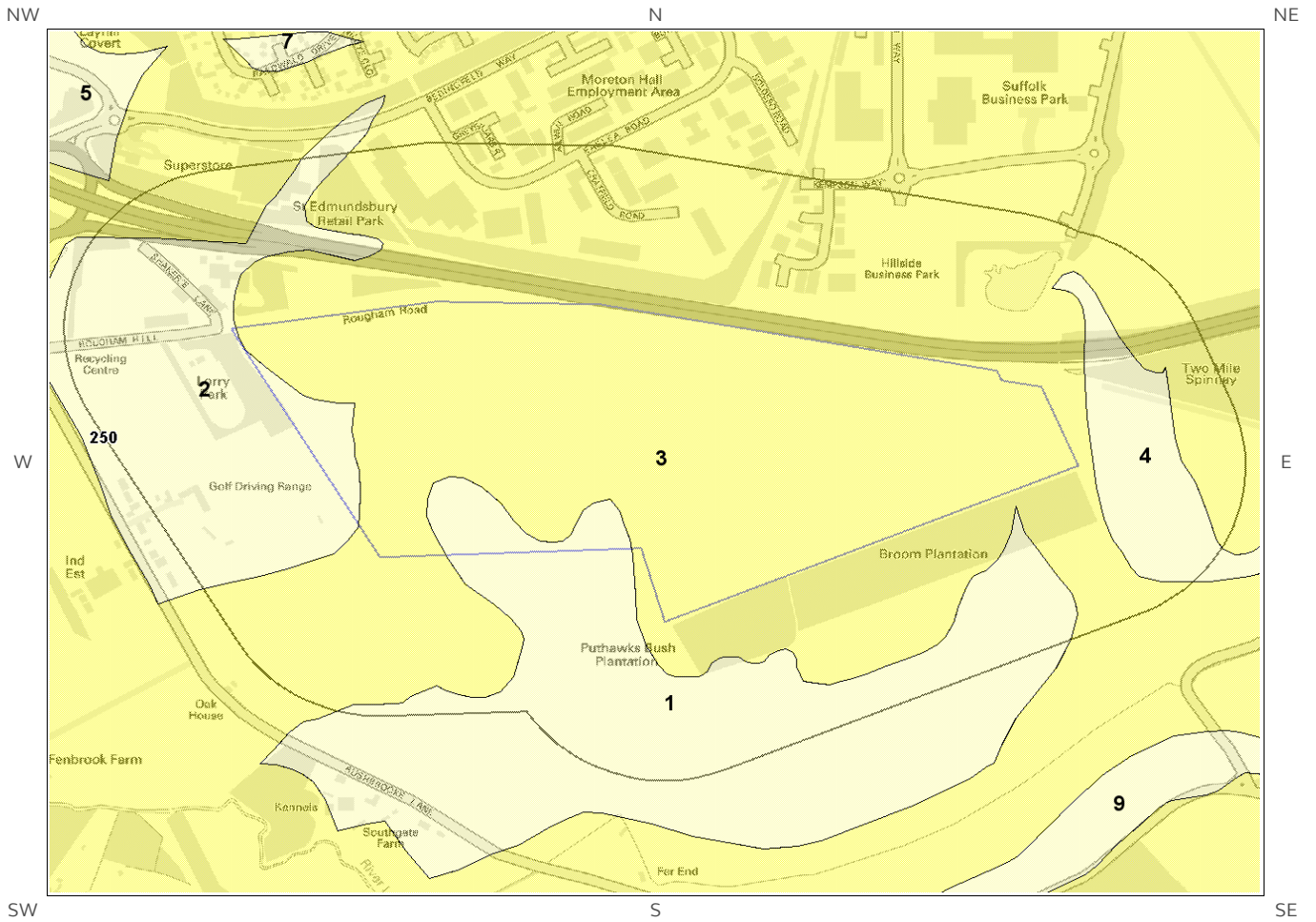
Shrink Swell Clay Legend

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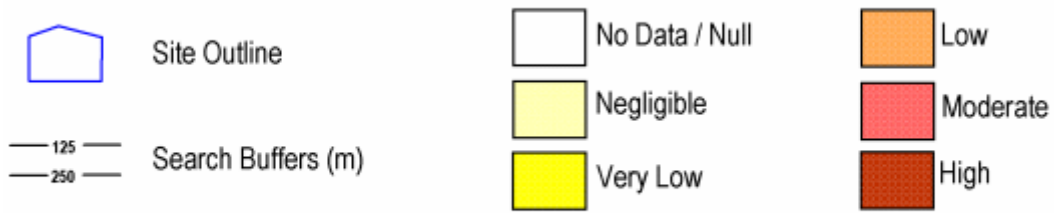


# 4.2 Landslides Map

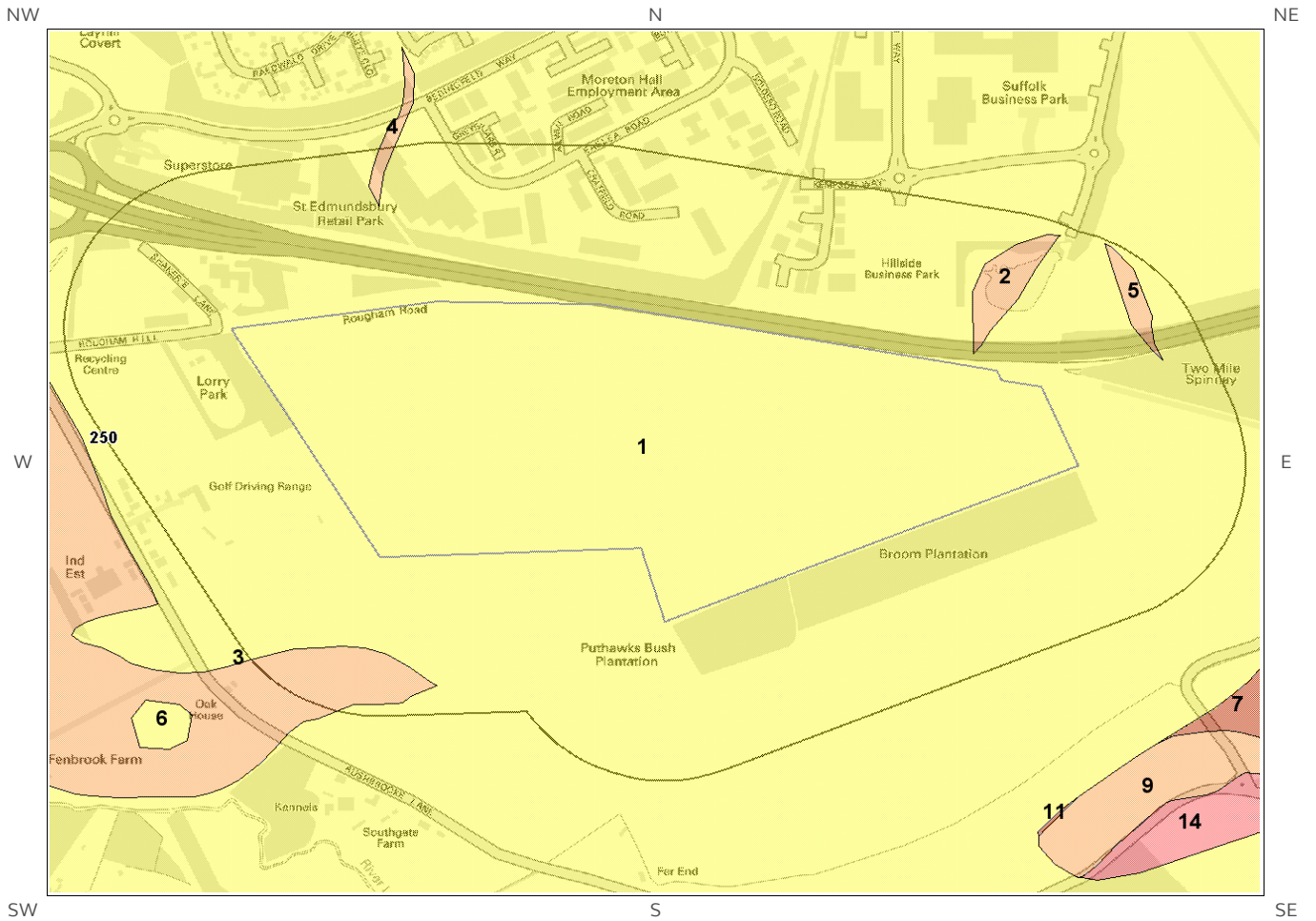


**Landslides Legend**

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# 4.3 Ground Dissolution Soluble Rocks Map

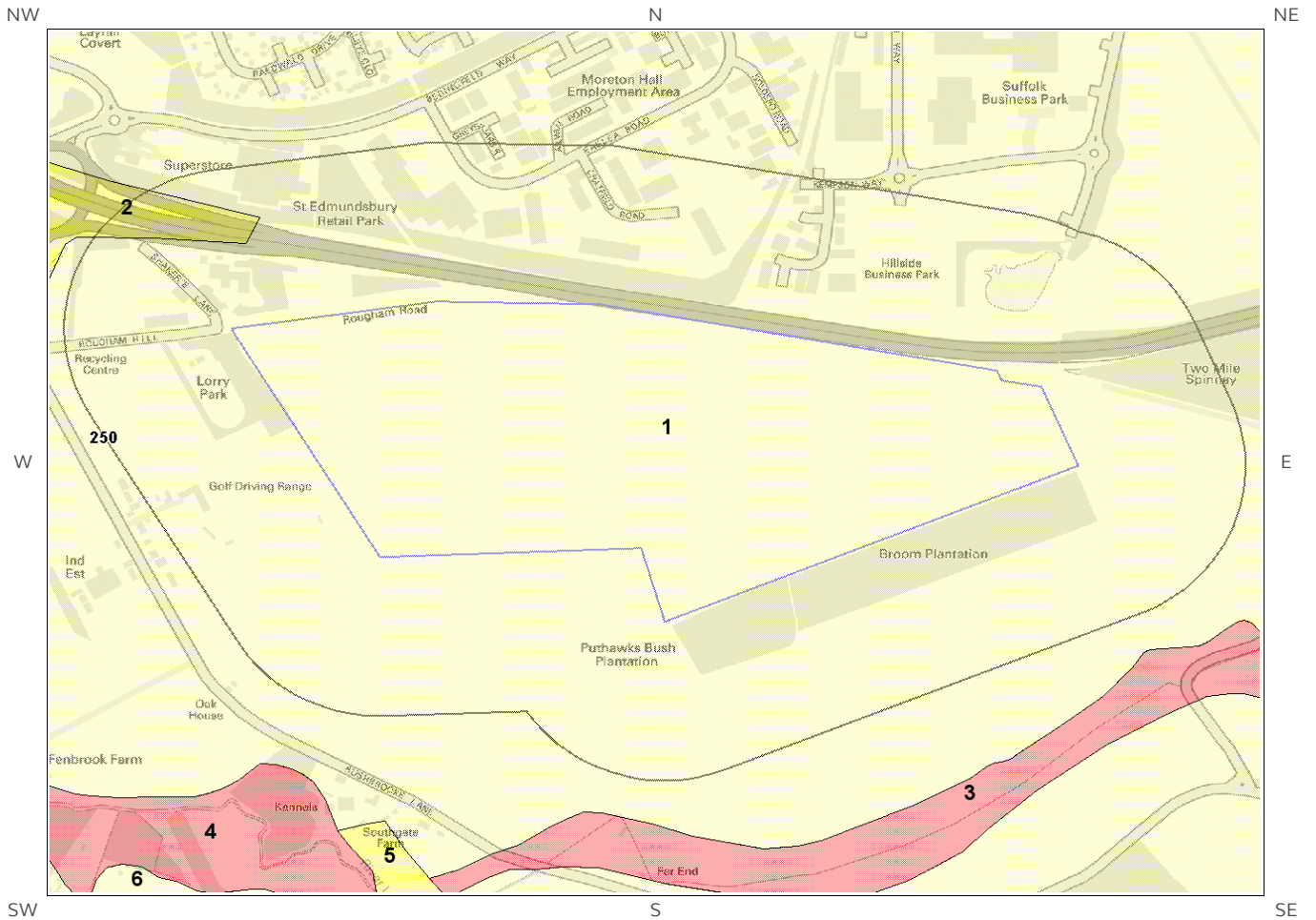


**Ground Dissolution Soluble Rocks Legend**

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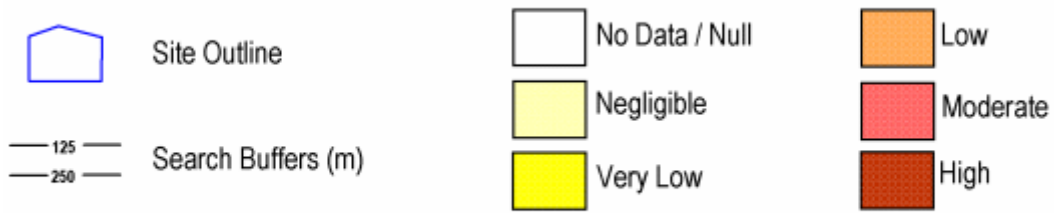


# 4.4 Compressible Deposits Map



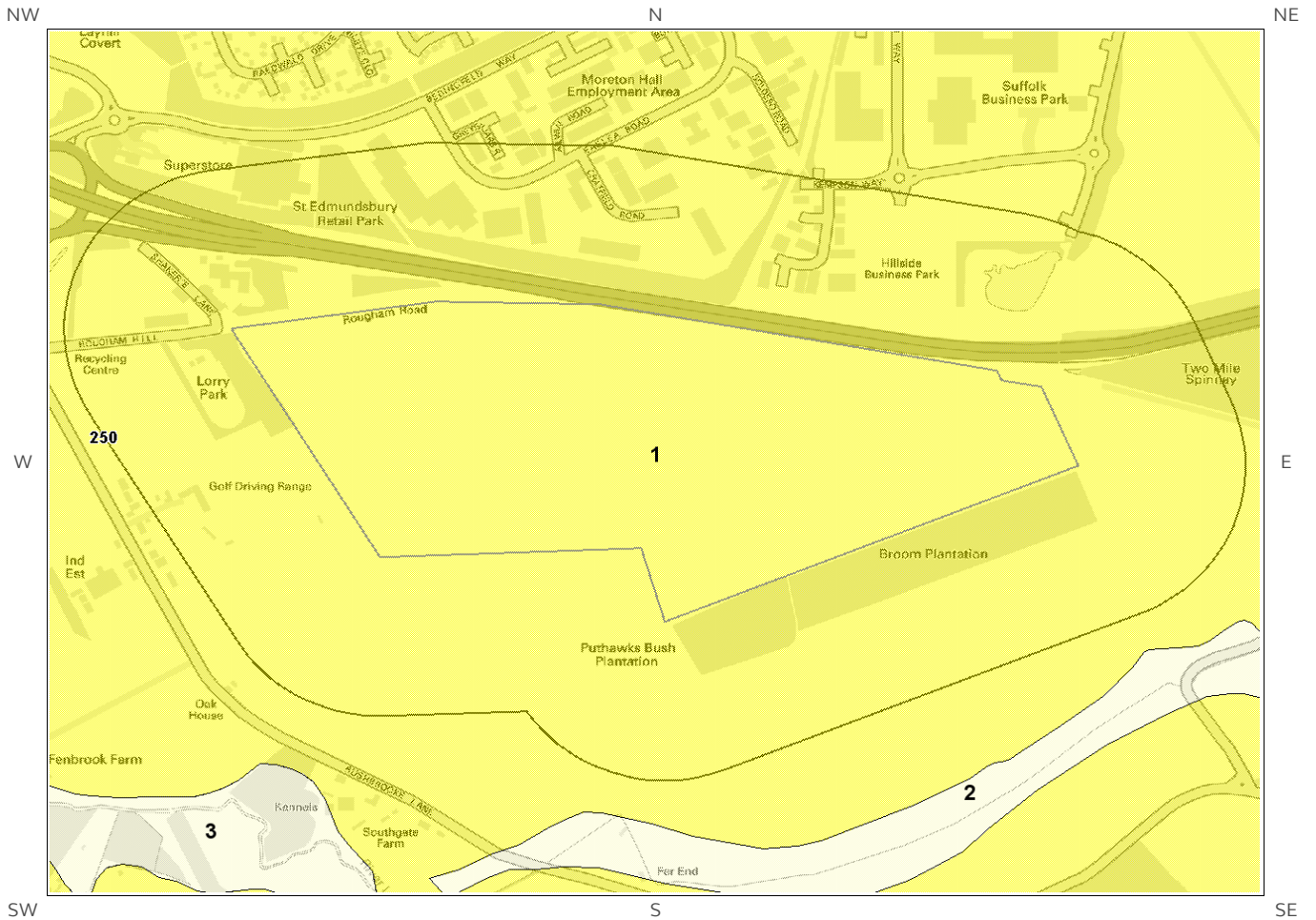
**Compressible Deposits Legend**

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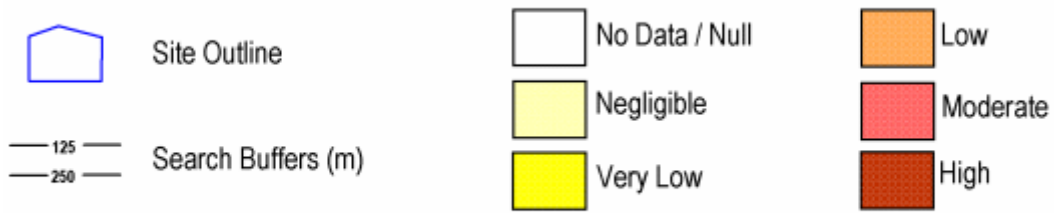


# 4.5 Collapsible Deposits Map

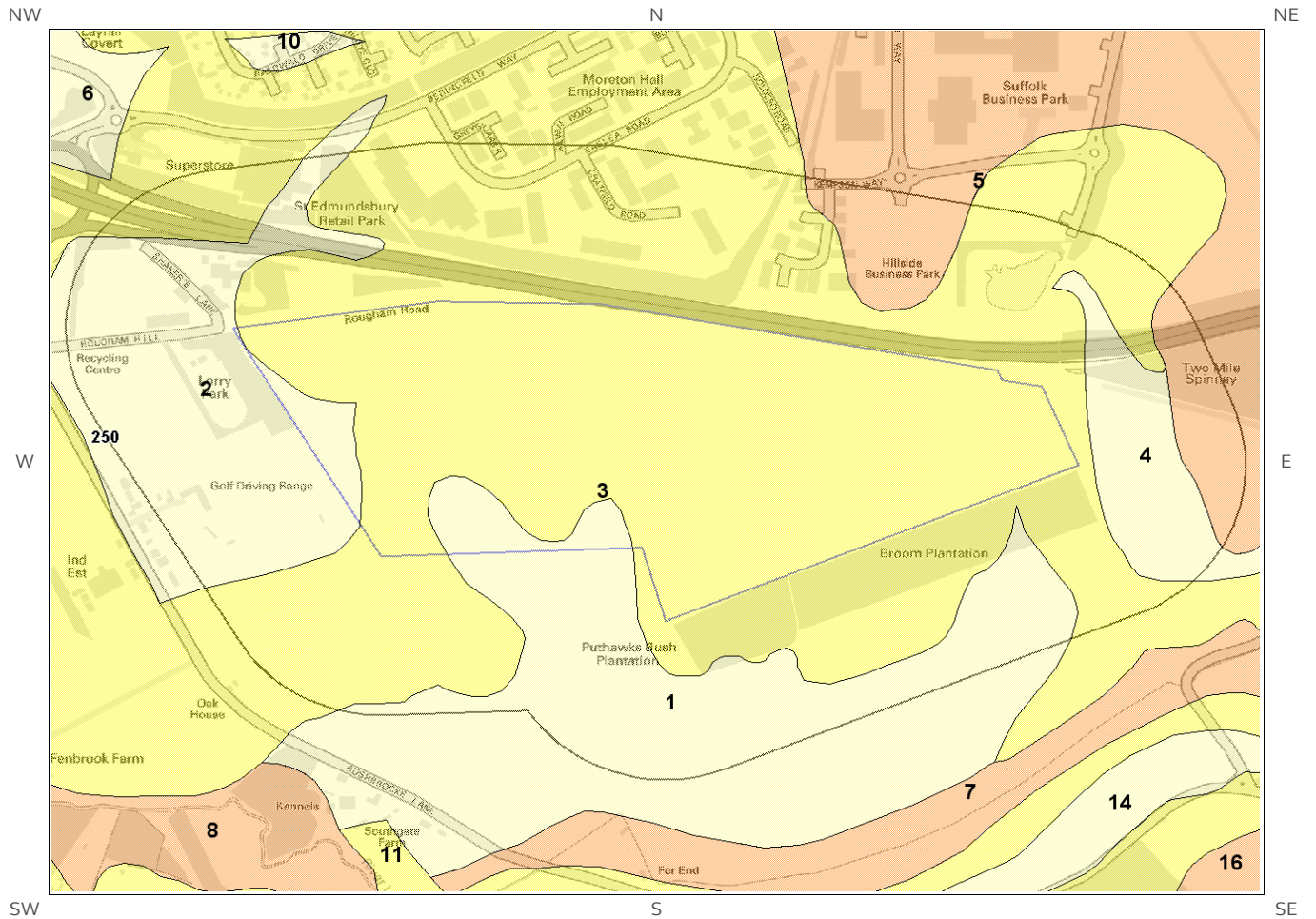


Collapsible Deposits Legend

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# 4.6 Running Sand Map



Running Sand Legend

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# 4 Natural Ground Subsidence

The National Ground Subsidence rating is obtained through the 6 natural ground stability hazard datasets, which are supplied by the British Geological Survey (BGS).

The following GeoSure data represented on the mapping is derived from the BGS Digital Geological map of Great Britain at 1:50,000 scale.

What is the maximum hazard rating of natural subsidence within the study site\*\* boundary? Low

## 4.1 Shrink-Swell Clays

The following Shrink Swell information provided by the British Geological Survey:

ID	Distance (m)	Direction	Hazard Rating	Details
1	0.0	On Site	Very Low	Ground conditions predominantly low plasticity. No special actions required to avoid problems due to shrink-swell clays. No special ground investigation required, and increased construction costs or increased financial risks are unlikely due to potential problems with shrink-swell clays.
2	0.0	On Site	Negligible	Ground conditions predominantly non-plastic. No special actions required to avoid problems due to shrink-swell clays. No special ground investigation required, and increased construction costs or increased financial risks are unlikely due to potential problems with shrink-swell clays.
3	0.0	On Site	Very Low	Ground conditions predominantly low plasticity. No special actions required to avoid problems due to shrink-swell clays. No special ground investigation required, and increased construction costs or increased financial risks are unlikely due to potential problems with shrink-swell clays.
4	0.0	On Site	Low	Ground conditions predominantly medium plasticity. Do not plant trees with high soil moisture demands near to buildings. For new build, consideration should be given to advice published by the National House Building Council (NHBC) and the Building Research Establishment (BRE). There is a possible increase in construction cost to reduce potential shrink swell problems. For existing property, there is a possible increase in insurance risk, especially during droughts or where vegetation with high moisture demands is present.

## 4.2 Landslides

The following Landslides information provided by the British Geological Survey:

ID	Distance (m)	Direction	Hazard Rating	Details
1	0.0	On Site	Negligible	No indicators for slope instability identified. No special actions required to avoid problems due to landslides. No special ground investigation required, and increased construction costs or increased financial risks are unlikely due to potential problems with landslides.
2	0.0	On Site	Negligible	No indicators for slope instability identified. No special actions required to avoid problems due to landslides. No special ground investigation required, and increased construction costs or increased financial risks are unlikely due to potential problems with landslides.

\* This includes an automatically generated 50m buffer zone around the site



ID	Distance (m)	Direction	Hazard Rating	Details
3	0.0	On Site	Very Low	Slope instability problems are unlikely to be present. No special actions required to avoid problems due to landslides. No special ground investigation required, and increased construction costs or increased financial risks are unlikely due to potential problems with landslides.
4	23.0	E	Negligible	No indicators for slope instability identified. No special actions required to avoid problems due to landslides. No special ground investigation required, and increased construction costs or increased financial risks are unlikely due to potential problems with landslides.

### 4.3 Ground Dissolution of Soluble Rocks

The following Ground Dissolution information provided by the British Geological Survey:

ID	Distance (m)	Direction	Hazard Rating	Details
1	0.0	On Site	Very Low	Significant soluble rocks are present. Problems unlikely except with considerable surface or subsurface water flow. No special actions required to avoid problems due to soluble rocks. No special ground investigation required, or increased construction costs are likely. An increase in financial risk due to potential problems with soluble rocks is unlikely.
2	21.0	N	Low	Significant soluble rocks are present. Low possibility of subsidence occurring naturally, but may be possible in adverse conditions such as high surface or subsurface water flow. Consider implications for stability when changes to drainage or new construction are planned. For new build, site investigation should consider potential for dissolution problems on the site and its surroundings. Care should be taken with local drainage into the bedrock. Some possibility groundwater pollution. For existing property, possible increase in insurance risk due to soluble rocks.

### 4.4 Compressible Deposits

The following Compressible Deposits information provided by the British Geological Survey:

ID	Distance (m)	Direction	Hazard Rating	Details
1	0.0	On Site	Negligible	No indicators for compressible ground identified. No special actions required to avoid problems due to compressible ground. No special ground investigation required, and increased construction costs or increased financial risks are unlikely due to potential problems with compressible ground.

### 4.5 Collapsible Deposits

The following Collapsible Rocks information provided by the British Geological Survey:

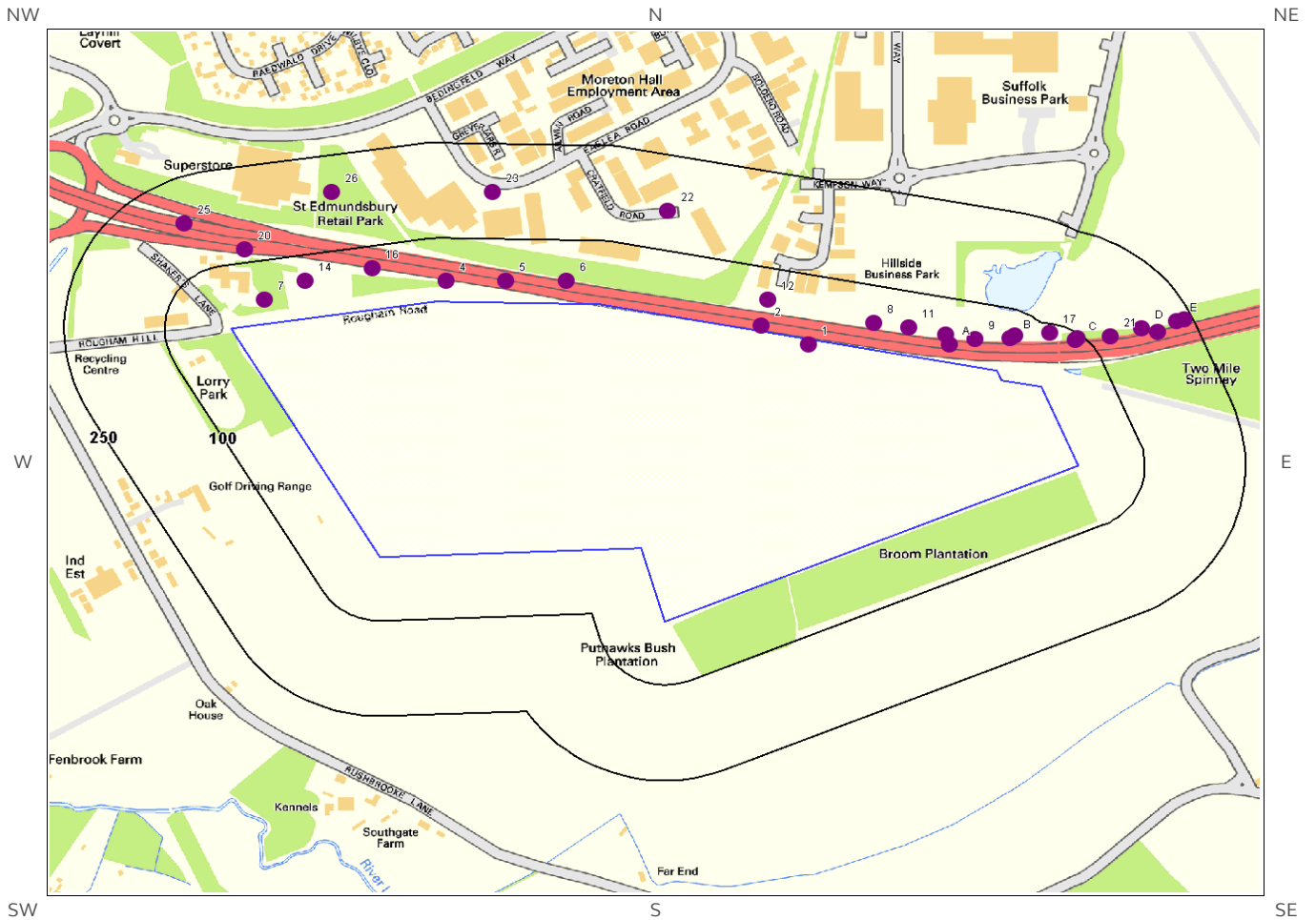
ID	Distance (m)	Direction	Hazard Rating	Details
1	0.0	On Site	Very Low	Deposits with potential to collapse when loaded and saturated are unlikely to be present. No special ground investigation required or increased construction costs or increased financial risk due to potential problems with collapsible deposits.

## 4.6 Running Sands

The following Running Sands information provided by the British Geological Survey:

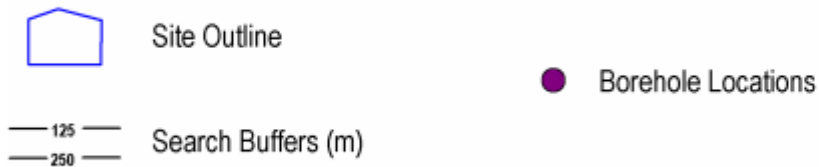
ID	Distance (m)	Direction	Hazard Rating	Details
1	0.0	On Site	Negligible	No indicators for running sand identified. No special actions required to avoid problems due to running sand. No special ground investigation required, and increased construction costs or increased financial risks are unlikely due to potential problems with running sand.
2	0.0	On Site	Negligible	No indicators for running sand identified. No special actions required to avoid problems due to running sand. No special ground investigation required, and increased construction costs or increased financial risks are unlikely due to potential problems with running sand.
3	0.0	On Site	Very Low	Very low potential for running sand problems if water table rises or if sandy strata are exposed to water. No special actions required to avoid problems due to running sand. No special ground investigation required, and increased construction costs or increased financial risks are unlikely due to potential problems with running sand.
4	23.0	E	Negligible	No indicators for running sand identified. No special actions required to avoid problems due to running sand. No special ground investigation required, and increased construction costs or increased financial risks are unlikely due to potential problems with running sand.

# 5 Borehole Records Map



Borehole Records Legend

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## 5 Borehole Records

The systematic analysis of data extracted from the BGS Borehole Records database provides the following information.

Records of boreholes within 250m of the study site boundary:

29

ID	Distance (m)	Direction	NGR	BGS Reference	Drilled Length	Borehole Name
1	0.0	On Site	587830 263380	TL86SE141	17.0	A45 IMPROVEMENT B2265(BURY - STOWMARKET)
2	8.0	N	587760 263410	TL86SE140	27.0	A45 IMPROVEMENT B2255
3A	27.0	N	588040 263380	TL86SE142	2.0	A45 IMPROVEMENT B1(BURY - STOWMARKET)
4	32.0	N	587290 263480	TL86SE108	7.0	BURY ST.EDMUNDS BY- PASS NO.7.4-1
5	34.0	N	587380 263480	TL86SE109	7.0	BURY ST.EDMUNDS BY- PASS NO.7.5-1
6	35.0	N	587470 263480	TL86SE110	6.0	BURY ST.EDMUNDS BY- PASS NO.7.6-1
7	37.0	N	587020 263450	TL86SE57	5.8	MORETON HILL SUPPL REPORT VOL 2 BH107/11
8	41.0	N	587928 263414	TL86SE299	-1.0	A14 ROOKERY CROSSROADS TP A3
9	42.0	N	588078 263388	TL86SE295	-1.0	A14 ROOKERY CROSSROADS TP 22
10A	42.0	N	588035 263396	TL86SE296	-1.0	A14 ROOKERY CROSSROADS TP 23
11	43.0	N	587980 263407	TL86SE298	-1.0	A14 ROOKERY CROSSROADS TP A2
12	49.0	N	587770 263450	TL86SE139	17.0	A45 IMPROVEMENT B2245
13B	53.0	N	588130 263390	TL86SE143	2.0	A45 IMPROVEMENT B2(BURY - STOWMARKET)
14	59.0	N	587080 263480	TL86SE106	7.0	BURY ST.EDMUNDS BY- PASS NO.7.2-1
15B	60.0	NE	588138 263394	TL86SE294	-1.0	A14 ROOKERY CROSSROADS TP 21
16	65.0	N	587180 263500	TL86SE107	8.0	BURY ST.EDMUNDS BY- PASS NO.7.3-1
17	84.0	N	588190 263398	TL86SE284	-1.0	A14 ROOKERY CROSSROADS 5
18C	88.0	NE	588228 263387	TL86SE293	-1.0	A14 ROOKERY CROSSROADS TP 20
19C	92.0	NE	588230 263390	TL86SE144	1.5	A45 IMPROVEMENT B3(BURY - STOWMARKET)
20	120.0	N	586990 263530	TL86SE105	6.0	BURY ST.EDMUNDS BY- PASS NO.7.1-1

ID	Distance (m)	Direction	NGR	BGS Reference	Drilled Length	Borehole Name
21	129.0	NE	588280 263393	TL86SE292	-1.0	A14 ROOKERY CROSSROADS TP 19
22	161.0	N	587620 263590	TL86SE42	4.5	MORETON HALL VOL II BH42 BURY ST EDMUNDS
23	173.0	N	587360 263620	TL86SE31	10.35	MORETON HALL VOL II BH21 BURY ST EDMUNDS
24D	175.0	NE	588327 263405	TL86SE291	-1.0	A14 ROOKERY CROSSROADS TP 18
25	179.0	NW	586900 263570	TL86SE104	6.2	BURY ST.EDMUNDS BY- PASS NO.7.0-1
26	192.0	N	587120 263620	TL86SE58	8.0	MORETON HILL SUPPL REPORT VOL 2 BH112/18
27D	193.0	NE	588350 263400	TL86SE146	2.4	A45 IMPROVEMENT TP4 (BURY - STOWMARKET)
28E	226.0	NE	588379 263417	TL86SE300	-1.0	A14 ROOKERY CROSSROADS TP A4
29E	237.0	NE	588390 263420	TL86SE145	2.0	A45 IMPROVEMENT B4(BURY - STOWMARKET)

The borehole records are available using the hyperlinks below: Please note that if the donor of the borehole record has requested the information be held as commercial-in-confidence, the additional data will be held separately by the BGS and a formal request must be made for its release.

#1: [scans.bgs.ac.uk/sobi\\_scans/boreholes/554028](https://scans.bgs.ac.uk/sobi_scans/boreholes/554028)  
 #2: [scans.bgs.ac.uk/sobi\\_scans/boreholes/554027](https://scans.bgs.ac.uk/sobi_scans/boreholes/554027)  
 #3A: [scans.bgs.ac.uk/sobi\\_scans/boreholes/554029](https://scans.bgs.ac.uk/sobi_scans/boreholes/554029)  
 #4: [scans.bgs.ac.uk/sobi\\_scans/boreholes/553995](https://scans.bgs.ac.uk/sobi_scans/boreholes/553995)  
 #5: [scans.bgs.ac.uk/sobi\\_scans/boreholes/553996](https://scans.bgs.ac.uk/sobi_scans/boreholes/553996)  
 #6: [scans.bgs.ac.uk/sobi\\_scans/boreholes/553997](https://scans.bgs.ac.uk/sobi_scans/boreholes/553997)  
 #7: [scans.bgs.ac.uk/sobi\\_scans/boreholes/553944](https://scans.bgs.ac.uk/sobi_scans/boreholes/553944)  
 #12: [scans.bgs.ac.uk/sobi\\_scans/boreholes/554026](https://scans.bgs.ac.uk/sobi_scans/boreholes/554026)  
 #13B: [scans.bgs.ac.uk/sobi\\_scans/boreholes/554030](https://scans.bgs.ac.uk/sobi_scans/boreholes/554030)  
 #14: [scans.bgs.ac.uk/sobi\\_scans/boreholes/553993](https://scans.bgs.ac.uk/sobi_scans/boreholes/553993)  
 #16: [scans.bgs.ac.uk/sobi\\_scans/boreholes/553994](https://scans.bgs.ac.uk/sobi_scans/boreholes/553994)  
 #19C: [scans.bgs.ac.uk/sobi\\_scans/boreholes/554031](https://scans.bgs.ac.uk/sobi_scans/boreholes/554031)  
 #20: [scans.bgs.ac.uk/sobi\\_scans/boreholes/553992](https://scans.bgs.ac.uk/sobi_scans/boreholes/553992)  
 #22: [scans.bgs.ac.uk/sobi\\_scans/boreholes/553929](https://scans.bgs.ac.uk/sobi_scans/boreholes/553929)  
 #23: [scans.bgs.ac.uk/sobi\\_scans/boreholes/553918](https://scans.bgs.ac.uk/sobi_scans/boreholes/553918)  
 #25: [scans.bgs.ac.uk/sobi\\_scans/boreholes/553991](https://scans.bgs.ac.uk/sobi_scans/boreholes/553991)  
 #26: [scans.bgs.ac.uk/sobi\\_scans/boreholes/553945](https://scans.bgs.ac.uk/sobi_scans/boreholes/553945)  
 #27D: [scans.bgs.ac.uk/sobi\\_scans/boreholes/554033](https://scans.bgs.ac.uk/sobi_scans/boreholes/554033)  
 #29E: [scans.bgs.ac.uk/sobi\\_scans/boreholes/554032](https://scans.bgs.ac.uk/sobi_scans/boreholes/554032)

# 6 Estimated Background Soil Chemistry

Records of background estimated soil chemistry within 250m of the study site boundary:

45

For further information on how this data is calculated and limitations upon its use, please see the Groundsure Geosight User Guide, available on request.

Distance (m)	Direction	Sample Type	Arsenic (As)	Cadmium (Cd)	Chromium (Cr)	Nickel (Ni)	Lead (Pb)
0.0	On Site	RuralSoil	<15 mg/kg	<1.8 mg/kg	20 - 40 mg/kg	15 - 30 mg/kg	<100 mg/kg
0.0	On Site	RuralSoil	<15 mg/kg	<1.8 mg/kg	20 - 40 mg/kg	15 - 30 mg/kg	<100 mg/kg
0.0	On Site	RuralSoil	<15 mg/kg	<1.8 mg/kg	40 - 60 mg/kg	15 - 30 mg/kg	<100 mg/kg
0.0	On Site	RuralSoil	<15 mg/kg	<1.8 mg/kg	20 - 40 mg/kg	15 - 30 mg/kg	<100 mg/kg
0.0	On Site	RuralSoil	<15 mg/kg	<1.8 mg/kg	20 - 40 mg/kg	15 - 30 mg/kg	<100 mg/kg
0.0	On Site	RuralSoil	<15 mg/kg	<1.8 mg/kg	20 - 40 mg/kg	15 - 30 mg/kg	<100 mg/kg
0.0	On Site	RuralSoil	<15 mg/kg	<1.8 mg/kg	40 - 60 mg/kg	15 - 30 mg/kg	<100 mg/kg
0.0	On Site	RuralSoil	<15 mg/kg	<1.8 mg/kg	20 - 40 mg/kg	15 - 30 mg/kg	<100 mg/kg
0.0	On Site	RuralSoil	<15 mg/kg	<1.8 mg/kg	20 - 40 mg/kg	15 - 30 mg/kg	<100 mg/kg
0.0	On Site	RuralSoil	<15 mg/kg	<1.8 mg/kg	40 - 60 mg/kg	15 - 30 mg/kg	<100 mg/kg
0.0	On Site	RuralSoil	<15 mg/kg	<1.8 mg/kg	20 - 40 mg/kg	<15 mg/kg	<100 mg/kg
0.0	On Site	RuralSoil	<15 mg/kg	<1.8 mg/kg	20 - 40 mg/kg	15 - 30 mg/kg	<100 mg/kg
0.0	On Site	RuralSoil	<15 mg/kg	<1.8 mg/kg	40 - 60 mg/kg	15 - 30 mg/kg	<100 mg/kg
0.0	On Site	RuralSoil	<15 mg/kg	<1.8 mg/kg	40 - 60 mg/kg	15 - 30 mg/kg	<100 mg/kg
4.0	S	RuralSoil	<15 mg/kg	<1.8 mg/kg	40 - 60 mg/kg	15 - 30 mg/kg	<100 mg/kg
23.0	E	RuralSoil	<15 mg/kg	<1.8 mg/kg	20 - 40 mg/kg	15 - 30 mg/kg	<100 mg/kg
24.0	S	RuralSoil	<15 mg/kg	<1.8 mg/kg	20 - 40 mg/kg	15 - 30 mg/kg	<100 mg/kg
27.0	W	RuralSoil	<15 mg/kg	<1.8 mg/kg	20 - 40 mg/kg	15 - 30 mg/kg	<100 mg/kg
47.0	S	RuralSoil	<15 mg/kg	<1.8 mg/kg	40 - 60 mg/kg	15 - 30 mg/kg	<100 mg/kg
52.0	S	RuralSoil	<15 mg/kg	<1.8 mg/kg	20 - 40 mg/kg	15 - 30 mg/kg	<100 mg/kg
52.0	N	RuralSoil	<15 mg/kg	<1.8 mg/kg	20 - 40 mg/kg	15 - 30 mg/kg	<100 mg/kg
54.0	S	RuralSoil	<15 mg/kg	<1.8 mg/kg	20 - 40 mg/kg	15 - 30 mg/kg	<100 mg/kg
55.0	N	RuralSoil	<15 mg/kg	<1.8 mg/kg	40 - 60 mg/kg	15 - 30 mg/kg	<100 mg/kg
56.0	N	RuralSoil	<15 mg/kg	<1.8 mg/kg	40 - 60 mg/kg	15 - 30 mg/kg	<100 mg/kg
61.0	N	RuralSoil	<15 mg/kg	<1.8 mg/kg	20 - 40 mg/kg	15 - 30 mg/kg	<100 mg/kg
82.0	N	RuralSoil	<15 mg/kg	<1.8 mg/kg	20 - 40 mg/kg	15 - 30 mg/kg	<100 mg/kg
88.0	N	RuralSoil	<15 mg/kg	<1.8 mg/kg	20 - 40 mg/kg	<15 mg/kg	<100 mg/kg
89.0	N	RuralSoil	<15 mg/kg	<1.8 mg/kg	20 - 40 mg/kg	15 - 30 mg/kg	<100 mg/kg
90.0	N	RuralSoil	<15 mg/kg	<1.8 mg/kg	20 - 40 mg/kg	15 - 30 mg/kg	<100 mg/kg
91.0	S	RuralSoil	<15 mg/kg	<1.8 mg/kg	20 - 40 mg/kg	15 - 30 mg/kg	<100 mg/kg
116.0	S	RuralSoil	<15 mg/kg	<1.8 mg/kg	20 - 40 mg/kg	15 - 30 mg/kg	<100 mg/kg
118.0	N	RuralSoil	<15 mg/kg	<1.8 mg/kg	20 - 40 mg/kg	15 - 30 mg/kg	<100 mg/kg
138.0	N	RuralSoil	<15 mg/kg	<1.8 mg/kg	20 - 40 mg/kg	<15 mg/kg	<100 mg/kg
145.0	N	RuralSoil	<15 mg/kg	<1.8 mg/kg	40 - 60 mg/kg	15 - 30 mg/kg	<100 mg/kg
145.0	S	RuralSoil	<15 mg/kg	<1.8 mg/kg	20 - 40 mg/kg	15 - 30 mg/kg	<100 mg/kg
151.0	E	RuralSoil	<15 mg/kg	<1.8 mg/kg	20 - 40 mg/kg	<15 mg/kg	<100 mg/kg
166.0	NE	RuralSoil	<15 mg/kg	<1.8 mg/kg	40 - 60 mg/kg	15 - 30 mg/kg	<100 mg/kg
168.0	N	RuralSoil	<15 mg/kg	<1.8 mg/kg	40 - 60 mg/kg	15 - 30 mg/kg	<100 mg/kg

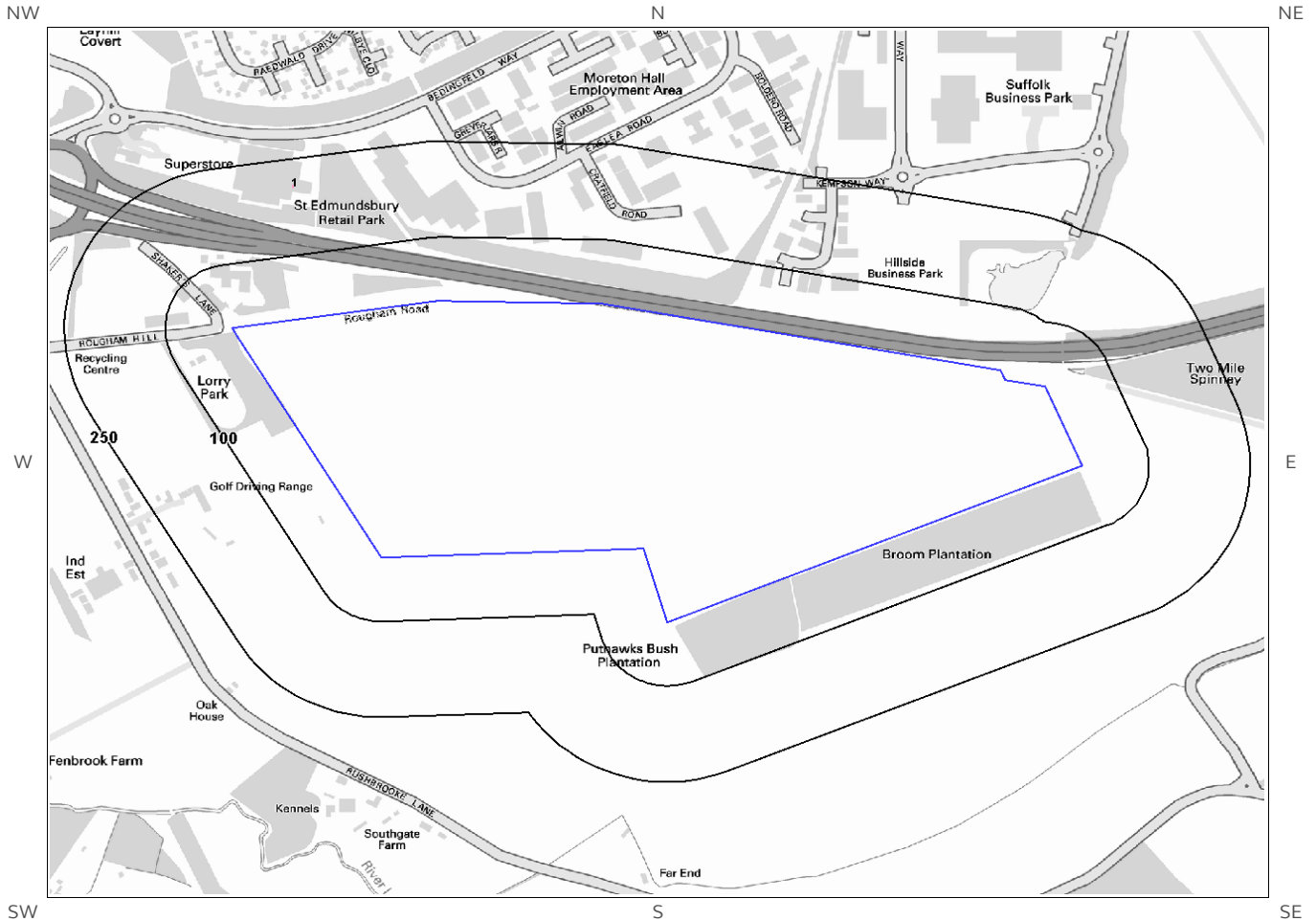


Distance (m)	Direction	Sample Type	Arsenic (As)	Cadmium (Cd)	Chromium (Cr)	Nickel (Ni)	Lead (Pb)
170.0	N	RuralSoil	<15 mg/kg	<1.8 mg/kg	20 - 40 mg/kg	<15 mg/kg	<100 mg/kg
171.0	S	RuralSoil	<15 mg/kg	<1.8 mg/kg	40 - 60 mg/kg	15 - 30 mg/kg	<100 mg/kg
173.0	N	RuralSoil	<15 mg/kg	<1.8 mg/kg	40 - 60 mg/kg	15 - 30 mg/kg	<100 mg/kg
181.0	SW	RuralSoil	<15 mg/kg	<1.8 mg/kg	40 - 60 mg/kg	15 - 30 mg/kg	<100 mg/kg
188.0	SW	RuralSoil	<15 mg/kg	<1.8 mg/kg	40 - 60 mg/kg	15 - 30 mg/kg	<100 mg/kg
239.0	SW	RuralSoil	<15 mg/kg	<1.8 mg/kg	20 - 40 mg/kg	15 - 30 mg/kg	<100 mg/kg

\*As this data is based upon underlying 1:50,000 scale geological information, a 50m buffer has been added to the search radius.











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# 7 Railways and Tunnels Map



**Railways and Tunnels Legend**

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- |   |  |   |   |
|---|--|---|---|
|  | Underground or Partially Underground Railway / Subway System |  | Railway Track (OpenStreetMap)                         |
|  | Site Outline   |  | Railway Tunnel (OS Mapping)                           |
|  | 250 Search Buffers (m)                                       |  | High Speed 2  |
|  | 500 Search Buffers (m)                                       |  | Crossrail 1   |
|  | Railway Track (OS Mapping)                                   |  | Railway and/or Tunnel Feature from Historical Mapping |

# 7 Railways and Tunnels

## 7.1 Tunnels

This data is derived from OpenStreetMap and provides information on the possible locations of underground railway systems in the UK - the London Underground, the Tyne & Wear Metro and the Glasgow Subway.

Have any underground railway lines been identified within the study site boundary? No

Have any underground railway lines been identified within 250m of the study site boundary? No

Database searched and no data found.

*Any records that have been identified are represented on the Railways and Tunnels Map.*

---

This data is derived from Ordnance Survey mapping and provides information on the possible locations of railway tunnels forming part of the UK overground railway network.

Have any other railway tunnels been identified within the site boundary? No

Have any other railway tunnels been identified within 250m of the site boundary? No

Database searched and no data found.

*Any records that have been identified are represented on the Railways and Tunnels Map.*

---

## 7.2 Historical Railway and Tunnel Features

This data is derived from Groundsure's unique Historical Land-use Database and contains features relating to tunnels, railway tracks or associated works that have been identified from historical Ordnance Survey mapping.

Have any historical railway or tunnel features been identified within the study site boundary? No

Have any historical railway or tunnel features been identified within 250m of the study site boundary? Yes

ID	Distance (m)	Direction	NGR	Details	Date
1	206	N	587062 263628	Railway Sidings	1990

*Any records that have been identified are represented on the Railways and Tunnels Map.*

---

### 7.3 Historical Railways

This data is derived from OpenStreetMap and provides information on the possible alignments of abandoned or dismantled railway lines in proximity to the study site.

- Have any historical railway lines been identified within the study site boundary? No
- Have any historical railway lines been identified within 250m of the study site boundary? No

Database searched and no data found.

Note: multiple sections of the same track may be listed in the detail above

*Any records that have been identified are represented on the Railways and Tunnels Map.*

---

### 7.4 Active Railways

These datasets are derived from Ordnance Survey mapping and OpenStreetMap and provide information on the possible locations of active railway lines in proximity to the study site.

- Have any active railway lines been identified within the study site boundary? No
- Have any active railway lines been identified within 250m of the study site boundary? No

Database searched and no data found.

Note: multiple sections of the same track may be listed in the detail above

*Any records that have been identified are represented on the Railways and Tunnels Map.*

---

### 7.5 Railway Projects

These datasets provide information on the location of large scale railway projects High Speed 2 and Crossrail 1 .

- Is the study site within 5km of the route of the High Speed 2 rail project? No
- Is the study site within 500m of the route of the Crossrail 1 rail project? No

*Further information on proximity to these routes, the project construction status and associated works can be obtained through the purchase of a Groundsure HS2 and Crossrail 1 Report.*

---

The route data has been digitised from publicly available maps by Groundsure. The route as provided relates to the Crossrail 1 project only, and does not include any details of the Crossrail 2 project, as final details of the route for Crossrail 2 are still under consultation.

# Contact Details

**Groundsure Helpline**  
Telephone: 08444 159 000  
info@groundsure.com



## British Geological Survey Enquiries

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Keyworth, Nottingham NG12 5GG  
Tel: 0115 936 3143.  
Fax: 0115 936 3276.  
Email: [enquiries@bgs.ac.uk](mailto:enquiries@bgs.ac.uk)  
Web: [www.bgs.ac.uk](http://www.bgs.ac.uk)

BGS Geological Hazards Reports and general geological enquiries



## British Gypsum

British Gypsum Ltd  
East Leake  
Loughborough  
Leicestershire  
LE12 6HX



## The Coal Authority

200 Lichfield Lane  
Mansfield  
Notts NG18 4RG  
Tel: 0345 7626 848  
DX 716176 Mansfield 5  
[www.coal.gov.uk](http://www.coal.gov.uk)



## Public Health England

Public information access office  
Public Health England, Wellington House  
133-155 Waterloo Road, London, SE1 8UG  
<https://www.gov.uk/government/organisations/public-health-england>  
Email: [enquiries@phe.gov.uk](mailto:enquiries@phe.gov.uk)  
Main switchboard: 020 7654 8000



## Johnson Poole & Bloomer Limited

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Email: [enquiries.gs@jpb.co.uk](mailto:enquiries.gs@jpb.co.uk)  
Website: [www.jpb.co.uk](http://www.jpb.co.uk)



## Ordnance Survey

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SO16 0AS  
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## Getmapping PLC

Virginia Villas, High Street, Hartley Witney,  
Hampshire RG27 8NW  
Tel: 01252 845444  
Website: <http://www1.getmapping.com/>



# Contact Details



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Website: <http://www.peterbrett.com/home>



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## Standard Terms and Conditions

### 1 Definitions

In these terms and conditions unless the context otherwise requires:

**“Beneficiary”** means the person or entity for whose benefit the Client has obtained the Services.

**“Client”** means the party or parties entering into a Contract with Groundsure.

**“Commercial”** means any building or property which is not Residential.

**“Confidential Information”** means the contents of this Contract and all information received from the Client as a result of, or in connection with, this Contract other than

(i) information which the Client can prove was rightfully in its possession prior to disclosure by Groundsure and

(ii) any information which is in the public domain (other than by virtue of a breach of this Contract).

**“Support Services”** means Support Services provided by Groundsure including, without limitation, interpreting third party and in-house environmental data, providing environmental support advice, undertaking environmental audits and assessments, Site investigation, Site monitoring and related items.

**“Contract”** means the contract between Groundsure and the Client for the provision of the Services, and which shall incorporate these terms and conditions, the Order, and the relevant User Guide.

**“Third Party Data Provider”** means any third party providing Third Party Content to Groundsure.

**“Data Reports”** means reports comprising factual data with no accompanying interpretation.

**“Fees”** has the meaning set out in clause 5.1.

**“Groundsure”** means Groundsure Limited, a company registered in England and Wales under number 03421028.

**“Groundsure Materials”** means all materials prepared by Groundsure and provided as part of the Services, including but not limited to Third Party Content, Data Reports, Mapping, and Risk Screening Reports.

**“Intellectual Property”** means any patent, copyright, design rights, trade or service mark, moral rights, data protection rights, know-how or trade mark in each case whether registered or not and including applications for the same or any other rights of a similar nature anywhere in the world.

**“Mapping”** means a map, map data or a combination of historical maps of various ages, time periods and scales.

**“Order”** means an electronic, written or other order form submitted by the Client requesting Services from Groundsure in respect of a specified Site.

**“Ordnance Survey”** means the Secretary of State for Business, Innovation and Skills, acting through Ordnance Survey, Adanac Drive, Southampton, SO16 0AS, UK.

**“Order Website”** means the online platform through which Orders may be placed by the Client and accepted by Groundsure.

**“Report”** means a Risk Screening Report or Data Report for Commercial or Residential property.

**“Residential”** means any building or property used as or intended to be used as a single dwelling.

**“Risk Screening Report”** means a risk screening report comprising factual data with an accompanying interpretation by Groundsure.

**“Services”** means any Report, Mapping and/or Support Services which Groundsure has agreed to provide by accepting an Order pursuant to clause 2.6.

**“Site”** means the area of land in respect of which the Client has requested Groundsure to provide the Services.

**“Third Party Content”** means data, database information or other information which is provided to Groundsure by a Third Party Data Provider.

**“User Guide”** means the user guide, as amended from time to time, available upon request from Groundsure and on the website ([www.Groundsure.com](http://www.Groundsure.com)) and forming part of this Contract.

### 2 Scope of Services, terms and conditions, requests for insurance and quotations

2.1 Groundsure agrees to provide the Services in accordance with the Contract.

2.2 Groundsure shall exercise reasonable skill and care in the provision of the Services.

2.3 Subject to clause 7.3 the Client acknowledges that it has not relied on any statement or representation made by or on behalf of Groundsure which is not set out and expressly agreed in writing in the Contract and all such statements and representations are hereby excluded to the fullest extent permitted by law.

2.4 The Client acknowledges that terms and conditions appearing on a Client's order form, printed stationery or other communication, or any terms or conditions implied by custom, practice or course of dealing shall be of no effect, and that this Contract shall prevail over all others in relation to the Order.

2.5 If the Client or Beneficiary requests insurance in conjunction with or as a result of the Services, Groundsure shall use reasonable endeavours to recommend such insurance, but makes no warranty that such insurance shall be available from insurers or that it will be offered on reasonable terms. Any insurance purchased by the Client or Beneficiary shall be subject solely to the terms of the policy issued by insurers and Groundsure will have no liability therefor. In addition you acknowledge and agree that Groundsure does not act as an agent or broker for any insurance providers. The Client should take (and ensure that the Beneficiary takes) independent advice to ensure that the insurance policy requested or offered is suitable for its requirements.

2.6 Groundsure's quotations or proposals are valid for a period of 30 days only unless an alternative period of time is explicitly stipulated by Groundsure.

Groundsure reserves the right to withdraw any quotation or proposal at any time before an Order is accepted by Groundsure. Groundsure's acceptance of an Order shall be binding only when made in writing and signed by Groundsure's authorised representative or when accepted through the Order Website.

### 3 The Client's obligations

3.1 The Client shall comply with the terms of this Contract and

(i) procure that the Beneficiary or any third party relying on the Services complies with and acts as if it is bound by the Contract and

(ii) be liable to Groundsure for the acts and omissions of the Beneficiary or any third party relying on the Services as if such acts and omissions were those of the Client.

3.2 The Client shall be solely responsible for ensuring that the Services are appropriate and suitable for its and/or the Beneficiary's needs.

3.3 The Client shall supply to Groundsure as soon as practicable and without charge all requisite information (and the Client warrants that such information is accurate, complete and appropriate), including without limitation any environmental information relating to the Site and shall give such assistance as Groundsure shall reasonably require in the provision of the Services including, without limitation, access to the Site, facilities and equipment.

3.4 Where the Client's approval or decision is required to enable Groundsure to carry out work in order to provide the Services, such approval or decision shall be given or procured in reasonable time and so as not to delay or disrupt the performance of the Services.

3.5 Save as expressly permitted by this Contract the Client shall not, and shall procure that the Beneficiary shall not, re-sell, alter, add to, or amend the Groundsure Materials, or use the Groundsure Materials in a manner for which they were not intended. The Client may make the Groundsure Materials available to a third party who is considering acquiring some or all of, or providing funding in relation to, the Site, but such third party cannot rely on the same unless expressly permitted under clause 4.

3.6 The Client is responsible for maintaining the confidentiality of its user name and password if using the Order Website and the Client acknowledges that Groundsure accepts no liability of any kind for any loss or damage suffered by the Client as a consequence of using the Order Website.

### 4 Reliance

4.1 The Client acknowledges that the Services provided by Groundsure consist of the presentation and analysis of Third Party Content and other content and that information obtained from a Third Party Data Provider cannot be guaranteed or warranted by Groundsure to be reliable.

4.2 In respect of Data Reports, Mapping and Risk Screening Reports, the following classes of person and no other are entitled to rely on their contents;

(i) the Beneficiary,  
(ii) the Beneficiary's professional advisers, (iii) any person providing funding to the Beneficiary in relation to the Site (whether directly or as part of a lending syndicate),  
(iv) the first purchaser or first tenant of the Site, and  
(v) the professional advisers and lenders of the first purchaser or tenant of the Site.

4.3 In respect of Support Services, only the Client, Beneficiary and parties expressly named in a Report and no other parties are entitled to rely on its contents.

4.4 Save as set out in clauses 4.2 and 4.3 and unless otherwise expressly agreed in writing, no other person or entity of any kind is entitled to rely on any Services or Report issued or provided by Groundsure. Any party considering such Reports and Services does so at their own risk.

### 5 Fees and Disbursements

5.1 Groundsure shall charge and the Client shall pay fees at the rate and frequency specified in the written proposal, Order Website or Order acknowledgement form, plus (in the case of Support Services) all proper disbursements incurred by Groundsure. The Client shall in addition pay all value added tax or other tax payable on such fees and disbursements in relation to the provision of the Services (together “Fees”).

5.2 The Client shall pay all outstanding Fees to Groundsure in full without deduction, counterclaim or set off within 30 days of the date of Groundsure's invoice or such other period as may be agreed in writing between Groundsure and the Client (“Payment Date”). Interest on late payments will accrue on a daily basis from the Payment Date until the date of payment (whether before or after judgment) at the rate of 8% per annum.

5.3 The Client shall be deemed to have agreed the amount of any invoice unless an objection is made in writing within 28 days of the date of the invoice. As soon as reasonably practicable after being notified of an objection, without prejudice to clause 5.2 a member of Groundsure's management team will contact the Client and the parties shall then use all reasonable endeavours to resolve the dispute within 15 days.

### 6 Intellectual Property and Confidentiality

6.1 Subject to

(i) full payment of all relevant Fees and  
(ii) compliance with this Contract, the Client is granted (and is permitted to sub-licence to the Beneficiary) a royalty-free, worldwide, non-assignable and (save to the extent set out in this Contract) non-transferable licence to make use of the Groundsure Materials.

6.2 All Intellectual Property in the Groundsure Materials are and shall remain owned by Groundsure or Groundsure's licensors (including without limitation the Third Party Data Providers) the Client acknowledges, and shall procure

acknowledgement by the Beneficiary of, such ownership. Nothing in this Contract purports to transfer or assign any rights to the Client or the Beneficiary in respect of such Intellectual Property.

6.3 Third Party Data Providers may enforce any breach of clauses 6.1 and 6.2 against the Client or Beneficiary.

6.4 The Client shall, and shall procure that any recipients of the Groundsure Materials shall:

(i) not remove, suppress or modify any trade mark, copyright or other proprietary marking belonging to Groundsure or any third party from the Services;

(ii) use the information obtained as part of the Services in respect of the subject Site only, and shall not store or reuse any information obtained as part of the Services provided in respect of adjacent or nearby sites;

(iii) not create any product or report which is derived directly or indirectly from the Services (save that those acting in a professional capacity to the Beneficiary may provide advice based upon the Services);

(iv) not combine the Services with or incorporate such Services into any other information data or service;

(v) not reformat or otherwise change (whether by modification, addition or enhancement), the Services (save that those acting for the Beneficiary in a professional capacity shall not be in breach of this clause 6.4(v) where such reformatting is in the normal course of providing advice based upon the Services);

(vi) where a Report and/or Mapping contains material belonging to Ordnance Survey, acknowledge and agree that such content is protected by Crown Copyright and shall not use such content for any purpose outside of receiving the Services; and

(vii) not copy in whole or in part by any means any map prints or run-on copies containing content belonging to Ordnance Survey (other than that contained within Ordnance Survey's OS Street Map) without first being in possession of a valid Paper Map Copying Licence from Ordnance Survey,

6.5 Notwithstanding clause 6.4, the Client may make reasonable use of the Groundsure Materials in order to advise the Beneficiary in a professional capacity. However, Groundsure shall have no liability in respect of any advice, opinion or report given or provided to Beneficiaries by the Client.

6.6 The Client shall procure that any person to whom the Services are made available shall notify Groundsure of any request or requirement to disclose, publish or disseminate any information contained in the Services in accordance with the Freedom of Information Act 2000, the Environmental Information Regulations 2004 or any associated legislation or regulations in force from time to time.

#### **7. Liability: Particular Attention Should Be Paid To This Clause**

7.1 This Clause 7 sets out the entire liability of Groundsure, including any liability for the acts or omissions of its employees, agents, consultants, subcontractors and Third Party Content, in respect of:

(i) any breach of contract, including any deliberate breach of the Contract by Groundsure or its employees, agents or subcontractors;

(ii) any use made of the Reports, Services, Materials or any part of them; and

(iii) any representation, statement or tortious act or omission (including negligence) arising under or in connection with the Contract.

7.2 All warranties, conditions and other terms implied by statute or common law are, to the fullest extent permitted by law, excluded from the Contract.

7.3 Nothing in the Contract limits or excludes the liability of the Supplier for death or personal injury resulting from negligence, or for any damage or liability incurred by the Client or Beneficiary as a result of fraud or fraudulent misrepresentation.

7.4 Groundsure shall not be liable for

(i) loss of profits;

(ii) loss of business;

(iii) depletion of goodwill and/or similar losses;

(iv) loss of anticipated savings;

(v) loss of goods;

(vi) loss of contract;

(vii) loss of use;

(viii) loss or corruption of data or information;

(ix) business interruption;

(x) any kind of special, indirect, consequential or pure economic loss, costs, damages, charges or expenses;

(xi) loss or damage that arise as a result of the use of all or part of the Groundsure Materials in breach of the Contract;

(xii) loss or damage arising as a result of any error, omission or inaccuracy in any part of the Groundsure Materials where such error, omission or inaccuracy is caused by any Third Party Content or any reasonable interpretation of Third Party Content;

(xiii) loss or damage to a computer, software, modem, telephone or other property; and

(xiv) loss or damage caused by a delay or loss of use of Groundsure's internet ordering service.

7.5 Groundsure's total liability in relation to or under the Contract shall be limited to £10 million for any claim or claims.

7.6 Groundsure shall procure that the Beneficiary shall be bound by limitations and exclusions of liability in favour of Groundsure which accord with those detailed in clauses 7.4 and 7.5 (subject to clause 7.3) in respect of all claims which the Beneficiary may bring against Groundsure in relation to the Services or other matters arising pursuant to the Contract.

#### **8 Groundsure's right to suspend or terminate**

8.1 If Groundsure reasonably believes that the Client or Beneficiary has not provided the information or assistance required to enable the proper provision of the Services, Groundsure shall be entitled to suspend all further performance of the Services until such time as any such deficiency has been made good.

8.2 Groundsure shall be entitled to terminate the Contract immediately on written notice in the event that:

(i) the Client fails to pay any sum due to Groundsure within 30 days of the Payment Date; or

(ii) the Client (being an individual) has a bankruptcy order made against him or (being a company) shall enter into liquidation whether compulsory or voluntary or have an administration order made against it or if a receiver shall be appointed over the whole or any part of its property assets or undertaking or if the Client is struck off the Register of Companies or dissolved; or

(iii) the Client being a company is unable to pay its debts within the meaning of Section 123 of the Insolvency Act 1986 or being an individual appears unable to pay his debts within the meaning of Section 268 of the Insolvency Act 1986 or if the Client shall enter into a composition or arrangement with the Client's creditors or shall suffer distress or execution to be levied on his goods; or

(iv) the Client or the Beneficiary breaches any term of the Contract (including, but not limited to, the obligations in clause 4) which is incapable of remedy or if remediable, is not remedied within five days of notice of the breach.

#### **9. Client's Right to Terminate and Suspend**

9.1 Subject to clause 10.1, the Client may at any time upon written notice terminate or suspend the provision of all or any of the Services.

9.2 In any event, where the Client is a consumer (and not a business) he/she hereby expressly acknowledges and agrees that:

(i) the supply of Services under this Contract (and therefore the performance of this Contract) commences immediately upon Groundsure's acceptance of the Order; and

(ii) the Reports and/or Mapping provided under this Contract are

(a) supplied to the Client's specification(s) and in any event  
(b) by their nature cannot be returned.

#### **10 Consequences of Withdrawal, Termination or Suspension**

10.1 Upon termination of the Contract:

(i) Groundsure shall take steps to bring to an end the Services in an orderly manner, vacate any Site with all reasonable speed and shall deliver to the Client and/or Beneficiary any property of the Client and/or Beneficiary in Groundsure's possession or control; and

(ii) the Client shall pay to Groundsure all and any Fees payable in respect of the performance of the Services up to the date of termination or suspension. In respect of any Support Services provided, the Client shall also pay Groundsure any additional costs incurred in relation to the termination or suspension of the Contract.

#### **11 Anti-Bribery**

11.1 The Client warrants that it shall:

(i) comply with all applicable laws, statutes and regulations relating to anti-bribery and anti-corruption including but not limited to the Bribery Act 2010;

(ii) comply with such of Groundsure's anti-bribery and anti-corruption policies as are notified to the Client from time to time; and

(iii) promptly report to Groundsure any request or demand for any undue financial or other advantage of any kind received by or on behalf of the Client in connection with the performance of this Contract.

11.2 Breach of this Clause 11 shall be deemed a material breach of this Contract.

#### **12 General**

12.1 The Mapping contained in the Services is protected by Crown copyright and must not be used for any purpose other than as part of the Services or as specifically provided in the Contract.

12.2 The Client shall be permitted to make one copy only of each Report or Mapping Order. Thereafter the Client shall be entitled to make unlimited copies of the Report or Mapping Order only in accordance with an Ordnance Survey paper map copy license available through Groundsure.

12.3 Groundsure reserves the right to amend or vary this Contract. No amendment or variation to this Contract shall be valid unless signed by an authorised representative of Groundsure.

12.4 No failure on the part of Groundsure to exercise, and no delay in exercising, any right, power or provision under this Contract shall operate as a waiver thereof.

12.5 Save as expressly provided in this Contract, no person other than the persons set out therein shall have any right under the Contract (Rights of Third Parties) Act 1999 to enforce any terms of the Contract.

12.6 The Secretary of State for Business, Innovation and Skills ("BIS") or BIS' successor body, as the case may be, acting through Ordnance Survey may enforce a breach of clause 6.4(vi) and clause 6.4(vii) of these terms and conditions against the Client in accordance with the provisions of the Contracts (Rights of Third Parties) Act 1999.

12.7 Groundsure shall not be liable to the Client if the provision of the Services is delayed or prevented by one or more of the following circumstances:

- (i) the Client or Beneficiary's failure to provide facilities, access or information;
- (ii) fire, storm, flood, tempest or epidemic;
- (iii) Acts of God or the public enemy;
- (iv) riot, civil commotion or war;
- (v) strikes, labour disputes or industrial action;
- (vi) acts or regulations of any governmental or other agency;
- (vii) suspension or delay of services at public registries by Third Party Data Providers;
- (viii) changes in law; or
- (ix) any other reason beyond Groundsure's reasonable control.

In the event that Groundsure is prevented from performing the Services (or any part thereof) in accordance with this clause 12.6 for a period of not less than 30 days then Groundsure shall be entitled to terminate this Contract immediately on written notice to the Client.

12.8 Any notice provided shall be in writing and shall be deemed to be properly given if delivered by hand or sent by first class post, facsimile or by email to the address, facsimile number or email address of the relevant party as may have been notified by each party to the other for such purpose or in the absence of such notification the last known address.

12.9 Such notice shall be deemed to have been received on the day of delivery if delivered by hand, facsimile or email (save to the extent such day is not a working day where it shall be deemed to have been delivered on the next working day) and on the second working day after the day of posting if sent by first class post.

12.10 The Contract constitutes the entire agreement between the parties and shall supersede all previous arrangements between the parties relating to the subject matter hereof.

12.11 Each of the provisions of the Contract is severable and distinct from the others and if one or more provisions is or should become invalid, illegal or unenforceable, the validity and enforceability of the remaining provisions shall not in any way be tainted or impaired.

12.12 This Contract shall be governed by and construed in accordance with English law and any proceedings arising out of or connected with this Contract shall be subject to the exclusive jurisdiction of the English courts.

12.13 Groundsure is an executive member of the Council of Property Search Organisation (CoPSO) and has signed up to the Search Code administered by the Property Codes Compliance Board (PCCB). All Risk Screening Reports shall be supplied in accordance with the provisions of the Search Code.

12.14 If the Client or Beneficiary has a complaint about the Services, written notice should be given to the Compliance Officer at Groundsure who will respond in a timely manner. In the event you are not satisfied with Groundsure's complaints handling process or you are unable to resolve the complaint, at your discretion you may refer the complaint to The Property Ombudsman Scheme at the following URL/email: website [www.tpos.co.uk](http://www.tpos.co.uk) or email: [admin@tpos.co.uk](mailto:admin@tpos.co.uk)

12.15 The Client agrees that it shall, and shall procure that each Beneficiary shall, treat in confidence all Confidential Information and shall not, and shall procure that each Beneficiary shall not (i) disclose any Confidential Information to any third party other than in accordance with the terms of this Contract; and (ii) use Confidential Information for a purpose other than the exercise of its rights and obligations under this Contract. Subject to clause 6.6, nothing shall prevent the Client or any Beneficiary from disclosing Confidential Information to the extent required by law

## Appendix K

Groundsure report for land south of West Suffolk  
Crematorium, Bury St Edmunds / Risby



# Groundsure

LOCATION INTELLIGENCE

Geosphere Environmental Ltd

BRIGHTWELL BARNES, IPSWICH ROAD,  
Needham Market,  
Brightwell, IP10 0BJ

Groundsure Reference: HMD-369-2952299

Your Reference: Site\_O\_CJ

Report Date 29 Apr 2016

Report Delivery Method: Email - pdf

## Groundsure Geoinsight

Address: Site O CJ, IP28,

Dear Sir/ Madam,

Thank you for placing your order with Groundsure. Please find enclosed the **Groundsure Geoinsight** as requested.

If you need any further assistance, please do not hesitate to contact our helpline on 08444 159000 quoting the above Groundsure reference number.

Yours faithfully,

Managing Director  
Groundsure Limited

Enc.  
Groundsure Geoinsight

# Groundsure Geoinsight

**Address:** Site O CJ, IP28,  
**Date:** 29 Apr 2016  
**Reference:** HMD-369-2952299  
**Client:** Geosphere Environmental Ltd

NW N NE



SW S SE

Aerial Photograph Capture date: 25-Jul-2008  
Grid Reference: 581928,265588  
Site Size: 22.93ha



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# Overview of Findings

The Groundsure Geosight provides high quality geo-environmental information that allows geo-environmental professionals and their clients to make informed decisions and be forewarned of potential ground instability problems that may affect the ground investigation, foundation design and possibly remediation options that could lead to possible additional costs.

The report is based on the BGS 1:50,000 Digital Geological Map of Great Britain, BGS Geosure data; BRITPITS database; Shallow Mining data and Borehole Records, Coal Authority data including brine extraction areas, PBA non-coal mining and natural cavities database, Johnson Poole and Bloomer mining data and Groundsure's unique database including historical surface ground and underground workings.

For further details on each dataset, please refer to each individual section in the report as listed. Where the database has been searched a numerical result will be recorded. Where the database has not been searched '-' will be recorded.

## Section 1:Geology

1.1 Artificial Ground	1.1.1 Is there any Artificial Ground/ Made Ground present beneath the study site?	No
	1.1.2 Are there any records relating to permeability of artificial ground within the study site* boundary?	No
1.2 Superficial Geology and Landslips	1.2.1 Is there any Superficial Ground/Drift Geology present beneath the study site?	Yes
	1.2.2 Are there any records relating to permeability of superficial geology within the study site boundary?	Yes
	1.2.3 Are there any records of landslip within 500m of the study site boundary?	No
	1.2.4 Are there any records relating to permeability of landslips within the study site boundary?	No
1.3 Bedrock, Solid Geology & Faults	1.3.1 For records of Bedrock and Solid Geology beneath the study site* see the detailed findings section.	
	1.3.2 Are there any records relating to permeability of bedrock within the study site boundary?	Yes
	1.3.3 Are there any records of faults within 500m of the study site boundary?	No
1.4 Radon data	1.4.1 Is the property in a Radon Affected Area as defined by the Health Protection Agency (HPA) and if so what percentage of homes are above the Action Level?	The property is not in a Radon Affected Area, as less than 1% of properties are above the Action Level
	1.4.2 Is the property in an area where Radon Protection Measures are required for new properties or extensions to existing ones as described in publication BR211 by the Building Research Establishment?	No radon protective measures are necessary

Section 2:Ground Workings	On-site	0-50m	51-250	251-500	501-1000
2.1 Historical Surface Ground Working Features from Small Scale Mapping	6	8	23	Not Searched	Not Searched
2.2 Historical Underground Workings from Small Scale Mapping	0	0	0	0	0
2.3 Current Ground Workings	1	0	7	2	7

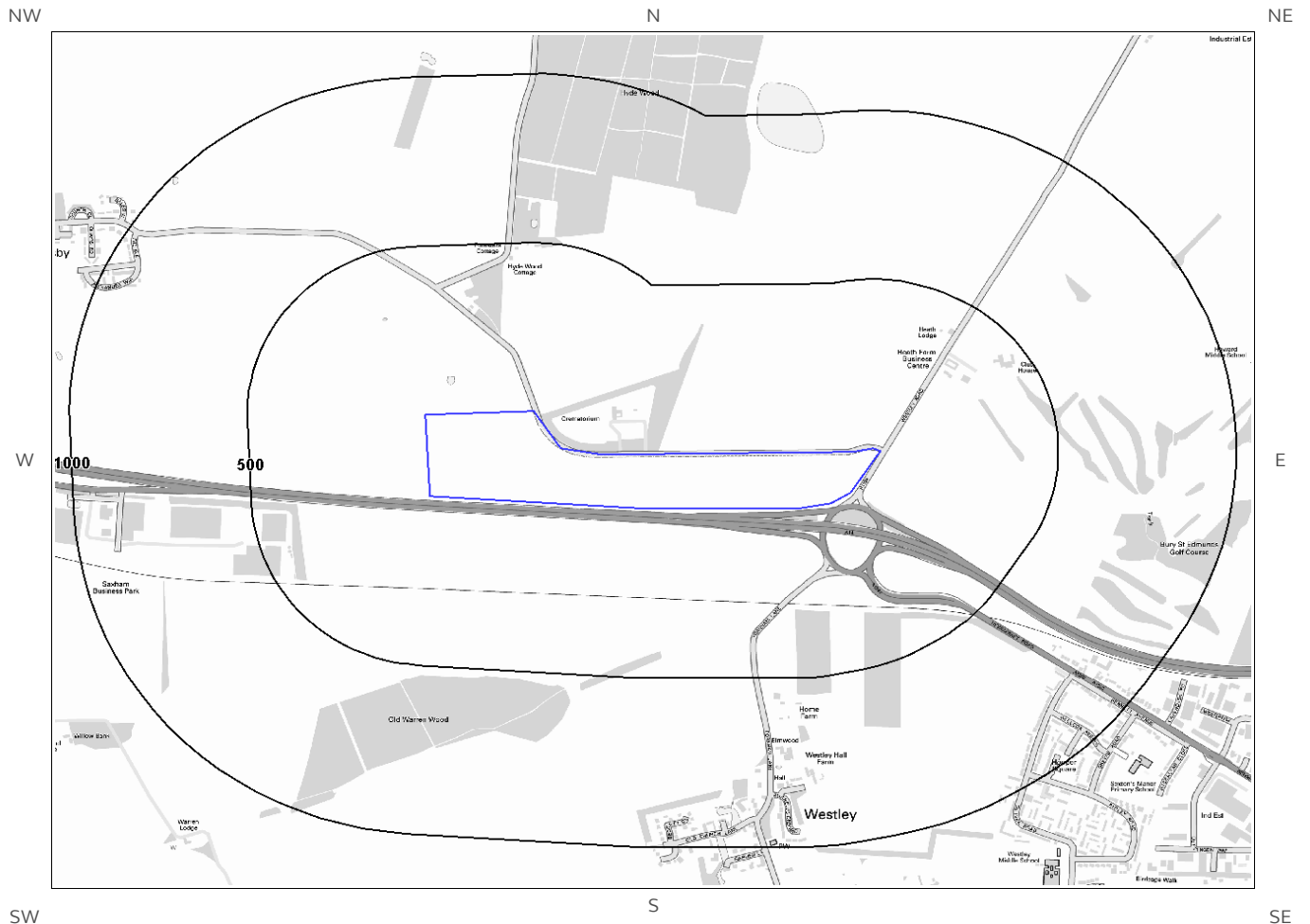
Section 3: Mining, Extraction & Natural Cavities	On-site	0-50m	51-250	251-500	501-1000
3.1 Historical Mining	0	0	0	0	0
3.2 Coal Mining	0	0	0	0	0
3.3 Johnson Poole and Bloomer Mining Area	0	0	0	0	0
3.4 Non-Coal Mining	1	0	0	0	1
3.5 Non-Coal Mining Cavities	0	0	0	0	0
3.6 Natural Cavities	0	0	0	0	0
3.7 Brine Extraction	0	0	0	0	0
3.8 Gypsum Extraction	0	0	0	0	0
3.9 Tin Mining	0	0	0	0	0
3.10 Clay Mining	0	0	0	0	0
Section 4: Natural Ground Subsidence	On-site				
4.1 Shrink Swell Clay	Low				
4.2 Landslides	Very Low				
4.3 Ground Dissolution of Soluble Rocks	Low				
4.4 Compressible Deposits	Negligible				
4.5 Collapsible Deposits	Very Low				
4.6 Running Sand	Low				
Section 5: Borehole Records	On-site	0-50m	51-250		
5 BGS Recorded Boreholes	4	12	12		
Section 6: Estimated Background Soil Chemistry	On-site	0-50m	51-250		
6 Records of Background Soil Chemistry	14	10	7		
Section 7: Railways and Tunnels	On-site	0-50m	51-250	251-500	
7.1 Tunnels	0	0	0	Not Searched	
7.2 Historical Railway and Tunnel Features	0	0	0	Not Searched	
7.3 Historical Railways	0	0	0	Not Searched	
7.4 Active Railways	0	0	0	Not Searched	

Section 7:Railways and Tunnels	On-site	0-50m	51-250	251-500
7.5 Railway Projects	0	0	0	0

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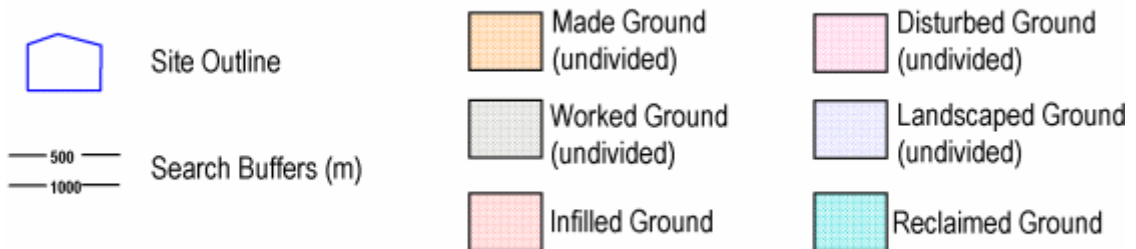
# 1 Geology

## 1.1 Artificial Ground Map



Artificial Ground Legend

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Ordnance Survey license 100035207.





# 1 Geology

## 1.1 Artificial Ground

### 1.1.1 Artificial/ Made Ground

The following geological information represented on the mapping is derived from 1:50,000 scale BGS Geological mapping, Sheet No:189

Are there any records of Artificial/Made Ground within 500m of the study site boundary? No

Database searched and no data found.

---

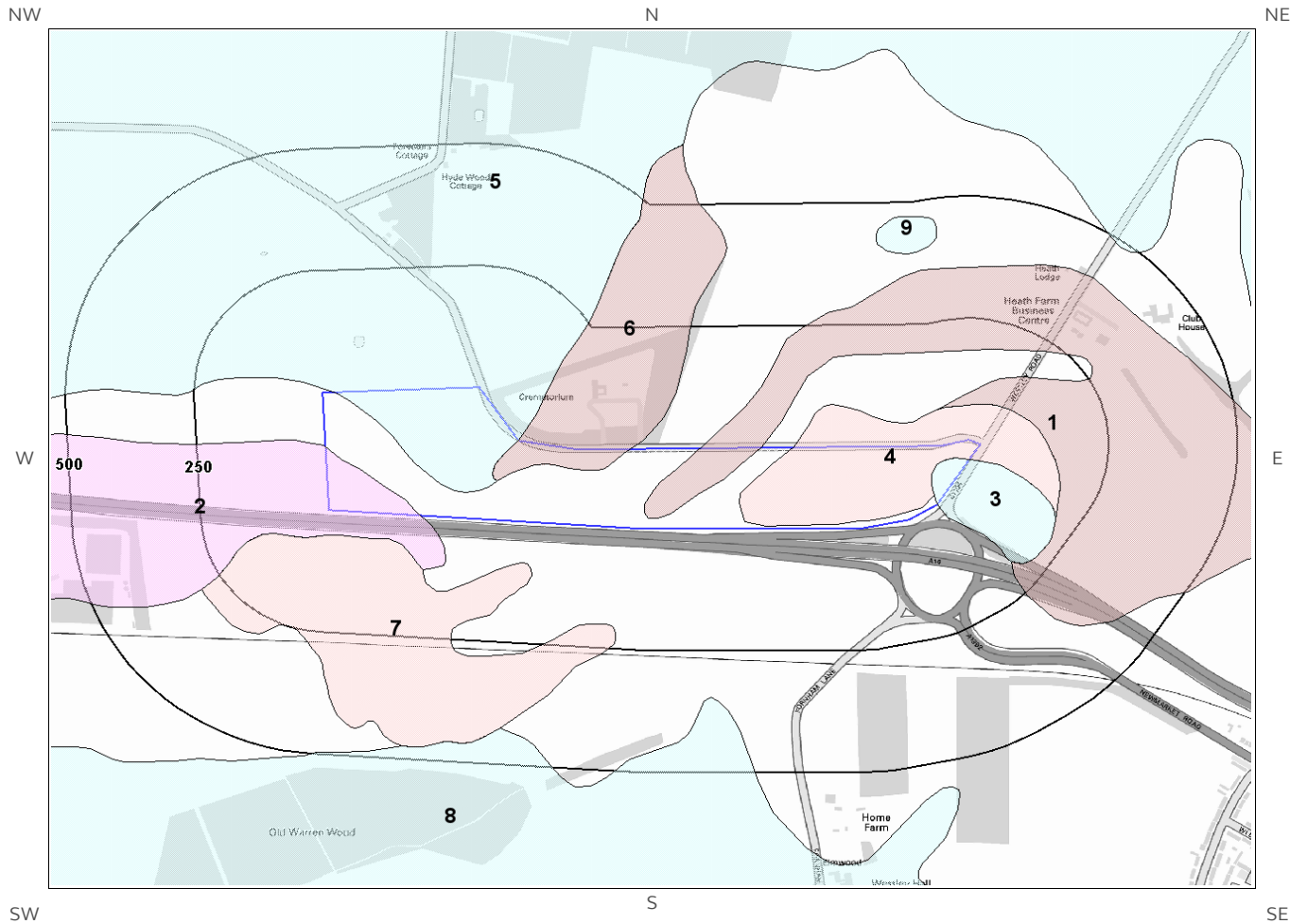
### 1.1.2 Permeability of Artificial Ground

Are there any records relating to permeability of artificial ground within the study site boundary? No

Database searched and no data found.


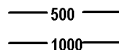
---

# 1.2 Superficial Deposits and Landslips Map



**Superficial Deposits and Landslips Legend**

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-  Site Outline
-  Search Buffers (m)

# 1.2 Superficial Deposits and Landslips

## 1.2.1 Superficial Deposits/ Drift Geology

Are there any records of Superficial Deposits/ Drift Geology within 500m of the study site boundary? Yes

ID	Distance (m)	Direction	LEX Code	Description	Rock Description
1	0.0	On Site	HEAD	HEAD	CLAY, SILT, SAND AND GRAVEL [UNLITHIFIED DEPOSITS CODING SCHEME]
2	0.0	On Site	CSD	COVER SAND	SAND [UNLITHIFIED DEPOSITS CODING SCHEME]
3	0.0	On Site	LOFT	LOWESTOFT FORMATION	DIAMICTON
4	0.0	On Site	CXSG	CROXTON SAND AND GRAVEL MEMBER	SAND AND GRAVEL [UNLITHIFIED DEPOSITS CODING SCHEME]
5	0.0	On Site	LOFT	LOWESTOFT FORMATION	DIAMICTON
6	0.0	On Site	HEAD	HEAD	CLAY, SILT, SAND AND GRAVEL [UNLITHIFIED DEPOSITS CODING SCHEME]
7	50.0	S	CXSG	CROXTON SAND AND GRAVEL MEMBER	SAND AND GRAVEL [UNLITHIFIED DEPOSITS CODING SCHEME]
8	346.0	S	LOFT	LOWESTOFT FORMATION	DIAMICTON
9	395.0	N	LOFT	LOWESTOFT FORMATION	DIAMICTON

## 1.2.2 Permeability of Superficial Ground

Are there any records relating to permeability of superficial ground within the study site boundary? Yes

Distance (m)	Direction	Flow Type	Maximum Permeability	Minimum Permeability
0.0	On Site	Mixed	Moderate	Low
0.0	On Site	Intergranular	High	High
0.0	On Site	Mixed	High	Very Low
0.0	On Site	Mixed	High	Very Low
0.0	On Site	Intergranular	Very High	High
0.0	On Site	Mixed	Moderate	Low
50.0	S	Intergranular	Very High	High

### 1.2.3 Landslip

Are there any records of Landslip within 500m of the study site boundary? No

Database searched and no data found.

This Geology shows the main components as discrete layers, these are: Artificial / Made Ground, Superficial / Drift Geology and Landslips. These are all displayed with the BGS Lexicon code for the rock unit and BGS sheet number. Not all of the main geological components have nationwide coverage.

---

### 1.2.4 Landslip Permeability

Are there any records relating to permeability of landslips within the study site\*\* boundary? No

Database searched and no data found.

---




\* This includes an automatically generated 50m buffer zone around the site

# 1.3 Bedrock and Faults Map



**Bedrock and Faults Legend**

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-  Site Outline
-  500
-  1000
- Search Buffers (m)

# 1.3 Bedrock, Solid Geology & Faults

The following geological information represented on the mapping is derived from 1:50,000 scale BGS Geological mapping, Sheet No:189

## 1.3.1 Bedrock/ Solid Geology

Records of Bedrock/ Solid Geology within 500m of the study site boundary:

ID	Distance (m)	Direction	LEX Code	Description	Rock Age
1	0.0	On Site	LCCK-CHLK	Lewes Nodular Chalk Formation, Seaford Chalk Formation, Newhaven Chalk Formation And Culver Chalk Formation (undifferent	Campanian / Turonian

## 1.3.2 Permeability of Bedrock Ground

Are there any records relating to permeability of bedrock ground within the study site\* boundary? Yes

Distance (m)	Direction	Flow Type	Maximum Permeability	Minimum Permeability
0.0	On Site	Fracture	Very High	Very High

## 1.3.3 Faults

Are there any records of Faults within 500m of the study site boundary? No

Database searched and no data found.

The geology map for the site and surrounding area are extracted from the BGS Digital Geological Map of Great Britain at 1:50,000 scale.

This Geology shows the main components as discrete layers, these are: Bedrock/ Solid Geology and linear features such as Faults. These are all displayed with the BGS Lexicon code for the rock unit and BGS sheet number. Not all of the main geological components have nationwide coverage.

\* This includes an automatically generated 50m buffer zone around the site



# 1.4 Radon Data

## 1.4.1 Radon Affected Areas

Is the property in a Radon Affected Area as defined by the Health Protection Agency (HPA) and if so what percentage of homes are above the Action Level?      The property is not in a Radon Affected Area, as less than 1% of properties are above the Action Level

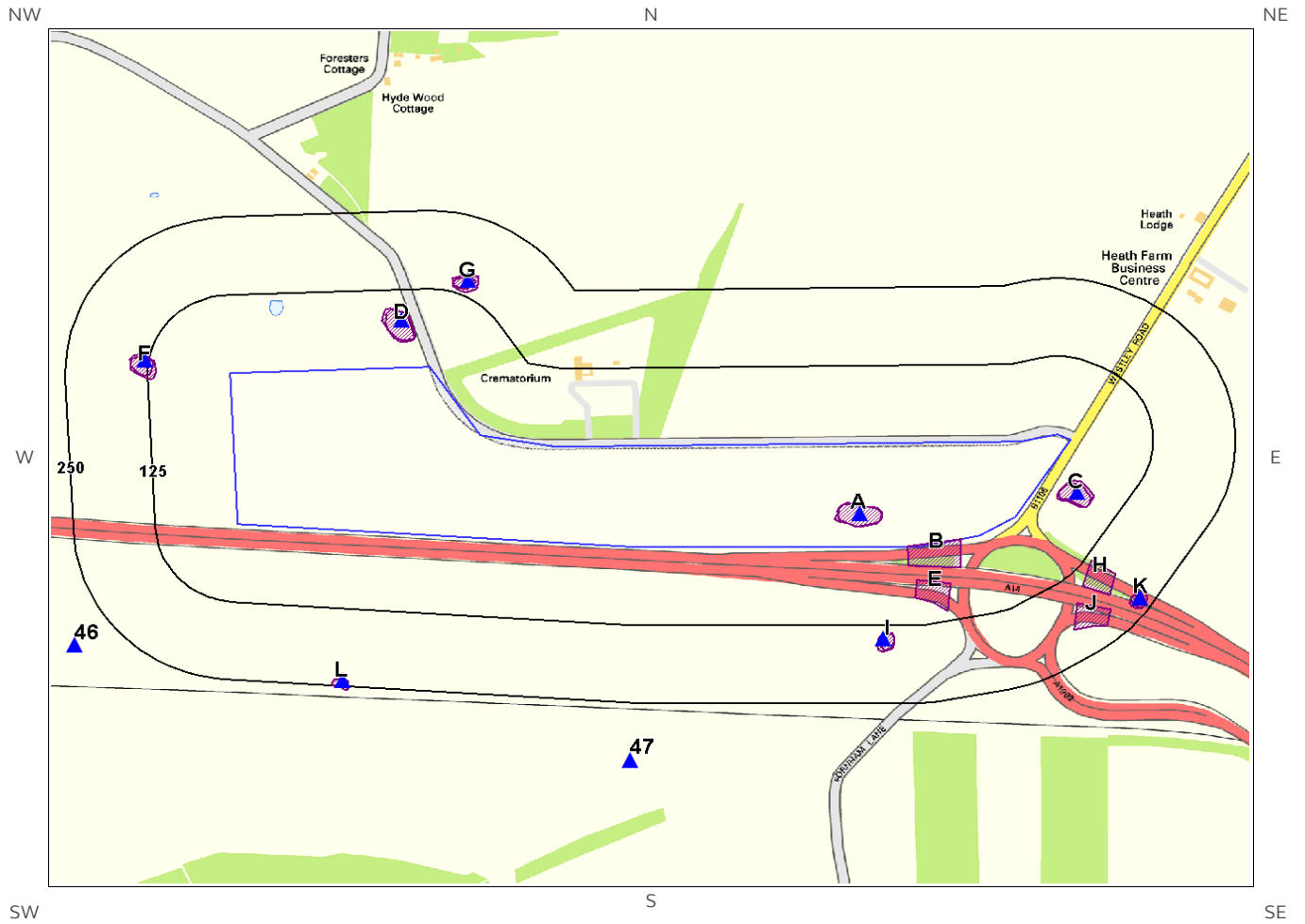
---

## 1.4.2 Radon Protection

Is the property in an area where Radon Protection are required for new properties or extensions to existing ones as described in publication BR211 by the Building Research Establishment?      No radon protective measures are necessary


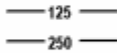

---

# 2 Ground Workings Map



Ground Workings Legend

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- |   |                    |   |                                  |
|---|--------------------|---|----------------------------------|
|  | Site Outline       |  | Historic Surface Ground Workings |
|  | Search Buffers (m) |  | Historic Underground Workings    |
|   |                    |  | Current Ground Workings          |

# 2 Ground Workings

## 2.1 Historical Surface Ground Working Features derived from Historical Mapping

This dataset is based on Groundsure's unique Historical Land Use Database derived from 1:10,560 and 1:10,000 scale historical mapping.

Are there any Historical Surface Ground Working Features within 250m of the study site boundary? Yes

The following Historical Surface Ground Working Features are provided by Groundsure:

ID	Distance (m)	Direction	NGR	Use	Date
1A	0.0	On Site	582358 265554	Old Gravel Pit	1884
2B	0.0	On Site	582473 265492	Cuttings	1991
3A	0.0	On Site	582358 265554	Unspecified Ground Workings	1938
4A	0.0	On Site	582361 265553	Unspecified Pit	1950
5B	0.0	On Site	582473 265492	Cuttings	1976
6A	0.0	On Site	582358 265554	Unspecified Pit	1903
7C	31.0	SE	582686 265585	Unspecified Pit	1950
8C	31.0	SE	582689 265588	Unspecified Pit	1903
9C	31.0	SE	582689 265588	Old Gravel Pit	1884
10C	31.0	SE	582689 265588	Unspecified Ground Workings	1938
11D	41.0	N	581663 265857	Unspecified Pit	1903
12D	41.0	N	581663 265857	Unspecified Pit	1884
13D	41.0	N	581663 265857	Unspecified Pit	1938
14D	44.0	N	581659 265859	Unspecified Pit	1950
15E	52.0	S	582471 265425	Cuttings	1991
16E	52.0	S	582471 265425	Cuttings	1976
17F	112.0	W	581272 265790	Unspecified Pit	1903
18F	112.0	W	581272 265790	Unspecified Pit	1884
19F	112.0	W	581272 265790	Unspecified Pit	1938
20F	118.0	W	581269 265794	Unspecified Pit	1950

ID	Distance (m)	Direction	NGR	Use	Date
21G	131.0	N	581762 265924	Unspecified Pit	1884
22G	131.0	N	581762 265924	Unspecified Pit	1903
23G	131.0	N	581762 265924	Unspecified Pit	1938
24G	133.0	N	581759 265927	Unspecified Pit	1950
25H	135.0	SE	582724 265454	Cuttings	1991
26H	135.0	SE	582724 265454	Cuttings	1976
27I	139.0	S	582401 265350	Unspecified Pit	1950
28I	140.0	S	582400 265350	Old Gravel Pit	1884
29I	140.0	S	582400 265350	Unspecified Pit	1938
30I	140.0	S	582400 265350	Unspecified Pit	1903
31J	167.0	SE	582714 265392	Cuttings	1991
32J	167.0	SE	582714 265392	Cuttings	1976
33K	218.0	SE	582785 265418	Old Gravel Pit	1884
34K	218.0	SE	582785 265418	Unspecified Pit	1903
35K	218.0	SE	582785 265418	Unspecified Pit	1938
36K	219.0	SE	582783 265414	Unspecified Pit	1950
37L	239.0	S	581571 265281	Sand Pit	1884

## 2.2 Historical Underground Working Features derived from Historical Mapping

This data is derived from the Groundsure unique Historical Land Use Database. It contains data derived from 1:10,000 and 1:10,560 historical Ordnance Survey Mapping and includes some natural topographical features (Shake Holes for example) as well as manmade features that may have implications for ground stability. Underground and mining features have been identified from surface features such as shafts. The distance that these extend underground is not shown.

Are there any Historical Underground Working Features within 1000m of the study site boundary? No

Database searched and no data found.

## 2.3 Current Ground Workings

This dataset is derived from the BGS BRITPITS database covering active; inactive mines; quarries; oil wells; gas wells and mineral wharves; and rail deposits throughout the British Isles.

Are there any BGS Current Ground Workings within 1000m of the study site boundary? Yes

The following Current Ground Workings information is provided by British Geological Survey:

ID	Distance (m)	Direction	NGR	Commodity Produced	Pit Name	Type of working	Status
38A	0.0	On Site	582360 265555	Sand & Gravel	Tollgate Cottage Gravel Pit	A surface mineral working. It may be termed Quarry, Sand Pit, Clay Pit or Opencast Coal Site	Ceased
39C	55.0	SE	582690 265590	Sand & Gravel	Heath Farm Gravel Pit	A surface mineral working. It may be termed Quarry, Sand Pit, Clay Pit or Opencast Coal Site	Ceased
40D	75.0	N	581663 265865	Clay & Shale	Hyde Cottages Pit	A surface mineral working. It may be termed Quarry, Sand Pit, Clay Pit or Opencast Coal Site	Ceased
41F	132.0	W	581273 265802	Chalk	Tollgate Pit	A surface mineral working. It may be termed Quarry, Sand Pit, Clay Pit or Opencast Coal Site	Ceased
42I	147.0	S	582395 265355	Sand & Gravel	Westley Gravel Pit	A surface mineral working. It may be termed Quarry, Sand Pit, Clay Pit or Opencast Coal Site	Ceased
43G	150.0	N	581764 265930	Clay & Shale	Hyde Cottages Pit	A surface mineral working. It may be termed Quarry, Sand Pit, Clay Pit or Opencast Coal Site	Ceased
44K	229.0	SE	582785 265420	Sand & Gravel	Newmarket Road Gravel Pit	A surface mineral working. It may be termed Quarry, Sand Pit, Clay Pit or Opencast Coal Site	Ceased
45L	242.0	S	581573 265287	Sand	Old Warren Wood Sand Pit	A surface mineral working. It may be termed Quarry, Sand Pit, Clay Pit or Opencast Coal Site	Ceased
46	316.0	SW	581166 265344	Chalk	Old Warren Wood Pit	A surface mineral working. It may be termed Quarry, Sand Pit, Clay Pit or Opencast Coal Site	Ceased
47	342.0	S	582010 265160	Chalk	Old Warren Wood Pit	A surface mineral working. It may be termed Quarry, Sand Pit, Clay Pit or Opencast Coal Site	Ceased
Not shown	685.0	NW	580949 266294	Clay & Shale	Risby Clay Pit	A surface mineral working. It may be termed Quarry, Sand Pit, Clay Pit or Opencast Coal Site	Ceased
Not shown	717.0	NE	583265 266090	Sand & Gravel	Heath Farm Gravel Pit	A surface mineral working. It may be termed Quarry, Sand Pit, Clay Pit or Opencast Coal Site	Ceased
Not shown	720.0	W	580688 265659	Chalk	Risby Chalk Pit	A surface mineral working. It may be termed Quarry, Sand Pit, Clay Pit or Opencast Coal Site	Ceased
Not shown	721.0	N	581675 266511	Clay & Shale	Hyde Wood Pit	A surface mineral working. It may be termed Quarry, Sand Pit, Clay Pit or Opencast Coal Site	Ceased
Not shown	724.0	N	581636 266513	Clay & Shale	Hyde Wood Pit	A surface mineral working. It may be termed Quarry, Sand Pit, Clay Pit or Opencast Coal Site	Ceased
Not shown	795.0	SW	580798 265037	Chalk	Old Warren Wood Pit	A surface mineral working. It may be termed Quarry, Sand Pit, Clay Pit or Opencast Coal Site	Ceased

ID	Distance (m)	Direction	NGR	Commodity Produced	Pit Name	Type of working	Status
Not shown	873.0	NE	583145 266414	Sand & Gravel	Heath Farm Gravel Pit	A surface mineral working. It may be termed Quarry, Sand Pit, Clay Pit or Opencast Coal Site	Ceased

# 3 Mining, Extraction & Natural Cavities Map



**Mining, Extraction and Natural Cavities Legend**

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# 3 Mining, Extraction & Natural Cavities

## 3.1 Historical Mining

This dataset is derived from Groundsure unique Historical Land-use Database that are indicative of mining or extraction activities.

Are there any Historical Mining areas within 1000m of the study site boundary? No

Database searched and no data found.

---

## 3.2 Coal Mining

This dataset provides information as to whether the study site lies within a known coal mining affected area as defined by the coal authority.

Are there any Coal Mining areas within 1000m of the study site boundary? No

Database searched and no data found.

---

## 3.3 Johnson Poole and Bloomer

This dataset provides information as to whether the study site lies within an area where JPB hold information relating to mining.

Are there any JPB Mining areas within 1000m of the study site boundary? No

The following information provided by JPB is not represented on mapping: Database searched and no data found.

---

## 3.4 Non-Coal Mining

This dataset provides information as to whether the study site lies within an area which may have been subject to non-coal historic mining.

Are there any Non-Coal Mining areas within 1000m of the study site boundary? Yes

The following non-coal mining information is provided by the BGS:

ID	Distance (m)	Direction	Name	Commodity	Assessment of likelihood
1	0.0	On Site	Not available	Chalk	Sporadic underground mining of restricted extent may have occurred. Potential for difficult ground conditions are unlikely and localised and are at a level where they need not be considered

ID	Distance (m)	Direction	Name	Commodity	Assessment of likelihood
2	502.0	S	Not available	Chalk	Sporadic underground mining of restricted extent may have occurred. Potential for difficult ground conditions are unlikely and localised and are at a level where they need not be considered

### 3.5 Non-Coal Mining Cavities

This dataset provides information from the Peter Brett Associates (PBA) mining cavities database (compiled for the national study entitled “Review of mining instability in Great Britain, 1990” PBA has also continued adding to this database) on mineral extraction by mining.

Are there any Non-Coal Mining cavities within 1000m of the study site boundary? No

Database searched and no data found.

### 3.6 Natural Cavities

This dataset provides information based on Peter Brett Associates natural cavities database.

Are there any Natural Cavities within 1000m of the study site boundary? No

Database searched and no data found.

### 3.7 Brine Extraction

This data provides information from the Coal Authority issued on behalf of the Cheshire Brine Subsidence Compensation Board.

Are there any Brine Extraction areas within 1000m of the study site boundary? No

Database searched and no data found.

### 3.8 Gypsum Extraction

This dataset provides information on Gypsum extraction from British Gypsum records.

Are there any Gypsum Extraction areas within 1000m of the study site boundary? No

Database searched and no data found.

### 3.9 Tin Mining

This dataset provides information on tin mining areas and is derived from tin mining records. This search is based upon postcode information to a sector level.

Are there any Tin Mining areas within 1000m of the study site boundary? No

Database searched and no data found.

---

### 3.10 Clay Mining

This dataset provides information on Kaolin and Ball Clay mining from relevant mining records.

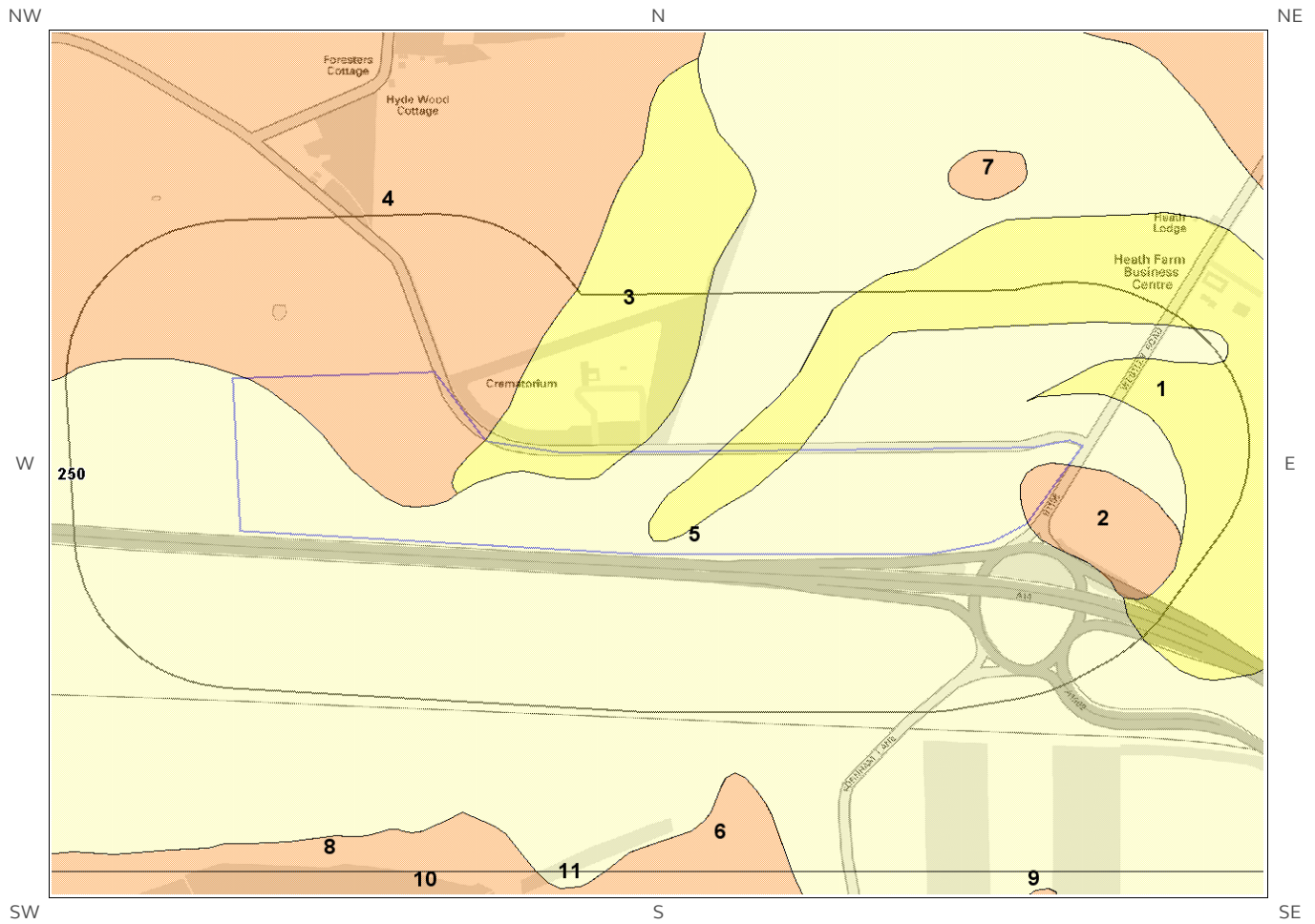
Are there any Clay Mining areas within 1000m of the study site boundary? No

Database searched and no data found.

---

# 4 Natural Ground Subsidence

## 4.1 Shrink-Swell Clay Map

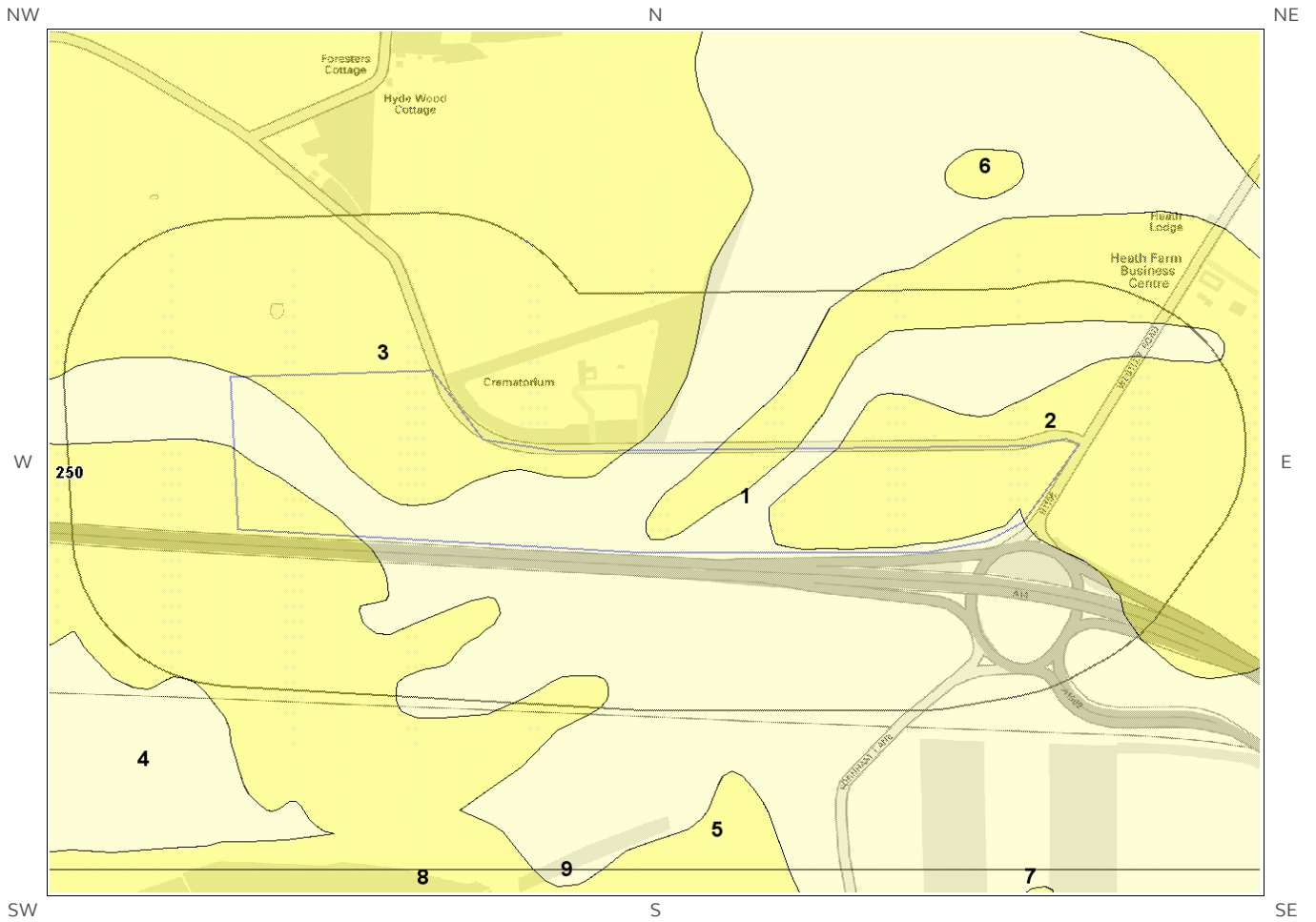


Shrink Swell Clay Legend

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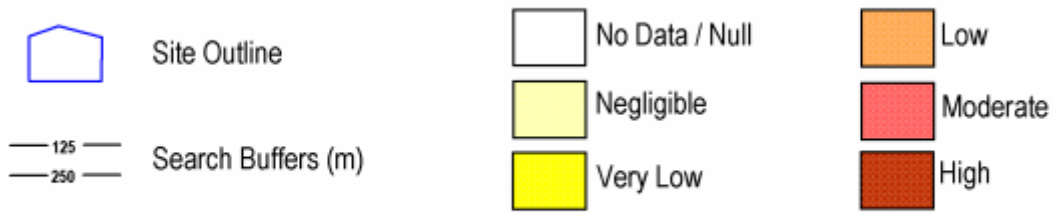


# 4.2 Landslides Map

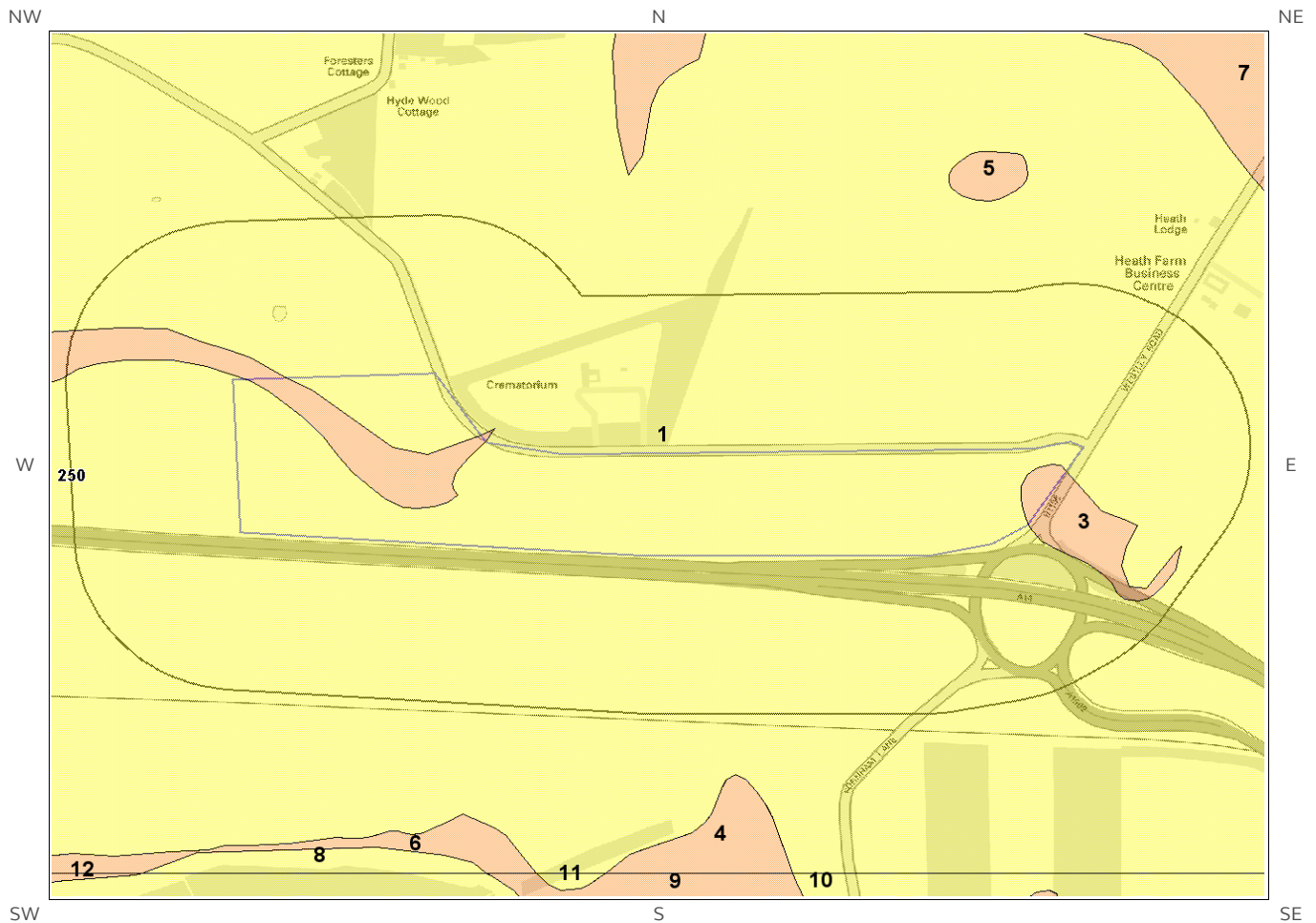


Landslides Legend

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# 4.3 Ground Dissolution Soluble Rocks Map

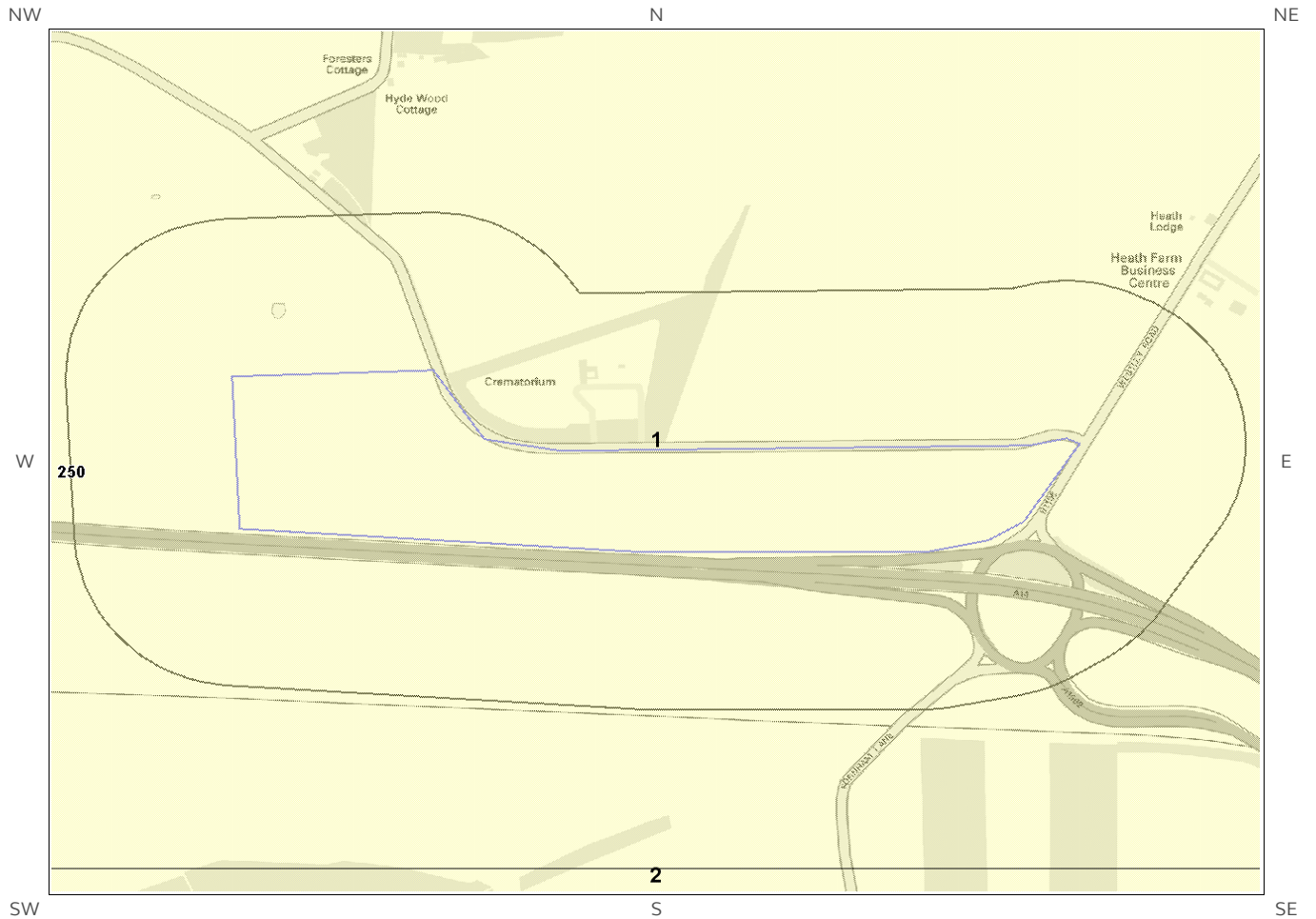


Ground Dissolution Soluble Rocks Legend

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# 4.4 Compressible Deposits Map



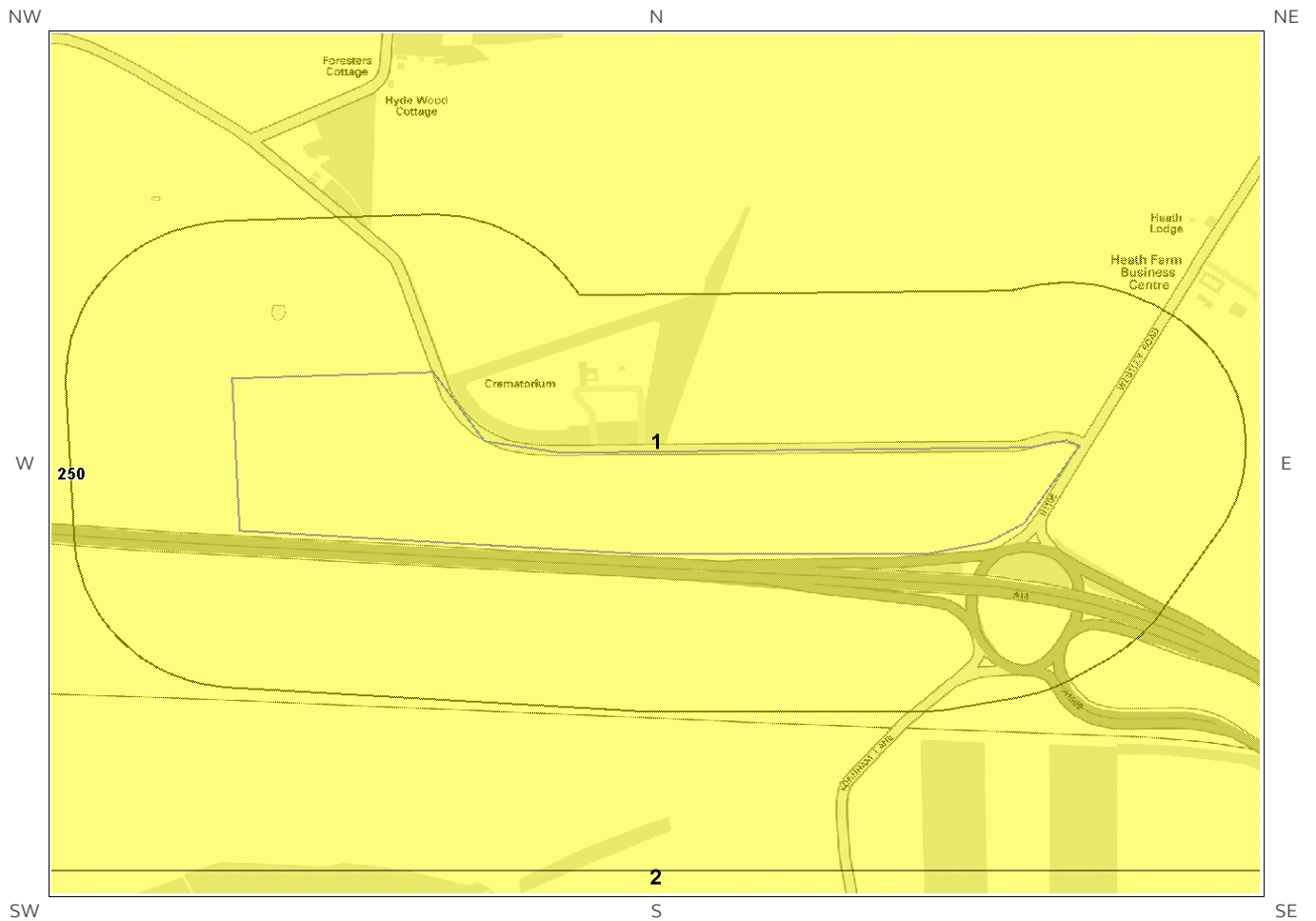
Compressible Deposits Legend

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# 4.5 Collapsible Deposits Map

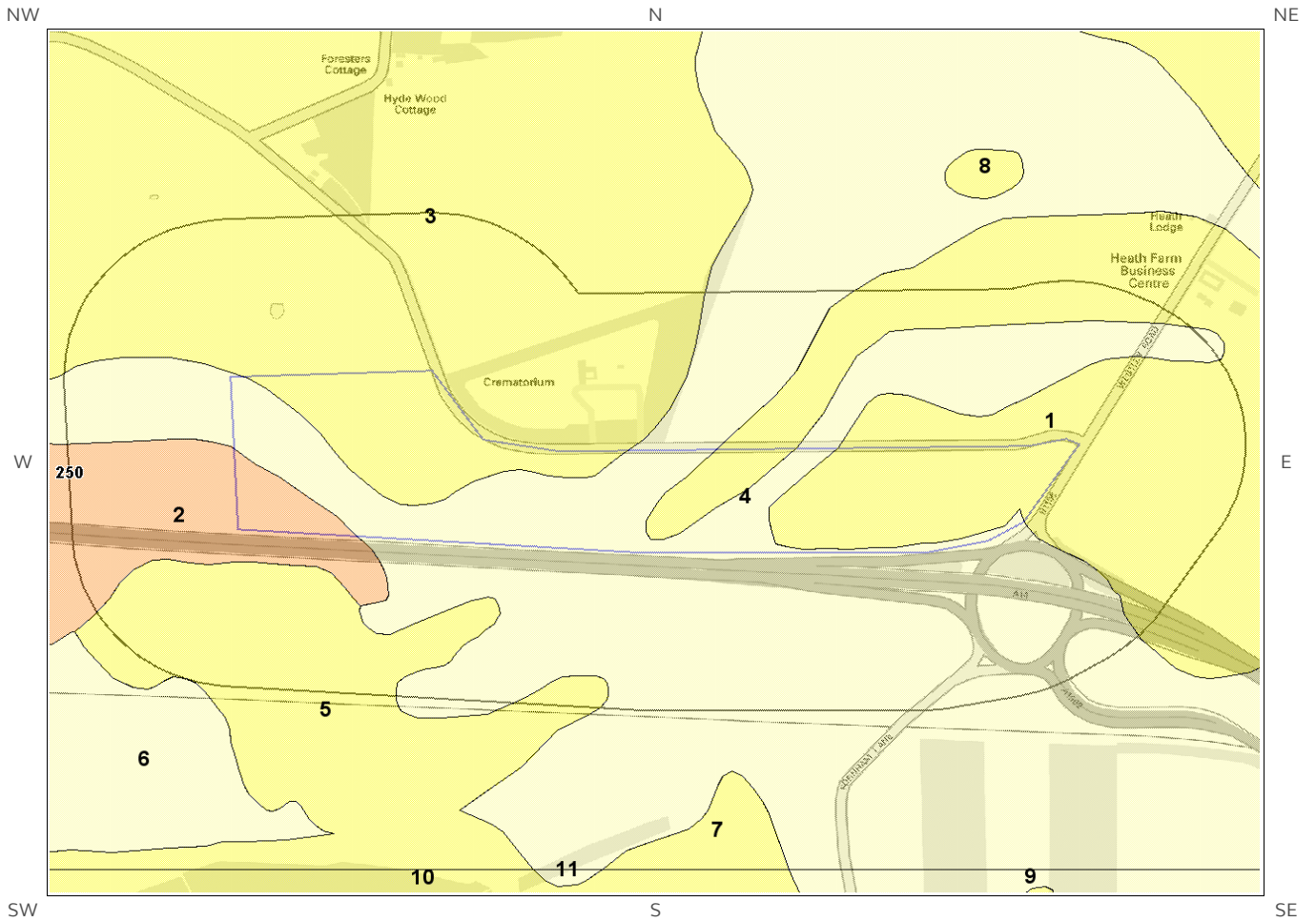


Collapsible Deposits Legend

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# 4.6 Running Sand Map



Running Sand Legend

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# 4 Natural Ground Subsidence

The National Ground Subsidence rating is obtained through the 6 natural ground stability hazard datasets, which are supplied by the British Geological Survey (BGS).

The following GeoSure data represented on the mapping is derived from the BGS Digital Geological map of Great Britain at 1:50,000 scale.

What is the maximum hazard rating of natural subsidence within the study site\*\* boundary? Low

## 4.1 Shrink-Swell Clays

The following Shrink Swell information provided by the British Geological Survey:

ID	Distance (m)	Direction	Hazard Rating	Details
1	0.0	On Site	Very Low	Ground conditions predominantly low plasticity. No special actions required to avoid problems due to shrink-swell clays. No special ground investigation required, and increased construction costs or increased financial risks are unlikely due to potential problems with shrink-swell clays.
2	0.0	On Site	Low	Ground conditions predominantly medium plasticity. Do not plant trees with high soil moisture demands near to buildings. For new build, consideration should be given to advice published by the National House Building Council (NHBC) and the Building Research Establishment (BRE). There is a possible increase in construction cost to reduce potential shrink swell problems. For existing property, there is a possible increase in insurance risk, especially during droughts or where vegetation with high moisture demands is present.
3	0.0	On Site	Very Low	Ground conditions predominantly low plasticity. No special actions required to avoid problems due to shrink-swell clays. No special ground investigation required, and increased construction costs or increased financial risks are unlikely due to potential problems with shrink-swell clays.
4	0.0	On Site	Low	Ground conditions predominantly medium plasticity. Do not plant trees with high soil moisture demands near to buildings. For new build, consideration should be given to advice published by the National House Building Council (NHBC) and the Building Research Establishment (BRE). There is a possible increase in construction cost to reduce potential shrink swell problems. For existing property, there is a possible increase in insurance risk, especially during droughts or where vegetation with high moisture demands is present.
5	0.0	On Site	Negligible	Ground conditions predominantly non-plastic. No special actions required to avoid problems due to shrink-swell clays. No special ground investigation required, and increased construction costs or increased financial risks are unlikely due to potential problems with shrink-swell clays.

\* This includes an automatically generated 50m buffer zone around the site

## 4.2 Landslides

The following Landslides information provided by the British Geological Survey:

ID	Distance (m)	Direction	Hazard Rating	Details
1	0.0	On Site	Negligible	No indicators for slope instability identified. No special actions required to avoid problems due to landslides. No special ground investigation required, and increased construction costs or increased financial risks are unlikely due to potential problems with landslides.
2	0.0	On Site	Very Low	Slope instability problems are unlikely to be present. No special actions required to avoid problems due to landslides. No special ground investigation required, and increased construction costs or increased financial risks are unlikely due to potential problems with landslides.
3	0.0	On Site	Very Low	Slope instability problems are unlikely to be present. No special actions required to avoid problems due to landslides. No special ground investigation required, and increased construction costs or increased financial risks are unlikely due to potential problems with landslides.

## 4.3 Ground Dissolution of Soluble Rocks

The following Ground Dissolution information provided by the British Geological Survey:

ID	Distance (m)	Direction	Hazard Rating	Details
1	0.0	On Site	Very Low	Significant soluble rocks are present. Problems unlikely except with considerable surface or subsurface water flow. No special actions required to avoid problems due to soluble rocks. No special ground investigation required, or increased construction costs are likely. An increase in financial risk due to potential problems with soluble rocks is unlikely.
2	0.0	On Site	Low	Significant soluble rocks are present. Low possibility of subsidence occurring naturally, but may be possible in adverse conditions such as high surface or subsurface water flow. Consider implications for stability when changes to drainage or new construction are planned. For new build, site investigation should consider potential for dissolution problems on the site and its surroundings. Care should be taken with local drainage into the bedrock. Some possibility groundwater pollution. For existing property, possible increase in insurance risk due to soluble rocks.
3	0.0	On Site	Low	Significant soluble rocks are present. Low possibility of subsidence occurring naturally, but may be possible in adverse conditions such as high surface or subsurface water flow. Consider implications for stability when changes to drainage or new construction are planned. For new build, site investigation should consider potential for dissolution problems on the site and its surroundings. Care should be taken with local drainage into the bedrock. Some possibility groundwater pollution. For existing property, possible increase in insurance risk due to soluble rocks.

## 4.4 Compressible Deposits

The following Compressible Deposits information provided by the British Geological Survey:

ID	Distance (m)	Direction	Hazard Rating	Details
1	0.0	On Site	Negligible	No indicators for compressible ground identified. No special actions required to avoid problems due to compressible ground. No special ground investigation required, and increased construction costs or increased financial risks are unlikely due to potential problems with compressible ground.

## 4.5 Collapsible Deposits

The following Collapsible Rocks information provided by the British Geological Survey:

ID	Distance (m)	Direction	Hazard Rating	Details
1	0.0	On Site	Very Low	Deposits with potential to collapse when loaded and saturated are unlikely to be present. No special ground investigation required or increased construction costs or increased financial risk due to potential problems with collapsible deposits.

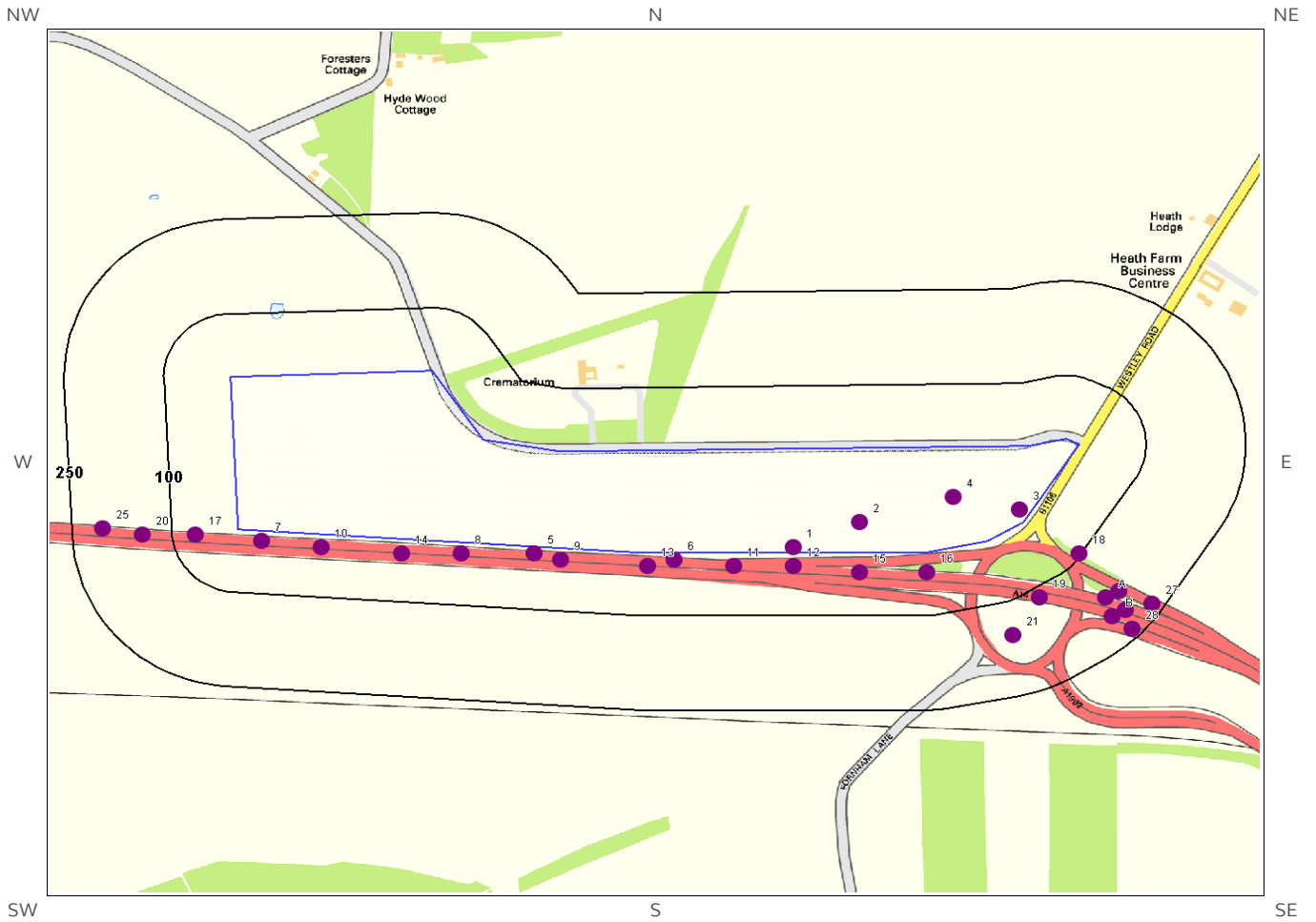
## 4.6 Running Sands

The following Running Sands information provided by the British Geological Survey:

ID	Distance (m)	Direction	Hazard Rating	Details
1	0.0	On Site	Very Low	Very low potential for running sand problems if water table rises or if sandy strata are exposed to water. No special actions required to avoid problems due to running sand. No special ground investigation required, and increased construction costs or increased financial risks are unlikely due to potential problems with running sand.
2	0.0	On Site	Low	Possibility of running sand problems after major changes in ground conditions. Normal maintenance to avoid leakage of water-bearing services or water bodies (ponds, swimming pools) should reduce likelihood of problems due to running sand. For new build, consider possibility of running sand into trenches or excavations if water table is high or sandy strata are exposed to water. Avoid concentrated water inputs to site. Unlikely to be an increase in construction costs due to potential for running sand. For existing property, no significant increase in insurance risk due to running sand problems is likely.
3	0.0	On Site	Very Low	Very low potential for running sand problems if water table rises or if sandy strata are exposed to water. No special actions required to avoid problems due to running sand. No special ground investigation required, and increased construction costs or increased financial risks are unlikely due to potential problems with running sand.
4	0.0	On Site	Negligible	No indicators for running sand identified. No special actions required to avoid problems due to running sand. No special ground investigation required, and increased construction costs or increased financial risks are unlikely due to potential problems with running sand.
5	50.0	S	Very Low	Very low potential for running sand problems if water table rises or if sandy strata are exposed to water. No special actions required to avoid problems due to running sand. No special ground investigation required, and increased construction costs or increased financial risks are unlikely due to potential problems with running sand.







# 5 Borehole Records Map



Borehole Records Legend

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-  Site Outline
-  Borehole Locations
-  125
-  250 Search Buffers (m)



## 5 Borehole Records

The systematic analysis of data extracted from the BGS Borehole Records database provides the following information.

Records of boreholes within 250m of the study site boundary:

28

ID	Distance (m)	Direction	NGR	BGS Reference	Drilled Length	Borehole Name
1	0.0	On Site	582250 265510	TL86NW11	6.55	BURY ST EDMUNDS BY PASS 1.1-3
2	0.0	On Site	582350 265550	TL86NW13	6.55	BURY ST EDMUNDS BY PASS 1.2-2
3	0.0	On Site	582590 265570	TL86NW16	6.55	BURY ST EDMUNDS BY PASS 1.4-2
4	0.0	On Site	582490 265590	TL86NW14	7.3	BURY ST EDMUNDS BY PASS 1.3-1
5	12.0	S	581860 265500	TL86NW70	0.5	BURY ST EDMUNDS BY-PASS NO.A97
6	12.0	S	582070 265490	TL86NW8	6.7	BURY ST EDMUNDS BY PASS 1.0-1
7	17.0	S	581450 265520	TL86NW66	2.0	BURY ST EDMUNDS BY-PASS NO.A93
8	19.0	S	581750 265500	TL86NW69	2.0	BURY ST EDMUNDS BY-PASS NO.A96
9	19.0	S	581900 265490	TL86NW71	2.0	BURY ST EDMUNDS BY-PASS NO.A98
10	21.0	S	581540 265510	TL86NW67	2.0	BURY ST EDMUNDS BY-PASS NO.A94
11	22.0	S	582160 265480	TL86NW9	6.55	BURY ST EDMUNDS BY PASS 1.1-1
12	22.0	S	582250 265480	TL86NW10	12.65	BURY ST EDMUNDS BY PASS 1.1-2
13	22.0	S	582030 265480	TL86NW72	1.0	BURY ST EDMUNDS BY-PASS NO.A99
14	24.0	S	581660 265500	TL86NW68	1.5	BURY ST EDMUNDS BY-PASS NO.A95
15	32.0	S	582350 265470	TL86NW12	6.45	BURY ST EDMUNDS BY PASS 1.2-1
16	32.0	S	582450 265470	TL86NW15	7.9	BURY ST EDMUNDS BY PASS 1.4-1
17	66.0	W	581350 265530	TL86NW65	2.0	BURY ST EDMUNDS BY-PASS NO.A92
18	97.0	SE	582680 265500	TL86NW19	6.55	BURY ST EDMUNDS BY PASS 1.5-3
19	116.0	SE	582620 265430	TL86NW17	8.1	BURY ST EDMUNDS BY PASS 1.5-1
20	145.0	W	581270 265530	TL86NW64	2.0	BURY ST EDMUNDS BY-PASS NO.A91
21	154.0	S	582580 265370	TL86NW18	6.7	BURY ST EDMUNDS BY PASS 1.5-2
22A	173.0	SE	582720 265430	TL86NW20	8.05	BURY ST EDMUNDS BY PASS 1.6-1

ID	Distance (m)	Direction	NGR	BGS Reference	Drilled Length	Borehole Name
23A	181.0	SE	582740 265440	TL86NW22	18.7	BURY ST EDMUNDS BY PASS 1.6-3
24B	201.0	SE	582730 265400	TL86NW21	18.9	BURY ST EDMUNDS BY PASS 1.6-2
25	205.0	W	581210 265540	TL86NW63	7.6	BURY ST EDMUNDS BY-PASS NO.A90AA
26B	208.0	SE	582750 265410	TL86NW23	12.65	BURY ST EDMUNDS BY PASS 1.6-4
27	233.0	SE	582790 265420	TL86NW25	7.0	BURY ST EDMUNDS BY PASS 1.7-1
28	236.0	SE	582760 265380	TL86NW24	18.7	BURY ST EDMUNDS BY PASS 1.6-5

The borehole records are available using the hyperlinks below: Please note that if the donor of the borehole record has requested the information be held as commercial-in-confidence, the additional data will be held separately by the BGS and a formal request must be made for its release.

- #1: [scans.bgs.ac.uk/sobi\\_scans/boreholes/553508](https://scans.bgs.ac.uk/sobi_scans/boreholes/553508)
- #2: [scans.bgs.ac.uk/sobi\\_scans/boreholes/553510](https://scans.bgs.ac.uk/sobi_scans/boreholes/553510)
- #3: [scans.bgs.ac.uk/sobi\\_scans/boreholes/553513](https://scans.bgs.ac.uk/sobi_scans/boreholes/553513)
- #4: [scans.bgs.ac.uk/sobi\\_scans/boreholes/553511](https://scans.bgs.ac.uk/sobi_scans/boreholes/553511)
- #5: [scans.bgs.ac.uk/sobi\\_scans/boreholes/553567](https://scans.bgs.ac.uk/sobi_scans/boreholes/553567)
- #6: [scans.bgs.ac.uk/sobi\\_scans/boreholes/553505](https://scans.bgs.ac.uk/sobi_scans/boreholes/553505)
- #7: [scans.bgs.ac.uk/sobi\\_scans/boreholes/553563](https://scans.bgs.ac.uk/sobi_scans/boreholes/553563)
- #8: [scans.bgs.ac.uk/sobi\\_scans/boreholes/553566](https://scans.bgs.ac.uk/sobi_scans/boreholes/553566)
- #9: [scans.bgs.ac.uk/sobi\\_scans/boreholes/553568](https://scans.bgs.ac.uk/sobi_scans/boreholes/553568)
- #10: [scans.bgs.ac.uk/sobi\\_scans/boreholes/553564](https://scans.bgs.ac.uk/sobi_scans/boreholes/553564)
- #11: [scans.bgs.ac.uk/sobi\\_scans/boreholes/553506](https://scans.bgs.ac.uk/sobi_scans/boreholes/553506)
- #12: [scans.bgs.ac.uk/sobi\\_scans/boreholes/553507](https://scans.bgs.ac.uk/sobi_scans/boreholes/553507)
- #13: [scans.bgs.ac.uk/sobi\\_scans/boreholes/553569](https://scans.bgs.ac.uk/sobi_scans/boreholes/553569)
- #14: [scans.bgs.ac.uk/sobi\\_scans/boreholes/553565](https://scans.bgs.ac.uk/sobi_scans/boreholes/553565)
- #15: [scans.bgs.ac.uk/sobi\\_scans/boreholes/553509](https://scans.bgs.ac.uk/sobi_scans/boreholes/553509)
- #16: [scans.bgs.ac.uk/sobi\\_scans/boreholes/553512](https://scans.bgs.ac.uk/sobi_scans/boreholes/553512)
- #17: [scans.bgs.ac.uk/sobi\\_scans/boreholes/553562](https://scans.bgs.ac.uk/sobi_scans/boreholes/553562)
- #18: [scans.bgs.ac.uk/sobi\\_scans/boreholes/553516](https://scans.bgs.ac.uk/sobi_scans/boreholes/553516)
- #19: [scans.bgs.ac.uk/sobi\\_scans/boreholes/553514](https://scans.bgs.ac.uk/sobi_scans/boreholes/553514)
- #20: [scans.bgs.ac.uk/sobi\\_scans/boreholes/553561](https://scans.bgs.ac.uk/sobi_scans/boreholes/553561)
- #21: [scans.bgs.ac.uk/sobi\\_scans/boreholes/553515](https://scans.bgs.ac.uk/sobi_scans/boreholes/553515)
- #22A: [scans.bgs.ac.uk/sobi\\_scans/boreholes/553517](https://scans.bgs.ac.uk/sobi_scans/boreholes/553517)
- #23A: [scans.bgs.ac.uk/sobi\\_scans/boreholes/553519](https://scans.bgs.ac.uk/sobi_scans/boreholes/553519)
- #24B: [scans.bgs.ac.uk/sobi\\_scans/boreholes/553518](https://scans.bgs.ac.uk/sobi_scans/boreholes/553518)
- #25: [scans.bgs.ac.uk/sobi\\_scans/boreholes/553560](https://scans.bgs.ac.uk/sobi_scans/boreholes/553560)
- #26B: [scans.bgs.ac.uk/sobi\\_scans/boreholes/553520](https://scans.bgs.ac.uk/sobi_scans/boreholes/553520)
- #27: [scans.bgs.ac.uk/sobi\\_scans/boreholes/553522](https://scans.bgs.ac.uk/sobi_scans/boreholes/553522)
- #28: [scans.bgs.ac.uk/sobi\\_scans/boreholes/553521](https://scans.bgs.ac.uk/sobi_scans/boreholes/553521)

# 6 Estimated Background Soil Chemistry

Records of background estimated soil chemistry within 250m of the study site boundary:

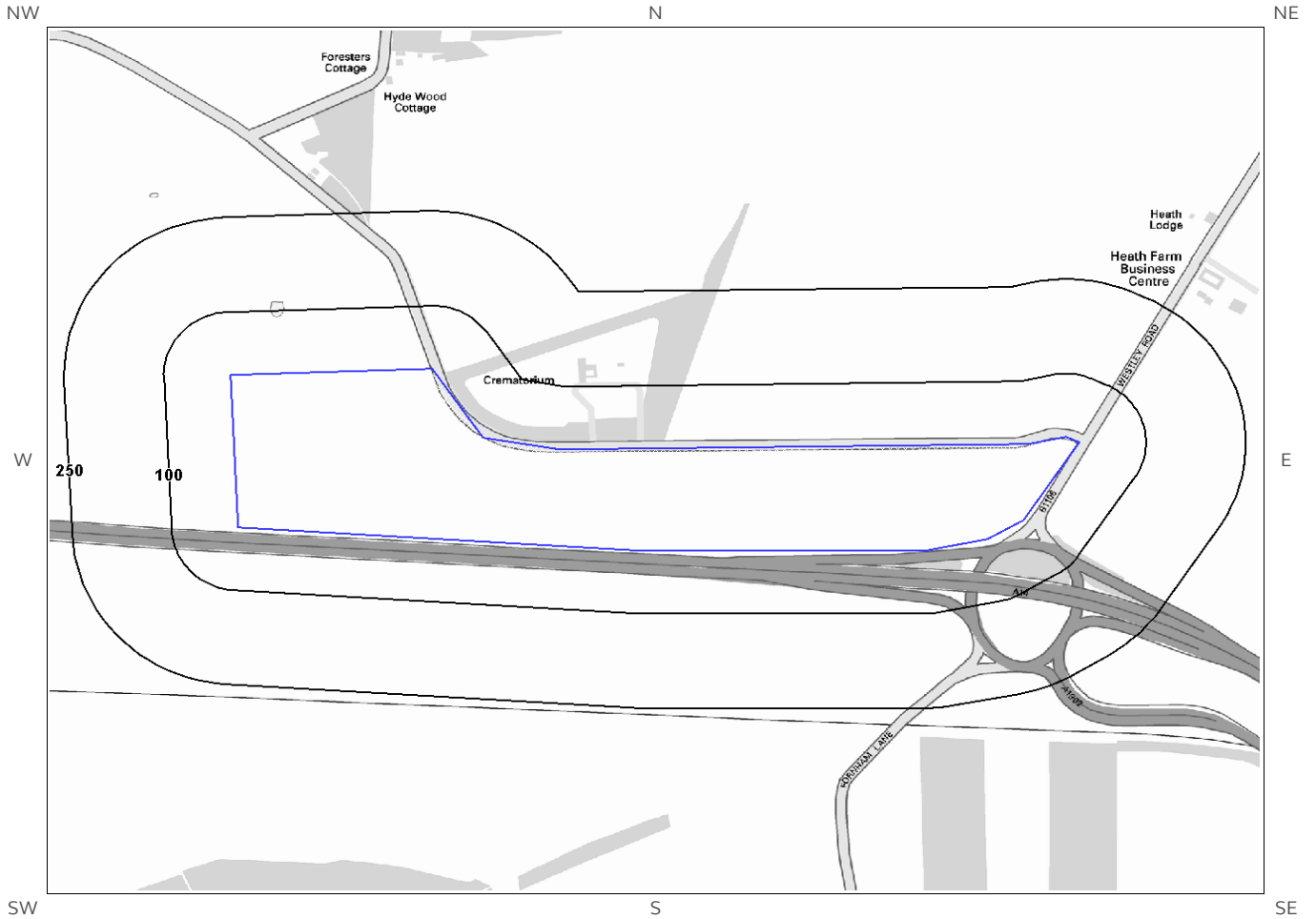
31

For further information on how this data is calculated and limitations upon its use, please see the Groundsure Geosight User Guide, available on request.

Distance (m)	Direction	Sample Type	Arsenic (As)	Cadmium (Cd)	Chromium (Cr)	Nickel (Ni)	Lead (Pb)
0.0	On Site	RuralSoil	<15 mg/kg	<1.8 mg/kg	20 - 40 mg/kg	<15 mg/kg	<100 mg/kg
0.0	On Site	RuralSoil	<15 mg/kg	<1.8 mg/kg	40 - 60 mg/kg	15 - 30 mg/kg	<100 mg/kg
0.0	On Site	RuralSoil	<15 mg/kg	<1.8 mg/kg	40 - 60 mg/kg	15 - 30 mg/kg	<100 mg/kg
0.0	On Site	RuralSoil	<15 mg/kg	<1.8 mg/kg	20 - 40 mg/kg	<15 mg/kg	<100 mg/kg
0.0	On Site	RuralSoil	15 - 25 mg/kg	<1.8 mg/kg	40 - 60 mg/kg	15 - 30 mg/kg	<100 mg/kg
0.0	On Site	RuralSoil	<15 mg/kg	<1.8 mg/kg	40 - 60 mg/kg	15 - 30 mg/kg	<100 mg/kg
0.0	On Site	RuralSoil	<15 mg/kg	<1.8 mg/kg	20 - 40 mg/kg	<15 mg/kg	<100 mg/kg
0.0	On Site	RuralSoil	<15 mg/kg	<1.8 mg/kg	40 - 60 mg/kg	15 - 30 mg/kg	<100 mg/kg
0.0	On Site	RuralSoil	<15 mg/kg	<1.8 mg/kg	40 - 60 mg/kg	15 - 30 mg/kg	<100 mg/kg
0.0	On Site	RuralSoil	<15 mg/kg	<1.8 mg/kg	40 - 60 mg/kg	15 - 30 mg/kg	<100 mg/kg
0.0	On Site	RuralSoil	15 - 25 mg/kg	<1.8 mg/kg	40 - 60 mg/kg	15 - 30 mg/kg	<100 mg/kg
0.0	On Site	RuralSoil	<15 mg/kg	<1.8 mg/kg	40 - 60 mg/kg	15 - 30 mg/kg	<100 mg/kg
0.0	On Site	RuralSoil	<15 mg/kg	<1.8 mg/kg	20 - 40 mg/kg	<15 mg/kg	<100 mg/kg
1.0	N	RuralSoil	<15 mg/kg	<1.8 mg/kg	40 - 60 mg/kg	15 - 30 mg/kg	<100 mg/kg
1.0	N	RuralSoil	<15 mg/kg	<1.8 mg/kg	40 - 60 mg/kg	15 - 30 mg/kg	<100 mg/kg
2.0	S	RuralSoil	<15 mg/kg	<1.8 mg/kg	40 - 60 mg/kg	15 - 30 mg/kg	<100 mg/kg
3.0	S	RuralSoil	<15 mg/kg	<1.8 mg/kg	40 - 60 mg/kg	15 - 30 mg/kg	<100 mg/kg
3.0	S	RuralSoil	<15 mg/kg	<1.8 mg/kg	40 - 60 mg/kg	15 - 30 mg/kg	<100 mg/kg
12.0	S	RuralSoil	<15 mg/kg	<1.8 mg/kg	40 - 60 mg/kg	15 - 30 mg/kg	<100 mg/kg
26.0	S	RuralSoil	<15 mg/kg	<1.8 mg/kg	20 - 40 mg/kg	<15 mg/kg	<100 mg/kg
34.0	S	RuralSoil	<15 mg/kg	<1.8 mg/kg	20 - 40 mg/kg	<15 mg/kg	<100 mg/kg
48.0	N	RuralSoil	<15 mg/kg	<1.8 mg/kg	40 - 60 mg/kg	15 - 30 mg/kg	<100 mg/kg
50.0	S	RuralSoil	<15 mg/kg	<1.8 mg/kg	20 - 40 mg/kg	<15 mg/kg	<100 mg/kg
51.0	S	RuralSoil	<15 mg/kg	<1.8 mg/kg	20 - 40 mg/kg	<15 mg/kg	<100 mg/kg
73.0	N	RuralSoil	<15 mg/kg	<1.8 mg/kg	40 - 60 mg/kg	15 - 30 mg/kg	<100 mg/kg
87.0	SE	RuralSoil	<15 mg/kg	<1.8 mg/kg	40 - 60 mg/kg	15 - 30 mg/kg	<100 mg/kg
186.0	SE	RuralSoil	<15 mg/kg	<1.8 mg/kg	40 - 60 mg/kg	15 - 30 mg/kg	<100 mg/kg
209.0	N	RuralSoil	15 - 25 mg/kg	<1.8 mg/kg	40 - 60 mg/kg	15 - 30 mg/kg	<100 mg/kg
216.0	N	RuralSoil	15 - 25 mg/kg	<1.8 mg/kg	40 - 60 mg/kg	15 - 30 mg/kg	<100 mg/kg
249.0	S	RuralSoil	<15 mg/kg	<1.8 mg/kg	40 - 60 mg/kg	15 - 30 mg/kg	<100 mg/kg











\*As this data is based upon underlying 1:50,000 scale geological information, a 50m buffer has been added to the search radius.

# 7 Railways and Tunnels Map



**Railways and Tunnels Legend**

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	Site Outline		Underground or Partially Underground Railway / Subway System		Railway Track (OpenStreetMap)
	Search Buffers (m)		Railway Tunnel (OS Mapping)		High Speed 2
			Abandoned or Dismantled Railway (OpenStreetMap)		Crossrail 1
			Railway Track (OS Mapping)		Railway and/or Tunnel Feature from Historical Mapping

# 7 Railways and Tunnels

## 7.1 Tunnels

This data is derived from OpenStreetMap and provides information on the possible locations of underground railway systems in the UK - the London Underground, the Tyne & Wear Metro and the Glasgow Subway.

Have any underground railway lines been identified within the study site boundary? No

Have any underground railway lines been identified within 250m of the study site boundary? No

Database searched and no data found.

*Any records that have been identified are represented on the Railways and Tunnels Map.*

---

This data is derived from Ordnance Survey mapping and provides information on the possible locations of railway tunnels forming part of the UK overground railway network.

Have any other railway tunnels been identified within the site boundary? No

Have any other railway tunnels been identified within 250m of the site boundary? No

Database searched and no data found.

*Any records that have been identified are represented on the Railways and Tunnels Map.*

---

## 7.2 Historical Railway and Tunnel Features

This data is derived from Groundsure's unique Historical Land-use Database and contains features relating to tunnels, railway tracks or associated works that have been identified from historical Ordnance Survey mapping.

Have any historical railway or tunnel features been identified within the study site boundary? No

Have any historical railway or tunnel features been identified within 250m of the study site boundary? No

Database searched and no data found.

*Any records that have been identified are represented on the Railways and Tunnels Map.*

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### 7.3 Historical Railways

This data is derived from OpenStreetMap and provides information on the possible alignments of abandoned or dismantled railway lines in proximity to the study site.

Have any historical railway lines been identified within the study site boundary?	No
Have any historical railway lines been identified within 250m of the study site boundary?	No

Database searched and no data found.

Note: multiple sections of the same track may be listed in the detail above

*Any records that have been identified are represented on the Railways and Tunnels Map.*

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### 7.4 Active Railways

These datasets are derived from Ordnance Survey mapping and OpenStreetMap and provide information on the possible locations of active railway lines in proximity to the study site.

Have any active railway lines been identified within the study site boundary?	No
Have any active railway lines been identified within 250m of the study site boundary?	No

Database searched and no data found.

Note: multiple sections of the same track may be listed in the detail above

*Any records that have been identified are represented on the Railways and Tunnels Map.*

---

### 7.5 Railway Projects

These datasets provide information on the location of large scale railway projects High Speed 2 and Crossrail 1 .

Is the study site within 5km of the route of the High Speed 2 rail project?	No
Is the study site within 500m of the route of the Crossrail 1 rail project?	No

*Further information on proximity to these routes, the project construction status and associated works can be obtained through the purchase of a Groundsure HS2 and Crossrail 1 Report.*

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The route data has been digitised from publicly available maps by Groundsure. The route as provided relates to the Crossrail 1 project only, and does not include any details of the Crossrail 2 project, as final details of the route for Crossrail 2 are still under consultation.

# Contact Details

**Groundsure Helpline**  
Telephone: 08444 159 000  
info@groundsure.com



## British Geological Survey Enquiries

Kingsley Dunham Centre  
Keyworth, Nottingham NG12 5GG  
Tel: 0115 936 3143.  
Fax: 0115 936 3276.  
Email: [enquiries@bgs.ac.uk](mailto:enquiries@bgs.ac.uk)  
Web: [www.bgs.ac.uk](http://www.bgs.ac.uk)

BGS Geological Hazards Reports and general geological enquiries



## British Gypsum

British Gypsum Ltd  
East Leake  
Loughborough  
Leicestershire  
LE12 6HX



## The Coal Authority

200 Lichfield Lane  
Mansfield  
Notts NG18 4RG  
Tel: 0345 7626 848  
DX 716176 Mansfield 5  
[www.coal.gov.uk](http://www.coal.gov.uk)



## Public Health England

Public information access office  
Public Health England, Wellington House  
133-155 Waterloo Road, London, SE1 8UG  
<https://www.gov.uk/government/organisations/public-health-england>  
Email: [enquiries@phe.gov.uk](mailto:enquiries@phe.gov.uk)  
Main switchboard: 020 7654 8000



## Johnson Poole & Bloomer Limited

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Brierley Hill, West Midlands  
DY5 3LH  
Tel: +44 (0) 1384 262 000  
Email: [enquiries.gs@jpb.co.uk](mailto:enquiries.gs@jpb.co.uk)  
Website: [www.jpb.co.uk](http://www.jpb.co.uk)



## Ordnance Survey

Adanac Drive, Southampton  
SO16 0AS  
Tel: 08456 050505  
Website: <http://www.ordnancesurvey.co.uk/>



## Getmapping PLC

Virginia Villas, High Street, Hartley Witney,  
Hampshire RG27 8NW  
Tel: 01252 845444  
Website: <http://www1.getmapping.com/>





# Contact Details



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**Peter Brett Associates**  
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Tel: +44 (0)118 950 0761 E-mail: [reading@pba.co.uk](mailto:reading@pba.co.uk)  
Website: <http://www.peterbrett.com/home>



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## Standard Terms and Conditions

### 1 Definitions

In these terms and conditions unless the context otherwise requires:

**“Beneficiary”** means the person or entity for whose benefit the Client has obtained the Services.

**“Client”** means the party or parties entering into a Contract with Groundsure.

**“Commercial”** means any building or property which is not Residential.

**“Confidential Information”** means the contents of this Contract and all information received from the Client as a result of, or in connection with, this Contract other than

(i) information which the Client can prove was rightfully in its possession prior to disclosure by Groundsure and

(ii) any information which is in the public domain (other than by virtue of a breach of this Contract).

**“Support Services”** means Support Services provided by Groundsure including, without limitation, interpreting third party and in-house environmental data, providing environmental support advice, undertaking environmental audits and assessments, Site investigation, Site monitoring and related items.

**“Contract”** means the contract between Groundsure and the Client for the provision of the Services, and which shall incorporate these terms and conditions, the Order, and the relevant User Guide.

**“Third Party Data Provider”** means any third party providing Third Party Content to Groundsure.

**“Data Reports”** means reports comprising factual data with no accompanying interpretation.

**“Fees”** has the meaning set out in clause 5.1.

**“Groundsure”** means Groundsure Limited, a company registered in England and Wales under number 03421028.

**“Groundsure Materials”** means all materials prepared by Groundsure and provided as part of the Services, including but not limited to Third Party Content, Data Reports, Mapping, and Risk Screening Reports.

**“Intellectual Property”** means any patent, copyright, design rights, trade or service mark, moral rights, data protection rights, know-how or trade mark in each case whether registered or not and including applications for the same or any other rights of a similar nature anywhere in the world.

**“Mapping”** means a map, map data or a combination of historical maps of various ages, time periods and scales.

**“Order”** means an electronic, written or other order form submitted by the Client requesting Services from Groundsure in respect of a specified Site.

**“Ordnance Survey”** means the Secretary of State for Business, Innovation and Skills, acting through Ordnance Survey, Adanac Drive, Southampton, SO16 0AS, UK.

**“Order Website”** means the online platform through which Orders may be placed by the Client and accepted by Groundsure.

**“Report”** means a Risk Screening Report or Data Report for Commercial or Residential property.

**“Residential”** means any building or property used as or intended to be used as a single dwelling.

**“Risk Screening Report”** means a risk screening report comprising factual data with an accompanying interpretation by Groundsure.

**“Services”** means any Report, Mapping and/or Support Services which Groundsure has agreed to provide by accepting an Order pursuant to clause 2.6.

**“Site”** means the area of land in respect of which the Client has requested Groundsure to provide the Services.

**“Third Party Content”** means data, database information or other information which is provided to Groundsure by a Third Party Data Provider.

**“User Guide”** means the user guide, as amended from time to time, available upon request from Groundsure and on the website ([www.Groundsure.com](http://www.Groundsure.com)) and forming part of this Contract.

### 2 Scope of Services, terms and conditions, requests for insurance and quotations

2.1 Groundsure agrees to provide the Services in accordance with the Contract.

2.2 Groundsure shall exercise reasonable skill and care in the provision of the Services.

2.3 Subject to clause 7.3 the Client acknowledges that it has not relied on any statement or representation made by or on behalf of Groundsure which is not set out and expressly agreed in writing in the Contract and all such statements and representations are hereby excluded to the fullest extent permitted by law.

2.4 The Client acknowledges that terms and conditions appearing on a Client's order form, printed stationery or other communication, or any terms or conditions implied by custom, practice or course of dealing shall be of no effect, and that this Contract shall prevail over all others in relation to the Order.

2.5 If the Client or Beneficiary requests insurance in conjunction with or as a result of the Services, Groundsure shall use reasonable endeavours to recommend such insurance, but makes no warranty that such insurance shall be available from insurers or that it will be offered on reasonable terms. Any insurance purchased by the Client or Beneficiary shall be subject solely to the terms of the policy issued by insurers and Groundsure will have no liability therefor. In addition you acknowledge and agree that Groundsure does not act as an agent or broker for any insurance providers. The Client should take (and ensure that the Beneficiary takes) independent advice to ensure that the insurance policy requested or offered is suitable for its requirements.

2.6 Groundsure's quotations or proposals are valid for a period of 30 days only unless an alternative period of time is explicitly stipulated by Groundsure.

Groundsure reserves the right to withdraw any quotation or proposal at any time before an Order is accepted by Groundsure. Groundsure's acceptance of an Order shall be binding only when made in writing and signed by Groundsure's authorised representative or when accepted through the Order Website.

### 3 The Client's obligations

3.1 The Client shall comply with the terms of this Contract and

(i) procure that the Beneficiary or any third party relying on the Services complies with and acts as if it is bound by the Contract and

(ii) be liable to Groundsure for the acts and omissions of the Beneficiary or any third party relying on the Services as if such acts and omissions were those of the Client.

3.2 The Client shall be solely responsible for ensuring that the Services are appropriate and suitable for its and/or the Beneficiary's needs.

3.3 The Client shall supply to Groundsure as soon as practicable and without charge all requisite information (and the Client warrants that such information is accurate, complete and appropriate), including without limitation any environmental information relating to the Site and shall give such assistance as Groundsure shall reasonably require in the provision of the Services including, without limitation, access to the Site, facilities and equipment.

3.4 Where the Client's approval or decision is required to enable Groundsure to carry out work in order to provide the Services, such approval or decision shall be given or procured in reasonable time and so as not to delay or disrupt the performance of the Services.

3.5 Save as expressly permitted by this Contract the Client shall not, and shall procure that the Beneficiary shall not, re-sell, alter, add to, or amend the Groundsure Materials, or use the Groundsure Materials in a manner for which they were not intended. The Client may make the Groundsure Materials available to a third party who is considering acquiring some or all of, or providing funding in relation to, the Site, but such third party cannot rely on the same unless expressly permitted under clause 4.

3.6 The Client is responsible for maintaining the confidentiality of its user name and password if using the Order Website and the Client acknowledges that Groundsure accepts no liability of any kind for any loss or damage suffered by the Client as a consequence of using the Order Website.

### 4 Reliance

4.1 The Client acknowledges that the Services provided by Groundsure consist of the presentation and analysis of Third Party Content and other content and that information obtained from a Third Party Data Provider cannot be guaranteed or warranted by Groundsure to be reliable.

4.2 In respect of Data Reports, Mapping and Risk Screening Reports, the following classes of person and no other are entitled to rely on their contents;

(i) the Beneficiary,  
(ii) the Beneficiary's professional advisers, (iii) any person providing funding to the Beneficiary in relation to the Site (whether directly or as part of a lending syndicate),  
(iv) the first purchaser or first tenant of the Site, and  
(v) the professional advisers and lenders of the first purchaser or tenant of the Site.

4.3 In respect of Support Services, only the Client, Beneficiary and parties expressly named in a Report and no other parties are entitled to rely on its contents.

4.4 Save as set out in clauses 4.2 and 4.3 and unless otherwise expressly agreed in writing, no other person or entity of any kind is entitled to rely on any Services or Report issued or provided by Groundsure. Any party considering such Reports and Services does so at their own risk.

### 5 Fees and Disbursements

5.1 Groundsure shall charge and the Client shall pay fees at the rate and frequency specified in the written proposal, Order Website or Order acknowledgement form, plus (in the case of Support Services) all proper disbursements incurred by Groundsure. The Client shall in addition pay all value added tax or other tax payable on such fees and disbursements in relation to the provision of the Services (together “Fees”).

5.2 The Client shall pay all outstanding Fees to Groundsure in full without deduction, counterclaim or set off within 30 days of the date of Groundsure's invoice or such other period as may be agreed in writing between Groundsure and the Client (“Payment Date”). Interest on late payments will accrue on a daily basis from the Payment Date until the date of payment (whether before or after judgment) at the rate of 8% per annum.

5.3 The Client shall be deemed to have agreed the amount of any invoice unless an objection is made in writing within 28 days of the date of the invoice. As soon as reasonably practicable after being notified of an objection, without prejudice to clause 5.2 a member of Groundsure's management team will contact the Client and the parties shall then use all reasonable endeavours to resolve the dispute within 15 days.

### 6 Intellectual Property and Confidentiality

6.1 Subject to

(i) full payment of all relevant Fees and  
(ii) compliance with this Contract, the Client is granted (and is permitted to sub-licence to the Beneficiary) a royalty-free, worldwide, non-assignable and (save to the extent set out in this Contract) non-transferable licence to make use of the Groundsure Materials.

6.2 All Intellectual Property in the Groundsure Materials are and shall remain owned by Groundsure or Groundsure's licensors (including without limitation the Third Party Data Providers) the Client acknowledges, and shall procure

acknowledgement by the Beneficiary of, such ownership. Nothing in this Contract purports to transfer or assign any rights to the Client or the Beneficiary in respect of such Intellectual Property.

6.3 Third Party Data Providers may enforce any breach of clauses 6.1 and 6.2 against the Client or Beneficiary.

6.4 The Client shall, and shall procure that any recipients of the Groundsure Materials shall:

(i) not remove, suppress or modify any trade mark, copyright or other proprietary marking belonging to Groundsure or any third party from the Services;

(ii) use the information obtained as part of the Services in respect of the subject Site only, and shall not store or reuse any information obtained as part of the Services provided in respect of adjacent or nearby sites;

(iii) not create any product or report which is derived directly or indirectly from the Services (save that those acting in a professional capacity to the Beneficiary may provide advice based upon the Services);

(iv) not combine the Services with or incorporate such Services into any other information data or service;

(v) not reformat or otherwise change (whether by modification, addition or enhancement), the Services (save that those acting for the Beneficiary in a professional capacity shall not be in breach of this clause 6.4(v) where such reformatting is in the normal course of providing advice based upon the Services);

(vi) where a Report and/or Mapping contains material belonging to Ordnance Survey, acknowledge and agree that such content is protected by Crown Copyright and shall not use such content for any purpose outside of receiving the Services; and

(vii) not copy in whole or in part by any means any map prints or run-on copies containing content belonging to Ordnance Survey (other than that contained within Ordnance Survey's OS Street Map) without first being in possession of a valid Paper Map Copying Licence from Ordnance Survey,

6.5 Notwithstanding clause 6.4, the Client may make reasonable use of the Groundsure Materials in order to advise the Beneficiary in a professional capacity. However, Groundsure shall have no liability in respect of any advice, opinion or report given or provided to Beneficiaries by the Client.

6.6 The Client shall procure that any person to whom the Services are made available shall notify Groundsure of any request or requirement to disclose, publish or disseminate any information contained in the Services in accordance with the Freedom of Information Act 2000, the Environmental Information Regulations 2004 or any associated legislation or regulations in force from time to time.

#### **7. Liability: Particular Attention Should Be Paid To This Clause**

7.1 This Clause 7 sets out the entire liability of Groundsure, including any liability for the acts or omissions of its employees, agents, consultants, subcontractors and Third Party Content, in respect of:

(i) any breach of contract, including any deliberate breach of the Contract by Groundsure or its employees, agents or subcontractors;

(ii) any use made of the Reports, Services, Materials or any part of them; and

(iii) any representation, statement or tortious act or omission (including negligence) arising under or in connection with the Contract.

7.2 All warranties, conditions and other terms implied by statute or common law are, to the fullest extent permitted by law, excluded from the Contract.

7.3 Nothing in the Contract limits or excludes the liability of the Supplier for death or personal injury resulting from negligence, or for any damage or liability incurred by the Client or Beneficiary as a result of fraud or fraudulent misrepresentation.

7.4 Groundsure shall not be liable for

(i) loss of profits;

(ii) loss of business;

(iii) depletion of goodwill and/or similar losses;

(iv) loss of anticipated savings;

(v) loss of goods;

(vi) loss of contract;

(vii) loss of use;

(viii) loss or corruption of data or information;

(ix) business interruption;

(x) any kind of special, indirect, consequential or pure economic loss, costs, damages, charges or expenses;

(xi) loss or damage that arise as a result of the use of all or part of the Groundsure Materials in breach of the Contract;

(xii) loss or damage arising as a result of any error, omission or inaccuracy in any part of the Groundsure Materials where such error, omission or inaccuracy is caused by any Third Party Content or any reasonable interpretation of Third Party Content;

(xiii) loss or damage to a computer, software, modem, telephone or other property; and

(xiv) loss or damage caused by a delay or loss of use of Groundsure's internet ordering service.

7.5 Groundsure's total liability in relation to or under the Contract shall be limited to £10 million for any claim or claims.

7.6 Groundsure shall procure that the Beneficiary shall be bound by limitations and exclusions of liability in favour of Groundsure which accord with those detailed in clauses 7.4 and 7.5 (subject to clause 7.3) in respect of all claims which the Beneficiary may bring against Groundsure in relation to the Services or other matters arising pursuant to the Contract.

#### **8 Groundsure's right to suspend or terminate**

8.1 If Groundsure reasonably believes that the Client or Beneficiary has not provided the information or assistance required to enable the proper provision of the Services, Groundsure shall be entitled to suspend all further performance of the Services until such time as any such deficiency has been made good.

8.2 Groundsure shall be entitled to terminate the Contract immediately on written notice in the event that:

(i) the Client fails to pay any sum due to Groundsure within 30 days of the Payment Date; or

(ii) the Client (being an individual) has a bankruptcy order made against him or (being a company) shall enter into liquidation whether compulsory or voluntary or have an administration order made against it or if a receiver shall be appointed over the whole or any part of its property assets or undertaking or if the Client is struck off the Register of Companies or dissolved; or

(iii) the Client being a company is unable to pay its debts within the meaning of Section 123 of the Insolvency Act 1986 or being an individual appears unable to pay his debts within the meaning of Section 268 of the Insolvency Act 1986 or if the Client shall enter into a composition or arrangement with the Client's creditors or shall suffer distress or execution to be levied on his goods; or

(iv) the Client or the Beneficiary breaches any term of the Contract (including, but not limited to, the obligations in clause 4) which is incapable of remedy or if remediable, is not remedied within five days of notice of the breach.

#### **9. Client's Right to Terminate and Suspend**

9.1 Subject to clause 10.1, the Client may at any time upon written notice terminate or suspend the provision of all or any of the Services.

9.2 In any event, where the Client is a consumer (and not a business) he/she hereby expressly acknowledges and agrees that:

(i) the supply of Services under this Contract (and therefore the performance of this Contract) commences immediately upon Groundsure's acceptance of the Order; and

(ii) the Reports and/or Mapping provided under this Contract are

(a) supplied to the Client's specification(s) and in any event  
(b) by their nature cannot be returned.

#### **10 Consequences of Withdrawal, Termination or Suspension**

10.1 Upon termination of the Contract:

(i) Groundsure shall take steps to bring to an end the Services in an orderly manner, vacate any Site with all reasonable speed and shall deliver to the Client and/or Beneficiary any property of the Client and/or Beneficiary in Groundsure's possession or control; and

(ii) the Client shall pay to Groundsure all and any Fees payable in respect of the performance of the Services up to the date of termination or suspension. In respect of any Support Services provided, the Client shall also pay Groundsure any additional costs incurred in relation to the termination or suspension of the Contract.

#### **11 Anti-Bribery**

11.1 The Client warrants that it shall:

(i) comply with all applicable laws, statutes and regulations relating to anti-bribery and anti-corruption including but not limited to the Bribery Act 2010;

(ii) comply with such of Groundsure's anti-bribery and anti-corruption policies as are notified to the Client from time to time; and

(iii) promptly report to Groundsure any request or demand for any undue financial or other advantage of any kind received by or on behalf of the Client in connection with the performance of this Contract.

11.2 Breach of this Clause 11 shall be deemed a material breach of this Contract.

#### **12 General**

12.1 The Mapping contained in the Services is protected by Crown copyright and must not be used for any purpose other than as part of the Services or as specifically provided in the Contract.

12.2 The Client shall be permitted to make one copy only of each Report or Mapping Order. Thereafter the Client shall be entitled to make unlimited copies of the Report or Mapping Order only in accordance with an Ordnance Survey paper map copy license available through Groundsure.

12.3 Groundsure reserves the right to amend or vary this Contract. No amendment or variation to this Contract shall be valid unless signed by an authorised representative of Groundsure.

12.4 No failure on the part of Groundsure to exercise, and no delay in exercising, any right, power or provision under this Contract shall operate as a waiver thereof.

12.5 Save as expressly provided in this Contract, no person other than the persons set out therein shall have any right under the Contract (Rights of Third Parties) Act 1999 to enforce any terms of the Contract.

12.6 The Secretary of State for Business, Innovation and Skills ("BIS") or BIS' successor body, as the case may be, acting through Ordnance Survey may enforce a breach of clause 6.4(vi) and clause 6.4(vii) of these terms and conditions against the Client in accordance with the provisions of the Contracts (Rights of Third Parties) Act 1999.

12.7 Groundsure shall not be liable to the Client if the provision of the Services is delayed or prevented by one or more of the following circumstances:

- (i) the Client or Beneficiary's failure to provide facilities, access or information;
- (ii) fire, storm, flood, tempest or epidemic;
- (iii) Acts of God or the public enemy;
- (iv) riot, civil commotion or war;
- (v) strikes, labour disputes or industrial action;
- (vi) acts or regulations of any governmental or other agency;
- (vii) suspension or delay of services at public registries by Third Party Data Providers;
- (viii) changes in law; or
- (ix) any other reason beyond Groundsure's reasonable control.

In the event that Groundsure is prevented from performing the Services (or any part thereof) in accordance with this clause 12.6 for a period of not less than 30 days then Groundsure shall be entitled to terminate this Contract immediately on written notice to the Client.

12.8 Any notice provided shall be in writing and shall be deemed to be properly given if delivered by hand or sent by first class post, facsimile or by email to the address, facsimile number or email address of the relevant party as may have been notified by each party to the other for such purpose or in the absence of such notification the last known address.

12.9 Such notice shall be deemed to have been received on the day of delivery if delivered by hand, facsimile or email (save to the extent such day is not a working day where it shall be deemed to have been delivered on the next working day) and on the second working day after the day of posting if sent by first class post.

12.10 The Contract constitutes the entire agreement between the parties and shall supersede all previous arrangements between the parties relating to the subject matter hereof.

12.11 Each of the provisions of the Contract is severable and distinct from the others and if one or more provisions is or should become invalid, illegal or unenforceable, the validity and enforceability of the remaining provisions shall not in any way be tainted or impaired.

12.12 This Contract shall be governed by and construed in accordance with English law and any proceedings arising out of or connected with this Contract shall be subject to the exclusive jurisdiction of the English courts.

12.13 Groundsure is an executive member of the Council of Property Search Organisation (CoPSO) and has signed up to the Search Code administered by the Property Codes Compliance Board (PCCB). All Risk Screening Reports shall be supplied in accordance with the provisions of the Search Code.

12.14 If the Client or Beneficiary has a complaint about the Services, written notice should be given to the Compliance Officer at Groundsure who will respond in a timely manner. In the event you are not satisfied with Groundsure's complaints handling process or you are unable to resolve the complaint, at your discretion you may refer the complaint to The Property Ombudsman Scheme at the following URL/email: website [www.tpos.co.uk](http://www.tpos.co.uk) or email: [admin@tpos.co.uk](mailto:admin@tpos.co.uk)

12.15 The Client agrees that it shall, and shall procure that each Beneficiary shall, treat in confidence all Confidential Information and shall not, and shall procure that each Beneficiary shall not (i) disclose any Confidential Information to any third party other than in accordance with the terms of this Contract; and (ii) use Confidential Information for a purpose other than the exercise of its rights and obligations under this Contract. Subject to clause 6.6, nothing shall prevent the Client or any Beneficiary from disclosing Confidential Information to the extent required by law

## Appendix L

Report on potential for rail transportation of waste from a new waste transfer facility to the Energy from Waste facility at Great Blakenham

## **Delivering New Waste Management and Operational Facilities for West Suffolk**

### **Potential for rail transportation of waste from a new waste transfer facility to the Energy from Waste facility at Great Blakenham**

An information bulletin produced in connection with Suffolk County Council's Scrutiny Committee meeting of 12 March 2014 provided details of the County Council's investigation of the potential for transporting waste to the Energy from Waste facility at Great Blakenham by rail. The information bulletin can be found at:

[http://committeeminutes.suffolkcc.gov.uk/LoadDocument.aspx?rID=0900271181137870&qry=c\\_committee%7e%7eScrutiny+Committee](http://committeeminutes.suffolkcc.gov.uk/LoadDocument.aspx?rID=0900271181137870&qry=c_committee%7e%7eScrutiny+Committee)

The relevant part of the bulletin provides:

“At its meeting on 18 December 2013, the Scrutiny Committee requested a formal response regarding the possible use of the rail network to transport waste to the Energy from Waste facility in Great Blakenham (Minute 18, recommendation (g)). The following response has been received:

The potential for rail delivery of waste was an important factor in the Council's work to identify suitable sites for Suffolk's residual waste treatment facility. The former highways depot site at Great Blakenham which is now being developed as the energy from waste facility is directly adjacent to the railway, which runs along its eastern boundary, which has always given real potential for the site to be served by rail.

The Council commissioned a detailed study into the potential for rail delivery to Great Blakenham from a transportation specialist (Peter Brett Associates) in 2007, which concluded that whilst a rail connection to the site is certainly possible, the development of a suitable rail-head at Great Blakenham would be both difficult and expensive: estimated at £2million in 2007 prices. Similar arrangements would also be required at any sites where waste is loaded onto rail trucks for transportation to the site.

Notwithstanding any land, planning and construction issues, the report also concluded that there was no guarantee that use of the busy main line or other track lines could be secured and if its use was secured it is likely it would be restricted to the least busy periods which would probably mean waste unloading operations having to be undertaken during periods that make the facility a bad neighbour.

Whilst at present delivery of waste by rail is not considered viable, changing economics or other future rail developments in the area could reopen the opportunity.”

It is therefore the case that:

- Transportation of waste to the Energy from Waste facility at Great Blakenham by rail is not considered viable, especially when one considers the relatively low tonnage of material that would be transported.
- The facilities to enable transportation of waste by rail do not exist at the Energy from Waste facility.
- Were transportation of waste by rail to become viable again, delivering the facilities required to enable rail transportation at the Energy from Waste facility would be difficult and would cost well in excess of £2million (allowing for inflation on top of the 2007 estimated cost). Delivering the facilities required to enable rail transport at a ‘feeder’ facility (e.g. the waste transfer station element of the WSOH (option 4) proposals) would be likely to cost the same amount again.
- Even if a sufficiently suitable, available and deliverable site for accommodating the WSOH (option 4) proposals which had potential for rail transportation of waste could be found, such a site’s rail transport potential could not be realised without the necessary facilities being delivered at the Energy from Waste Facility (in view of the above points this looks unlikely).
- Only 5 sites passed the sites exclusionary assessment conducted by the councils (see section 6 of the IAPOS report (post public consultation amended version)). None of these sites are considered to have rail transportation potential (see ‘Compatibility with NPPF section 4 (Promoting sustainable transport) and NPPfW paragraph 5’ criterion of Sites assessment matrix 3 at Appendix B of the IAPOS report (post public consultation amended version)).
- In order to select a site with rail transportation potential therefore the councils would have to select a site which failed their exclusionary assessment on the basis of its size, accessibility or its distance from Bury St Edmunds (or, in some cases, more than one of these factors).
- This would be a significant and potentially fatal compromise for the project for the simple purpose of providing the mere possibility of rail transport in the future (something which is currently unviable and looks unlikely in any case).

The council’s decision not to make potential for rail transport an essential requirement in their assessment of sites is therefore soundly based, reasonable and justified. Assessment of sites on the basis that rail



transportation potential was an essential requirement would lead to the selection of a site which is inherently unsuitable or undeliverable in other respects.