Appendix 13 Geology and Soils

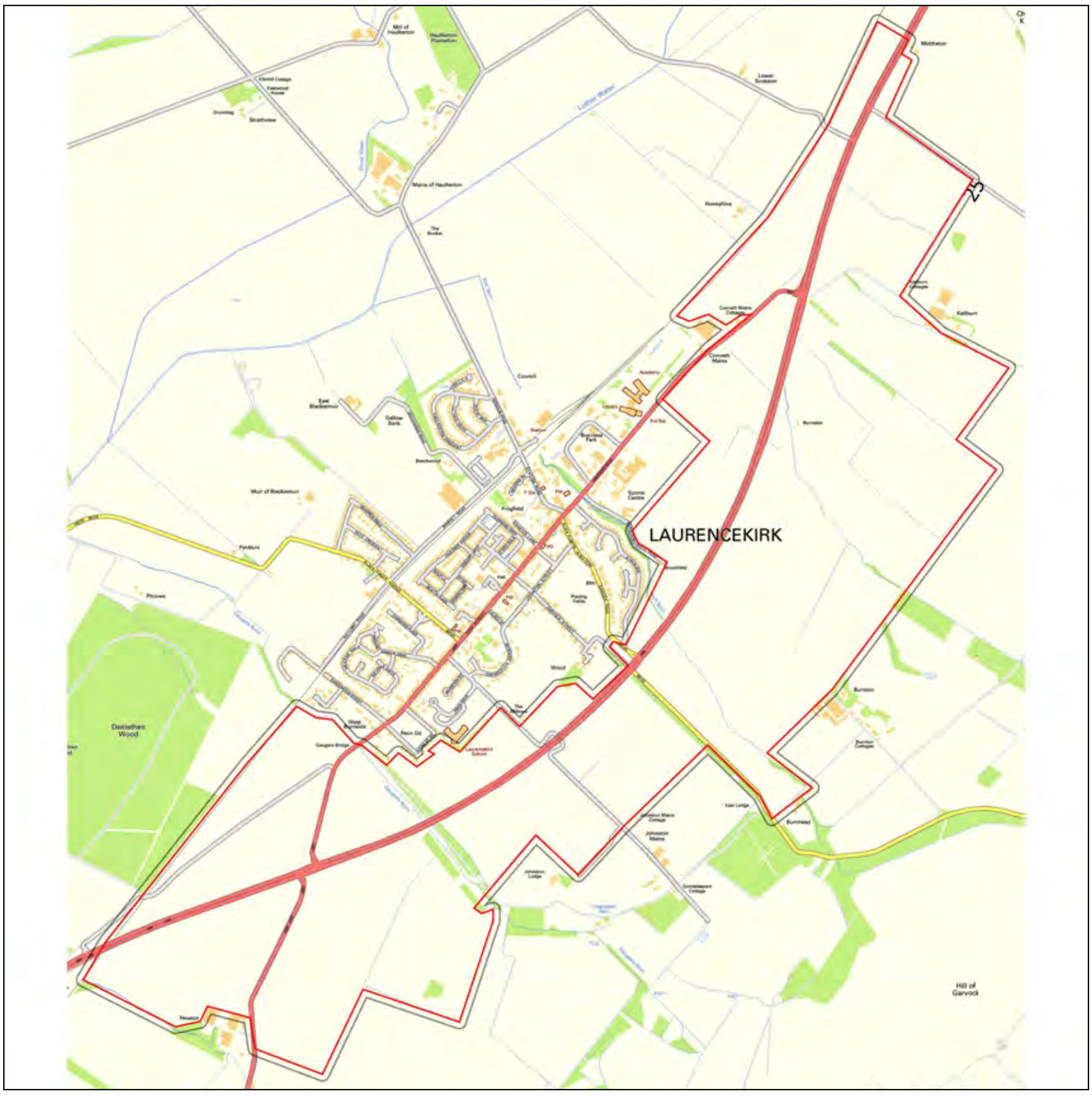
Groundsure
LOCATION INTELLIGENCE

Complete Insight

Scotland Report

Date	Groundsure Reference	Address
09-02-2017	GS-3624451	110, KIRKBURN, LAURENCEKIRK, AB30 1LG
Grid Reference	**Your Reference**	
372425 771017	2000520553	

SITE MAP



Groundsure
LOCATION INTELLIGENCE

Aerial Photograph

NW N NE

W E

SW S SE

Aerial photography supplied by Getmapping PLC.

Site Address: 110, KIRKBURN, LAURENCEKIRK, AB30 1LG
Grid Reference: 372425 771017
Date of aerial image capture: 25-05-2013

Overview of Findings

Report Section	Number of records found within (X) m of the study site boundary					
1 Historical Industrial Sites	**On site**	**0-50**	**51-250**	**251-500**		
1.1 Potentially Contaminative Uses identified from 1:10,000 scale Mapping	30	16	49	38		
1.2 1:2,500 scale mapping – Historical Tank Database	0	0	1	4		
1.3 1:2,500 scale mapping – Historical Energy Features Database	0	0	9	22		
1.4 1:2,500 scale mapping – Historical Petrol and Fuel Site Database	0	0	0	0		
1.5 1:2,500 scale mapping – Historical Garage and Motor Vehicle Repair Database	0	0	5	18		
1.6 Potentially Infilled Land	45	20	58	23		
1.7 Historic Military and Ordnance sites	0	0	0	0		
2 Landfill and Other Waste Sites Findings	**On site**	**0-50**	**51-250**	**251-500**	**501-1000**	**1000-1500**
2.1 Groundsure SEPA Landfill Sites Data	0	0	0	0	0	0
2.2 Groundsure Recorded Landfill Sites	0	0	0	1	0	0
2.3 Historic Waste Sites	0	0	0	0	-	-
2.4 Groundsure SEPA Waste Sites Data	0	0	0	0	-	-
3 Current Land Use	**On site**	**0-50**	**51-250**	**251-500**		
3.1 Current Industrial Data	0	1	15	36		
3.2 Petrol and Fuel Sites	0	0	0	1		
3.3 Part A(1), IPPC and Historic IPC Authorisations	0	0	0	0		
3.4 Part B Authorisations	0	0	1	2		
3.5 National Grid High Pressure Gas Transmission Pipelines	0	0	0	1		
3.6 National Grid High Voltage Underground Electricity Transmission Cables	0	0	0	0		
3.7 Sites Determined as Contaminated Land under Part 2A EPA 1990	0	0	0	0		
4 Geology and Hydrogeology	**Presence of Records**					
4.1 Artificial Ground and Made Ground*	Yes					
4.2 Permability of Artificial Ground	Yes					
4.3 Superficial Ground and Drift Geology	No					
4.4 Permeability of Superficial Ground	Yes					
4.5 Bedrock and Solid Geology	Yes					
4.6 Permeability of Bedrock Ground	Yes					
4.7 Faults	Yes					
4.8 Landslip	No					
4.9 Landslip Permeability	No					
4.10 Groundwater Vulnerability and Soil Classification	Yes					
Source: Scale: 1:50,000 BGS Sheet * This includes an automatically generated 50m buffer zone around the site.						
5 Designated Environmentally Sensitive Sites	**On site**	**0-50**	**51-250**	**251-500**	**501-1000**	**1001-2000**
5.1 Sites of Special Scientific Interest (SSSI)	0	0	0	0	0	1
5.2 Ramsar Sites	0	0	0	0	0	0
5.3 National Nature Reserves (NNR)	0	0	0	0	0	0
5.4 Special Areas of Conservation (SAC)	0	0	0	0	0	0
5.5 Special Protection Areas (SPA)	0	0	0	0	0	0
5.6 Local Nature Reserves (LNR)	0	0	0	0	0	0
5.7 World Heritage Sites	0	0	0	0	0	0
5.8 Areas of Outstanding Natural Beauty (AONB)	0	0	0	0	0	0
5.9 National Parks	0	0	0	0	0	0
5.10 Green Belt	0	0	0	0	0	0
5.11 Designated Ancient Woodland	5	1	2	2	3	5

Groundsure
LOCATION INTELLIGENCE

6 Flooding					
6.1 Highest risk of flooding from rivers on-site	Negligible				
6.2 Highest risk of coastal flooding on-site	Negligible				
6.3 Highest Risk of Pluvial Flooding on-site	Highly Significant				
6.4 Groundwater Flooding Susceptibility Areas	Potential for groundwater flooding at surface				
6.5 Groundwater Flooding Confidence Rating	High				
6.6 Presence of geological indicators of flooding within 250m	Yes				
6.7 Potential risk in event of a reservoir failure	No				
7 Mining	**On site**	**0-50**	**51-250**	**251-500**	**501-1000**
7.1 Historical Mining	0	0	0	0	0
7.2 Coal Mining	0	0	0	0	0
7.3 Johnson Poole and Bloomer	0	0	0	0	0
7.4 Non-Coal Mining	3	0	1	0	0
7.5 Non-Coal Mining Cavities	0	0	0	0	0
7.6 Natural Cavities	0	0	0	0	0
7.7 Brine Extraction	0	0	0	0	0
7.8 Gypsum Extraction	0	0	0	0	0
7.9 Tin Mining	0	0	0	0	0
7.10 Clay Mining	0	0	0	0	0
8 Natural Hazards Findings					
8.1 Shrink Swell	Very Low				
8.2 Landslides	Low				
8.3 Soluble Rocks	Negligible				
8.4 Compressible Ground	Moderate				
8.5 Collapsible Rocks	Negligible				
8.6 Running Sand	Low				
8.7 Radon Potential	Less than 1%				
8.8 Radon Protective Measures	No radon protective measures are necessary.				

9 Borehole Records	On site	0-50	51-250
9.1 Borehole Records	50	12	19
10 Railways and Tunnels	**On site**	**0-50**	**51-250**
10.1 Tunnels	0	0	0
10.2 Historical Railway and Tunnel Features	0	0	9
10.3 Historical Railways	0	0	0
10.4 Active Railways	7	1	2
10.5 Railway Projects	0	0	0
11 Soil Chemistry	**On site**	**0-50**	**51-250**
11.1 Estimated Background Soil Chemistry	86	11	N/A
11.2 Estimated Urban Soil Chemistry	0	0	N/A
11.3 Measured Urban Soil Chemistry	0	0	0

Using this report

The following report is designed by Environmental Consultants for Environmental Professionals bringing together the most up-to-date market leading environmental data. This report is provided under and subject to the Terms & Conditions agreed between Groundsure and the Client. The document contains the following sections,

1 Historical Industrial Sites

Provides information on past land uses that may pose a risk to the study site in terms of potential contamination from activities or processes. Potentially Infilled Land features are also included. This search is conducted using radii of up to 500m.

2 Landfill and Other Waste Sites Findings

Provides information on landfills and other waste sites that may pose a risk to the study site. This search is conducted using radii up to 1500m.

3 Current Land Use

Provides information on the current land use as taken from PointX data, petrol filling stations, and Part A(1), Part A(2), Part B , IPPC and IPC Authorisations and sites designated as Contaminated Land in proximity to the property.

4 Geology and Hydrogeology

Provides information on artificial and superficial deposits and bedrock beneath the study site and groundwater vulnerability and soil classification.

5 Designated Environmentally Sensitive Sites

Provides information on the Sites of Special Scientific Interest (SSSI), National Nature Reserves (NNR), Special Areas of Conservation (SAC), Special Protection Areas (SPA), Ramsar sites, Local Nature Reserves (LNR), Areas of Outstanding Natural Beauty (AONB), National Parks (NP), Environmentally Sensitive Areas and World Heritage Sites. These searches are conducted using radii of up to 2000m.

6 Flooding

Provides information on river and coastal flooding, flood defences, flood storage areas, surface water flooding, geological indicators of flooding, reservoir failure and groundwater flood areas. This search is conducted using radii of up to 250m.

7 Mining

Provides information on areas of coal and non-coal mining.

8 Natural Hazards Findings

Provides information on a range of natural hazards that may pose a risk to the study site. These factors include natural ground subsidence.

9 Borehole Records

Provides access to the National Geoscience Data Centre database of over a million scanned borehole, shaft and well records. This data is supplied to Groundsure by the British Geological Survey (BGS). The scanned records can be accessed by clicking on the weblinks within the data table.

10 Railways and Tunnels

Provides information on historic and current railways and tunnels, as well as data on some future rail projects.

11 Soil Chemistry

This section includes an estimation of the concentrations of selected potentially harmful elements (arsenic, cadmium, chromium, nickel and lead) in rural topsoils and of these chemical elements plus copper, tin and zinc in urban topsoils. The section also contains measurements made of urban topsoil. This data is provided by the British Geological Survey (BGS).

Contacts

This section of the report provides contact points for statutory bodies and data providers that may be able to provide further information on issues raised within this report. Alternatively, Groundsure provide a free Technical Helpline (08444 159000) for further information and guidance.

Notes on Mapping

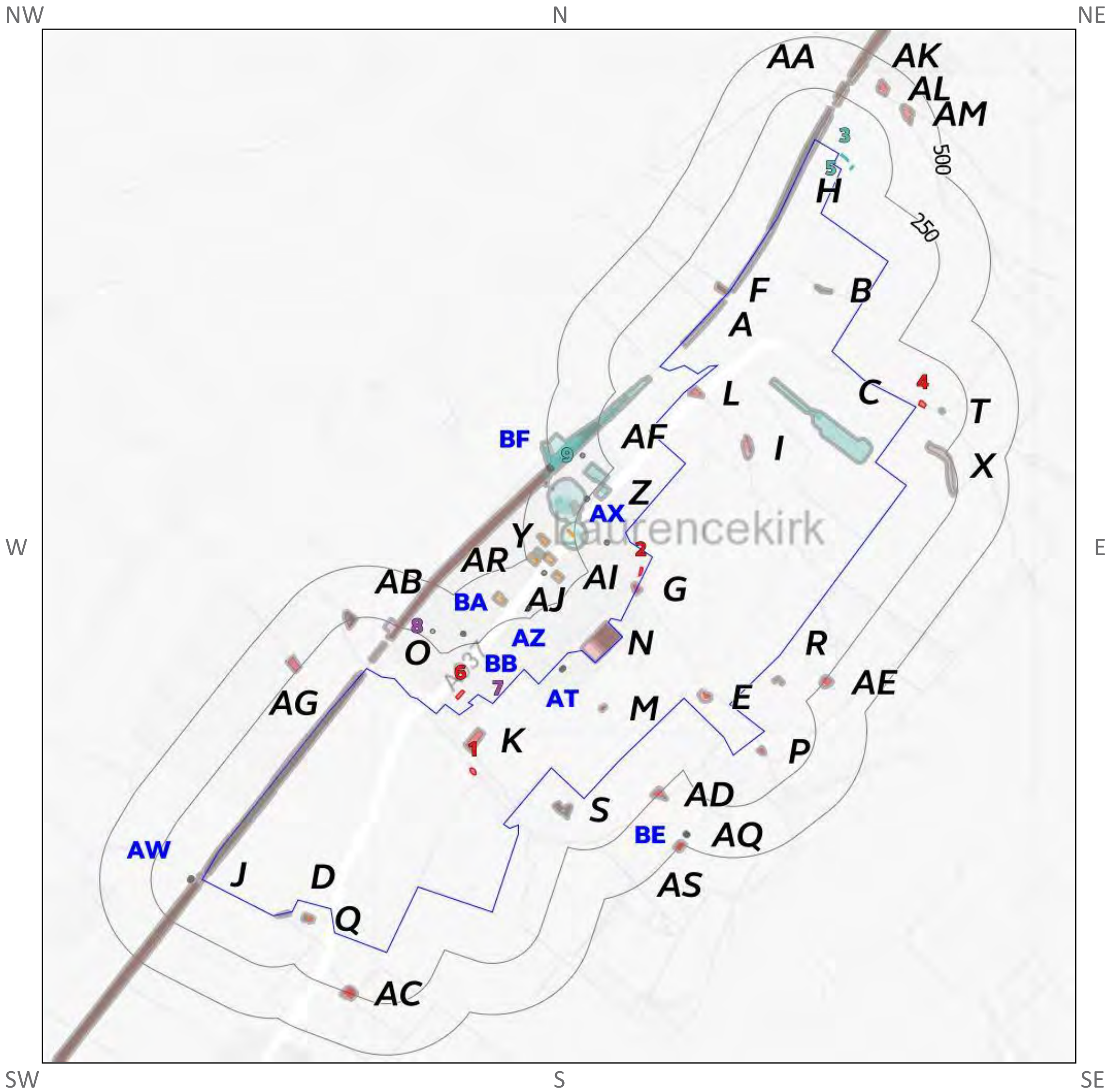
Only certain features are placed on the maps within the report. All features represented on maps found within this search are given an identification number. This number identifies the feature on the mapping and correlates it to the additional information provided below. This identification number precedes all other information and takes the following format -Id, 1, Id, 2, etc. Where numerous features on the same map are in such close proximity that the numbers would obscure each other a letter identifier is used instead to represent the features. (e.g. Three features which overlap may be given the identifier “A” on the map and would be identified separately as features 1A, 3A, 10A on the data tables provided).

Where a feature is reported in the data tables to a distance greater than the map area, it is noted in the data table as “Not Shown”.

All distances given in this report are in Metres (m). Directions are given as compass headings such as N, North, E, East, NE, North East from the nearest point of the study site boundary.

1 Historical Industrial Sites

Historical Land Use Map



Historical Land Use Map

Groundsure LOCATION INTELLIGENCE

1.1 Potentially Contaminative Uses identified from 1:10,000 scale Mapping

The systematic analysis of data extracted from standard 1:10,560 and 1:10,000 scale historical maps provides the following information:

Records of sites with a potentially contaminative past land use within 500m of the search boundary:	133

ID	Distance (m)	Direction	Use	Date
AT	0	on site	Unspecified Tank	1938
J	0	on site	Cuttings	1928
I	0	on site	Unspecified Ground Workings	1928
C	0	on site	Rifle Range	1927
C	0	on site	Rifle Range	1901
AT	0	on site	Unspecified Tank	1955
AT	0	on site	Unspecified Tank	1928
C	0	on site	Rifle Range	1928
C	0	on site	Rifle Range	1901
B	0	on site	Unspecified Ground Workings	1864
D	0	on site	Unspecified Pit	1864
C	0	on site	Rifle Range	1938
C	0	on site	Rifle Range	1901
J	0	on site	Cuttings	1863
J	0	on site	Cuttings	1863
H	0	on site	Cuttings	1928
H	0	on site	Cuttings	1901
H	0	on site	Cuttings	1864
H	0	on site	Cuttings	1864
A	0	on site	Cuttings	1864
J	0	on site	Cuttings	1864
J	0	on site	Cuttings	1938
J	0	on site	Cuttings	1901
J	0	on site	Cuttings	1955
J	0	on site	Cuttings	1955
J	0	on site	Cuttings	1974
H	0	on site	Cuttings	1955
J	0	on site	Cuttings	1955

ID	Distance (m)	Direction	Use	Date
I	0	on site	Unspecified Ground Workings	1928
C	0	on site	Rifle Range	1928
N	2	NW	Cemetery	1970
N	4	NW	Cemetery	1938
N	4	NW	Cemetery	1901
N	5	NW	Cemetery	1928
N	5	NW	Cemetery	1955
F	8	NW	Unspecified Pit	1970
F	8	NW	Unspecified Pit	1988
429	11	SE	Smithy	1901
J	26	SW	Cuttings	1977
J	26	SW	Cuttings	1992
J	31	SW	Cuttings	1863
437	42	E	Smithy	1864
J	42	SW	Cuttings	1938
J	42	SW	Cuttings	1901
J	44	SW	Cuttings	1955
O	46	NE	Cuttings	1864
R	68	SE	Unspecified Pit	1864
S	72	SW	Unspecified Pits	1928
S	72	SW	Unspecified Pits	1928
H	74	NE	Cuttings	1928
H	74	NE	Cuttings	1901
S	75	SW	Unspecified Pit	1938
S	75	SW	Unspecified Pit	1955
Y	79	SW	Railway Sidings	1928
S	101	SW	Unspecified Pit	1938
S	105	SW	Unspecified Pit	1955
T	121	E	Unspecified Old Quarry	1901
X	157	SE	Unspecified Pit	1864
Y	169	SW	Railway Sidings	1901
Y	181	NW	Cuttings	1864
Y	183	NW	Railway Sidings	1955
Y	184	NE	Cuttings	1864

ID	Distance (m)	Direction	Use	Date
Y	186	NE	Cuttings	1938
Y	186	NW	Railway Sidings	1938
Y	186	NW	Railway Sidings	1901
Y	186	NE	Cuttings	1955
Y	186	NW	Railway Sidings	1928
Y	188	NE	Cuttings	1928
Y	190	NE	Cuttings	1901
Y	193	NW	Railway Building	1938
Z	194	NW	Police Station	1988
AH	194	W	Police Station	1901
Z	194	NW	Police Station	1970
Z	196	NW	Police Station	1955
AA	199	NE	Cuttings	1864
AH	215	W	Police Station	1938
AH	215	W	Police Station	1928
AB	215	NW	Sewage Works	1928
AB	215	NW	Sewage Works	1928
AB	217	NW	Sewage Works	1938
AB	220	N	Unspecified Heap	1928
AB	220	N	Unspecified Heap	1938
AB	220	N	Unspecified Heap	1928
AA	227	NE	Cuttings	1955
AA	228	NE	Cuttings	1928
AA	228	NE	Cuttings	1901
Y	237	W	Cuttings	1955
AB	237	N	Sewage Tank	1901
AH	240	W	Brewery	1938
Y	240	W	Cuttings	1928
AF	243	NW	Unspecified Works	1988
AF	243	NW	Unspecified Works	1970
AH	245	NW	Brewery	1928
AH	246	NW	Grave Yard	1864
Y	248	W	Railway Sidings	1970
Y	251	W	Railway Sidings	1988

ID	Distance (m)	Direction	Use	Date
AB	252	N	Unspecified Heap	1928
AB	252	N	Unspecified Heap	1928
AH	254	NW	Brewery	1955
AB	262	N	Unspecified Tanks	1938
AB	263	N	Unspecified Tanks	1928
Y	282	W	Railway Sidings	1864
AK	324	NE	Cuttings	1864
AH	341	NW	Fire Station	1970
AH	341	NW	Fire Station	1988
AK	353	NE	Cuttings	1901
AK	353	NE	Cuttings	1928
AK	354	NE	Cuttings	1955
Y	407	W	Granary	1988
AP	412	W	Smithy	1864
AK	433	NE	Cuttings	1864
Y	448	W	Railway Building	1988
Y	450	W	Goods Shed	1938
Y	450	W	Goods Shed	1928
Y	451	W	Goods Shed	1955
Y	451	W	Railway Building	1970
Y	453	NW	Railway Station	1938
Y	456	NW	Railway Station	1928
Y	458	NW	Railway Station	1955
Y	460	NW	Railway Buildings	1864
Y	460	NW	Railway Station	1970
Y	464	NW	Railway Station	1901
673	470	NW	Railway Building	1938
Y	470	W	Railway Building	1901
Y	471	W	Railway Station	1864
Y	473	NW	Railway Building	1955
Y	475	W	Refuse Heap	1970
BF	475	NW	Railway Buildings	1864
Y	480	NW	Railway Building	1988
Y	480	NW	Railway Buildings	1901

ID	Distance (m)	Direction	Use	Date
Y	481	NW	Railway Building	1864
BF	481	NW	Railway Building	1938
BF	486	NW	Railway Building	1955

1.2 Additional Information – Historical Tank Database

The systematic analysis of data extracted from High Detailed 1:1,250 and 1:2,500 scale historical maps provides the following information.

Records of historical tanks within 500m of the search boundary	5

ID	Distance (m)	Direction	Use	Date
AW	52	W	Unspecified Tank	1975
AH	405	NW	Tanks	1996
AH	405	NW	Tanks	1995
AH	405	NW	Tanks	1999
AH	406	NW	Tanks	1987

1.3 Additional Information – Historical Energy Features Database

The systematic analysis of data extracted from High Detailed 1:1,250 and 1:2,500 scale historical maps provides the following information.

Records of historical energy features within 500m of the search boundary	31

ID	Distance (m)	Direction	Use	Date
AX	99	SW	Electricity Substation	1996
AX	101	SW	Electricity Substation	1999
647	106	NW	Electricity Substation	1999
Y	213	NE	Electricity Substation	1987
AY	248	NW	Electricity Substation	1995
648	248	NE	Electricity Substation	1968
AY	248	NW	Electricity Substation	1987
AY	248	NW	Electricity Substation	1996
AY	248	NW	Electricity Substation	1999
AZ	288	NW	Electricity Substation	1999
AZ	288	NW	Electricity Substation	1995
AZ	288	NW	Electricity Substation	1996
BA	295	NE	Electricity Substation	1999

ID	Distance (m)	Direction	Use	Date
BA	295	NE	Electricity Substation	1995
BA	295	NE	Electricity Substation	1996
BB	300	N	Electricity Substation	1987
BB	300	N	Electricity Substation	1999
BB	300	N	Electricity Substation	1995
BB	300	N	Electricity Substation	1996
BC	344	W	Electricity Substation	1999
BC	344	W	Electricity Substation	1996
BC	344	W	Electricity Substation	1995
BD	391	NW	Electricity Substation	1999
BD	391	NW	Electricity Substation	1995
BD	391	NW	Electricity Substation	1996
BD	393	NW	Electricity Substation	1987
Y	453	NW	Electricity Substation	1995
Y	453	NW	Electricity Substation	1999
Y	453	NW	Electricity Transformer	1968
Y	453	NW	Electricity Substation	1996
Y	455	NW	Electricity Substation	1987

1.4 Additional Information – Historical Petrol and Fuel Site Database

The systematic analysis of data extracted from High Detailed 1:1,250 and 1:2,500 scale historical maps provides the following information.

Records of historical petrol stations and fuel sites within 500m of the search boundary	0

Database searched and no data found.

1.5 Additional Information – Historical Garage and Motor Vehicle Repair Database

The systematic analysis of data extracted from High Detailed 1:1,250 and 1:2,500 scale historical maps provides the following information.

Records of historical garage and motor vehicle repair sites within 500m of the search boundary	23

ID	Distance (m)	Direction	Use	Date
AH	249	W	Garage	1968
AH	250	W	Garage	1995

ID	Distance (m)	Direction	Use	Date
AH	250	W	Garage	1999
AH	250	W	Garage	1996
AH	250	W	Garage	1987
AI	310	NW	Garage	1999
AI	310	NW	Garage	1995
AI	310	NW	Garage	1968
AI	311	NW	Garage	1996
AJ	335	N	Garage	1995
AJ	335	N	Garage	1968
AJ	335	N	Garage	1987
AN	370	W	Garage	1999
AN	370	W	Garage	1996
AN	370	W	Garage	1995
AO	380	W	Garage	1996
AO	380	W	Garage	1995
AO	380	W	Garage	1999
AR	445	W	Garage	1968
AR	446	W	Garage	1999
AR	446	W	Garage	1995
AR	446	W	Garage	1996
AR	448	W	Garage	1987

1.6 Potentially Infilled Land

Records of Potentially Infilled Features from 1:10,000 scale mapping within 500m of the study site	146

The following Historical Potentially Infilled Features derived from the Historical Mapping information is provided by Groundsure:

ID	Distance	Direction	Use	Date
362	0	on site	Pond	1864
B	0	on site	Unspecified Ground Workings	1864
D	0	on site	Unspecified Pit	1864
J	0	on site	Cuttings	1863
J	0	on site	Cuttings	1863
H	0	on site	Cuttings	1928
L	0	on site	Water Body	1928

ID	Distance	Direction	Use	Date
H	0	on site	Cuttings	1901
L	0	on site	Water Body	1901
H	0	on site	Cuttings	1864
H	0	on site	Cuttings	1864
A	0	on site	Cuttings	1864
F	0	on site	Pond	1864
L	0	on site	Pond	1864
I	0	on site	Pond	1864
G	0	on site	Pond	1864
J	0	on site	Cuttings	1864
E	0	on site	Pond	1864
E	0	on site	Pond	1938
M	0	on site	Reservoir	1938
K	0	on site	Pond	1938
J	0	on site	Cuttings	1938
G	0	on site	Water Body	1938
I	0	on site	Water Body	1901
G	0	on site	Water Body	1901
J	0	on site	Cuttings	1901
K	0	on site	Pond	1901
M	0	on site	Reservoir	1901
E	0	on site	Pond	1901
J	0	on site	Cuttings	1955
J	0	on site	Cuttings	1955
J	0	on site	Cuttings	1974
M	0	on site	Covered Reservoir	1988
H	0	on site	Cuttings	1955
J	0	on site	Cuttings	1955
E	0	on site	Pond	1955
G	0	on site	Water Body	1955
M	0	on site	Covered Reservoir	1970
I	0	on site	Unspecified Ground Workings	1928
G	0	on site	Water Body	1928
E	0	on site	Pond	1928

ID	Distance	Direction	Use	Date
J	0	on site	Cuttings	1928
K	0	on site	Pond	1928
M	0	on site	Reservoir	1928
I	0	on site	Unspecified Ground Workings	1928
N	2	NW	Cemetery	1970
F	2	NW	Water Body	1928
F	2	NW	Water Body	1901
N	4	NW	Cemetery	1901
N	4	NW	Reservoir	1988
N	4	NW	Cemetery	1938
N	5	NW	Cemetery	1928
N	5	NW	Cemetery	1955
F	8	NW	Unspecified Pit	1988
F	8	NW	Unspecified Pit	1970
428	11	NW	Water Body	1864
430	17	NE	Water Body	1901
J	26	SW	Cuttings	1992
J	26	SW	Cuttings	1977
J	31	SW	Cuttings	1863
J	42	SW	Cuttings	1938
J	42	SW	Cuttings	1901
J	44	SW	Cuttings	1955
O	46	NE	Cuttings	1864
446	49	NW	Pond	1864
AW	55	W	Reservoir	1928
P	56	SE	Water Body	1955
P	57	SE	Water Body	1928
P	57	SE	Water Body	1938
P	57	SE	Water Body	1901
AW	57	W	Reservoir	1901
AW	57	W	Reservoir	1938
Q	59	S	Pond	1864
Q	62	S	Water Body	1928
Q	63	S	Water Body	1901

ID	Distance	Direction	Use	Date
Q	63	S	Water Body	1938
R	68	SE	Unspecified Pit	1864
S	72	SW	Unspecified Pits	1928
S	72	SW	Unspecified Pits	1928
H	74	NE	Cuttings	1901
H	74	NE	Cuttings	1928
S	75	SW	Unspecified Pit	1938
S	75	SW	Unspecified Pit	1955
S	101	SW	Unspecified Pit	1938
S	105	SW	Unspecified Pit	1955
T	121	E	Unspecified Old Quarry	1901
X	157	SE	Unspecified Pit	1864
Y	181	NW	Cuttings	1864
Y	184	NE	Cuttings	1864
Y	186	NE	Cuttings	1938
Y	186	NE	Cuttings	1955
Y	188	NE	Cuttings	1928
Y	190	NE	Cuttings	1901
AA	199	NE	Cuttings	1864
AB	215	NW	Sewage Works	1928
AB	215	NW	Sewage Works	1928
AB	217	NW	Sewage Works	1938
AB	220	N	Unspecified Heap	1928
AB	220	N	Unspecified Heap	1938
AB	220	N	Unspecified Heap	1928
AC	221	S	Water Body	1955
AC	223	S	Water Body	1901
AC	223	S	Water Body	1938
AC	224	S	Water Body	1928
AC	225	S	Pond	1864
AA	227	NE	Cuttings	1955
AA	228	NE	Cuttings	1928
AA	228	NE	Cuttings	1901
AD	230	SE	Pond	1864

ID	Distance	Direction	Use	Date
AD	233	SE	Water Body	1928
AD	235	SE	Water Body	1938
AD	235	SE	Water Body	1901
Y	237	W	Cuttings	1955
AB	237	N	Sewage Tank	1901
AE	238	SE	Pond	1864
AE	239	SE	Water Body	1927
AE	239	SE	Water Body	1901
Y	240	W	Cuttings	1928
AE	244	SE	Water Body	1955
AH	246	NW	Grave Yard	1864
AG	250	NW	Pond	1928
AG	250	NW	Pond	1938
AG	250	NW	Pond	1901
AB	252	N	Unspecified Heap	1928
AB	252	N	Unspecified Heap	1928
AK	324	NE	Cuttings	1864
AK	353	NE	Cuttings	1901
AK	353	NE	Cuttings	1928
AK	354	NE	Cuttings	1955
AL	363	NE	Pond	1864
AM	370	NE	Water Body	1901
AL	373	NE	Water Body	1928
AL	373	NE	Water Body	1901
AM	374	NE	Pond	1864
AK	433	NE	Cuttings	1864
AQ	443	SW	Covered Reservoir	1970
AQ	443	SW	Covered Reservoir	1988
BE	446	SW	Reservoir	1901
BE	446	SW	Reservoir	1938
BE	448	SW	Reservoir	1928
Y	475	W	Refuse Heap	1970
AS	485	SE	Pond	1974
AS	485	SE	Water Body	1955

ID	Distance	Direction	Use	Date
AS	489	SE	Water Body	1928
AS	492	SE	Water Body	1901
AS	492	SE	Water Body	1938

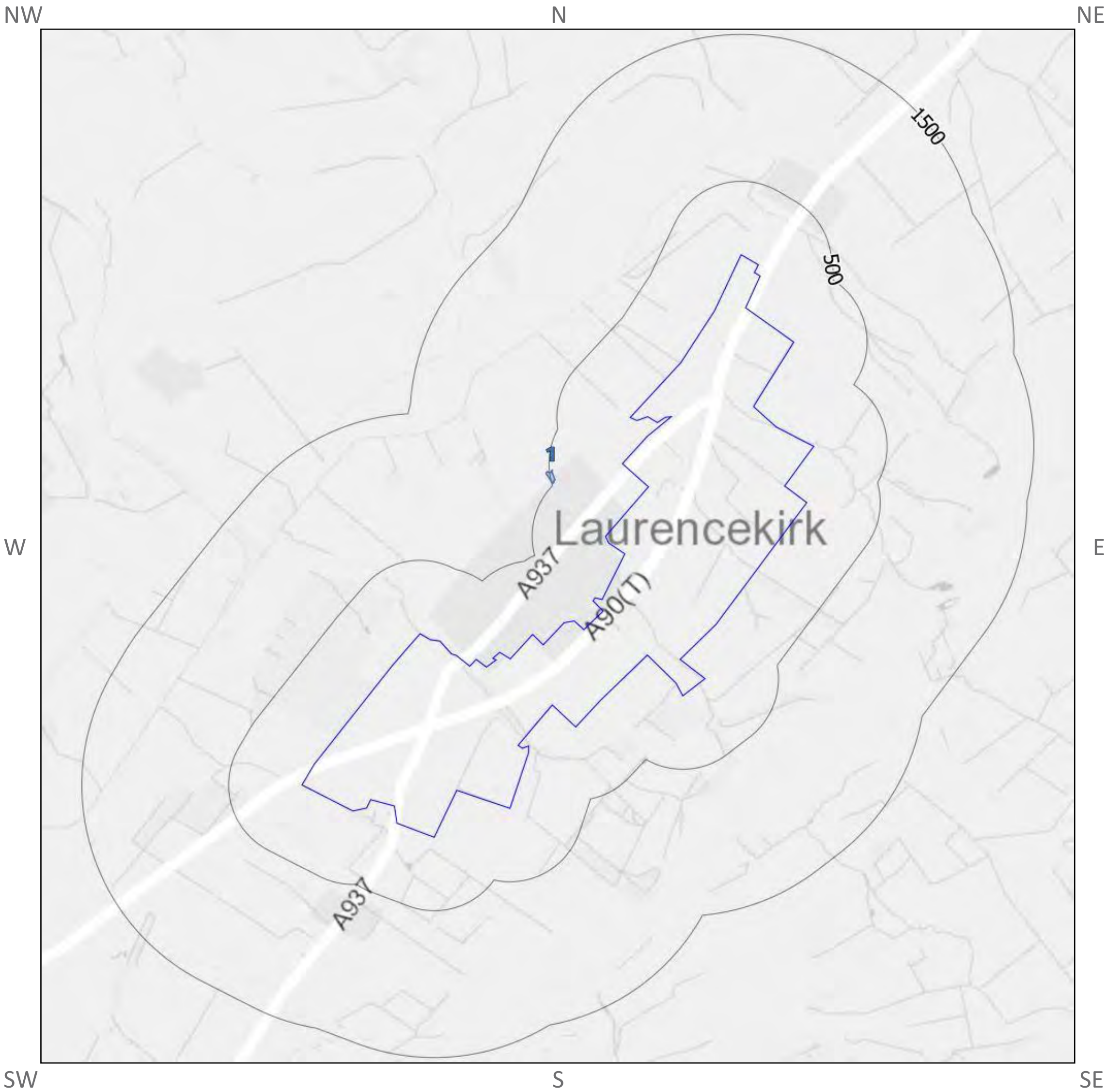
1.7 Historic Military and Ordnance sites

Database searched and no data found.

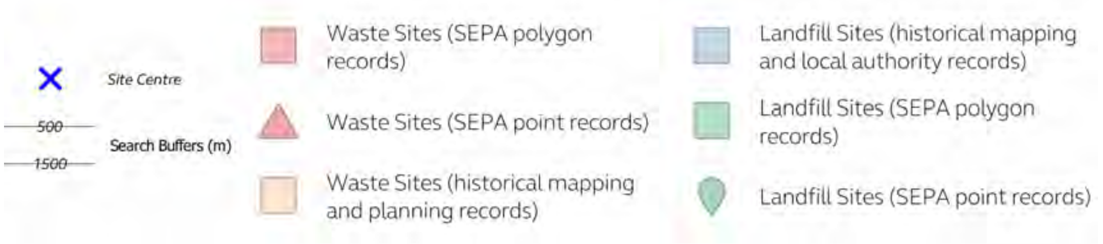
Certain military installations were not noted on historic mapping for security reasons. Whilst not all military land is necessarily of concern, Groundsure has researched and digitised a number of Ordnance Factories and other military industrial features (e.g. Ordnance Depots, Munitions Testing Grounds) which may be of contaminative concern. This research was drawn from a number of different sources, and should not be regarded as a definitive or exhaustive database of potentially contaminative military installations. The boundaries of sites within this database have been estimated from the best evidence available to Groundsure at the time of compilation.

2 Landfill and Other Waste Sites Findings

Landfill and Other Waste Sites Map



Landfill and Other Waste Sites Map



2.1 Groundsure SEPA Landfill Sites Data

Records of SEPA landfill sites within 1500m of the study site	0

Database searched and no data found.

2.2 Groundsure Recorded Landfill Sites

Records of landfill sites and refuse tips within 1500m of the study site	1

The following landfill records are represented as points or polygons on the Landfill and Other Waste Sites map:

ID	Distance [m]	Direction	Site Address	Source	Data Type
1	473	on site	Refuse Tip	1968 mapping	Polygon

2.3 Historic Waste Sites

Records of waste treatment, transfer or disposal sites within 500m of the study site	0

Database searched and no data found.

2.3 Historic Waste Sites

Records of waste treatment, transfer or disposal sites within 500m of the study site	0

Database searched and no data found.

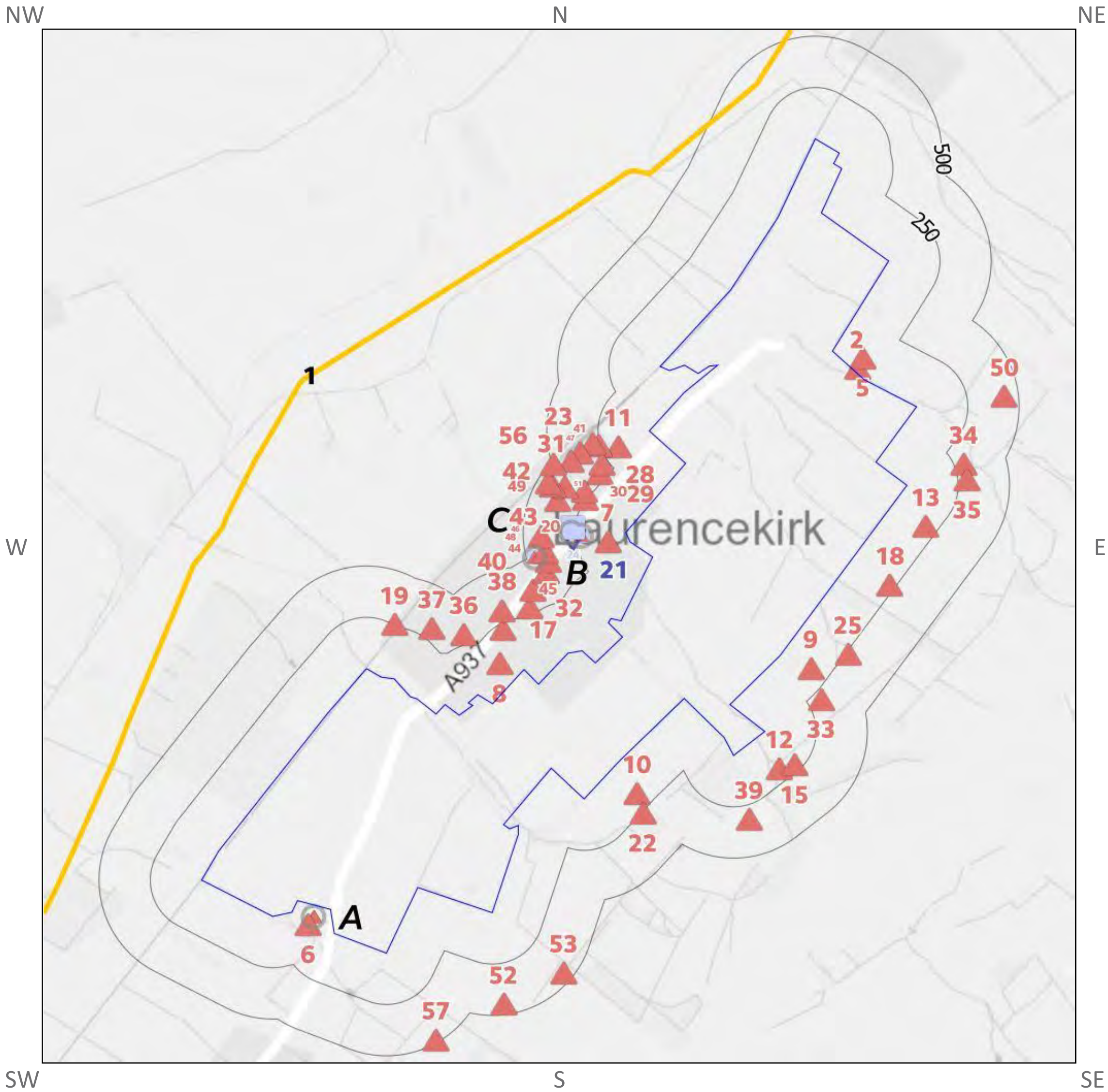
2.4 Groundsure SEPA Waste Sites Data

Records of SEPA waste sites within 500m of the study site	0

Database searched and no data found.

3 Current Land Use

Current Land Use Map



Current Land Use Map

3.1 Current Industrial Data

Records of potentially contaminative industrial sites within 500m of the study site	52

The following records are represented as points on the Current Land Uses map.

ID	Distance	Direction	Company	Address	Description	Category
2	14	NE	Tank	Tank, AB30	Tanks (Generic)	Industrial Features
A3	55	S	Silo	Silo, AB30	Hoppers and Silos	Farming
A4	58	S	Silo	Silo, AB30	Hoppers and Silos	Farming
5	72	NE	Silo	Silo, AB30	Hoppers and Silos	Farming
6	98	SE	Silo	Silo, AB30	Hoppers and Silos	Farming
7	101	SW	Electricity Sub Station	Electricity Sub Station, AB30	Electrical Features	Infrastructure and Facilities
8	107	NW	Electricity Sub Station	Electricity Sub Station, AB30	Electrical Features	Infrastructure and Facilities
9	156	SE	Sheep Wash	Sheep Wash, AB30	Sheep Dips and Washes	Farming
10	169	SE	Sheep Wash	Sheep Wash, AB30	Sheep Dips and Washes	Farming
11	173	SW	Electricity Sub Station	Electricity Sub Station, AB30	Electrical Features	Infrastructure and Facilities
12	186	SE	Pylon	Pylon, AB30	Electrical Features	Infrastructure and Facilities
13	192	SE	Pylon	Pylon, AB30	Electrical Features	Infrastructure and Facilities
B16	218	W	Works	Works, AB30	Unspecified Works Or Factories	Industrial Features
15	218	SE	Pylon	Pylon, AB30	Electrical Features	Infrastructure and Facilities
17	220	NW	Specialist Rig Surveys Ltd	Specialist Rig Surveys Ltd, 14, Garvocklea Gardens, Laurencekirk, AB30 1BG	Special Purpose Machinery and Equipment	Industrial Products
18	223	SE	Pylon	Pylon, AB30	Electrical Features	Infrastructure and Facilities
19	251	NE	Electricity Sub Station	Electricity Sub Station, AB30	Electrical Features	Infrastructure and Facilities
20	256	NW	Electricity Sub Station	Electricity Sub Station, AB30	Electrical Features	Infrastructure and Facilities
22	257	SE	Tank	Tank, AB30	Tanks (Generic)	Industrial Features

ID	Distance	Direction	Company	Address	Description	Category
23	258	W	Mearns Motors Ltd	Mearns Motors Ltd, Unit 12-13 Laurencekirk Business Park, Aberdeen Road, Laurencekirk, AB30 1EY	Vehicle Repair, Testing and Servicing	Repair and Servicing
25	261	SE	Pylon	Pylon, AB30	Electrical Features	Infrastructure and Facilities
B26	267	W	Ribbbons & Tails	Ribbbons & Tails, 25, High Street, Laurencekirk, AB30 1AA	General Construction Supplies	Industrial Products
B27	267	W	Abesco Fire Ltd	Abesco Fire Ltd, The Garage, Alma Place, Laurencekirk, AB30 1AL	Special Purpose Machinery and Equipment	Industrial Products
28	282	NW	Six Degrees North	Six Degrees North, Reekie House, Aberdeen Road, Laurencekirk, AB30 1AG	Alcoholic Drinks	Foodstuffs
29	286	SW	Ringlink Scotland Ltd	Ringlink Scotland Ltd, Cargill Centre Business Park, Aberdeen Road, Laurencekirk, AB30 1EY	Agricultural Machinery and Goods	Industrial Products
30	286	NW	Burnside Brewery	Burnside Brewery, Unit 2 Laurencekirk Business Park, Aberdeen Road, Laurencekirk, AB30 1EY	Alcoholic Drinks	Foodstuffs
31	287	W	Duncan's of Deeside	Duncan's of Deeside, Laurencekirk Business Park, Aberdeen Road, Laurencekirk, AB30 1EY	General Manufacturing	Industrial Products
33	292	SE	Pylon	Pylon, AB30	Electrical Features	Infrastructure and Facilities
34	292	E	Pylon	Pylon, AB30	Electrical Features	Infrastructure and Facilities
32	292	NW	Electricity Sub Station	Electricity Sub Station, AB30	Electrical Features	Infrastructure and Facilities
35	293	E	Pylon	Pylon, AB30	Electrical Features	Infrastructure and Facilities
36	301	N	Electricity Sub Station	Electricity Sub Station, AB30	Electrical Features	Infrastructure and Facilities

ID	Distance	Direction	Company	Address	Description	Category
37	305	NE	Electricity Sub Station	Electricity Sub Station, AB30	Electrical Features	Infrastructure and Facilities
38	306	N	Mistletoe	Mistletoe, 135, High Street, Laurencekirk, AB30 1BN	Textiles, Fabrics, Silk and Machinery	Industrial Products
39	320	S	Pylon	Pylon, AB30	Electrical Features	Infrastructure and Facilities
40	352	NW	Depot	Depot, AB30	Container and Storage	Transport, Storage and Delivery
41	358	W	Electricity Sub Station	Electricity Sub Station, AB30	Electrical Features	Infrastructure and Facilities
42	370	NW	Laurencekirk Fire Station	Laurencekirk Fire Station, Fire Station, Station Road, Laurencekirk, AB30 1BE	Fire Brigade Stations	Central and Local Government
43	375	NW	Tower Garage Laurencekirk	Tower Garage Laurencekirk, Station Road, Laurencekirk, AB30 1BE	Vehicle Repair, Testing and Servicing	Repair and Servicing
44	387	NW	Electricity Sub Station	Electricity Sub Station, AB30	Electrical Features	Infrastructure and Facilities
45	405	W	Telephone Exchange	Telephone Exchange, AB30	Telecommunications Features	Infrastructure and Facilities
46	406	W	Mearns Hardware	Mearns Hardware, 64, High Street, Laurencekirk, AB30 1BJ	General Construction Supplies	Industrial Products
47	413	W	M W Nicoll Hirers Laurencekirk Ltd	M W Nicoll Hirers Laurencekirk Ltd, Unit 7 Laurencekirk Business Park, Aberdeen Road, Laurencekirk, AB30 1EY	Vehicle Hire and Rental	Hire Services
48	414	W	John Mitchell	John Mitchell, Charter Avenue, Laurencekirk, AB30 1GJ	Secondhand Vehicles	Motoring
49	426	NW	J & P Dunn Ltd	J & P Dunn Ltd, Station Road, Laurencekirk, AB30 1BE	Vehicle Bodybuilders	Industrial Products
50	429	E	Pylon	Pylon, AB30	Electrical Features	Infrastructure and Facilities

ID	Distance	Direction	Company	Address	Description	Category
51	449	NW	Electricity Sub Station	Electricity Sub Station, AB30	Electrical Features	Infrastructure and Facilities
52	450	S	Pylon	Pylon, AB30	Electrical Features	Infrastructure and Facilities
53	454	SE	Pylon	Pylon, AB30	Electrical Features	Infrastructure and Facilities
C55	461	on site	Central Garage Laurencekirk	Central Garage Laurencekirk, 74, High Street, Laurencekirk, AB30 1BJ	Vehicle Repair, Testing and Servicing	Repair and Servicing
56	485	NW	Laurencekirk Rail Station	Laurencekirk Rail Station, AB30	Railway Stations, Junctions and Halts	Public Transport, Stations and Infrastructure
57	486	SE	Pylon	Pylon, AB30	Electrical Features	Infrastructure and Facilities

3.2 Petrol and Fuel Sites

Records of petrol or fuel sites within 500m of the study site	1

The following petrol or fuel site records provided by Catalist are represented as points on the Current Land Use map.

ID	Distance	Direction	NGR	Company	Address	LPG	Status
21	256	W	371806 771445	Unbranded	Hantons Garage, 25, High Street, Laurencekirk, Kincardineshire, AB30 1AA	No	Closed

3.3 Part A(1), IPPC and Historic IPC Authorisations

Records of Part A(1), IPPC and historic IPC Authorisations within 1000m of the study site	0

Database searched and no data found.

3.4 Part B Authorisations

Records of Part B Authorised Processes within 500m of the study site	3

The following Licenses are represented as points on the Current Land Use map.

ID	Distance [m]	Direction	Address	Operator	Processes Undertaken	License Reference
B14	217	W	, Alma Place, Laurencekirk, Ab30 1al	Roger Hogg of Mearns Tractors	Combustion Process	PPC/E/30072

ID	Distance [m]	Direction	Address	Operator	Processes Undertaken	License Reference
24	260	W	, Capo Quarry, Laurencekirk, Ab3 1rq	RMC Readymix Ltd	Cement Process	PPC/B/1000025
C54	461	on site	, 74 High Street, Laurencekirk, Ab30 1bj	Alfred Lawrie of Central Garage	Combustion Process	PPC/E/30071

3.5 National Grid High Pressure Gas Transmission Pipelines

This dataset identifies high-pressure, large diameter pipelines which carry gas between gas terminals, power stations, compressors and storage facilities. The dataset does not include the Local Transmission System (LTS) which supplies gas directly into homes and businesses. This information has been extracted from databases held by National Grid and is provided for information only with no guarantee as to its completeness or accuracy. National Grid do not offer any warranty as to the accuracy of the available data and are excluded from any liability for any such inaccuracies or errors.

Records of National Grid high pressure gas transmission pipelines within 500m of the study site	1

The following National Grid high pressure gas transmission pipelines are represented as linear features on the Current Land Use map

ID	Distance [m]	Direction	Details	
1	391	on site	Pipe Name: FM12 - Aberdeen to Kirriemuir Pipe Number: Feeder 12 Pipeline Safety Regulations Number: 2640 Ownership: National Grid	Maximum Operating Pressure (Bar): 84 Pipeline Diameter (mm): 900 Wall Thickness (mm): 12.7 Year of commission: 1978 Abandonment Status: Not Abandoned

3.6 National Grid High Voltage Underground Electricity Transmission Cables

This dataset identifies the high voltage electricity transmission lines running between generating power plants and electricity substations. The dataset does not include the electricity distribution network (smaller, lower voltage cables distributing power from substations to the local user network). This information has been extracted from databases held by National Grid and is provided for information only with no guarantee as to its completeness or accuracy. National Grid do not offer any warranty as to the accuracy of the available data and are excluded from any liability for any such inaccuracies or errors.

Records of National Grid high voltage underground electricity transmission cables within 500m of the study site	0

Database searched and no data found.

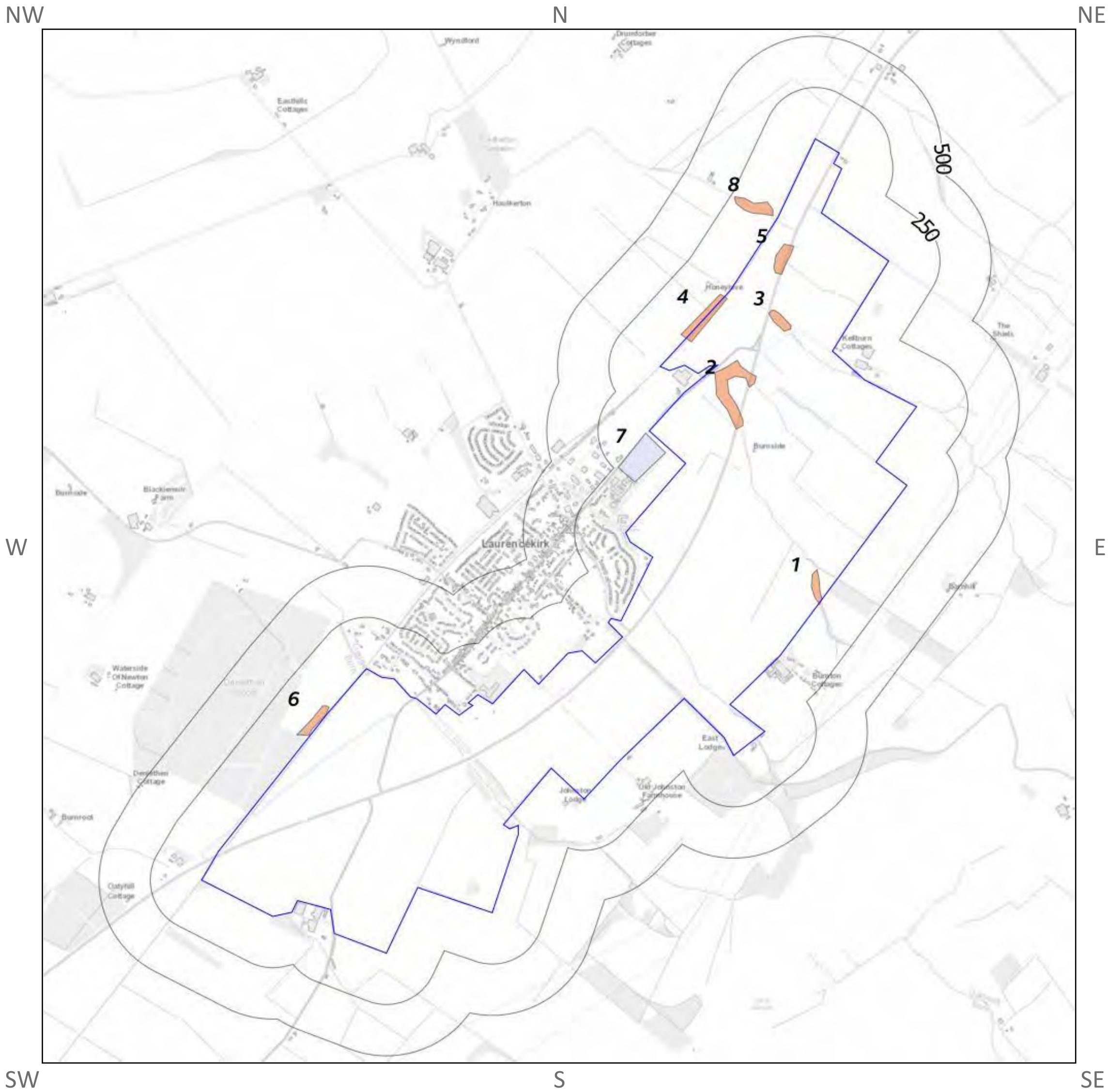
3.7 Sites Determined as Contaminated Land under Part 2A EPA 1990

How many sites does the Local Authority hold information on under Section 78R of the Environmental Protection Act 1990 within 500m of the study site	0

Database searched and no data found.

4 Geology and Hydrogeology

Artificial Ground Map



Artificial Ground Map

Site Centre

250
500
Search Buffers (m)

Infilled Ground

Made Ground (Undivided)

Worked Ground (Undivided)

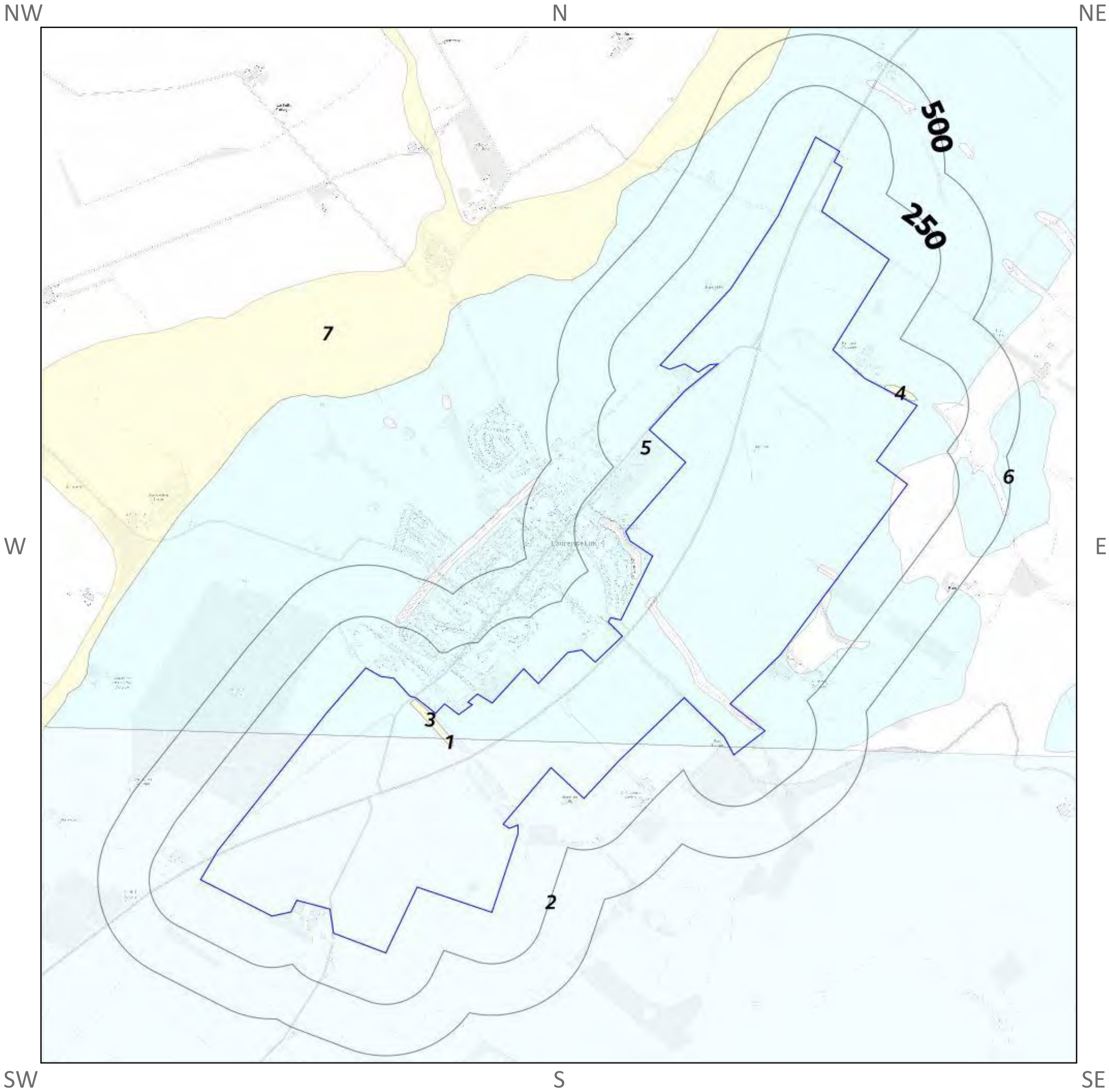
Disturbed Ground (Undivided)

Landscaped Ground (Undivided)

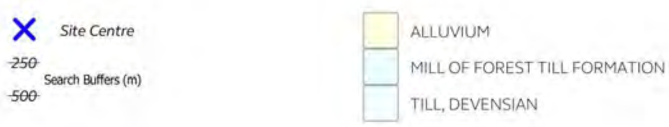
Reclaimed Ground

Groundsure
LOCATION INTELLIGENCE

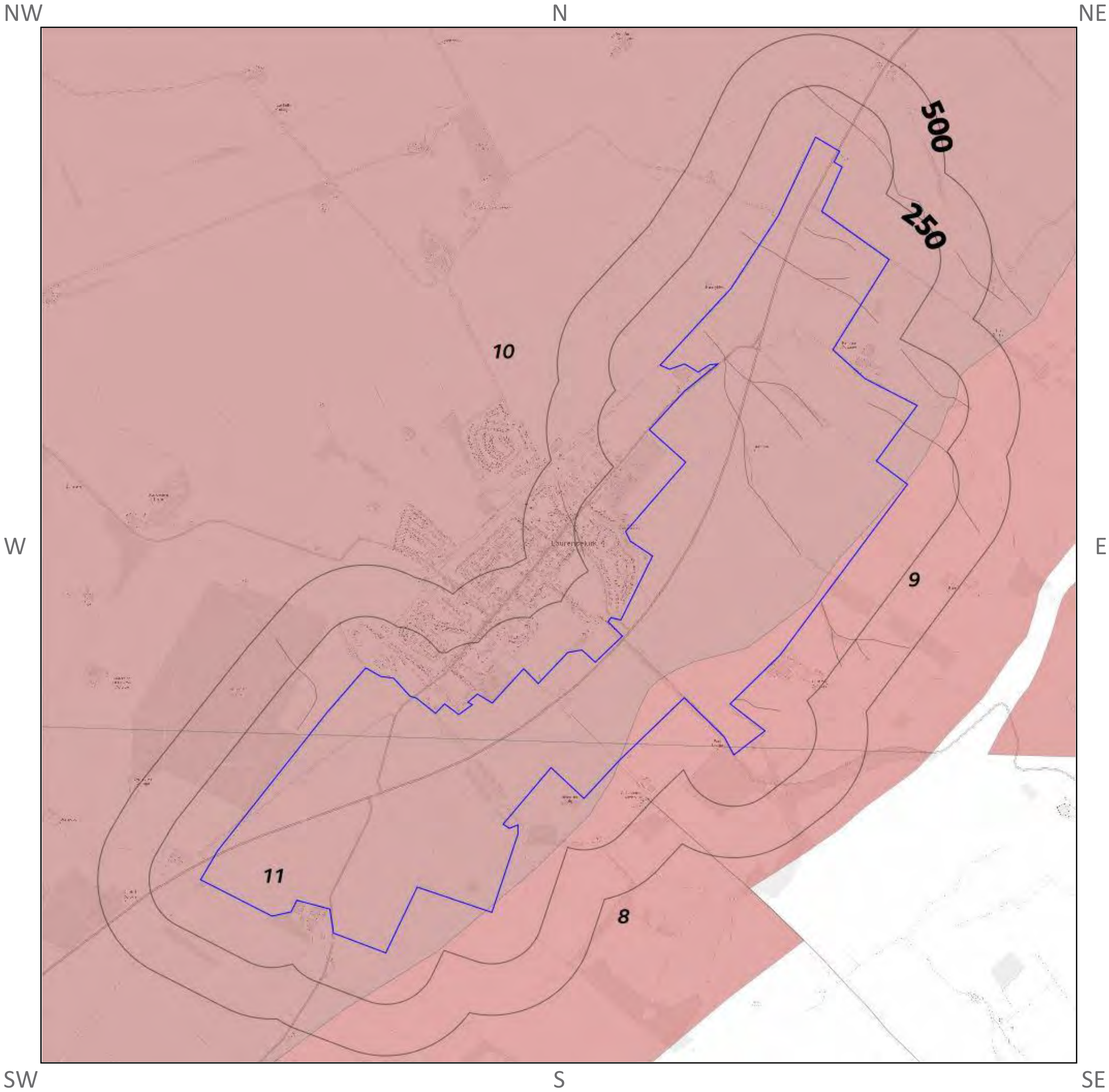
Superficial Deposits Map



Superficial Deposits Map



Bedrock and Faults Map



Bedrock and Faults Map

Groundsure
LOCATION INTELLIGENCE

4.1 Artificial Ground and Made Ground

Records of Artificial/Made Ground within 500m of the study site boundary	Yes

The following geological information represented on the mapping is derived from 1:50,000 scale BGS Geological mapping

ID	Distance	Direction	Unit name	Rock Type	BGS Code
1	0	on site	MADE GROUND (UNDIVIDED)	ARTIFICIAL DEPOSIT	MGR-ARTDP
2	0	on site	MADE GROUND (UNDIVIDED)	ARTIFICIAL DEPOSIT	MGR-ARTDP
3	0	on site	MADE GROUND (UNDIVIDED)	ARTIFICIAL DEPOSIT	MGR-ARTDP
4	0	on site	MADE GROUND (UNDIVIDED)	ARTIFICIAL DEPOSIT	MGR-ARTDP
5	0	on site	MADE GROUND (UNDIVIDED)	ARTIFICIAL DEPOSIT	MGR-ARTDP
6	2	NW	MADE GROUND (UNDIVIDED)	ARTIFICIAL DEPOSIT	MGR-ARTDP
7	20	SW	LANDSCAPED GROUND (UNDIVIDED)	DIAMICTON	LSGR-DMTN
8	26	NW	MADE GROUND (UNDIVIDED)	ARTIFICIAL DEPOSIT	MGR-ARTDP

4.2 Permability of Artificial Ground

Records relating to permeability of artificial ground within 500m of the study site boundary	Yes

Distance (m)	Direction	Flow Type	Maximum Permeability	Minimum Permeability
0	on site	Mixed	Very High	Low
0	on site	Mixed	Very High	Low
0	on site	Mixed	Very High	Low
0	on site	Mixed	Very High	Low
0	on site	Mixed	Very High	Low
2	W	Mixed	Very High	Low
20	N	Mixed	High	Low
26	N	Mixed	Very High	Low

4.3 Superficial Ground and Drift Geology

Records of Superficial Deposits/ Drift Geology within 500m of the study site boundary	Yes

ID	Distance (m)	Direction	Unit name	Rock Type	BGS Code	BGS Unit Classification Link	BGS Rock Classification Link	Previous Name

ID	Distance (m)	Direction	Unit name	Rock Type	BGS Code	BGS Unit Classification Link	BGS Rock Classification Link	Previous Name
1	0	on site	ALLUVIUM	CLAY, SILT, SAND AND GRAVEL [UNLITHIFIED DEPOSITS CODING SCHEME]	ALV	http://www.bgs.ac.uk/Lexicon/lexicon.cfm?pub=ALV	http://www.bgs.ac.uk/bgsrcs/rcs_details.cfm?code=XCZSV	None specified
2	0	on site	TILL, DEVENSIAN	DIAMICTON	TILLD	http://www.bgs.ac.uk/Lexicon/lexicon.cfm?pub=TILLD	http://www.bgs.ac.uk/bgsrcs/rcs_details.cfm?code=DMTN	None specified
3	0	on site	ALLUVIUM	CLAY, SILT, SAND AND GRAVEL [UNLITHIFIED DEPOSITS CODING SCHEME]	ALV	http://www.bgs.ac.uk/Lexicon/lexicon.cfm?pub=ALV	http://www.bgs.ac.uk/bgsrcs/rcs_details.cfm?code=XCZSV	None specified
4	0	on site	ALLUVIUM	CLAY, SILT, SAND AND GRAVEL [UNLITHIFIED DEPOSITS CODING SCHEME]	ALV	http://www.bgs.ac.uk/Lexicon/lexicon.cfm?pub=ALV	http://www.bgs.ac.uk/bgsrcs/rcs_details.cfm?code=XCZSV	None specified
5	0	on site	MILL OF FOREST TILL FORMATION	DIAMICTON	MFT	http://www.bgs.ac.uk/Lexicon/lexicon.cfm?pub=MFT	http://www.bgs.ac.uk/bgsrcs/rcs_details.cfm?code=DMTN	None specified
6	221	E	MILL OF FOREST TILL FORMATION	DIAMICTON	MFT	http://www.bgs.ac.uk/Lexicon/lexicon.cfm?pub=MFT	http://www.bgs.ac.uk/bgsrcs/rcs_details.cfm?code=DMTN	None specified

ID	Distance (m)	Direction	Unit name	Rock Type	BGS Code	BGS Unit Classification Link	BGS Rock Classification Link	Previous Name
7	366	NW	ALLUVIUM	CLAY, SILT, SAND AND GRAVEL [UNLITHIFIED DEPOSITS CODING SCHEME]	ALV	http://www.bgs.ac.uk/Lexicon/lexicon.cfm?pub=ALV	http://www.bgs.ac.uk/bgsrcs/rcs_details.cfm?code=XCZSV	None specified

4.4 Permeability of Superficial Ground

Records relating to permeability of superficial ground within 500m of the study site boundary	Yes

Distance (m)	Direction	Flow Type	Maximum Permeability	Minimum Permeability
0	on site	Mixed	High	Low
0	on site	Intergranular	High	Very Low
0	on site	Intergranular	High	Very Low
0	on site	Mixed	High	Low
0	on site	Mixed	High	Low
0	on site	Mixed	High	Low
101	W	Mixed	High	Low
221	E	Mixed	High	Low
366	N	Intergranular	High	Very Low
418	W	Mixed	High	Low

4.5 Bedrock and Solid Geology

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

ID	Distance (m)	Direction	Unit name	Rock Type	BGS Code	BGS Unit Classification Link	BGS Rock Classification Link	Previous Name
8	0	on site	DEEP CONGLOMERATE FORMATION	CONGLOMERATE	DECO-CONG	http://www.bgs.ac.uk/Lexicon/lexicon.cfm?pub=DECO	http://www.bgs.ac.uk/bgsrcs/rcs_details.cfm?code=CONG	None specified

ID	Distance (m)	Direction	Unit name	Rock Type	BGS Code	BGS Unit Classification Link	BGS Rock Classification Link	Previous Name
9	0	on site	DEEP CONGLOMERATE FORMATION	CONGLOMERATE	DECO-CONG	http://www.bgs.ac.uk/Lexicon/lexicon.cfm?pub=DECO	http://www.bgs.ac.uk/bgsrcs/rcs_details.cfm?code=CONG	None specified
10	0	on site	CROMLIX MUDSTONE FORMATION	MUDSTONE	CXF-MDST	http://www.bgs.ac.uk/Lexicon/lexicon.cfm?pub=CXF	http://www.bgs.ac.uk/bgsrcs/rcs_details.cfm?code=MDST	CROMLIX FORMATION EDZELL MUDSTONES EDZELL MUDSTONE FORMATION LAURENCEKIRK MUDSTONE FORMATION
11	0	on site	CROMLIX MUDSTONE FORMATION	MUDSTONE	CXF-MDST	http://www.bgs.ac.uk/Lexicon/lexicon.cfm?pub=CXF	http://www.bgs.ac.uk/bgsrcs/rcs_details.cfm?code=MDST	CROMLIX FORMATION EDZELL MUDSTONES EDZELL MUDSTONE FORMATION LAURENCEKIRK MUDSTONE FORMATION

4.6 Permeability of Bedrock Ground

Records relating to permeability of bedrock ground within 500m of the study site boundary	Yes

Distance (m)	Direction	Flow Type	Maximum Permeability	Minimum Permeability
0	on site	Fracture	Low	Low
0	on site	Fracture	Low	Low
0	on site	Fracture	Moderate	Moderate
0	on site	Fracture	Moderate	Moderate
0	on site	Fracture	Low	Low
101	W	Fracture	Low	Low

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

4.7 Faults

Records of Faults within 1000m of the study site boundary	Yes

Distance	Direction	Category Description	Feature Description
0	on site	LANDFORM	Glacial meltwater channel centre line, undifferentiated
0	on site	LANDFORM	Glacial meltwater channel centre line, undifferentiated
0	on site	LANDFORM	Glacial meltwater channel centre line, undifferentiated
0	on site	LANDFORM	Glacial meltwater channel centre line, undifferentiated
0	on site	LANDFORM	Glacial meltwater channel centre line (tail)
0	on site	LANDFORM	Glacial meltwater channel centre line (tail)
0	on site	LANDFORM	Glacial meltwater channel centre line (tail)
2	SE	LANDFORM	Glacial meltwater channel centre line, undifferentiated
7	SE	LANDFORM	Glacial meltwater channel centre line, undifferentiated
61	NW	LANDFORM	Glacial meltwater channel centre line, undifferentiated
114	NE	LANDFORM	Glacial meltwater channel centre line, undifferentiated
124	SE	LANDFORM	Glacial meltwater channel centre line (tail)
142	NE	LANDFORM	Glacial meltwater channel centre line, undifferentiated
214	SE	FAULT	Fault, inferred, displacement unknown
228	W	LANDFORM	Glacial meltwater channel centre line, undifferentiated
249	SE	LANDFORM	Glacial meltwater channel centre line (tail)
329	E	LANDFORM	Glacial meltwater channel centre line, undifferentiated
496	E	LANDFORM	Glacial meltwater channel centre line, undifferentiated

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.

4.8 Landslip

Records of Landslip within 500m of the study site boundary?	No

Database searched and no data found.

4.9 Landslip Permeability

Records relating to permeability of landslips within 500m of the study site boundary	No

Database searched and no data found.

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

4.10 Groundwater Vulnerability and Soil Classification

Records of Groundwater Classification within 250m of the site	Yes

The following groundwater information is not represented on mapping:

Superficial Geology

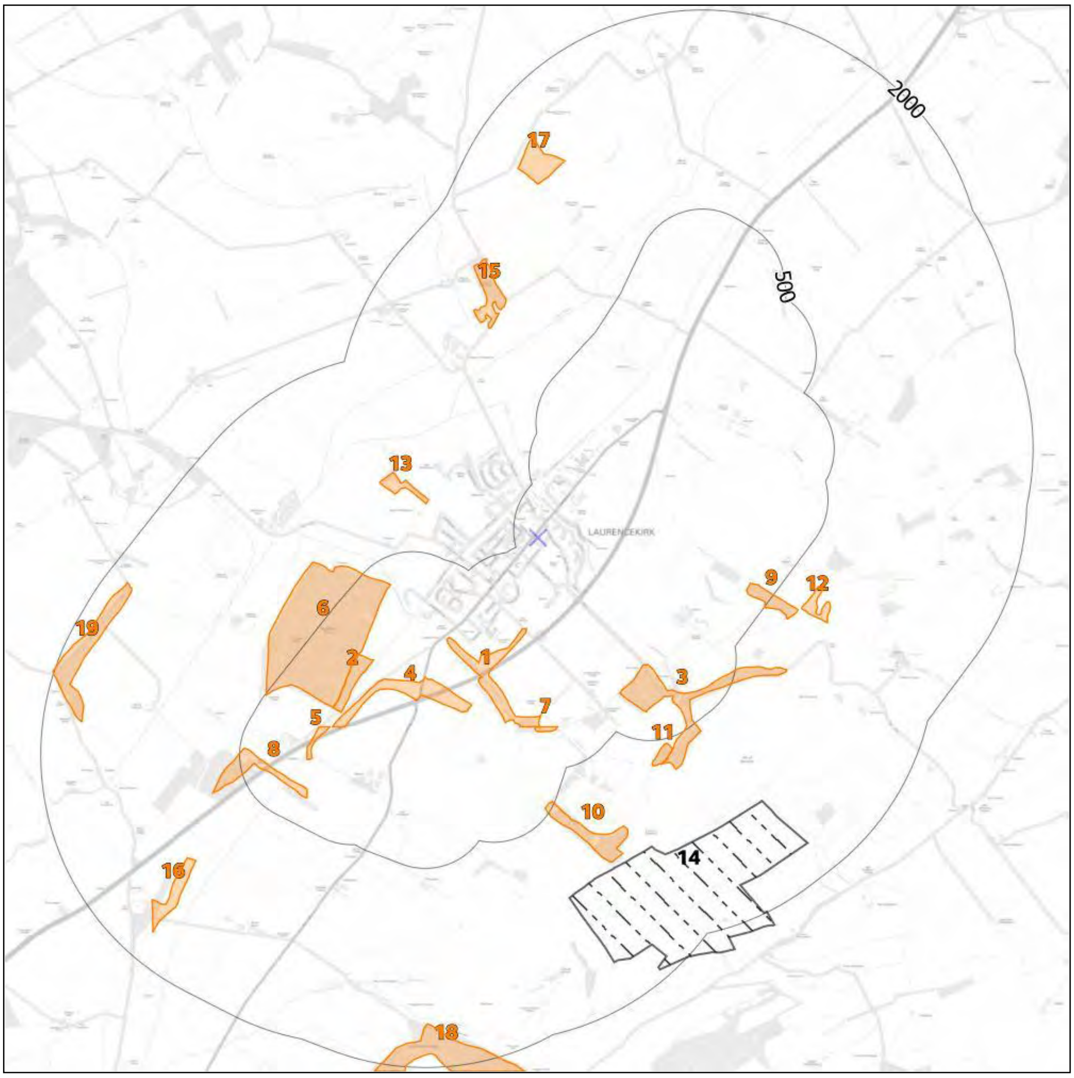
Distance (m)	Direction	Description	Type	Layer	Rock Description
156	N	Concealed aquifers, aquifers of limited potential, regions without significant groundwater	Concealed aquifers; aquifers with limited or local potential	DRIFT	Quaternary Coastal and Fluviatile Alluvium

Bedrock Geology

Distance (m)	Direction	Description	Type	Layer	Rock Description
0	on site	Aquifers in which flow is dominantly in fissures and other discontinuities	Locally important aquifers	SOLID	Lower and Middle Old Red Sandstone
0	on site	Aquifers in which flow is dominantly in fissures and other discontinuities	Locally important aquifers	SOLID	Lower and Middle Old Red Sandstone
0	on site	Aquifers in which flow is dominantly in fissures and other discontinuities	Locally important aquifers	SOLID	Lower and Middle Old Red Sandstone
101	NW	Aquifers in which flow is dominantly in fissures and other discontinuities	Locally important aquifers	SOLID	Lower and Middle Old Red Sandstone

5 Designated Environmentally Sensitive Sites

Designated Environmentally Sensitive Sites Map



Designated Environmentally Sensitive Sites Map

- Site Centre
- 500 / 2000 Search Buffers (m)
- Greenbelt
- Ramsar Site
- Area of Outstanding Natural Beauty
- Sites of Special Scientific Interest
- National Park
- Ancient Woodland
- Special Area Of Conservation
- Local Nature Reserve
- National Nature Reserve
- Special Protection Area
- World Heritage Site

Designated Environmentally Sensitive Sites

Presence of Designated Environmentally Sensitive Sites within 2000m of the study site?	Yes

5.1 Sites of Special Scientific Interest (SSSI)

Records of Sites of Special Scientific Interest (SSSI) within 2000m of the study site:	1

ID	Distance (m)	Direction	SSSI Name	Data Source
14	1077	SE	West Bradieston and Craig of Garvock	Scottish Natural Heritage

5.2 Ramsar Sites

Records of Ramsar sites within 2000m of the study site:	0

Database searched and no data found.

5.3 National Nature Reserves (NNR)

Records of National Nature Reserves (NNR) within 2000m of the study site:	0

Database searched and no data found.

5.4 Special Areas of Conservation (SAC)

Records of Special Areas of Conservation (SAC) within 2000m of the study site:	0

Database searched and no data found.

5.5 Special Protection Areas (SPA)

Records of Special Protection Areas (SPA) within 2000m of the study site:	0

Database searched and no data found.

5.6 Local Nature Reserves (LNR)

Records of Local Nature Reserves (LNR) within 2000m of the study site:	0

Database searched and no data found.

5.7 World Heritage Sites

Records of World Heritage Sites within 2000m of the study site:	0

Database searched and no data found.

5.8 Areas of Outstanding Natural Beauty (AONB)

Records of Areas of Outstanding Natural Beauty (AONB)/National Scenic Areas within 2000m of the study site:	0

Database searched and no data found.

5.9 National Parks

Records of National Parks within 2000m of the study site:	0

Database searched and no data found.

5.10 Green Belt

Records of Green Belt land within 2000m of the study site:	0

Database searched and no data found.

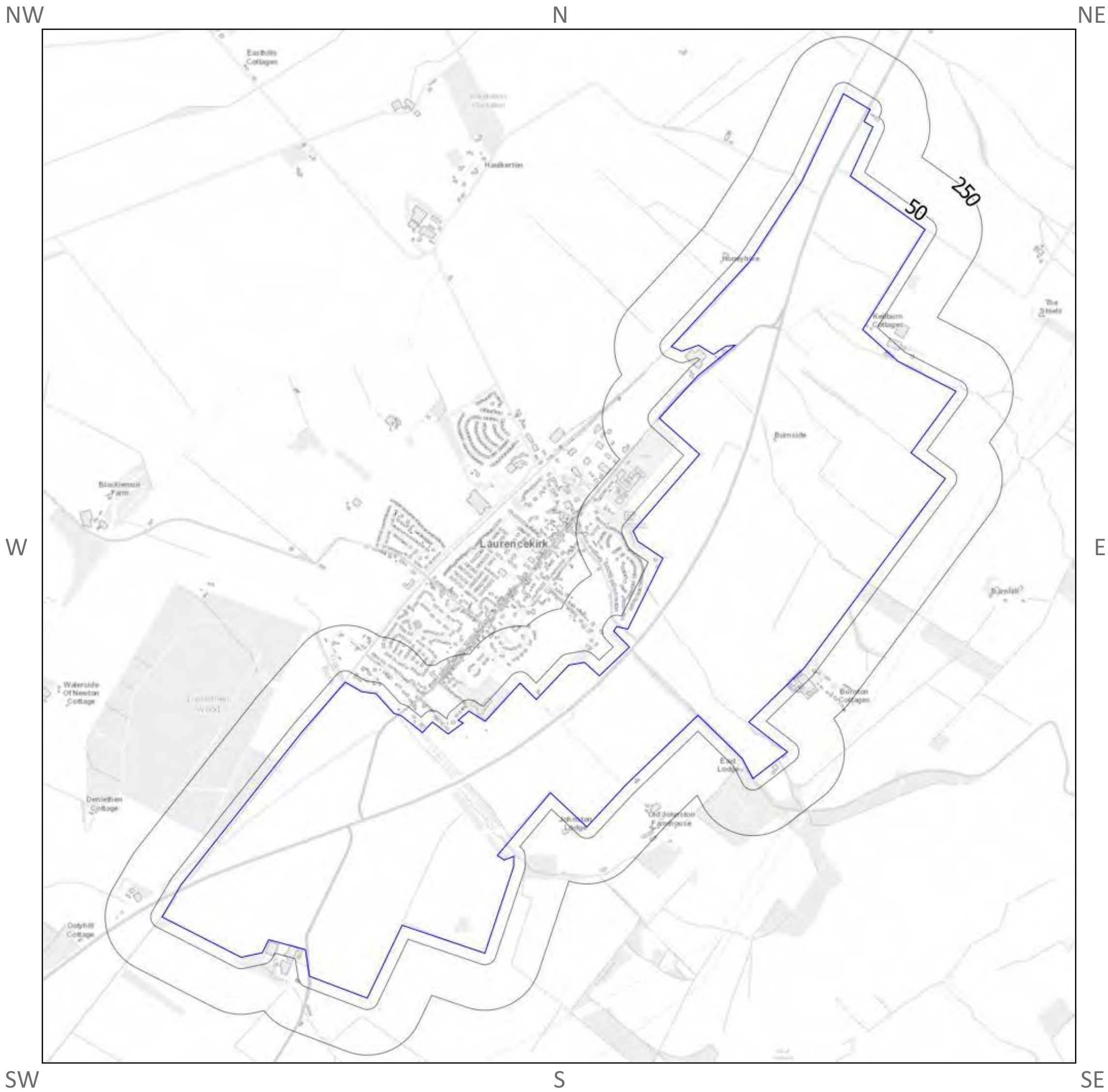
5.11 Designated Ancient Woodland

Records of Ancient Woodland within 2000m of the study site:	18

ID	Distance (m)	Direction	Ancient Woodland Name	Ancient Woodland Type
1	0	on site	UNKNOWN	Ancient Replanted Woodland
2	0	on site	DENLETHEN WOOD	Ancient Replanted Woodland
3	0	on site	UNKNOWN	Ancient Replanted Woodland
4	0	on site	UNKNOWN	Ancient Replanted Woodland
5	0	on site	UNKNOWN	Ancient Replanted Woodland
6	39	NW	DENLETHEN WOOD	Ancient Replanted Woodland
7	183	E	UNKNOWN	Ancient Replanted Woodland
8	222	SW	UNKNOWN	Ancient Replanted Woodland
9	309	SE	UNKNOWN	Ancient Replanted Woodland
10	459	SE	UNKNOWN	Ancient Replanted Woodland
11	536	S	UNKNOWN	Ancient Replanted Woodland
12	729	SE	UNKNOWN	Ancient Replanted Woodland
13	867	N	UNKNOWN	Ancient Replanted Woodland
15	1101	NW	HAULKERTON PLANTATION	Ancient Replanted Woodland
16	1150	SW	UNKNOWN	Ancient Replanted Woodland
17	1351	NW	DRUMFORBER PLANTATION	Ancient Replanted Woodland
18	1671	S	KIRKTONHILL WOODS	Ancient Replanted Woodland
19	1707	W	UNKNOWN	Ancient Replanted Woodland

6 Flooding

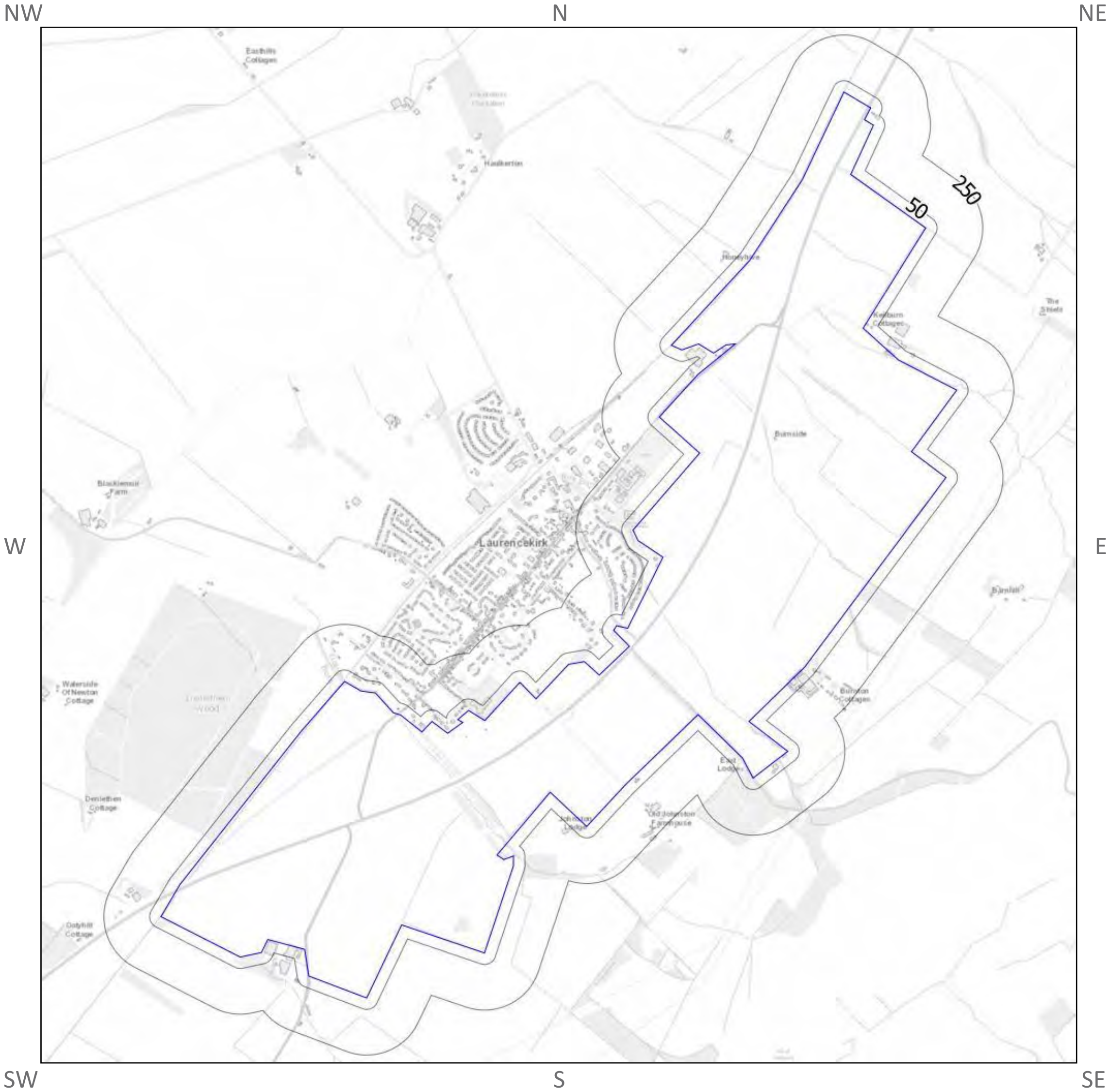
River Flooding Map



River Flooding Map

Flood data provided by JBA Risk Management, Copyright JBA Risk Management Limited. 2008 - 2017

Coastal Flooding Map



Coastal Flooding Map 2017

Site Centre

50
250
Search Buffers (m)

1 in 75 year risk of coastal flooding

1 in 100 year risk of coastal flooding

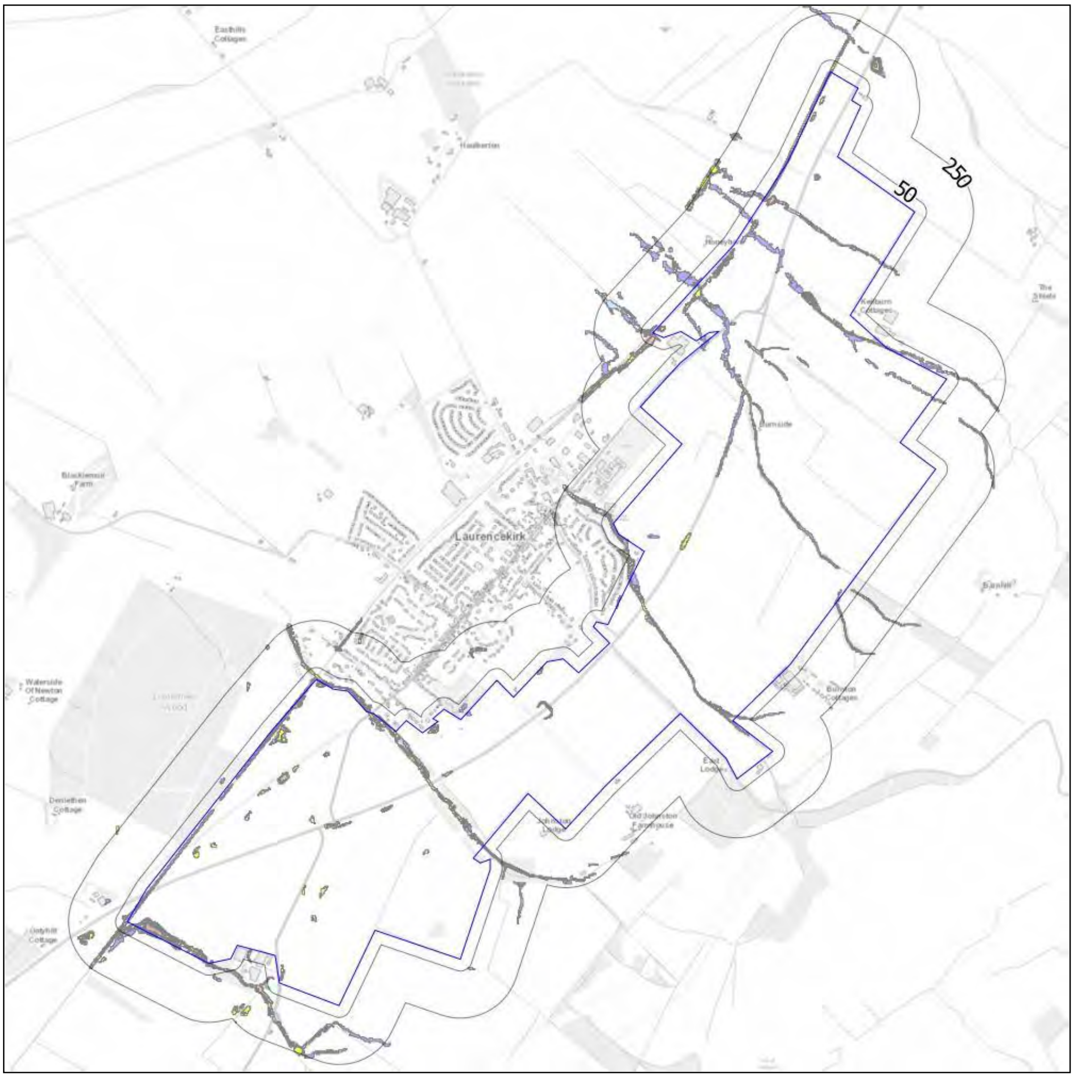
1 in 200 year risk of coastal flooding

1 in 1000 year risk of coastal flooding

Surface Water (pluvial) Flooding

NW N NE

W E



SW S SE

Surface Water (pluvial) Flooding

Site Centre

Search Buffers (m)

50

250

Low

Low to Moderate

Moderate

Moderate to High

High

Significant

Highly Significant

6.1 River Flooding

Highest risk of river flooding.	Negligible

The data is provided by JBA Risk Management. This is modelled data on a national scale. Large-scale national flood maps provide a convenient and consistent approach to peril assessment; they are indicative and are not a substitute for detailed site level hydraulic modelling. Further study may be required to assess the level of flood hazard for a specific development.

6.2 Coastal Flooding

Highest risk of coastal flooding.	Negligible

The data is provided by JBA Risk Management. This is modelled data on a national scale. Large-scale national flood maps provide a convenient and consistent approach to peril assessment; they are indicative and are not a substitute for detailed site level hydraulic modelling. Further study may be required to assess the level of flood hazard for a specific development.

6.3 JBA Surface (Pluvial) Water Flooding

Surface Water (pluvial) flooding is defined as flooding caused by rainfall-generated overland flow before the runoff enters a watercourse or sewer. In such events, sewerage and drainage systems and surface watercourses may be entirely overwhelmed.

Surface Water (pluvial) flooding will usually be a result of extreme rainfall events, though may also occur when lesser amounts of rain falls on land which has low permeability and/or is already saturated, frozen or developed. In such cases overland flow and 'ponding' in topographical depressions may occur.

What is the risk of pluvial flooding at the study site?	Highly Significant

Guidance: The site has been assessed to be at a Highly Significant Risk of surface water (pluvial) flooding. This indicates that this area would be expected to be affected by surface water flooding in a 1 in 75 year rainfall event to a depth of greater than 1m.

This data is provided by JBA Risk Management, © Jeremy Benn Associates Limited 2008-2017

The following pluvial (surface water) flood risk records within 50m of the study site are shown on the JBA Surface Water Flooding Map:

Distance	Direction	Risk
0	on site	High
0	on site	Low
0	on site	Low
0	on site	Low
0	on site	Low
0	on site	Low
0	on site	Low
0	on site	Low to Moderate
0	on site	Low
0	on site	Low to Moderate
0	on site	Low
0	on site	Low
0	on site	Low
0	on site	Low

Distance	Direction	Risk
0	on site	Low
0	on site	Low
0	on site	Low
0	on site	Low
0	on site	Low to Moderate
0	on site	Low
0	on site	Low
0	on site	High
0	on site	High
0	on site	Low to Moderate
0	on site	Low to Moderate
0	on site	Low
0	on site	Low to Moderate
0	on site	Low to Moderate
0	on site	Low to Moderate
0	on site	Low to Moderate
0	on site	Low
0	on site	Low to Moderate
0	on site	High
0	on site	Low to Moderate
0	on site	Low
0	on site	Low to Moderate
0	on site	Low to Moderate
0	on site	Low to Moderate
0	on site	Low to Moderate
0	on site	Low to Moderate
0	on site	Low
0	on site	Low to Moderate
0	on site	Low
0	on site	Low to Moderate
0	on site	High
0	on site	Low
0	on site	Low to Moderate
0	on site	High

Distance	Direction	Risk
0	on site	Low
0	on site	Low
0	on site	High
0	on site	Low
0	on site	Significant
0	on site	High
0	on site	High
0	on site	Low
0	on site	Significant
0	on site	Low to Moderate
0	on site	High
0	on site	Low
0	on site	Moderate
0	on site	Low to Moderate
0	on site	Low
0	on site	Moderate
0	on site	Low to Moderate
0	on site	Significant
0	on site	Low to Moderate
0	on site	High
0	on site	Moderate
0	on site	Low
0	on site	Moderate
0	on site	Low to Moderate
0	on site	Low
0	on site	Moderate
0	on site	Low to Moderate
0	on site	Low
0	on site	Moderate
0	on site	Low to Moderate
0	on site	Low to Moderate
0	on site	Moderate
0	on site	Low
0	on site	Low to Moderate

Distance	Direction	Risk
0	on site	Low
0	on site	High
0	on site	Low
0	on site	Low to Moderate
0	on site	High
0	on site	High
0	on site	Low
0	on site	Low to Moderate
0	on site	Low
0	on site	High
0	on site	Low to Moderate
0	on site	Low
0	on site	Low
0	on site	Low to Moderate
0	on site	High
0	on site	Low
0	on site	High
0	on site	High
0	on site	Low to Moderate
0	on site	Low
0	on site	Low
0	on site	Significant
0	on site	High
0	on site	Low
0	on site	Low
0	on site	Low
0	on site	Low
0	on site	High
0	on site	Low
0	on site	Low
0	on site	Low
0	on site	Low
0	on site	Low
0	on site	Moderate to High

Distance	Direction	Risk
0	on site	Low to Moderate
0	on site	Moderate to High
0	on site	Moderate
0	on site	Moderate
0	on site	Low to Moderate
0	on site	Moderate
0	on site	Moderate
0	on site	Low
0	on site	Moderate
0	on site	Low
0	on site	Low to Moderate
0	on site	Low to Moderate
0	on site	Moderate
0	on site	Low
0	on site	Low
0	on site	High
0	on site	High
0	on site	Low
0	on site	Low to Moderate
0	on site	Moderate
0	on site	Low
0	on site	Low
0	on site	Moderate to High
0	on site	Significant
0	on site	High
0	on site	Moderate
0	on site	Low
0	on site	Low
0	on site	Low to Moderate
0	on site	High
0	on site	Low
0	on site	Low
0	on site	Moderate
0	on site	Moderate

Distance	Direction	Risk
0	on site	Low
0	on site	Highly Significant
0	on site	Low
0	on site	Low to Moderate
0	on site	Low
0	on site	Significant
0	on site	Low to Moderate
0	on site	High
0	on site	Significant
0	on site	Low
0	on site	High
0	on site	Significant
0	on site	High
0	on site	Significant
0	on site	High
0	on site	Significant
0	on site	Low to Moderate
0	on site	High
0	on site	Low
0	on site	Low to Moderate
0	on site	Low
0	on site	Significant
0	on site	Low
0	on site	Low
0	on site	Low
0	on site	Highly Significant
0	on site	High
0	on site	Significant
0	on site	High
0	on site	Significant
0	on site	High
0	on site	Low to Moderate
0	on site	Moderate to High
0	on site	Low to Moderate

Distance	Direction	Risk
0	on site	Low
0	on site	Low to Moderate
0	on site	Moderate
0	on site	Significant
0	on site	Low to Moderate
0	on site	Moderate to High
0	on site	Significant
0	on site	High
0	on site	Low
0	on site	Low to Moderate
0	on site	Low to Moderate
0	on site	Moderate
0	on site	Low to Moderate
0	on site	Moderate
0	on site	High
0	on site	Significant
0	on site	High
0	on site	Low to Moderate
0	on site	Moderate to High
0	on site	Low to Moderate
0	on site	Low
0	on site	Low
0	on site	Low
0	on site	Moderate
0	on site	Low
0	on site	Significant
0	on site	High
0	on site	Low
0	on site	High
0	on site	Low to Moderate
0	on site	Low
0	on site	Low to Moderate
0	on site	Significant
0	on site	Low

Distance	Direction	Risk
0	on site	Low
0	on site	Low
0	on site	Low to Moderate
0	on site	Low
0	on site	Low
0	on site	High
0	on site	Low to Moderate
0	on site	High
0	on site	Significant
0	on site	High
0	on site	Low to Moderate
0	on site	Low
0	on site	Low to Moderate
0	on site	Low to Moderate
0	on site	Low
0	on site	Low
0	on site	High
0	on site	Low
0	on site	High
0	on site	Low to Moderate
0	on site	Low
0	on site	Low to Moderate
0	on site	Low
0	on site	High
0	on site	Significant
0	on site	Low to Moderate
0	on site	Low
0	on site	High
0	on site	Significant
0	on site	Low
0	on site	High
0	on site	Low
0	on site	Low to Moderate
0	on site	Low

Distance	Direction	Risk
0	on site	Moderate
0	on site	Low to Moderate
0	on site	Low to Moderate
0	on site	High
0	on site	Low to Moderate
0	on site	Low
0	on site	Low to Moderate
0	on site	Low to Moderate
0	on site	Moderate
0	on site	Low to Moderate
0	on site	Low
0	on site	Low to Moderate
0	on site	Low
0	on site	Low to Moderate
0	on site	Low
0	on site	Moderate
0	on site	Moderate to High
0	on site	Low
0	on site	Low
0	on site	Low to Moderate
0	on site	Moderate to High
0	on site	Moderate to High
0	on site	Low
0	on site	Low to Moderate
0	on site	High
0	on site	Moderate to High
0	on site	Low
0	on site	Low
0	on site	High
0	on site	Low to Moderate
0	on site	Low to Moderate
0	on site	High
0	on site	Significant
0	on site	High

Distance	Direction	Risk
0	on site	Moderate to High
0	on site	Low to Moderate
0	on site	Low
0	on site	Low to Moderate
0	on site	High
0	on site	Significant
0	on site	High
0	on site	Low
0	on site	Low
0	on site	Low
0	on site	Low to Moderate
0	on site	Low
0	on site	Low to Moderate
0	on site	High
0	on site	Highly Significant
0	on site	Moderate to High
0	on site	Low
0	on site	Low
0	on site	Low
0	on site	Moderate to High
0	on site	High
0	on site	Low
0	on site	Low
0	on site	Low to Moderate
0	on site	Moderate to High
0	on site	Moderate
0	on site	Low to Moderate
0	on site	Low
0	on site	Low to Moderate
0	on site	Low
0	on site	Low
0	on site	Moderate
0	on site	Significant
0	on site	High

Distance	Direction	Risk
0	on site	Moderate to High
0	on site	Low
0	on site	Low to Moderate
0	on site	Low
0	on site	Low
0	on site	Low
0	on site	Low
0	on site	Moderate
0	on site	Significant
0	on site	Low to Moderate
0	on site	Low
0	on site	Low to Moderate
0	on site	Low
0	on site	Moderate
0	on site	High
0	on site	Moderate
0	on site	Low to Moderate
0	on site	Low
0	on site	Low to Moderate
0	on site	Moderate to High
0	on site	High
0	on site	Moderate
0	on site	Low
0	on site	Low to Moderate
0	on site	Low
0	on site	Significant
0	on site	High
0	on site	High
0	on site	Low
0	on site	Low
0	on site	Significant
0	on site	High
0	on site	Low to Moderate
0	on site	Significant

Distance	Direction	Risk
0	on site	High
0	on site	Low
0	on site	Significant
0	on site	High
0	on site	Low
0	on site	Significant
0	on site	High
0	on site	Significant
0	on site	Low
0	on site	High
0	on site	Significant
0	on site	High
0	on site	Significant
0	on site	Low to Moderate
0	on site	Low
0	on site	High
0	on site	Low
0	on site	Low
0	on site	Low to Moderate
0	on site	Significant
0	on site	High
0	on site	Significant
0	on site	High
0	on site	Low
0	on site	Significant
0	on site	Moderate
0	on site	Low
0	on site	Moderate to High
0	on site	Low to Moderate
0	on site	Low
0	on site	Low
0	on site	Moderate
0	on site	Low to Moderate
0	on site	Moderate

Groundsure LOCATION INTELLIGENCE

Distance	Direction	Risk
0	on site	Low
0	on site	Low to Moderate
0	on site	Highly Significant
0	on site	Low to Moderate
0	on site	Low
0	on site	Highly Significant
0	on site	Low to Moderate
0	on site	Low
0	on site	Low
0	on site	Significant
0	on site	Highly Significant
0	on site	High
0	on site	Low
0	on site	High
0	on site	Low to Moderate
0	on site	High
0	on site	Low to Moderate
0	on site	Low
0	on site	Highly Significant
0	on site	Low
0	on site	Significant
0	on site	Highly Significant
0	on site	Low to Moderate
0	on site	Significant
0	on site	Low to Moderate
0	on site	Significant
0	on site	Low to Moderate
0	on site	Moderate to High
0	on site	Moderate
0	on site	Low
0	on site	Low to Moderate
0	on site	Moderate
0	on site	Moderate
0	on site	Low to Moderate

Distance	Direction	Risk
0	on site	Moderate
0	on site	Low to Moderate
0	on site	Moderate to High
0	on site	Moderate
0	on site	Low to Moderate
0	on site	Moderate to High
0	on site	Low to Moderate
0	on site	Moderate to High
0	on site	Moderate
0	on site	Low to Moderate
0	on site	Low
0	on site	Low
0	on site	Moderate to High
0	on site	Low to Moderate
0	on site	Moderate to High
0	on site	Moderate
0	on site	Low to Moderate
0	on site	Low to Moderate
0	on site	Moderate
0	on site	Moderate to High
0	on site	Moderate to High
0	on site	Moderate
0	on site	Low to Moderate
0	on site	Moderate to High
0	on site	Moderate
0	on site	Low
0	on site	Low to Moderate
0	on site	Moderate
0	on site	Low
0	on site	Low to Moderate
0	on site	Moderate
0	on site	Low
0	on site	Low
0	on site	Low

Distance	Direction	Risk
0	on site	Low
0	on site	Low to Moderate
0	on site	Moderate
0	on site	Low
0	on site	Low
0	on site	Low
0	on site	Moderate
0	on site	Low to Moderate
0	on site	Low
0	on site	Moderate
0	on site	Moderate
0	on site	Low
0	on site	Low
0	on site	Low to Moderate
0	on site	Low to Moderate
0	on site	Low
0	on site	Low
0	on site	Low
0	on site	Low
0	on site	Low
0	on site	Low
0	on site	Low
0	on site	Low
0	on site	Low
0	on site	Low
0	on site	Low
0	on site	Low
0	on site	Low to Moderate
0	on site	Low
0	on site	Low
0	on site	Low to Moderate
0	on site	Low
0	on site	Low
0	on site	Low

Distance	Direction	Risk
0	on site	Low
0	on site	High
0	on site	Low
0	on site	High
0	on site	Low
0	on site	Significant
0	on site	Low
0	on site	Low to Moderate
0	on site	Low
0	on site	High
0	on site	Low
0	on site	Low
0	on site	Significant
0	on site	High
0	on site	Low to Moderate
0	on site	Low to Moderate
0	on site	Low
0	on site	High
0	on site	Low to Moderate
0	on site	High
0	on site	Low
0	on site	Low
0	on site	Low to Moderate
0	on site	Significant
0	on site	High
0	on site	Highly Significant
0	on site	High
0	on site	Low to Moderate
0	on site	Significant
0	on site	High
0	on site	Low
0	on site	Low to Moderate
0	on site	Low
0	on site	High

Distance	Direction	Risk
0	on site	Significant
0	on site	Low
0	on site	High
0	on site	Low
0	on site	Low to Moderate
0	on site	Low
0	on site	High
0	on site	Low to Moderate
0	on site	Low
0	on site	High
0	on site	Low to Moderate
0	on site	Low
0	on site	Low
0	on site	Low to Moderate
0	on site	Low
0	on site	Low
0	on site	Low to Moderate
0	on site	High
0	on site	Low to Moderate
0	on site	Low
0	on site	Low to Moderate
0	on site	Low
0	on site	High
0	on site	Low to Moderate
0	on site	Low to Moderate
0	on site	Low
0	on site	Low
0	on site	Low to Moderate
0	on site	High
0	on site	Low
0	on site	Low to Moderate
0	on site	High
0	on site	Low to Moderate
0	on site	Low

Distance	Direction	Risk
0	on site	High
0	on site	Significant
0	on site	High
0	on site	Significant
0	on site	Low to Moderate
0	on site	Significant
0	on site	High
0	on site	Significant
0	on site	High
0	on site	Significant
0	on site	High
0	on site	Low
0	on site	High
0	on site	High
0	on site	Significant
0	on site	Low
0	on site	High
0	on site	Low to Moderate
0	on site	Low
0	on site	Low
0	on site	Low
0	on site	Low to Moderate
0	on site	Low
0	on site	Low
0	on site	Low to Moderate
0	on site	Low
0	on site	Low
0	on site	Low
0	on site	Low
0	on site	Low
0	on site	Low
0	on site	Low
0	on site	Low
0	on site	Low

Distance	Direction	Risk
0	on site	Low
0	on site	Low
0	on site	Low
0	on site	High
0	on site	Low
0	on site	Low
0	on site	High
0	on site	Low
0	on site	Low to Moderate
0	on site	Low
0	on site	Low
0	on site	High
0	on site	Low to Moderate
0	on site	High
0	on site	Low to Moderate
0	on site	Low
0	on site	High
0	on site	Low to Moderate
0	on site	Low to Moderate
0	on site	Low
0	on site	High
0	on site	Low
0	on site	Low
0	on site	Low
0	on site	Low
0	on site	Low
0	on site	High
0	on site	Low to Moderate
0	on site	Low
0	on site	Low
0	on site	Low
0	on site	Low
0	on site	Low
0	on site	Low

Distance	Direction	Risk
0	on site	Low
0	on site	Low
0	on site	Low
0	on site	Low to Moderate
0	on site	Low to Moderate
0	on site	High
0	on site	Low
0	on site	High
0	on site	Low to Moderate
0	on site	High
0	on site	Low
0	on site	High
0	on site	Significant
0	on site	Low
0	on site	Low
0	on site	High
0	on site	Low
0	on site	Significant
0	on site	Low to Moderate
0	on site	Significant
0	on site	High
0	on site	Low
0	on site	High
0	on site	Significant
0	on site	High
0	on site	Low
0	on site	Low to Moderate
0	on site	Significant
0	on site	Low
0	on site	Low
0	on site	High
0	on site	Significant
0	on site	High
0	on site	Significant

Distance	Direction	Risk
0	on site	High
0	on site	High
0	on site	Significant
0	on site	High
0	on site	Low
0	on site	Significant
0	on site	Low
0	on site	High
0	on site	Significant
0	on site	High
0	on site	Low
0	on site	Significant
0	on site	Low
0	on site	Highly Significant
0	on site	High
0	on site	Highly Significant
0	on site	High
0	on site	Low
0	on site	Highly Significant
0	on site	High
0	on site	High
0	on site	Highly Significant
0	on site	Significant
0	on site	Highly Significant
0	on site	High
0	on site	Highly Significant
0	on site	High
0	on site	Highly Significant
0	on site	High
0	on site	Significant
0	on site	Highly Significant
0	on site	High
0	on site	Highly Significant
0	on site	High

Groundsure
LOCATION INTELLIGENCE

Distance	Direction	Risk
0	on site	Highly Significant
0	on site	High
0	on site	Low to Moderate
0	on site	Highly Significant
0	on site	Significant
0	on site	Highly Significant
0	on site	High
0	on site	Highly Significant
0	on site	Significant
0	on site	Highly Significant
0	on site	High
0	on site	Highly Significant
0	on site	Significant
0	on site	Highly Significant
0	on site	Low
0	on site	High
0	on site	Highly Significant
0	on site	Significant
0	on site	Highly Significant
0	on site	High
0	on site	Significant
0	on site	Highly Significant
0	on site	High
0	on site	Highly Significant
0	on site	Low
0	on site	High
0	on site	Significant
0	on site	Highly Significant
0	on site	High
0	on site	Low
0	on site	Highly Significant
0	on site	High
0	on site	Low
0	on site	Significant

Distance	Direction	Risk
0	on site	Low to Moderate
0	on site	Highly Significant
0	on site	High
0	on site	Significant
0	on site	Highly Significant
0	on site	High
0	on site	Highly Significant
0	on site	High
0	on site	High
0	on site	Low to Moderate
0	on site	Highly Significant
0	on site	Low to Moderate
0	on site	Low to Moderate
0	on site	Low to Moderate
0	on site	Low
0	on site	Significant
0	on site	Low to Moderate
0	on site	High
0	on site	Low to Moderate
0	on site	Significant
0	on site	Low
0	on site	Low
0	on site	Low to Moderate
0	on site	Low
0	on site	Significant
0	on site	Low
0	on site	High
0	on site	Low to Moderate
0	on site	Low
0	on site	Low
0	on site	High
0	on site	Low
0	on site	Significant
0	on site	High

Distance	Direction	Risk
0	on site	Highly Significant
0	on site	Significant
0	on site	Highly Significant
0	on site	High
0	on site	Low
0	on site	Highly Significant
0	on site	Significant
0	on site	Low to Moderate
0	on site	Highly Significant
0	on site	High
0	on site	Low
0	on site	Highly Significant
0	on site	Low
0	on site	High
0	on site	Significant
0	on site	Low
0	on site	Low
0	on site	High
0	on site	Highly Significant
0	on site	High
0	on site	Low
0	on site	Low to Moderate
0	on site	High
0	on site	Low
0	on site	Significant
0	on site	High
0	on site	High
0	on site	High
0	on site	Highly Significant
0	on site	High
0	on site	Significant
0	on site	High
0	on site	Significant
0	on site	Low

Distance	Direction	Risk
0	on site	Low
0	on site	Significant
0	on site	Low
0	on site	Highly Significant
0	on site	Low
0	on site	High
0	on site	High
0	on site	Significant
0	on site	High
0	on site	Significant
0	on site	Low
0	on site	Low
0	on site	Low
0	on site	High
0	on site	High
0	on site	Highly Significant
0	on site	Low to Moderate
0	on site	Low to Moderate
0	on site	Moderate
0	on site	Low
0	on site	Low to Moderate
0	on site	Moderate
0	on site	Low to Moderate
0	on site	Moderate
0	on site	Significant
0	on site	Low
0	on site	Low to Moderate
0	on site	Moderate
0	on site	High
0	on site	Low to Moderate
0	on site	High
0	on site	Highly Significant
0	on site	Low to Moderate
0	on site	Moderate

Distance	Direction	Risk
0	on site	Low to Moderate
0	on site	High
0	on site	High
0	on site	Highly Significant
0	on site	Significant
0	on site	Moderate
0	on site	Low to Moderate
0	on site	High
0	on site	Significant
0	on site	Highly Significant
0	on site	Low to Moderate
0	on site	Low to Moderate
0	on site	Significant
0	on site	Highly Significant
0	on site	Moderate
0	on site	Low to Moderate
0	on site	Low
0	on site	Low
0	on site	Low
0	on site	High
0	on site	Highly Significant
0	on site	Low
0	on site	Moderate
0	on site	Low to Moderate
0	on site	Low
0	on site	Low
0	on site	Significant
0	on site	High
0	on site	Low
0	on site	Low to Moderate
0	on site	Low
0	on site	Low to Moderate
0	on site	Low
0	on site	Significant

Distance	Direction	Risk
0	on site	Low
0	on site	Low
0	on site	Low
0	on site	Low to Moderate
0	on site	Low to Moderate
0	on site	High
0	on site	Low to Moderate
0	on site	Low
0	on site	Low to Moderate
0	on site	Low
0	on site	Low
0	on site	High
0	on site	Low to Moderate
0	on site	Low
0	on site	Low to Moderate
0	on site	High
0	on site	High
0	on site	Low to Moderate
0	on site	Low
0	on site	Low to Moderate
0	on site	Low
0	on site	Low to Moderate
0	on site	Low
0	on site	Low
0	on site	Low
0	on site	Low to Moderate
0	on site	Moderate
0	on site	Low to Moderate
0	on site	Low
0	on site	Low to Moderate
0	on site	High
0	on site	Low
0	on site	Low to Moderate
0	on site	Low

Distance	Direction	Risk
0	on site	Moderate
0	on site	Low to Moderate
0	on site	Low
0	on site	Low to Moderate
0	on site	Low
0	on site	Low to Moderate
0	on site	Low
0	on site	Low to Moderate
0	on site	High
0	on site	Low
0	on site	Low
0	on site	Low
0	on site	Low
0	on site	High
0	on site	Low
0	on site	Low to Moderate
0	on site	Low to Moderate
0	on site	Low
0	on site	Low
0	on site	Low to Moderate
0	on site	Significant
0	on site	Low
0	on site	Moderate
0	on site	Low to Moderate
0	on site	Significant
0	on site	Low to Moderate
0	on site	Low
0	on site	Moderate
0	on site	Low to Moderate
0	on site	Low
0	on site	Low to Moderate
0	on site	Low
0	on site	Significant
0	on site	Low

Distance	Direction	Risk
0	on site	Low to Moderate
0	on site	Low
0	on site	Low
0	on site	High
0	on site	Low
0	on site	Low to Moderate
0	on site	Low
0	on site	Low
0	on site	Low
0	on site	Low
0	on site	Moderate
0	on site	Low
0	on site	Low
0	on site	Low to Moderate
0	on site	Moderate
0	on site	Low to Moderate
0	on site	Low to Moderate
0	on site	Low
0	on site	Low to Moderate
0	on site	High
0	on site	Moderate
0	on site	Low to Moderate
0	on site	Low
0	on site	Low to Moderate
0	on site	High
0	on site	High
0	on site	Low to Moderate
0	on site	Low
0	on site	Low
0	on site	Low to Moderate
0	on site	Moderate
0	on site	Low
0	on site	High
0	on site	Low to Moderate

Distance	Direction	Risk
0	on site	Low to Moderate
0	on site	Moderate
0	on site	Low
0	on site	Low
0	on site	Low
0	on site	Low to Moderate
0	on site	High
0	on site	Low to Moderate
0	on site	Low
0	on site	Low
0	on site	Moderate
0	on site	Low
0	on site	Low to Moderate
0	on site	Low
0	on site	Moderate
0	on site	Low to Moderate
0	on site	Low
0	on site	Low to Moderate
0	on site	Low
0	on site	Low
0	on site	High
0	on site	Moderate
0	on site	Low
0	on site	Low to Moderate
0	on site	Low to Moderate
0	on site	High
0	on site	High
0	on site	High
0	on site	Significant
0	on site	Low to Moderate
0	on site	Low
0	on site	Low to Moderate
0	on site	High
0	on site	Low to Moderate

Distance	Direction	Risk
0	on site	Low to Moderate
0	on site	Low to Moderate
0	on site	Low to Moderate
0	on site	Low to Moderate
0	on site	Low to Moderate
0	on site	Low to Moderate
0	on site	Low to Moderate
0	on site	Low to Moderate
0	on site	Low to Moderate
0	on site	Low to Moderate
0	on site	High
0	on site	Low to Moderate
0	on site	Low to Moderate
0	on site	Low to Moderate
0	on site	Low
0	on site	Low
0	on site	High
0	on site	Low
0	on site	Low to Moderate
0	on site	Low
0	on site	Low
0	on site	High
0	on site	Low to Moderate
0	on site	Low
0	on site	High
0	on site	Low to Moderate
0	on site	Low to Moderate
0	on site	Low
0	on site	High
0	on site	High
0	on site	High
0	on site	High
0	on site	Low
0	on site	Low

Distance	Direction	Risk
0	on site	Low to Moderate
0	on site	Low to Moderate
0	on site	High
0	on site	High
0	on site	Significant
0	on site	High
0	on site	Low to Moderate
0	on site	High
0	on site	Low
0	on site	Low
0	on site	Low
0	on site	Low to Moderate
0	on site	Low
0	on site	Low to Moderate
0	on site	High
0	on site	Significant
0	on site	Low
0	on site	Significant
0	on site	Low
0	on site	High
0	on site	High
0	on site	Low
0	on site	Low
0	on site	Significant
0	on site	Low
0	on site	Low to Moderate
0	on site	High
0	on site	Low
0	on site	Low to Moderate
0	on site	High
0	on site	Significant
0	on site	Low
0	on site	Low
0	on site	Low to Moderate

Distance	Direction	Risk
0	on site	Low
0	on site	Low to Moderate
0	on site	Low
0	on site	Low to Moderate
0	on site	Low
0	on site	Low to Moderate
0	on site	Low to Moderate
0	on site	Significant
0	on site	Significant
0	on site	High
0	on site	High
0	on site	High
0	on site	Significant
0	on site	High
0	on site	Low
0	on site	Significant
0	on site	High
0	on site	Low to Moderate
0	on site	Significant
0	on site	High
0	on site	Low to Moderate
0	on site	Low to Moderate
0	on site	High
0	on site	Low to Moderate
0	on site	Low
0	on site	Low
0	on site	Low
0	on site	Low to Moderate
0	on site	Low to Moderate
0	on site	Low to Moderate
0	on site	Low to Moderate
0	on site	Low
0	on site	Low
0	on site	Low to Moderate

Groundsure
LOCATION INTELLIGENCE

Distance	Direction	Risk
0	on site	Low
0	on site	Low
0	on site	High
0	on site	Low
0	on site	Low
0	on site	Low to Moderate
0	on site	Low
0	on site	Low
0	on site	High
0	on site	High
0	on site	Low
0	on site	Moderate
0	on site	Low to Moderate
0	on site	Low to Moderate
0	on site	Low
0	on site	Low to Moderate
0	on site	Low
0	on site	Low to Moderate
0	on site	Low
0	on site	Low to Moderate
0	on site	Significant
0	on site	High
0	on site	Significant
0	on site	Significant
0	on site	High
0	on site	Low to Moderate
0	on site	Low to Moderate
0	on site	Significant
0	on site	High
0	on site	Low
0	on site	Low
0	on site	Low
0	on site	High
0	on site	Significant

Distance	Direction	Risk
0	on site	Low
0	on site	Low
0	on site	Low
0	on site	Low
0	on site	Low
0	on site	Low to Moderate
0	on site	Low
0	on site	Low
0	on site	Low
0	on site	Significant
0	on site	Low
0	on site	High
0	on site	Significant
0	on site	High
0	on site	Low
0	on site	Low to Moderate
0	on site	Significant
0	on site	High
0	on site	Low
0	on site	Low to Moderate
0	on site	High
0	on site	Significant
0	on site	Low
0	on site	Significant
0	on site	High
0	on site	Low
0	on site	Low
0	on site	High
0	on site	Significant
0	on site	Low
0	on site	High
0	on site	Low
0	on site	Significant
0	on site	High

Distance	Direction	Risk
0	on site	Low
0	on site	Low
0	on site	High
0	on site	Low
0	on site	Low
0	on site	Low
0	on site	Low
0	on site	Low to Moderate
0	on site	Low
0	on site	Low
0	on site	Low
0	on site	Low to Moderate
0	on site	Moderate
0	on site	Low
0	on site	Low to Moderate
0	on site	Moderate
0	on site	Low to Moderate
0	on site	Moderate
0	on site	Low
0	on site	High
0	on site	Low
0	on site	High
0	on site	Significant
0	on site	Low
0	on site	High
0	on site	Significant
0	on site	High
0	on site	Low to Moderate
0	on site	Significant
0	on site	Low
0	on site	High
0	on site	Low
0	on site	Low
0	on site	High

Distance	Direction	Risk
0	on site	Low
0	on site	Low
0	on site	High
0	on site	Significant
0	on site	Low
0	on site	High
0	on site	High
0	on site	High
0	on site	Significant
0	on site	High
0	on site	Low
0	on site	Low
0	on site	Low
0	on site	Low to Moderate
0	on site	Low to Moderate
0	on site	Low
0	on site	Low to Moderate
0	on site	Low
0	on site	Low to Moderate
0	on site	High
0	on site	Low
0	on site	Low
0	on site	Low
0	on site	High
0	on site	Low to Moderate
0	on site	Low
0	on site	Low to Moderate
0	on site	High
0	on site	Low to Moderate
0	on site	Low
0	on site	Low to Moderate
0	on site	Low to Moderate
0	on site	High
0	on site	Low to Moderate

Distance	Direction	Risk
0	on site	Low
0	on site	Low
0	on site	Low to Moderate
0	on site	High
0	on site	Low to Moderate
0	on site	Low
0	on site	Low to Moderate
0	on site	Low
0	on site	Moderate
0	on site	Low to Moderate
0	on site	Moderate
0	on site	Significant
0	on site	High
0	on site	Moderate
0	on site	Low to Moderate
0	on site	Low
0	on site	Low to Moderate
0	on site	Significant
0	on site	Significant
0	on site	High
0	on site	Moderate
0	on site	Low
0	on site	Significant
0	on site	Moderate
0	on site	Low to Moderate
0	on site	Moderate
0	on site	Significant
0	on site	Moderate
0	on site	Low to Moderate
0	on site	Low
0	on site	Low to Moderate
0	on site	Significant
0	on site	Significant
0	on site	Moderate

Distance	Direction	Risk
0	on site	Low to Moderate
0	on site	Moderate
0	on site	Low
0	on site	Moderate
0	on site	High
0	on site	High
0	on site	Highly Significant
0	on site	High
0	on site	Moderate
0	on site	Low to Moderate
0	on site	Low to Moderate
0	on site	Significant
0	on site	Highly Significant
0	on site	Moderate
0	on site	Low
0	on site	Low
0	on site	Moderate
0	on site	Significant
0	on site	Highly Significant
0	on site	Significant
0	on site	High
0	on site	Low
0	on site	Low
0	on site	Moderate
0	on site	Significant
0	on site	Highly Significant
0	on site	High
0	on site	Significant
0	on site	High
0	on site	Moderate
0	on site	Low to Moderate
0	on site	Low
0	on site	Low
0	on site	Moderate

Distance	Direction	Risk
0	on site	Highly Significant
0	on site	Moderate
0	on site	High
0	on site	High
0	on site	Low
0	on site	Moderate
0	on site	High
0	on site	Low to Moderate
0	on site	Low
0	on site	Low
0	on site	Moderate
0	on site	Significant
0	on site	Moderate
0	on site	Low to Moderate
0	on site	Low
0	on site	Low to Moderate
0	on site	Moderate
0	on site	Low to Moderate
0	on site	Low
0	on site	Low to Moderate
0	on site	Moderate
0	on site	Low to Moderate
0	on site	Low
0	on site	Low to Moderate
0	on site	Low to Moderate
0	on site	Low
0	on site	Low
0	on site	Low
0	on site	Low to Moderate
0	on site	Low to Moderate
0	on site	Low
0	on site	Moderate to High
0	on site	Low to Moderate
0	on site	Low

Distance	Direction	Risk
0	on site	Moderate
0	on site	Low
0	on site	Low to Moderate
0	on site	Low
0	on site	Low
0	on site	Low to Moderate
0	on site	Low to Moderate
0	on site	Low
0	on site	Low
0	on site	Low
0	on site	Low
0	on site	Low
0	on site	Significant
0	on site	Significant
0	on site	Low
0	on site	Low
0	on site	High
0	on site	Highly Significant
0	on site	High
0	on site	Low to Moderate
0	on site	Low
0	on site	Highly Significant
0	on site	Significant
0	on site	Low to Moderate
0	on site	High
0	on site	High
0	on site	Highly Significant
0	on site	High
0	on site	Low to Moderate
0	on site	Significant
0	on site	Highly Significant
0	on site	Low
0	on site	Highly Significant
0	on site	Significant

Distance	Direction	Risk
0	on site	Highly Significant
0	on site	Significant
0	on site	Low
0	on site	Low
0	on site	Low
0	on site	Low to Moderate
0	on site	Low
0	on site	Significant
0	on site	High
0	on site	Low
0	on site	Low
0	on site	Low to Moderate
0	on site	High
0	on site	Low
0	on site	Low
0	on site	Significant
0	on site	Low to Moderate
0	on site	Low to Moderate
0	on site	Significant
0	NW	Moderate
0	NW	Low
0	NE	Low to Moderate
0	NE	Significant
1	NE	Significant
1	SW	Low
1	NW	Low to Moderate
1	SW	Low to Moderate
1	SW	Low to Moderate
1	NE	Low
1	NE	Highly Significant
1	NE	Low to Moderate
1	SE	Low
1	SW	High
1	NE	Highly Significant

Distance	Direction	Risk
1	SE	High
1	SW	Low to Moderate
1	SW	Low
1	NW	Low to Moderate
1	NE	Highly Significant
1	SW	High
2	NE	High
2	NW	High
2	NE	Highly Significant
2	NE	Low
2	SW	High
2	NE	Highly Significant
2	NW	Low
2	NW	Low
2	NW	High
2	SW	Low
2	S	High
2	NE	Low
2	NE	Significant
2	SW	High
2	SW	Moderate
2	NE	Low
2	NE	Highly Significant
2	SW	Highly Significant
2	NE	Low to Moderate
2	NW	Low
2	NE	High
2	S	Highly Significant
3	S	High
3	NW	Significant
3	NE	High
3	SW	Low to Moderate
3	NE	Highly Significant
3	NW	Low

Distance	Direction	Risk
3	NE	Significant
3	SW	Low
3	SW	Low
3	SW	Low
3	NE	Significant
4	NW	Low to Moderate
4	NW	High
4	NW	Low
4	NE	Highly Significant
4	SW	Low to Moderate
4	SW	Significant
4	NW	Significant
4	SW	Significant
4	NE	High
4	NE	Highly Significant
4	SW	Moderate
4	NE	High
4	NW	Low
5	NW	Significant
5	N	High
5	NE	Highly Significant
5	NE	Highly Significant
5	NE	High
5	N	Highly Significant
5	NE	High
5	NE	Highly Significant
5	NW	Low
5	NE	Highly Significant
6	NW	Low to Moderate
6	NE	Highly Significant
6	NW	High
6	N	Low to Moderate
6	NW	Significant
6	NW	Low to Moderate

Distance	Direction	Risk
6	NW	Significant
6	NW	Low to Moderate
6	NW	Low
6	SW	Low to Moderate
6	NW	Low to Moderate
6	NE	Low
6	W	Moderate
6	NW	Low
6	NW	Low
6	NE	Significant
6	SW	Low
6	SE	High
6	N	Low to Moderate
6	NW	Low
6	NW	Low
6	SW	Significant
6	NW	Low
6	NW	Low
6	N	Significant
6	NW	Significant
7	NW	Moderate
7	NE	High
7	NW	Significant
7	NE	Low
7	NW	Low to Moderate
7	S	High
7	NE	Low to Moderate
7	NE	High
7	S	Low
7	NE	Low
8	N	Highly Significant
8	NE	Low to Moderate
8	NE	High
8	NE	Low

Distance	Direction	Risk
8	NW	Low
8	NW	Significant
8	NW	Significant
8	NW	Significant
8	NW	Highly Significant
8	NE	High
8	NW	Low to Moderate
8	SE	Significant
8	SW	High
8	NE	High
8	NE	Low to Moderate
9	NE	Significant
9	SW	Low to Moderate
9	NW	Highly Significant
9	W	Low to Moderate
9	NE	Significant
9	NE	Low to Moderate
9	W	Low
9	SW	Low
9	S	Highly Significant
9	NE	High
9	N	Significant
10	N	Significant
10	SW	Low
10	NE	High
10	SE	Significant
10	S	Low to Moderate
10	NW	High
10	N	High
10	N	Low
10	NW	Low
11	SW	Low to Moderate
11	SW	Low to Moderate
11	SW	Low

Distance	Direction	Risk
11	NE	Low to Moderate
11	N	Low
11	SW	Low
11	W	Low
11	SW	Low
11	NW	Highly Significant
11	SE	High
11	N	High
11	NE	Low
11	S	High
12	NW	Low
12	SE	Low
12	NE	Low
12	NE	Low
12	W	Significant
12	NE	Low to Moderate
12	NE	Low
12	NE	Low
12	SW	Low
12	NE	High
13	NE	Low
13	W	Highly Significant
13	SW	Highly Significant
13	SW	Low
13	NE	Low
13	SW	High
13	NE	Low
13	SE	High
13	NE	Low
14	SW	Low
14	SW	High
14	NE	High
14	NW	Low
14	S	Low

Distance	Direction	Risk
14	NE	Low to Moderate
15	NE	High
15	NW	Significant
15	NE	Low
15	SW	Significant
15	SW	Low
15	SW	Low
15	SW	Low
15	S	High
16	N	High
16	E	Low
16	NW	Significant
16	NW	Low
16	NE	Low
16	S	Significant
16	NE	Low to Moderate
16	W	Low
17	SW	Low
17	NE	Low to Moderate
17	N	Significant
17	NW	Low
17	NW	Significant
17	SE	Significant
17	W	High
17	S	Highly Significant
18	SE	Low
18	NE	Low
18	NE	Low
18	NE	Low
18	NE	Significant
18	NE	Significant
18	SE	Highly Significant
18	S	Significant
19	NW	Low to Moderate

Distance	Direction	Risk
19	SE	Low
19	NW	Low to Moderate
19	SE	Low
19	NW	High
19	SW	Low
19	NW	Significant
19	SW	Moderate
20	W	Low
20	NW	Low to Moderate
20	NE	Low
20	N	High
20	S	Low
20	SE	High
21	N	Significant
21	E	Significant
21	SW	High
21	NE	Low
21	NW	High
21	SE	Significant
21	SW	Low to Moderate
21	NW	High
22	N	High
22	SW	Low
22	SW	Low to Moderate
22	SE	Low
22	S	Low to Moderate
22	NE	High
22	NW	High
22	NW	Low
23	S	High
23	NW	Low
24	NW	Low
24	W	Low
24	W	Low to Moderate

Distance	Direction	Risk
24	SW	Low to Moderate
24	SE	Significant
24	SW	High
24	SE	High
24	NE	Low
24	S	Highly Significant
25	SW	Low
25	N	High
25	N	Significant
25	E	Significant
25	SW	High
25	S	Significant
25	E	High
26	SE	Low to Moderate
26	NE	Low
26	S	Low to Moderate
26	N	Low to Moderate
26	NW	Low to Moderate
27	S	High
27	W	Low
27	SE	High
27	W	Low to Moderate
27	SE	Low
27	NE	Low
28	SE	Highly Significant
28	NW	Low
29	NW	High
29	SW	Low
29	W	Low to Moderate
30	N	Significant
30	E	High
30	E	Significant
30	NW	Low to Moderate
30	S	Low to Moderate

Distance	Direction	Risk
30	SW	Low
31	NE	Low
31	SW	Low to Moderate
31	SW	High
31	S	Highly Significant
32	SW	High
32	SW	Low to Moderate
32	NW	Low to Moderate
32	NW	Low to Moderate
33	SW	High
33	W	Low
34	SE	Significant
35	NW	Low
35	E	Highly Significant
35	E	High
36	S	Significant
36	SW	Low
36	SW	Significant
36	SW	High
36	NW	Low
36	NW	Low to Moderate
37	N	Low
37	W	Low
38	S	Low to Moderate
38	SW	High
38	SE	High
39	SW	Low to Moderate
39	NW	Low
39	S	High
40	SE	Low
40	SW	Low
40	E	Low
40	E	Low to Moderate
40	E	Significant

Distance	Direction	Risk
40	NW	Low
41	SE	Highly Significant
41	NW	Low
41	NW	Low
41	SW	High
43	W	Low
43	SW	High
44	NW	Low to Moderate
44	SW	Low to Moderate
45	S	High
45	E	Low
45	SW	Low to Moderate
45	NE	Low
46	NW	Low to Moderate
46	S	Low
47	S	Highly Significant
47	W	Low
47	SE	High
47	SE	Low
48	E	Moderate
49	W	Low to Moderate
49	SW	High
50	SW	Low
50	SW	Low to Moderate
50	SW	Low to Moderate
50	E	Highly Significant
50	E	Significant
50	E	Low

6.4 Groundwater Flooding Susceptibility Areas

Are there any British Geological Survey groundwater flooding susceptibility flood areas within 50m of the boundary of the study site?	Yes
What is the susceptibility to Groundwater Flooding in the search area based on the underlying geological conditions?	Potential for groundwater flooding at surface
Does this relate to Clearwater Flooding or Superficial Deposits Flooding?	Superficial Deposits Flooding

6.5 Groundwater Flooding Confidence Areas

What is the British Geological Survey confidence rating in this result?	High

Groundwater flooding is defined as the emergence of groundwater at the ground surface or the rising of groundwater into man-made ground under conditions where the normal range of groundwater levels is exceeded.

The confidence rating is on a threefold scale - Low, Moderate and High. This provides a relative indication of the BGS confidence in the accuracy of the susceptibility result for groundwater flooding. This is based on the amount and precision of the information used in the assessment. In areas with a relatively lower level of confidence the susceptibility result should be treated with more caution. In other areas with higher levels of confidence the susceptibility result can be used with more confidence.

6.6 BGS Geological Indicators of Flooding

Are there any geological indicators of flooding within 250m of the study site?	Yes

This dataset identifies the presence of superficial geological deposits which indicate that the site may be, or have been in the past, vulnerable to inland and/or coastal flooding. This assessment does not take account of any man-made factors such as flood protection schemes, and the data behind the report are purely geological.

Distance (m)	Direction	Description
0	on site	Higher flood potential from rivers: the first areas to experience the effects of inland flooding in a river catchment.
0	on site	Higher flood potential from rivers: the first areas to experience the effects of inland flooding in a river catchment.

6.7 JBA Reservoir Failure Impact Modelling

Is the property located in an area identified as being at potential risk in the event of a reservoir failure?	No

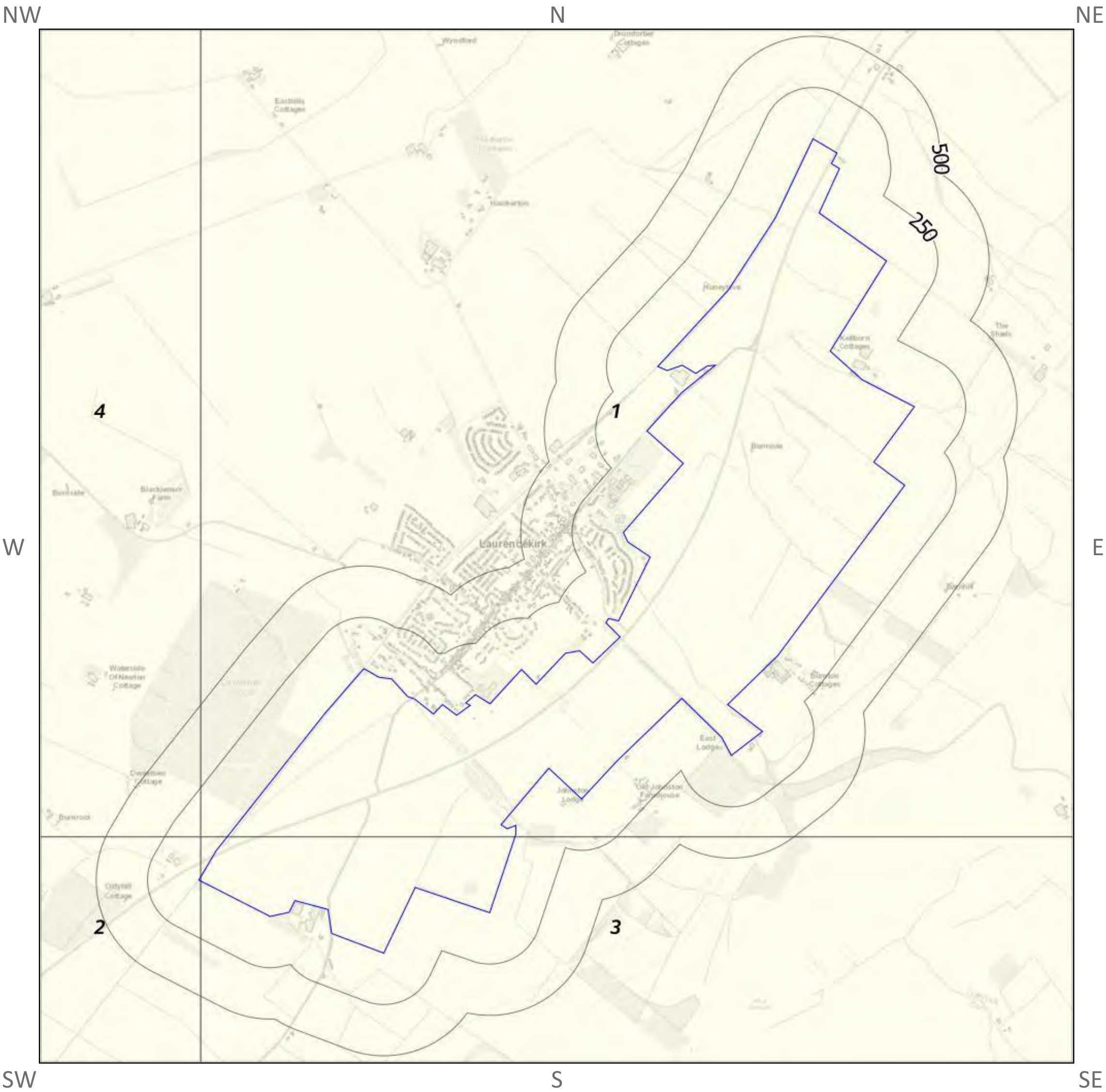
JBA Risk Management have modelled the flooding impact from 1,700 reservoirs in the UK, should there be a catastrophic failure of a reservoir wall or embankment.

Guidance: None required

This data is provided by JBA Risk Management, © Jeremy Benn Associates Limited 2008-2017

7 Mining

Mining, Extraction & Natural Cavities



Mining, Extraction & Natural Cavities

Site Centre

250
500
Search Buffers (m)

Non-coal Mining (BGS records)

- Rare
- Highly Unlikely
- Unlikely
- Likely
- Highly Likely

- Historical Mining (Historical Ordnance Survey records)
- Natural Cavity records (PBA)
- Mining Cavity records (PBA)

7.1 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.

7.2 Coal Mining

Database searched and no data found.

7.3 Johnson Poole and Bloomer

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

Database searched and no data found.

7.4 Non-Coal Mining

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

ID	Distance (m)	Direction	Name	Rating	Commodity	Assessment of likelihood
1	0	on site	Not available	Rare	Vein Mineral	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
2	0	on site	Not available	Rare	Vein Mineral	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	Rating	Commodity	Assessment of likelihood
3	0	on site	Not available	Rare	Vein Mineral	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
4	101	NW	Not available	Rare	Vein Mineral	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

7.5 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.

7.6 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.

7.7 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.

7.8 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.

7.9 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.

7.10 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.

8 Natural Hazards Findings

Detailed BGS GeoSure Data

BGS GeoSure Data has been searched to 50m to account for the scale of mapping used to derive the information within this database (1:50,000 scale). The data is included in tabular format. The following information has been found:

8.1 Shrink Swell

What is the maximum Shrink-Swell* hazard rating identified on the study site?	Very Low

The following natural subsidence information provided by the British Geological Survey is not represented on mapping:

Hazards
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.

8.2 Landslides

What is the maximum Landslide* hazard rating identified on the study site?	Low

The following natural subsidence information provided by the British Geological Survey is not represented on mapping.

Hazards
Possibility of slope instability problems after major changes in ground conditions. Consideration should be given to stability if changes to drainage or excavations take place. Possible increase in construction cost to reduce potential slope stability problems. Existing property – no significant increase in insurance risk due to natural slope instability problems.

8.3 Soluble Rocks

What is the maximum Soluble Rocks* hazard rating identified on the study site?	Negligible

The following natural subsidence information provided by the British Geological Survey is not represented on mapping.

Hazards
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.

8.4 Compressible Ground

What is the maximum Compressible Ground* hazard rating identified on the study site?	Moderate

The following natural subsidence information provided by the British Geological Survey is not represented on mapping

Hazards

Hazards
Significant potential for compressibility problems. Avoid large differential loadings of ground. Do not drain 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.

8.5 Collapsible Rocks

What is the maximum Collapsible Rocks* hazard rating identified on the study site?	Very Low

The following natural subsidence information provided by the British Geological Survey is not represented on mapping.

Hazards
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.

8.6 Running Sand

What is the maximum Running Sand* hazard rating identified on the study site?	Low

The following natural subsidence information provided by the British Geological Survey is not represented on mapping.

Hazards
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.

8.7 Radon Potential

Maximum radon potential at the study site	The property is not in a Radon Affected Area, as less than 1% of properties are above the Action Level.

The Radon Potential Dataset is the definitive map of Radon Affected Areas in Great Britain and Northern Ireland, created jointly by Public Health England (PHE) and the BGS using long-term radon measurements made in over 479,000 homes across Great Britain and 23,000 homes across Northern Ireland (without affecting householders' confidentiality), combined with geological map data. The findings of this dataset supercede any findings derived from the generalised Indicative Atlas of Radon.

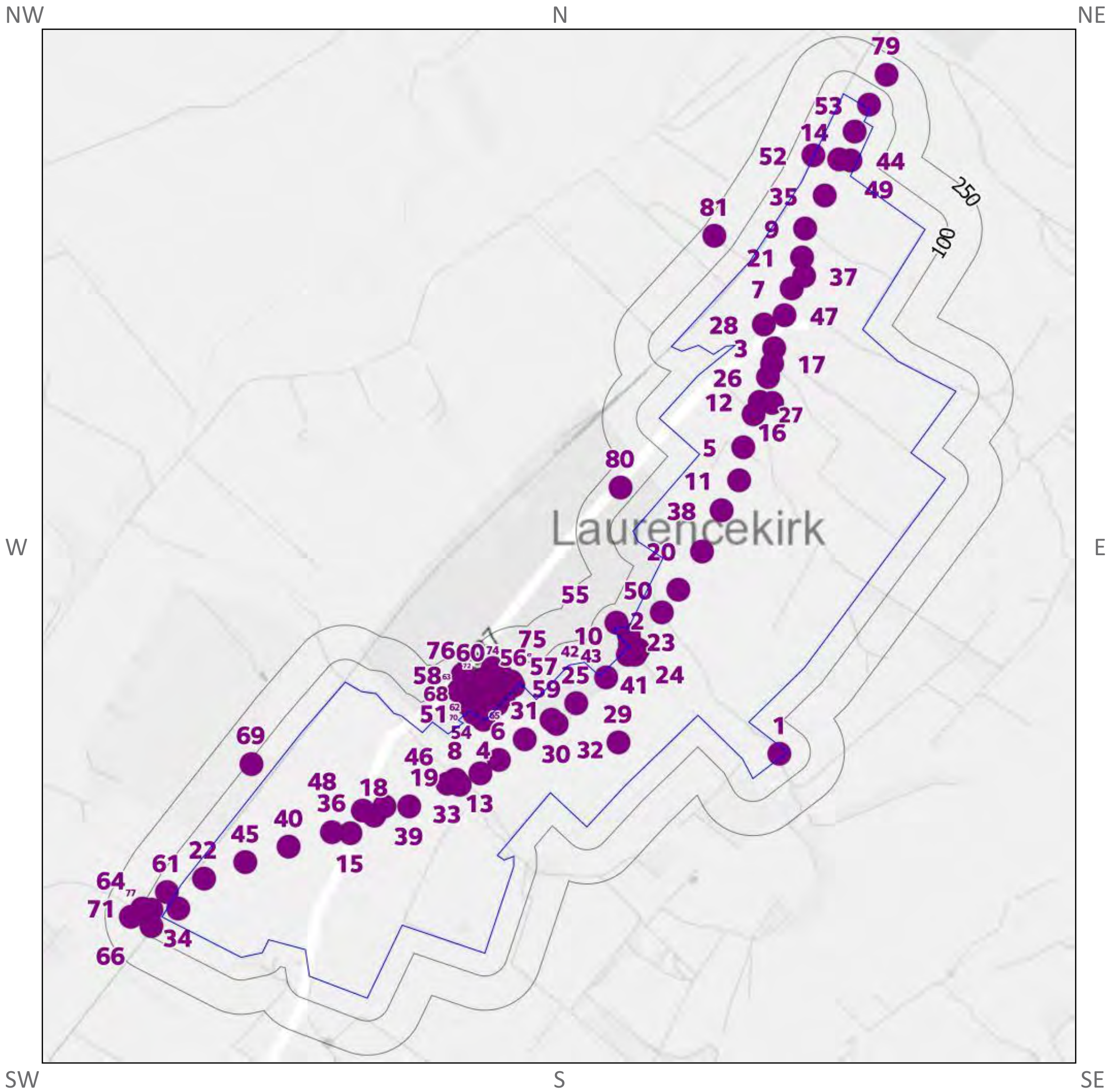
8.8 Radon Protective Measures

Radon protection measures required for new properties or extensions to existing properties	No radon protective measures are necessary.

The responses given on the level of radon protective measures required are based on a joint radon potential dataset from Public Health England (PHE) and the British Geological Survey (BGS). No radon protection measures are required.

9 Borehole Records

Borehole Records Map



Borehole Records Map

Site Centre

100
250
Search Buffers (m)

BGS Recorded Boreholes

9.1 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	81

ID	Distance (m)	Direction	NGR	BGS Reference	Drilled Length (m)	Borehole Name	Borehole Link
1	0	W	372700 770500	NO77SW4	-1	BURNHEAD BH	N/A
2	0	W	372078 770959	NO77SW9758/18	6	A94 LAURENCEKIRK BYPASS 18	scans.bgs.ac.uk/sobi_scans/boreholes/697362
3	0	W	372677 772283	NO77SW9758/TP23	2.5	A94 LAURENCEKIRK BYPASS TP23	scans.bgs.ac.uk/sobi_scans/boreholes/697390
4	0	W	371400 770650	NO77SW14337/9	3	LAURENCEKIRK PRIMARY SCHOOL TP9	scans.bgs.ac.uk/sobi_scans/boreholes/697413
5	0	W	372539 771847	NO77SW9758/21	11.1	A94 LAURENCEKIRK BYPASS 21	scans.bgs.ac.uk/sobi_scans/boreholes/697365
6	0	W	371465 770476	NO77SW9758/15	3.3	A94 LAURENCEKIRK BYPASS 15	scans.bgs.ac.uk/sobi_scans/boreholes/697359
7	0	W	372753 772542	NO77SW9758/25	4.4	A94 LAURENCEKIRK BYPASS 25	scans.bgs.ac.uk/sobi_scans/boreholes/697369
8	0	W	371275 770390	NO77SW9758/13	4	A94 LAURENCEKIRK BYPASS 13	scans.bgs.ac.uk/sobi_scans/boreholes/697357
9	0	W	372812 772806	NO77SW9758/26	4.9	A94 LAURENCEKIRK BYPASS 26	scans.bgs.ac.uk/sobi_scans/boreholes/697370
10	0	W	372037 771022	NO77SW9758/TP16	1.5	A94 LAURENCEKIRK BYPASS TP16	scans.bgs.ac.uk/sobi_scans/boreholes/697383
11	0	W	372520 771701	NO77SW9758/TP20	2.5	A94 LAURENCEKIRK BYPASS TP20	scans.bgs.ac.uk/sobi_scans/boreholes/697387
12	0	W	372611 772046	NO77SW9758/22	4.8	A94 LAURENCEKIRK BYPASS 22	scans.bgs.ac.uk/sobi_scans/boreholes/697366

13	0	W	371384 770416	NO77SW9758/TP12	2	A94 LAURENCEKIRK BYPASS TP12	scans.bgs.ac.uk/sobi_scans/boreholes/697379
14	0	W	373029 773231	NO77SW9758/TP28	2	A94 LAURENCEKIRK BYPASS TP28	scans.bgs.ac.uk/sobi_scans/boreholes/697395
15	0	W	370813 770152	NO77SW9758/TP8	2	A94 LAURENCEKIRK BYPASS TP8	scans.bgs.ac.uk/sobi_scans/boreholes/697375
16	0	W	372667 772043	NO77SW6405/9	3.5	A94 LAURENCEKIRK BYPASS 9	scans.bgs.ac.uk/sobi_scans/boreholes/697340
17	0	W	372666 772213	NO77SW9758/23	2.5	A94 LAURENCEKIRK BYPASS 23	scans.bgs.ac.uk/sobi_scans/boreholes/697367
18	0	W	370917 770229	NO77SW9758/TP10	2.2	A94 LAURENCEKIRK BYPASS TP10	scans.bgs.ac.uk/sobi_scans/boreholes/697377
19	0	W	370963 770273	NO77SW6405/11	3.05	A94 LAURENCEKIRK BYPASS 11	scans.bgs.ac.uk/sobi_scans/boreholes/697342
20	0	W	372358 771391	NO77SW9758/TP18	1.5	A94 LAURENCEKIRK BYPASS TP18	scans.bgs.ac.uk/sobi_scans/boreholes/697385
21	0	W	372797 772680	NO77SW9758/TP25	2	A94 LAURENCEKIRK BYPASS TP25	scans.bgs.ac.uk/sobi_scans/boreholes/697392
22	0	W	370170 769954	NO76NW9758/TP6	3.6	A94 LAURENCEKIRK BYPASS TP6	scans.bgs.ac.uk/sobi_scans/boreholes/609365
23	0	W	372182 771123	NO77SW9758/19	4.8	A94 LAURENCEKIRK BYPASS 19	scans.bgs.ac.uk/sobi_scans/boreholes/697363
24	0	W	372042 770981	NO77SW9758/18A	6.5	A94 LAURENCEKIRK BYPASS 18A	scans.bgs.ac.uk/sobi_scans/boreholes/697373
25	0	W	371806 770722	NO77SW9758/17	8	A94 LAURENCEKIRK BYPASS 17	scans.bgs.ac.uk/sobi_scans/boreholes/697361

26	0	W	372649 772153	NO77SW9758/TP2 2	2.4	A94 LAURENCEKIRK BYPASS TP22	scans.bgs.ac.uk/sobi_scans/boreholes/697389
27	0	W	372584 771992	NO77SW9758/TP2 1	4	A94 LAURENCEKIRK BYPASS TP21	scans.bgs.ac.uk/sobi_scans/boreholes/697388
28	0	W	372632 772385	NO77SW9758/TP2 4	3.2	A94 LAURENCEKIRK BYPASS TP24	scans.bgs.ac.uk/sobi_scans/boreholes/697391
29	0	W	371990 770550	NO77SW3	118	LAURENCEKIRK	scans.bgs.ac.uk/sobi_scans/boreholes/697318
30	0	W	371719 770633	NO77SW9758/16A	1.5	A94 LAURENCEKIRK BYPASS 16A	scans.bgs.ac.uk/sobi_scans/boreholes/697372
31	0	W	371582 770566	NO77SW9758/TP1 3	2	A94 LAURENCEKIRK BYPASS TP13	scans.bgs.ac.uk/sobi_scans/boreholes/697380
32	0	W	371698 770653	NO77SW9758/16	8	A94 LAURENCEKIRK BYPASS 16	scans.bgs.ac.uk/sobi_scans/boreholes/697360
33	0	W	371241 770369	NO77SW9758/TP1 1	1.5	A94 LAURENCEKIRK BYPASS TP11	scans.bgs.ac.uk/sobi_scans/boreholes/697378
34	0	W	370058 769825	NO76NW6405/12	3.65	A94 LAURENCEKIRK BYPASS 12	scans.bgs.ac.uk/sobi_scans/boreholes/609363
35	0	W	372896 772949	NO77SW9758/TP2 6	2.2	A94 LAURENCEKIRK BYPASS TP26	scans.bgs.ac.uk/sobi_scans/boreholes/697393
36	0	W	370733 770160	NO77SW9758/11	2.5	A94 LAURENCEKIRK BYPASS 11	scans.bgs.ac.uk/sobi_scans/boreholes/697355
37	0	W	372806 772597	NO77SW6405/8	3.35	A94 LAURENCEKIRK BYPASS 8	scans.bgs.ac.uk/sobi_scans/boreholes/697339
38	0	W	372447 771569	NO77SW9758/TP1 9	2	A94 LAURENCEKIRK BYPASS TP19	scans.bgs.ac.uk/sobi_scans/boreholes/697386

39	0	W	371072 770272	NO77SW9758/12	2.5	A94 LAURENCEKIRK BYPASS 12	scans.bgs.ac.uk/sobi_scans/boreholes/697356
40	0	W	370544 770093	NO77SW9758/TP7	1.5	A94 LAURENCEKIRK BYPASS TP7	scans.bgs.ac.uk/sobi_scans/boreholes/697374
41	0	W	372065 770936	NO77SW6405/10	3.2	A94 LAURENCEKIRK BYPASS 10	scans.bgs.ac.uk/sobi_scans/boreholes/697341
42	0	W	371936 770839	NO77SW9758/TP14	2	A94 LAURENCEKIRK BYPASS TP14	scans.bgs.ac.uk/sobi_scans/boreholes/697381
43	0	W	372032 770935	NO77SW9758/TP15	1.5	A94 LAURENCEKIRK BYPASS TP15	scans.bgs.ac.uk/sobi_scans/boreholes/697382
44	0	W	373012 773105	NO77SW6405/7	3.65	A94 LAURENCEKIRK BYPASS 7	scans.bgs.ac.uk/sobi_scans/boreholes/697338
45	0	W	370355 770025	NO77SW9758/10	2.5	A94 LAURENCEKIRK BYPASS 10	scans.bgs.ac.uk/sobi_scans/boreholes/697354
46	0	W	371294 770364	NO77SW9758/14	4	A94 LAURENCEKIRK BYPASS 14	scans.bgs.ac.uk/sobi_scans/boreholes/697358
47	0	W	372722 772424	NO77SW9758/24	2.5	A94 LAURENCEKIRK BYPASS 24	scans.bgs.ac.uk/sobi_scans/boreholes/697368
48	0	W	370869 770255	NO77SW9758/TP9	2	A94 LAURENCEKIRK BYPASS TP9	scans.bgs.ac.uk/sobi_scans/boreholes/697376
49	0	W	372961 773109	NO77SW9758/TP27	1.5	A94 LAURENCEKIRK BYPASS TP27	scans.bgs.ac.uk/sobi_scans/boreholes/697394
50	0	W	372255 771221	NO77SW9758/20	3	A94 LAURENCEKIRK BYPASS 20	scans.bgs.ac.uk/sobi_scans/boreholes/697364
51	1	NE	371360 770680	NO77SW14337/8	2	LAURENCEKIRK PRIMARY SCHOOL TP8	scans.bgs.ac.uk/sobi_scans/boreholes/697412

52	4	NW	372849 773127	NO77SW6405/6	2.3	A94 LAURENCEKIRK BYPASS 6	scans.bgs.ac.uk/sobi_scans/boreholes/697337
53	11	NE	373093 773348	NO77SW9758/TP29	1.5	A94 LAURENCEKIRK BYPASS TP29	scans.bgs.ac.uk/sobi_scans/boreholes/697396
54	12	NW	371460 770720	NO77SW14337/14	1	LAURENCEKIRK PRIMARY SCHOOL TP14	scans.bgs.ac.uk/sobi_scans/boreholes/697418
55	13	NW	371981 771075	NO77SW9758/TP17	2	A94 LAURENCEKIRK BYPASS TP17	scans.bgs.ac.uk/sobi_scans/boreholes/697384
56	14	NW	371530 770800	NO77SW14337/19	2	LAURENCEKIRK PRIMARY SCHOOL TP19	scans.bgs.ac.uk/sobi_scans/boreholes/697423
57	17	NW	371490 770760	NO77SW14337/16	2	LAURENCEKIRK PRIMARY SCHOOL TP16	scans.bgs.ac.uk/sobi_scans/boreholes/697420
58	29	N	371330 770720	NO77SW14337/7	2	LAURENCEKIRK PRIMARY SCHOOL TP7	scans.bgs.ac.uk/sobi_scans/boreholes/697411
59	30	NW	371500 770790	NO77SW14337/17	2	LAURENCEKIRK PRIMARY SCHOOL TP17	scans.bgs.ac.uk/sobi_scans/boreholes/697421
60	35	NW	371520 770820	NO77SW14337/20	2	LAURENCEKIRK PRIMARY SCHOOL TP20	scans.bgs.ac.uk/sobi_scans/boreholes/697424
61	38	NW	370009 769895	NO76NW9758/TP5	3.6	A94 LAURENCEKIRK BYPASS TP5	scans.bgs.ac.uk/sobi_scans/boreholes/609364
62	42	NW	371410 770710	NO77SW14337/10	2	LAURENCEKIRK PRIMARY SCHOOL TP10	scans.bgs.ac.uk/sobi_scans/boreholes/697414
63	58	NE	371370 770740	NO77SW14337/11	1	LAURENCEKIRK PRIMARY SCHOOL TP11	scans.bgs.ac.uk/sobi_scans/boreholes/697415
64	58	NW	369941 769819	NO66NE9758/3	4.5	A94 LAURENCEKIRK BYPASS 3	scans.bgs.ac.uk/sobi_scans/boreholes/620648

65	60	NW	371450 770780	NO77SW14337/15	2	LAURENCEKIRK PRIMARY SCHOOL TP15	scans.bgs.ac.uk/sobi_scans/boreholes/697419
66	66	SW	369940 769747	NO66NE6405/1	3.05	A94 LAURENCEKIRK BYPASS 1	scans.bgs.ac.uk/sobi_scans/boreholes/620645
67	78	NW	371480 770840	NO77SW14337/18	2	LAURENCEKIRK PRIMARY SCHOOL TP18	scans.bgs.ac.uk/sobi_scans/boreholes/697422
68	81	N	371360 770770	NO77SW14337/12	1	LAURENCEKIRK PRIMARY SCHOOL TP12	scans.bgs.ac.uk/sobi_scans/boreholes/697416
69	88	NW	370379 770457	NO77SW6405/2	5.35	A94 LAURENCEKIRK BYPASS 2	scans.bgs.ac.uk/sobi_scans/boreholes/697333
70	90	NW	371400 770770	NO77SW14337/13	1	LAURENCEKIRK PRIMARY SCHOOL TP13	scans.bgs.ac.uk/sobi_scans/boreholes/697417
71	98	W	369900 769825	NO66NE9758/2	4.3	A94 LAURENCEKIRK BYPASS 2	scans.bgs.ac.uk/sobi_scans/boreholes/620647
72	98	N	371330 770790	NO77SW14337/5	2	LAURENCEKIRK PRIMARY SCHOOL TP5	scans.bgs.ac.uk/sobi_scans/boreholes/697409
73	100	NW	371290 770780	NO77SW14337/6	2	LAURENCEKIRK PRIMARY SCHOOL TP6	scans.bgs.ac.uk/sobi_scans/boreholes/697410
74	114	NW	371440 770850	NO77SW14337/2	2	LAURENCEKIRK PRIMARY SCHOOL TP2	scans.bgs.ac.uk/sobi_scans/boreholes/697406
75	135	NW	371440 770880	NO77SW14337/1	2	LAURENCEKIRK PRIMARY SCHOOL TP1	scans.bgs.ac.uk/sobi_scans/boreholes/697405
76	138	NW	371390 770830	NO77SW14337/3	2	LAURENCEKIRK PRIMARY SCHOOL TP3	scans.bgs.ac.uk/sobi_scans/boreholes/697407
77	139	W	369852 769789	NO66NE9758/TP4	1.5	A94 LAURENCEKIRK BYPASS TP4	scans.bgs.ac.uk/sobi_scans/boreholes/620658

78	160	N	371310 770850	NO77SW14337/4	2	LAURENCEKIRK PRIMARY SCHOOL TP4	scans.bgs.ac.uk/sobi_scans/boreholes/697408
79	164	NE	373167 773482	NO77SW9758/TP30	1.5	A94 LAURENCEKIRK BYPASS TP30	scans.bgs.ac.uk/sobi_scans/boreholes/697397
80	168	NW	372000 771670	NO77SW16930/TP1	2	MEARNS ACADEMY - LAURENCEKIRK TP1	scans.bgs.ac.uk/sobi_scans/boreholes/697425
81	189	NW	372415 772774	NO77SW6405/5	3.05	A94 LAURENCEKIRK BYPASS 5	scans.bgs.ac.uk/sobi_scans/boreholes/697336

10 Railways and Tunnels

Railways and Tunnels Map

Railways and Tunnels Map

10.1 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

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

10.2 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

Railways (1:10,000 scale historical mapping)

Distance	Direction	NGR	Details	Date
79	SW	372083 772160	Railway Sidings	1928
169	SW	372046 772136	Railway Sidings	1901
183	NW	371862 771967	Railway Sidings	1955
186	NW	371840 771946	Railway Sidings	1938
186	NW	371841 771943	Railway Sidings	1901
186	NW	371838 771945	Railway Sidings	1928
248	NW	371795 771878	Railway Sidings	1970

Railways (1:2,500 and 1:1,1250 scale historical mapping)

Distance	Direction	NGR	Details	Date
152	SW	372060 772127	Railway Sidings	1968

Distance	Direction	NGR	Details	Date
247	NW	371792 771911	Railway Sidings	1968

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

10.3 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.

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

Ordnance Survey Records

Distance	Direction	Name	Type
0	on site	Not given	Multi Track
0	on site	Not given	Multi Track
0	on site	Not given	Multi Track
0	on site	Not given	Multi Track
0	on site	Not given	Multi Track
3	NW	Not given	Multi Track
67	SW	Not given	Multi Track
67	SW	Not given	Multi Track

OpenStreetMap Records

Distance	Direction	Name	Type
0	on site	Edinburgh to Aberdeen Line	Rail
0	on site	Edinburgh to Aberdeen Line	Rail

10.5 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.

11 Soil Chemistry

11.1 Estimated Background Soil Chemistry

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

Records of background estimated soil chemistry potentially within the study site boundary:	86

The BGS Estimated Ambient Background Soil Chemistry dataset has been developed at a 1:50,000 scale, and hence any records found within 50m of the site are displayed within this table as potentially being present on site. Please note, if the search area is in an urban area, then As, Cd, Cr, Ni and Pb concentrations are likely to be significantly higher than indicated by the estimated ambient background concentrations.

Distance (m)	Direction	Sample Type	Arsenic (As) (mg/kg)	Cadmium (Cd) (mg/kg)	Chromium (Cr) (mg/kg)	Nickel (Ni) (mg/kg)	Lead (Pb) (mg/kg)	Bioaccessible lead (mg/kg)
0	on site	Sediment	<15 mg/kg	No data	90 - 120 mg/kg	15 - 30 mg/kg	<100 mg/kg	<60 mg/kg
0	on site	Sediment	<15 mg/kg	No data	90 - 120 mg/kg	15 - 30 mg/kg	<100 mg/kg	<60 mg/kg
0	on site	Sediment	<15 mg/kg	No data	90 - 120 mg/kg	15 - 30 mg/kg	<100 mg/kg	<60 mg/kg
0	on site	Sediment	<15 mg/kg	No data	90 - 120 mg/kg	15 - 30 mg/kg	<100 mg/kg	<60 mg/kg
0	on site	Sediment	<15 mg/kg	No data	90 - 120 mg/kg	15 - 30 mg/kg	<100 mg/kg	<60 mg/kg
0	on site	Sediment	<15 mg/kg	No data	90 - 120 mg/kg	15 - 30 mg/kg	<100 mg/kg	<60 mg/kg
0	on site	Sediment	<15 mg/kg	No data	90 - 120 mg/kg	15 - 30 mg/kg	<100 mg/kg	<60 mg/kg
0	on site	Sediment	<15 mg/kg	No data	90 - 120 mg/kg	15 - 30 mg/kg	<100 mg/kg	<60 mg/kg
0	on site	Sediment	<15 mg/kg	No data	90 - 120 mg/kg	15 - 30 mg/kg	<100 mg/kg	<60 mg/kg
0	on site	Sediment	<15 mg/kg	No data	90 - 120 mg/kg	15 - 30 mg/kg	<100 mg/kg	<60 mg/kg
0	on site	Sediment	<15 mg/kg	No data	90 - 120 mg/kg	15 - 30 mg/kg	<100 mg/kg	<60 mg/kg
0	on site	Sediment	<15 mg/kg	No data	90 - 120 mg/kg	15 - 30 mg/kg	<100 mg/kg	<60 mg/kg
0	on site	Sediment	<15 mg/kg	No data	90 - 120 mg/kg	15 - 30 mg/kg	<100 mg/kg	<60 mg/kg

Distance (m)	Direction	Sample Type	Arsenic (As) (mg/kg)	Cadmium (Cd) (mg/kg)	Chromium (Cr) (mg/kg)	Nickel (Ni) (mg/kg)	Lead (Pb) (mg/kg)	Bioaccessible lead (mg/kg)
0	on site	Sediment	<15 mg/kg	No data	90 - 120 mg/kg	15 - 30 mg/kg	<100 mg/kg	<60 mg/kg
0	on site	Sediment	<15 mg/kg	No data	90 - 120 mg/kg	15 - 30 mg/kg	<100 mg/kg	<60 mg/kg
0	on site	Sediment	<15 mg/kg	No data	60 - 90 mg/kg	15 - 30 mg/kg	<100 mg/kg	<60 mg/kg
0	on site	Sediment	<15 mg/kg	No data	60 - 90 mg/kg	15 - 30 mg/kg	<100 mg/kg	<60 mg/kg
0	on site	Sediment	<15 mg/kg	No data	60 - 90 mg/kg	15 - 30 mg/kg	<100 mg/kg	<60 mg/kg
0	on site	Sediment	<15 mg/kg	No data	90 - 120 mg/kg	15 - 30 mg/kg	<100 mg/kg	<60 mg/kg
0	on site	Sediment	<15 mg/kg	No data	90 - 120 mg/kg	15 - 30 mg/kg	<100 mg/kg	<60 mg/kg
0	on site	Sediment	<15 mg/kg	No data	90 - 120 mg/kg	15 - 30 mg/kg	<100 mg/kg	<60 mg/kg
0	on site	Sediment	<15 mg/kg	No data	90 - 120 mg/kg	15 - 30 mg/kg	<100 mg/kg	<60 mg/kg
0	on site	Sediment	<15 mg/kg	No data	60 - 90 mg/kg	15 - 30 mg/kg	<100 mg/kg	<60 mg/kg
0	on site	Sediment	<15 mg/kg	No data	90 - 120 mg/kg	15 - 30 mg/kg	<100 mg/kg	<60 mg/kg
0	on site	Sediment	<15 mg/kg	No data	90 - 120 mg/kg	15 - 30 mg/kg	<100 mg/kg	<60 mg/kg
0	on site	Sediment	<15 mg/kg	No data	90 - 120 mg/kg	15 - 30 mg/kg	<100 mg/kg	<60 mg/kg
0	on site	Sediment	<15 mg/kg	No data	60 - 90 mg/kg	15 - 30 mg/kg	<100 mg/kg	<60 mg/kg
0	on site	Sediment	<15 mg/kg	No data	90 - 120 mg/kg	15 - 30 mg/kg	<100 mg/kg	<60 mg/kg
0	on site	Sediment	<15 mg/kg	No data	90 - 120 mg/kg	15 - 30 mg/kg	<100 mg/kg	<60 mg/kg
0	on site	Sediment	<15 mg/kg	No data	90 - 120 mg/kg	15 - 30 mg/kg	<100 mg/kg	<60 mg/kg
0	on site	Sediment	<15 mg/kg	No data	90 - 120 mg/kg	15 - 30 mg/kg	<100 mg/kg	<60 mg/kg
0	on site	Sediment	<15 mg/kg	No data	90 - 120 mg/kg	15 - 30 mg/kg	<100 mg/kg	<60 mg/kg
0	on site	Sediment	<15 mg/kg	No data	90 - 120 mg/kg	15 - 30 mg/kg	<100 mg/kg	<60 mg/kg
0	on site	Sediment	<15 mg/kg	No data	90 - 120 mg/kg	15 - 30 mg/kg	<100 mg/kg	<60 mg/kg

Distance (m)	Direction	Sample Type	Arsenic (As) (mg/kg)	Cadmium (Cd) (mg/kg)	Chromium (Cr) (mg/kg)	Nickel (Ni) (mg/kg)	Lead (Pb) (mg/kg)	Bioaccessible lead (mg/kg)
0	on site	Sediment	<15 mg/kg	No data	90 - 120 mg/kg	15 - 30 mg/kg	<100 mg/kg	<60 mg/kg
0	on site	Sediment	<15 mg/kg	No data	90 - 120 mg/kg	15 - 30 mg/kg	<100 mg/kg	<60 mg/kg
0	on site	Sediment	<15 mg/kg	No data	90 - 120 mg/kg	15 - 30 mg/kg	<100 mg/kg	<60 mg/kg
0	on site	Sediment	<15 mg/kg	No data	90 - 120 mg/kg	15 - 30 mg/kg	<100 mg/kg	<60 mg/kg
0	on site	Sediment	<15 mg/kg	No data	90 - 120 mg/kg	15 - 30 mg/kg	<100 mg/kg	<60 mg/kg
0	on site	Sediment	<15 mg/kg	No data	60 - 90 mg/kg	15 - 30 mg/kg	<100 mg/kg	<60 mg/kg
0	on site	Sediment	<15 mg/kg	No data	60 - 90 mg/kg	15 - 30 mg/kg	<100 mg/kg	<60 mg/kg
0	on site	Sediment	<15 mg/kg	No data	90 - 120 mg/kg	15 - 30 mg/kg	<100 mg/kg	<60 mg/kg
0	on site	Sediment	<15 mg/kg	No data	90 - 120 mg/kg	15 - 30 mg/kg	<100 mg/kg	<60 mg/kg
0	on site	Sediment	<15 mg/kg	No data	90 - 120 mg/kg	15 - 30 mg/kg	<100 mg/kg	<60 mg/kg
0	on site	Sediment	<15 mg/kg	No data	60 - 90 mg/kg	15 - 30 mg/kg	<100 mg/kg	<60 mg/kg
0	on site	Sediment	<15 mg/kg	No data	90 - 120 mg/kg	15 - 30 mg/kg	<100 mg/kg	<60 mg/kg
0	on site	Sediment	<15 mg/kg	No data	90 - 120 mg/kg	15 - 30 mg/kg	<100 mg/kg	<60 mg/kg
0	on site	Sediment	<15 mg/kg	No data	90 - 120 mg/kg	15 - 30 mg/kg	<100 mg/kg	<60 mg/kg
0	on site	Sediment	<15 mg/kg	No data	60 - 90 mg/kg	15 - 30 mg/kg	<100 mg/kg	<60 mg/kg
0	on site	Sediment	<15 mg/kg	No data	90 - 120 mg/kg	15 - 30 mg/kg	<100 mg/kg	<60 mg/kg
0	on site	Sediment	<15 mg/kg	No data	90 - 120 mg/kg	15 - 30 mg/kg	<100 mg/kg	<60 mg/kg
0	on site	Sediment	<15 mg/kg	No data	90 - 120 mg/kg	15 - 30 mg/kg	<100 mg/kg	<60 mg/kg
0	on site	Sediment	<15 mg/kg	No data	90 - 120 mg/kg	15 - 30 mg/kg	<100 mg/kg	<60 mg/kg
0	on site	Sediment	<15 mg/kg	No data	90 - 120 mg/kg	15 - 30 mg/kg	<100 mg/kg	<60 mg/kg

Distance (m)	Direction	Sample Type	Arsenic (As) (mg/kg)	Cadmium (Cd) (mg/kg)	Chromium (Cr) (mg/kg)	Nickel (Ni) (mg/kg)	Lead (Pb) (mg/kg)	Bioaccessible lead (mg/kg)
0	on site	Sediment	<15 mg/kg	No data	90 - 120 mg/kg	15 - 30 mg/kg	<100 mg/kg	<60 mg/kg
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0	on site	Sediment	<15 mg/kg	No data	90 - 120 mg/kg	15 - 30 mg/kg	<100 mg/kg	<60 mg/kg
0	on site	Sediment	<15 mg/kg	No data	90 - 120 mg/kg	15 - 30 mg/kg	<100 mg/kg	<60 mg/kg
0	on site	Sediment	<15 mg/kg	No data	60 - 90 mg/kg	15 - 30 mg/kg	<100 mg/kg	<60 mg/kg
0	on site	Sediment	<15 mg/kg	No data	60 - 90 mg/kg	15 - 30 mg/kg	<100 mg/kg	<60 mg/kg
0	on site	Sediment	<15 mg/kg	No data	90 - 120 mg/kg	15 - 30 mg/kg	<100 mg/kg	<60 mg/kg
0	on site	Sediment	<15 mg/kg	No data	90 - 120 mg/kg	15 - 30 mg/kg	<100 mg/kg	<60 mg/kg
0	on site	Sediment	<15 mg/kg	No data	90 - 120 mg/kg	15 - 30 mg/kg	<100 mg/kg	<60 mg/kg
0	on site	Sediment	<15 mg/kg	No data	90 - 120 mg/kg	15 - 30 mg/kg	<100 mg/kg	<60 mg/kg
0	on site	Sediment	<15 mg/kg	No data	90 - 120 mg/kg	15 - 30 mg/kg	<100 mg/kg	<60 mg/kg
0	on site	Sediment	<15 mg/kg	No data	90 - 120 mg/kg	15 - 30 mg/kg	<100 mg/kg	<60 mg/kg
0	on site	Sediment	<15 mg/kg	No data	90 - 120 mg/kg	15 - 30 mg/kg	<100 mg/kg	<60 mg/kg
0	on site	Sediment	<15 mg/kg	No data	90 - 120 mg/kg	15 - 30 mg/kg	<100 mg/kg	<60 mg/kg
0	on site	Sediment	<15 mg/kg	No data	90 - 120 mg/kg	15 - 30 mg/kg	<100 mg/kg	<60 mg/kg
0	on site	Sediment	<15 mg/kg	No data	90 - 120 mg/kg	15 - 30 mg/kg	<100 mg/kg	<60 mg/kg
0	on site	Sediment	<15 mg/kg	No data	90 - 120 mg/kg	15 - 30 mg/kg	<100 mg/kg	<60 mg/kg
0	on site	Sediment	<15 mg/kg	No data	90 - 120 mg/kg	15 - 30 mg/kg	<100 mg/kg	<60 mg/kg

Distance (m)	Direction	Sample Type	Arsenic (As) (mg/kg)	Cadmium (Cd) (mg/kg)	Chromium (Cr) (mg/kg)	Nickel (Ni) (mg/kg)	Lead (Pb) (mg/kg)	Bioaccessible lead (mg/kg)
0	on site	Sediment	<15 mg/kg	No data	90 - 120 mg/kg	15 - 30 mg/kg	<100 mg/kg	<60 mg/kg
0	on site	Sediment	<15 mg/kg	No data	90 - 120 mg/kg	15 - 30 mg/kg	<100 mg/kg	<60 mg/kg
0	on site	Sediment	<15 mg/kg	No data	90 - 120 mg/kg	15 - 30 mg/kg	<100 mg/kg	<60 mg/kg
0	on site	Sediment	<15 mg/kg	No data	90 - 120 mg/kg	15 - 30 mg/kg	<100 mg/kg	<60 mg/kg
0	on site	Sediment	<15 mg/kg	No data	90 - 120 mg/kg	15 - 30 mg/kg	<100 mg/kg	<60 mg/kg
0	on site	Sediment	<15 mg/kg	No data	90 - 120 mg/kg	15 - 30 mg/kg	<100 mg/kg	<60 mg/kg
0	on site	Sediment	<15 mg/kg	No data	90 - 120 mg/kg	15 - 30 mg/kg	<100 mg/kg	<60 mg/kg
0	on site	Sediment	<15 mg/kg	No data	90 - 120 mg/kg	15 - 30 mg/kg	<100 mg/kg	<60 mg/kg
0	on site	Sediment	<15 mg/kg	No data	90 - 120 mg/kg	15 - 30 mg/kg	<100 mg/kg	<60 mg/kg
0	on site	Sediment	<15 mg/kg	No data	90 - 120 mg/kg	15 - 30 mg/kg	<100 mg/kg	<60 mg/kg
0	on site	Sediment	<15 mg/kg	No data	90 - 120 mg/kg	15 - 30 mg/kg	<100 mg/kg	<60 mg/kg
0	on site	Sediment	<15 mg/kg	No data	90 - 120 mg/kg	15 - 30 mg/kg	<100 mg/kg	<60 mg/kg
0	on site	Sediment	<15 mg/kg	No data	90 - 120 mg/kg	15 - 30 mg/kg	<100 mg/kg	<60 mg/kg
3	E	Sediment	<15 mg/kg	No data	90 - 120 mg/kg	15 - 30 mg/kg	<100 mg/kg	<60 mg/kg
4	S	Sediment	<15 mg/kg	No data	90 - 120 mg/kg	15 - 30 mg/kg	<100 mg/kg	<60 mg/kg
4	S	Sediment	<15 mg/kg	No data	90 - 120 mg/kg	15 - 30 mg/kg	<100 mg/kg	<60 mg/kg
8	E	Sediment	<15 mg/kg	No data	90 - 120 mg/kg	15 - 30 mg/kg	<100 mg/kg	<60 mg/kg
8	E	Sediment	<15 mg/kg	No data	90 - 120 mg/kg	15 - 30 mg/kg	<100 mg/kg	<60 mg/kg
8	N	Sediment	<15 mg/kg	No data	60 - 90 mg/kg	15 - 30 mg/kg	<100 mg/kg	<60 mg/kg

Distance (m)	Direction	Sample Type	Arsenic (As) (mg/kg)	Cadmium (Cd) (mg/kg)	Chromium (Cr) (mg/kg)	Nickel (Ni) (mg/kg)	Lead (Pb) (mg/kg)	Bioaccessible lead (mg/kg)
17	W	Sediment	<15 mg/kg	No data	90 - 120 mg/kg	15 - 30 mg/kg	<100 mg/kg	<60 mg/kg
20	W	Sediment	<15 mg/kg	No data	90 - 120 mg/kg	15 - 30 mg/kg	<100 mg/kg	<60 mg/kg
23	NE	Sediment	<15 mg/kg	No data	90 - 120 mg/kg	15 - 30 mg/kg	<100 mg/kg	<60 mg/kg
26	N	Sediment	<15 mg/kg	No data	60 - 90 mg/kg	15 - 30 mg/kg	<100 mg/kg	<60 mg/kg
29	SW	Sediment	<15 mg/kg	No data	90 - 120 mg/kg	15 - 30 mg/kg	<100 mg/kg	<60 mg/kg

11.2 Estimated Urban Soil Chemistry

Records of urban estimated soil chemistry potentially within the study site boundary.	0

Database searched and no data found.

11.3 Measured Urban Soil Chemistry

Records of urban measured soil chemistry within 500m of the study site boundary:	0

Database searched and no data found.

Contacts

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Standard Terms and Conditions

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https://www.groundsure.com/terms-and-conditions-sept-2016/