

Complete Insight

Scotland Report

Date

01-11-2016

Grid Reference

258559 664543

Groundsure Reference

GS-3415083

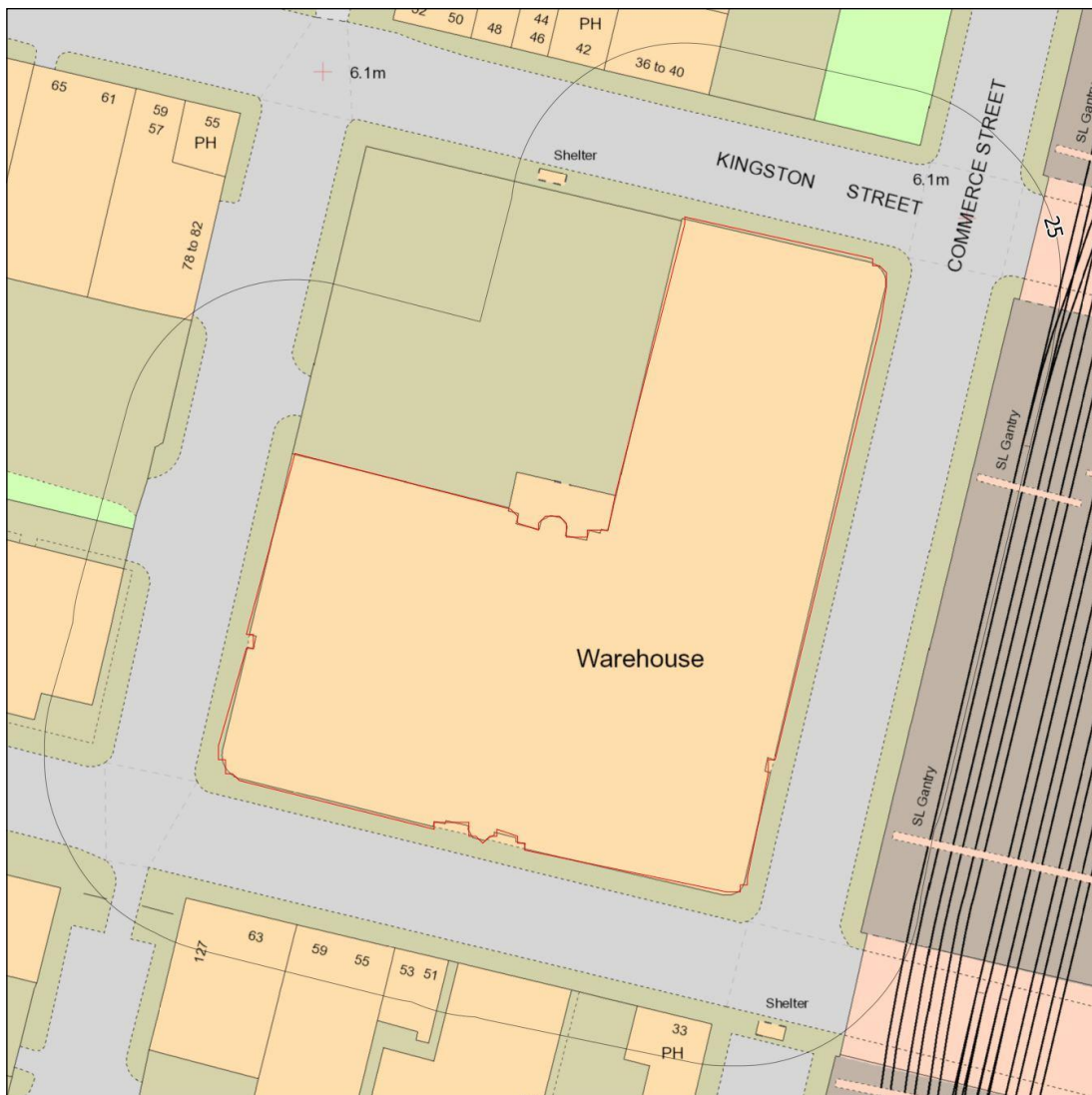
Your Reference

Scottish_Insight_Complete

Address

Specimen Site,

SITE MAP



If you need any further assistance, please do not hesitate to contact our helpline on 08444 159000 quoting reference: GS-3415083

Aerial Photograph



Site Address: Specimen Site,
Grid Reference: 258559 664543
Date of aerial image capture: 02-09-2010

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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	0	10	60	130		
1.2 1:2,500 scale mapping – Historical Tank Database	7	11	45	70		
1.3 1:2,500 scale mapping – Historical Energy Features Database	0	0	9	42		
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	4	1	12	19		
1.6 Potentially Infilled Land	0	0	16	16		
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	0	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	1	5	32	48		
3.2 Petrol and Fuel Sites	0	0	0	2		
3.3 Part A(1), IPPC and Historic IPC Authorisations	0	0	0	0		
3.4 Part B Authorisations	0	0	1	1		
3.5 National Grid High Pressure Gas Transmission Pipelines	0	0	0	0		
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	No					
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	0
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	0	0	0	0	0	0

6 Flooding					
6.1 Highest risk of flooding from rivers on-site	1 in 200 year				
6.2 Highest risk of coastal flooding on-site	Negligible				
6.3 Highest Risk of Pluvial Flooding on-site	Low to Moderate				
6.4 Groundwater Flooding Susceptibility Areas	Potential for groundwater flooding at surface				
6.5 Groundwater Flooding Confidence Rating	Low				
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	1	0	0	0	0
7.3 Johnson Poole and Bloomer	0	0	0	0	0
7.4 Non-Coal Mining	1	0	0	2	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	Very 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	6	4	73		
10 Railways and Tunnels	On site	0-50	51-250		
10.1 Tunnels	0	0	1		
10.2 Historical Railway and Tunnel Features	0	17	17		
10.3 Historical Railways	0	0	0		
10.4 Active Railways	0	10	23		
10.5 Railway Projects	0	0	0		
11 Soil Chemistry	On site	0-50	51-250		
11.1 Estimated Background Soil Chemistry	1	5	N/A		
11.2 Estimated Urban Soil Chemistry	4	0	N/A		
11.3 Measured Urban Soil Chemistry	0	0	1		

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 shallow 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

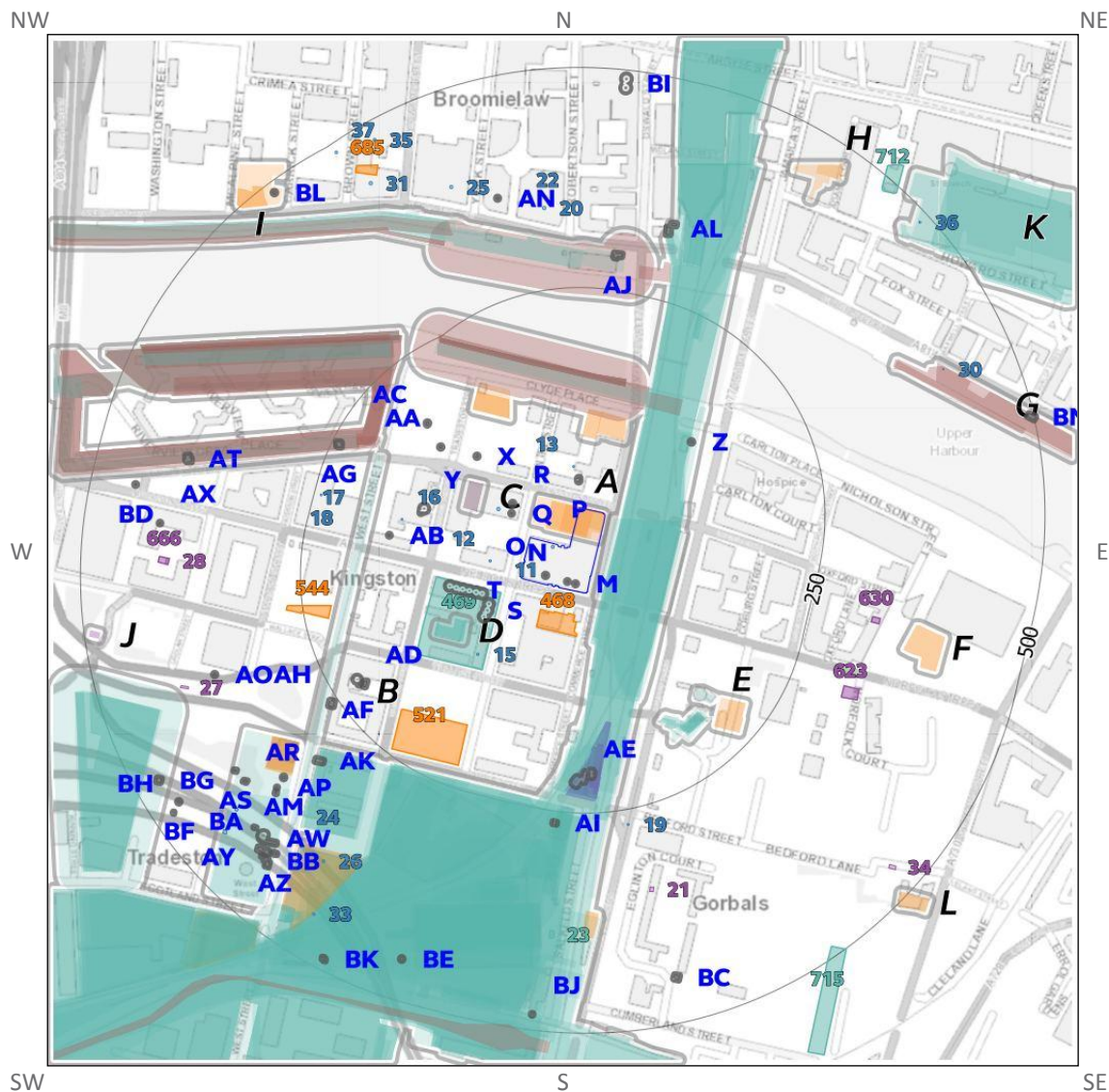
Only certain features are placed on the maps within the report. All features represented on maps found within this search are given an identification number. This number identifies the feature on the mapping and correlates it to the additional information provided below. This identification number precedes 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.

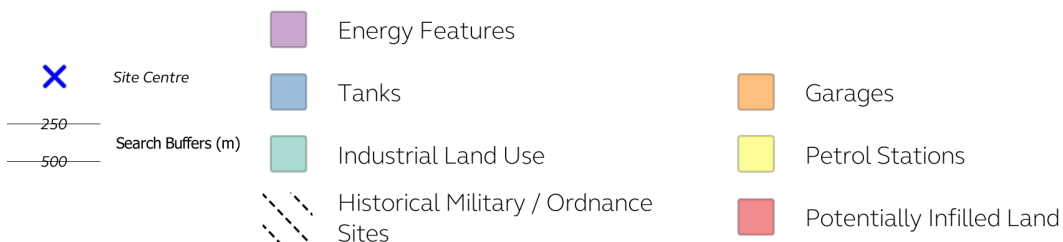
1 Historical Industrial Sites

Historical Land Use Map



Historical Land Use Map

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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:

200

ID	Distance (m)	Direction	Use	Date
B460	11	E	Railway Station	1896
B461	17	E	Railway Sidings	1938
B462	17	E	Railway Sidings	1910
B463	17	E	Railway Sidings	1967
B464	18	E	Railway Sidings	1988
B465	19	E	Railway Sidings	1948
B466	19	E	Railway Sidings	1956
B467	20	E	Railway Sidings	1977
469	29	SW	Fire Station	1956
B470	43	E	Railway Sidings	1920
D476	79	SW	Fire Station	1967
D474	79	SW	Fire Station	1988
D475	79	SW	Fire Station	1977
B481	105	N	Quay	1938
B485	128	N	Quays	1897
B488	132	N	Goods Shed	1910
B495	146	N	Quay	1956
B489	146	N	Quay	1977
B497	146	N	Quay	1910
B496	146	N	Quay	1988
B491	146	N	Quay	1967
B503	149	S	Railway Sidings	1864
B504	150	NE	Railway Station	1897
B505	155	S	Smithy	1948
B507	159	S	Railway Buildings	1910
B506	159	S	Railway Buildings	1938
E508	164	SE	Railway Station	1948
E509	165	SE	Railway Station	1920

ID	Distance (m)	Direction	Use	Date
E511	166	SE	Unspecified Station	1910
E510	166	SE	Unspecified Station	1938
E512	167	SE	Railway Station	1988
B513	170	S	Railway Sidings	1920
B518	172	S	Railway Building	1956
B520	174	S	Smithy	1920
B522	178	S	Smithy	1910
E523	180	SE	Unspecified Station	1977
E525	182	SE	Railway Station	1896
E527	185	SE	Unspecified Station	1967
E526	185	SE	Unspecified Station	1956
E528	191	SE	Railway Station	1897
B532	202	NW	Dock	1897
B534	205	NW	Quay	1938
B537	206	NW	Quay	1910
B540	207	NW	Dock	1967
B538	207	NW	Dock	1956
B542	217	NW	Quay	1910
B545	221	S	Railway Building	1910
B546	222	NW	Goods Shed	1938
B547	224	NE	Railway Building	1956
B548	224	NE	Railway Building	1938
B549	224	NE	Railway Building	1910
B551	231	NW	Quay	1938
B553	239	S	Unspecified Commercial/Industrial	1977
B552	239	S	Unspecified Commercial/Industrial	1988
B555	241	S	Goods Station	1864
B556	242	S	Railway Building	1967
B559	242	S	Railway Building	1948
B557	242	N	Unspecified Wharf	1938
B560	245	S	Railway Buildings	1977
B561	245	NW	Railway Sidings	1897
B564	246	S	Railway Sidings	1938
B563	246	S	Railway Sidings	1897

ID	Distance (m)	Direction	Use	Date
B562	246	S	Railway Sidings	1864
B565	246	S	Railway Sidings	1910
B566	247	S	Railway Buildings	1938
B568	249	S	Railway Buildings	1948
B567	249	S	Mineral Station	1896
B571	250	S	Railway Building	1910
B572	250	S	Mineral Station	1897
B569	250	NW	Quay	1938
B573	252	SW	Mineral Station	1948
B574	252	S	Railway Building	1910
B575	253	S	Railway Building	1938
B577	253	SW	Railway Sidings	1896
B576	253	S	Railway Building	1948
B578	254	SW	Railway Building	1938
B579	254	SW	Railway Building	1910
B581	254	NW	Quay	1910
B582	257	NW	Quay	1897
B584	258	SW	Goods Station	1967
B585	258	S	Mineral Station	1938
B586	259	S	Mineral Station	1910
B587	259	S	Railway Building	1897
B588	259	NW	Goods Shed	1938
B589	259	NW	Goods Shed	1910
B590	260	SW	Unspecified Works	1977
B591	260	SW	Unspecified Works	1988
B592	261	S	Railway Sidings	1988
B593	264	SW	Engine Works	1948
B595	266	NW	Quay	1956
B598	268	SW	Engine Works	1910
B596	268	SW	Engine Works	1920
B597	268	SW	Unspecified Commercial/Industrial	1938
B605	269	NW	Quay	1977
B606	269	NW	Quay	1988
B599	269	N	Unspecified Wharf	1910

ID	Distance (m)	Direction	Use	Date
B602	269	NW	Quay	1967
B608	271	SW	Railway Building	1896
B609	271	N	Goods Shed	1910
B610	271	N	Goods Shed	1938
B607	271	SW	Railway Building	1897
B611	273	S	Railway Building	1910
B614	275	NW	Quay	1938
B612	275	NW	Quay	1910
B616	286	S	Mineral Station	1956
B618	295	N	Railway Station	1910
B617	295	N	Railway Station	1938
B619	298	N	Railway Station	1956
B621	299	N	Railway Station	1977
B620	299	N	Railway Station	1988
B622	299	N	Railway Station	1967
B626	314	SW	Engine Works	1920
B629	320	S	Railway Building	1967
B631	334	NW	Goods Shed	1967
B635	335	NW	Quay	1910
B633	335	NW	Quay	1938
B637	336	S	Railway Building	1967
B636	336	S	Railway Building	1948
B638	338	S	Railway Buildings	1896
B639	339	NW	Goods Shed	1910
B640	340	S	Railway Building	1897
B641	340	S	Railway Building	1938
B642	340	S	Railway Building	1910
B643	342	NW	Quay	1897
B645	353	N	Railway Sidings	1897
B646	356	S	Unspecified Station	1967
B647	356	SW	Engine Works	1910
B649	357	S	Railway Goods Station	1920
B648	357	S	Goods Station	1956
B651	358	S	Goods Station	1910

ID	Distance (m)	Direction	Use	Date
B652	358	S	Goods Station	1938
B650	358	S	Goods Station	1948
B654	359	S	Unspecified Station	1977
B653	359	S	Unspecified Station	1988
B657	364	S	Railway Building	1897
G662	368	NE	Quay	1967
G664	369	NE	Quay	1956
841	385	S	Railway Building	1938
B668	404	N	Railway Station	1973
B670	404	N	Railway Station	1982
B669	404	N	Railway Station	1956
B667	404	N	Railway Station	1994
G671	406	E	Quay	1938
B673	412	W	Unspecified Foundry	1910
B674	419	N	Railway Sidings	1982
B675	419	N	Railway Sidings	1994
B676	419	N	Railway Sidings	1973
B678	428	S	Railway Buildings	1967
B679	434	W	Unspecified Foundry	1948
B680	437	W	Engineering Works	1956
B681	437	W	Unspecified Commercial/Industrial	1967
B682	437	S	Railway Building	1977
B683	437	W	Unspecified Commercial/Industrial	1938
B684	438	W	Unspecified Foundry	1920
B686	452	SW	Railway Station	1948
B691	455	SW	Railway Station	1967
B690	455	SW	Railway Station	1988
B689	455	SW	Railway Station	1977
B688	455	SW	Railway Station	1896
B687	455	SW	Railway Station	1920
B693	462	SW	Unspecified Station	1910
K695	462	NE	Unspecified Station	1938
B694	462	SW	Unspecified Station	1938
K696	464	NE	Unspecified Station	1910

ID	Distance (m)	Direction	Use	Date
B697	467	S	Railway Building	1948
B699	470	S	Railway Building	1897
B698	470	S	Railway Building	1910
B701	475	S	Railway Building	1967
B700	475	S	Railway Building	1956
B703	479	SW	Railway Station	1897
K704	481	NE	Terminus Station	1967
K705	481	NE	Terminus Station	1956
K710	484	NE	Railway Station	1910
K711	484	NE	Railway Station	1938
712	485	NE	Railway Station	1956
B713	487	SW	Engine Works	1948
K714	488	NE	Railway Station	1894
715	488	SE	Bakery	1910
B716	489	SW	Railway Building	1910
B717	491	SW	Sawmills	1858
B719	491	SW	Unspecified Depot	1967
B720	491	SW	Engine Works	1920
B721	491	SW	Engine Works	1864
B718	491	SW	Engineering Works	1956
B723	492	SW	Engine Works	1910
B722	492	SW	Railway Building	1897
B724	493	S	Unspecified Commercial/Industrial	1897
B728	494	SW	Railway Buildings	1948
B732	496	SW	Unspecified Depot	1977
B731	496	SW	Unspecified Depot	1988
B730	496	S	Railway Station	1920
B729	496	SW	Sawmills	1897
B733	497	SW	Unspecified Commercial/Industrial	1938
B735	498	SW	Railway Building	1977
B738	498	SW	Railway Building	1956
B740	498	SW	Iron Works	1896
B739	498	SW	Sawmills	1896
B737	498	SW	Railway Building	1967

ID	Distance (m)	Direction	Use	Date
B736	498	SW	Railway Building	1988
B741	499	S	Railway Station	1910

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	133
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ID	Distance (m)	Direction	Use	Date
O747	0	on site	Unspecified Tank	1913
N746	0	on site	Unspecified Tank	1934
M745	0	on site	Unspecified Tank	1934
N743	0	on site	Unspecified Tank	1913
O742	0	on site	Unspecified Tank	1934
744	0	on site	Unspecified Tank	1913
M748	0	on site	Unspecified Tank	1913
P749	29	N	Unspecified Tank	1863
P750	31	N	Unspecified Tank	1896
Q751	33	NW	Unspecified Tank	1896
Q752	33	NW	Unspecified Tank	1913
753	36	W	Unspecified Tank	1896
R754	42	NW	Unspecified Tank	1913
R755	42	NW	Unspecified Tank	1896
757	46	N	Unspecified Tank	1896
S756	46	SW	Unspecified Tank	1896
759	47	NW	Unspecified Tank	1896
T758	47	SW	Unspecified Tank	1896
S760	52	SW	Unspecified Tank	1896
T761	52	W	Unspecified Tank	1896
T762	59	W	Unspecified Tank	1896
S763	60	SW	Unspecified Tank	1896
T764	66	W	Unspecified Tank	1896
C473	68	NW	Gas Depot	1979
T765	73	W	Unspecified Tank	1896

ID	Distance (m)	Direction	Use	Date
T766	80	W	Unspecified Tank	1896
767	98	SW	Unspecified Tank	1896
X769	109	NW	Unspecified Tank	1861
X768	109	NW	Unspecified Tank	1861
Y770	124	W	Unspecified Tank	1896
Y772	126	W	Unspecified Tank	1896
Y771	126	W	Unspecified Tank	1913
Z773	127	NE	Unspecified Tank	1913
Z774	127	NE	Unspecified Tank	1896
AA776	143	NW	Unspecified Tank	1913
AA775	143	NW	Unspecified Tank	1896
777	145	W	Unspecified Tank	1896
B501	148	S	Gas Works	1913
B502	148	S	Gas Works	1896
AB778	154	W	Unspecified Tank	1896
AB779	154	W	Unspecified Tank	1913
B514	171	S	Gas Works	1952
B516	172	S	Gas Works	1952
AC780	173	NW	Unspecified Tank	1861
AC781	173	NW	Unspecified Tank	1861
AC782	173	NW	Unspecified Tank	1896
AC783	173	NW	Unspecified Tank	1913
B531	201	S	Tanks	1952
AE784	201	S	Unspecified Tank	1952
AE785	201	S	Unspecified Tank	1952
AE786	203	S	Tanks	1952
AE787	203	S	Tanks	1952
AE790	205	S	Gasometer	1913
AE791	205	S	Unspecified Tank	1934
AE792	205	S	Gasometer	1896
AD793	210	SW	Unspecified Tank	1934
AD794	210	SW	Unspecified Tank	1913
AE795	211	S	Unspecified Tank	1934
AF796	217	SW	Tanks	1913

ID	Distance (m)	Direction	Use	Date
AF797	217	SW	Tanks	1934
AF798	219	SW	Unspecified Tank	1913
799	233	W	Unspecified Tank	1896
802	241	W	Unspecified Tank	1896
AI808	262	S	Unspecified Tank	1989
AI809	262	S	Unspecified Tank	1977
810	266	S	Unspecified Tank	1861
826	341	N	Unspecified Tank	1896
AM828	351	SW	Unspecified Tank	1913
AM829	351	SW	Unspecified Tank	1934
830	352	N	Unspecified Tank	1896
AN831	362	N	Unspecified Tank	1913
AN832	362	N	Unspecified Tank	1896
AN833	362	N	Unspecified Tank	1934
AO835	363	W	Unspecified Tank	1913
AO834	363	W	Unspecified Tank	1896
AO836	363	W	Unspecified Tank	1934
AP837	365	SW	Unspecified Tank	1952
AP838	365	SW	Unspecified Tank	1952
AQ839	369	SW	Unspecified Tank	1952
AQ840	369	SW	Unspecified Tank	1952
AR843	387	SW	Tanks	1989
AR844	387	SW	Tanks	1989
842	387	SW	Unspecified Tank	1861
847	390	N	Unspecified Tank	1896
AS845	390	SW	Tanks	1989
AS846	390	SW	Tanks	1989
848	391	SW	Unspecified Tank	1861
AW853	409	SW	Tanks	1952
AW854	409	SW	Tanks	1952
AW856	412	SW	Unspecified Tank	1913
AW857	412	SW	Tanks	1952
AW855	412	SW	Unspecified Tank	1934
AX858	413	W	Unspecified Tank	1896

ID	Distance (m)	Direction	Use	Date
AX859	413	W	Unspecified Tank	1913
AY861	414	SW	Unspecified Tank	1952
AY860	414	SW	Unspecified Tank	1952
AW864	415	SW	Unspecified Tank	1913
862	415	SW	Unspecified Tank	1913
AW863	415	SW	Unspecified Tank	1934
AZ867	418	SW	Tanks	1913
AZ866	418	SW	Tanks	1934
865	418	NE	Unspecified Tank	1952
BA869	422	SW	Unspecified Tank	1989
BA868	422	SW	Unspecified Tank	1989
BA870	424	SW	Tanks	1952
BA871	425	SW	Tanks	1952
BB872	429	SW	Tanks	1952
BB873	429	SW	Tanks	1952
BB874	431	SW	Tanks	1952
BB875	431	SW	Tanks	1952
BB876	431	SW	Tanks	1989
BB877	431	SW	Tanks	1989
878	436	NW	Unspecified Tank	1896
879	441	SW	Unspecified Tank	1952
BD883	448	W	Unspecified Tank	1896
882	448	SW	Unspecified Tank	1934
BD884	448	W	Unspecified Tank	1913
BE886	451	S	Unspecified Tank	1896
BE885	451	S	Unspecified Tank	1913
BF888	463	SW	Unspecified Tank	1913
BF889	463	SW	Unspecified Tank	1934
895	477	NW	Unspecified Tank	1896
BI896	478	N	Unspecified Tank	1896
BJ897	481	S	Unspecified Tank	1913
BJ898	481	S	Unspecified Tank	1934
BK900	486	SW	Unspecified Tank	1952
BK899	486	SW	Unspecified Tank	1952

ID	Distance (m)	Direction	Use	Date
BL902	486	NW	Unspecified Tank	1913
BL901	486	NW	Unspecified Tank	1896
904	487	NE	Unspecified Tank	1896
BK903	487	SW	Unspecified Tank	1934
905	488	NW	Unspecified Tank	1913
BI906	488	N	Unspecified Tank	1896

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	51
--	----

ID	Distance (m)	Direction	Use	Date
C472	68	NW	Gas Depot	1979
B499	148	S	Gas Works	1913
B500	148	S	Gas Works	1896
B515	171	S	Gas Works	1952
B517	172	S	Gas Works	1952
AE788	205	S	Gasometer	1913
AE789	205	S	Gasometer	1896
AG800	238	NW	Electricity Substation	1995
AG801	239	NW	Electricity Substation	1989
AH804	254	SW	Electricity Substation	1952
AH805	254	SW	Electricity Substation	1995
AH803	254	SW	Electricity Substation	1952
AH806	255	SW	Electricity Substation	1989
AH807	255	SW	Electricity Substation	1989
AJ811	286	N	Electricity Substation	1989
AJ812	286	N	Electricity Substation	1979
AJ813	287	N	Electricity Substation	1952
AJ814	287	N	Electricity Substation	1967
AJ815	287	N	Electricity Substation	1952
AK816	305	SW	Electricity Substation	1952
AK817	305	SW	Electricity Substation	1952

ID	Distance (m)	Direction	Use	Date
AK818	306	SW	Electricity Substation	1995
AK819	307	SW	Electricity Substation	1989
AK820	307	SW	Electricity Substation	1989
623	311	E	Electricity Substation	1995
630	322	E	Electricity Substation	1995
AL821	324	N	Electricity Substation	1979
AL822	324	N	Electricity Substation	1989
AL823	335	N	Electricity Substation	1952
AL824	335	N	Electricity Substation	1952
AL825	335	N	Electricity Substation	1967
827	342	S	Electricity Substation	1995
AT849	394	W	Electricity Substation	1995
AT850	395	W	Electricity Substation	1989
851	398	W	Electricity Substation	1995
852	399	W	Electricity Substation	1952
666	399	W	Electricity Substation	1952
BC880	445	S	Electricity Substation	1989
BC881	445	S	Electricity Substation	1977
887	462	SE	Electricity Substation	1995
BG892	468	SW	Electricity Substation	1989
BG891	468	SW	Electricity Substation	1989
BG890	468	SW	Electricity Substation	1995
BH894	476	SW	Electricity Substation	1952
BH893	476	SW	Electricity Substation	1952
J708	482	W	Electricity Substation	1952
J709	482	W	Electricity Substation	1952
BM907	492	E	Electricity Substation	1989
BM908	492	E	Electricity Substation	1980
BM909	492	E	Electricity Substation	1980
BM910	493	E	Electricity Substation	1993

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	36
--	----

ID	Distance (m)	Direction	Use	Date
A456	0	on site	Garage	1967
A457	0	on site	Garage	1952
A458	0	on site	Garage	1952
A459	0	on site	Garage	1979
468	26	S	Garage	1977
C471	68	NW	Gas Depot	1979
B477	80	N	Garage	1952
B478	80	N	Garage	1967
B479	85	N	Garage	1979
B480	86	N	Garage	1967
B483	128	NW	Garage	1995
B486	129	NW	Garage	1979
B487	129	NW	Garage	1989
521	178	S	Garage	1962
E529	194	SE	Garage	1952
E530	201	SE	Garage	1952
544	218	W	Garage	1952
B624	314	SW	Garage	1962
B625	314	SW	Garage	1995
B627	315	SW	Garage	1989
B628	315	SW	Garage	1989
B655	361	S	Garage	1989

ID	Distance (m)	Direction	Use	Date
B656	362	S	Garage	1977
F659	365	E	Garage	1952
F658	365	E	Garage	1952
B661	367	SW	Garage	1962
B660	367	SW	Garage	1952
H677	426	NE	Garage	1967
685	442	NW	Car Repair Depot	1979
H692	456	NE	Garage	1979
I702	475	NW	Garage	1995
I707	481	NW	Garage	1979
I706	481	NW	Garage	1989
B726	493	SW	Disused Engine Works	1934
L725	493	SE	Garage	1952
L727	493	SE	Garage	1952

1.6 Potentially Infilled Land

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

32

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

ID	Distance	Direction	Use	Date
B482	105	N	Quay	1938
B484	128	N	Quays	1897
B494	146	N	Quay	1988
B493	146	N	Quay	1977
B492	146	N	Quay	1967
B490	146	N	Quay	1956
B498	146	N	Quay	1910
B533	202	NW	Dock	1897
B535	205	NW	Quay	1938
B536	206	NW	Quay	1910
B541	207	NW	Dock	1956
B539	207	NW	Dock	1967
B543	217	NW	Quay	1910
B550	231	NW	Quay	1938

ID	Distance	Direction	Use	Date
B558	242	N	Unspecified Wharf	1938
B570	250	NW	Quay	1938
B580	254	NW	Quay	1910
B583	257	NW	Quay	1897
B594	266	NW	Quay	1956
B600	269	N	Unspecified Wharf	1910
B601	269	NW	Quay	1967
B603	269	NW	Quay	1977
B604	269	NW	Quay	1988
B615	275	NW	Quay	1938
B613	275	NW	Quay	1910
B632	335	NW	Quay	1938
B634	335	NW	Quay	1910
B644	342	NW	Quay	1897
G663	368	NE	Quay	1967
G665	369	NE	Quay	1956
G672	406	E	Quay	1938
B734	497	S	Canal	1864

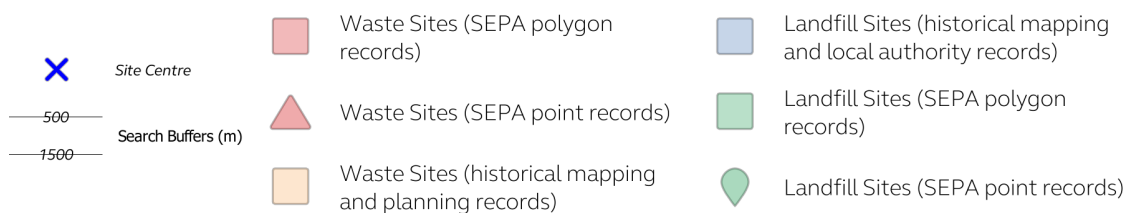
1.7 Historic Military and Ordnance sites

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



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	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
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Database searched and no data found.

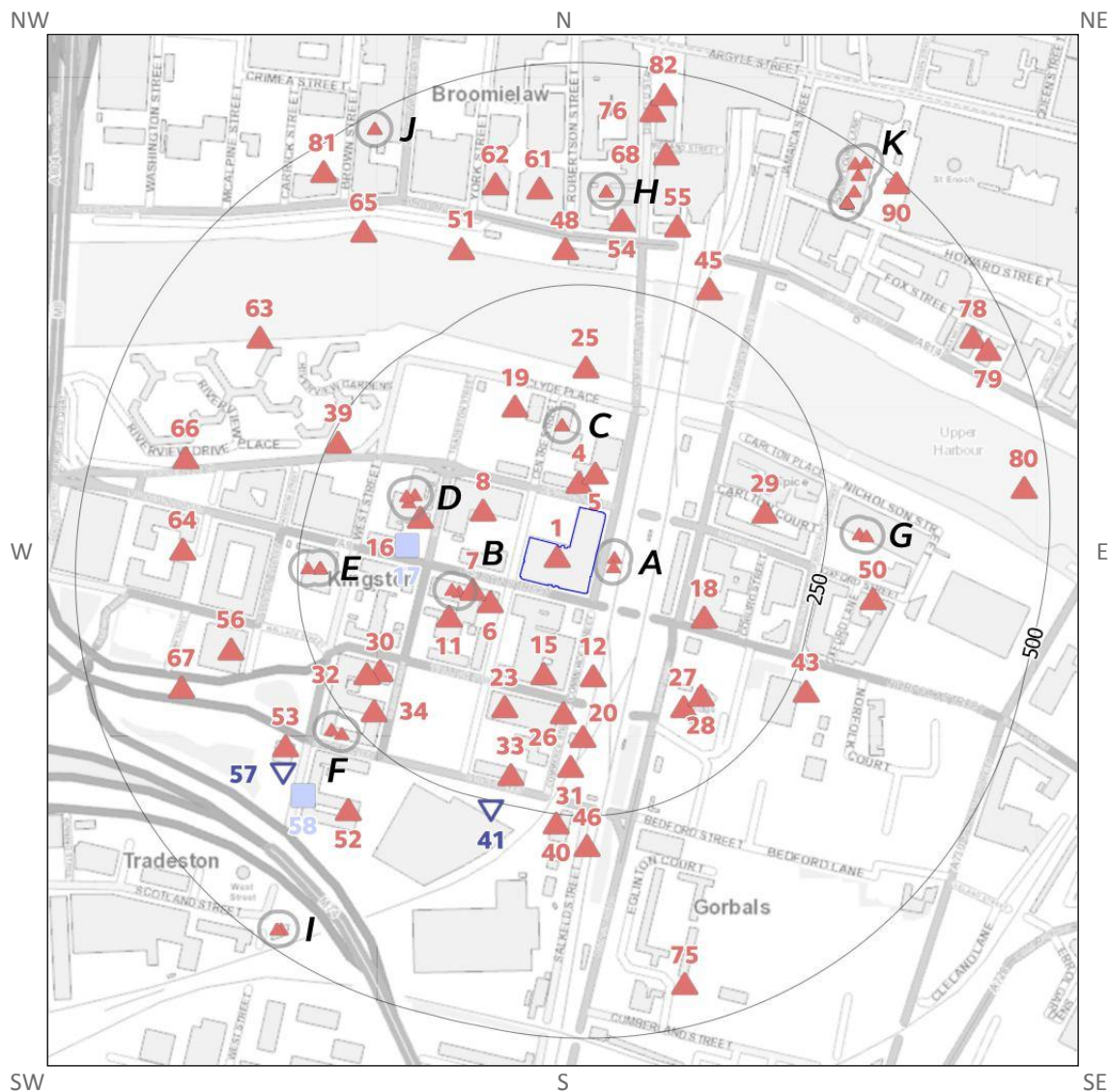
2.4 Groundsure SEPA Waste Sites Data

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

Database searched and no data found.

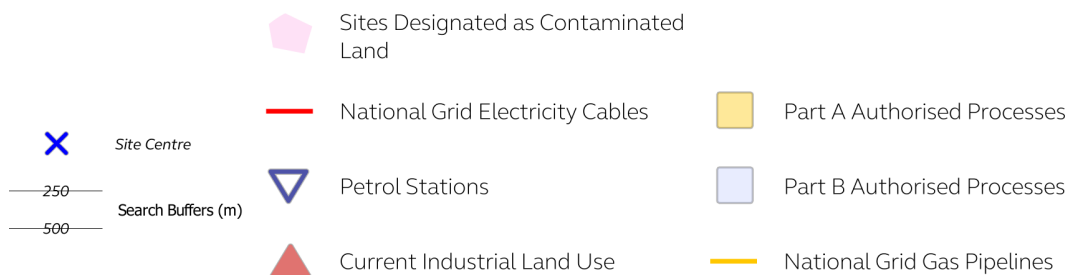
3 Current Land Use

Current Land Use Map



Current Land Use Map

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3.1 Current Industrial Data

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

86

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

ID	Distance	Direction	Company	Address	Description	Category
1	0	on site	Warehouse	G5	Container and Storage	Transport, Storage and Delivery
A2	20	E	Shadow Sound	65, Commerce Street, Glasgow, G5 8AD	Recording Studios and Record Companies	IT, Advertising, Marketing and Media Services
A3	21	E	Door Store	35, Commerce Street, Glasgow, G5 8AB	General Construction Supplies	Industrial Products
4	28	N	Usman Communciations	40, Kingston Street, Glasgow, G5 8BP	Radar and Telecommunications Equipment	Industrial Products
5	41	N	Boulevard Self Drive	28, Kingston Street, Glasgow, G5 8BP	Vehicle Hire and Rental	Hire Services
6	44	SW	D C I Communications	71, Nelson Street, Glasgow, G5 8DZ	Radar and Telecommunications Equipment	Industrial Products
7	55	W	Indus Telecom	111, Nelson Street, Glasgow, G5 8DZ	Electrical Equipment Repair and Servicing	Repair and Servicing
8	61	NW	Xpert Computers	71-73, Kingston Street, Glasgow, G5 8BJ	Electrical Equipment Repair and Servicing	Repair and Servicing
B9	71	W	Doma Bags	111, Nelson Street, Glasgow, G5 8DZ	Clothing, Components and Accessories	Consumer Products
B10	78	W	Fonebitz	Unit 9, 67 Tradeston Street, Glasgow, G5 8BL	Radar and Telecommunications Equipment	Industrial Products
11	92	SW	Blind Emporium Ltd	111, Nelson Street, Glasgow, G5 8DZ	Curtains and Blinds	Consumer Products
12	92	S	Knitwear Direct	71, Commerce Street, Glasgow, G5 8EP	Textiles, Fabrics, Silk and Machinery	Industrial Products
C13	94	N	Kamel Auto Electrician	30, Clyde Place, Glasgow, G5 8AQ	Vehicle Repair, Testing and Servicing	Repair and Servicing
C14	94	N	Clyde Tyres Ltd	30, Clyde Place, Glasgow, G5 8AQ	Vehicle Parts and Accessories	Motoring

ID	Distance	Direction	Company	Address	Description	Category
15	98	S	High Profile Accessories	94-96, Commerce Street, Glasgow, G5 8DG	Radar and Telecommunications Equipment	Industrial Products
16	125	W	Works	G5	Unspecified Works Or Factories	Industrial Features
18	133	E	I-revive Glasgow	144, Norfolk Street, Glasgow, G5 9EQ	Electrical Equipment Repair and Servicing	Repair and Servicing
19	135	NW	Electricity Sub Station	G5	Electrical Features	Infrastructure and Facilities
20	136	S	E Repair Centre	105, Commerce Street, Glasgow, G5 8DL	Electrical Equipment Repair and Servicing	Repair and Servicing
D21	138	W	Mymo	97, Kingston Street, Glasgow, G5 8BJ	Radar and Telecommunications Equipment	Industrial Products
D22	142	W	Warehouse	G5	Container and Storage	Transport, Storage and Delivery
23	144	S	Works	G5	Unspecified Works Or Factories	Industrial Features
D24	147	W	Fersun Repairs	75, West Street, Glasgow, G5 8BA	Electrical Equipment Repair and Servicing	Repair and Servicing
25	158	N	Clyde Place Quay	G1	Moorings and Unloading Facilities	Water
26	161	S	Cameron Bookbinders	101-103, Commerce Street, Glasgow, G5 8DL	Published Goods	Industrial Products
27	167	SE	Bridge Street SPT Subway Station (Glasgow)	G5	Tram, Metro and Light Railway Stations and Stops	Public Transport, Stations and Infrastructure
28	172	SE	Bridge Street Underground Station	G5	Underground Network Stations	Public Transport, Stations and Infrastructure
29	179	E	Electricity Sub Station	G5	Electrical Features	Infrastructure and Facilities
30	190	SW	Warehouse	G5	Container and Storage	Transport, Storage and Delivery
31	195	S	Weld-done Motors	121, Commerce Street, Glasgow, G5 8DL	Vehicle Repair, Testing and Servicing	Repair and Servicing
32	205	SW	S A S Workwear	101, Wallace Street, Glasgow, G5 8DJ	Workwear	Industrial Products

ID	Distance	Direction	Company	Address	Description	Category
33	217	S	Warehouse	G5	Container and Storage	Transport, Storage and Delivery
34	223	SW	Factory	G5	Unspecified Works Or Factories	Industrial Features
E36	225	W	Western Saab	100, West Street, Glasgow, G5 8AW	New Vehicles	Motoring
E37	225	W	Lexus Glasgow	100, West Street, Glasgow, G5 8AW	New Vehicles	Motoring
E35	225	W	Car Deal Warehouse	100, West Street, Glasgow, G5 8AW	Secondhand Vehicles	Motoring
E38	239	W	Car Deal Warehouse	100, West Street, Glasgow, G5 8AW	New Vehicles	Motoring
39	241	NW	Electricity Sub Station	G5	Electrical Features	Infrastructure and Facilities
40	260	S	Tank	G5	Tanks (Generic)	Industrial Features
F42	267	SW	Prime Focus Vehicle Hire	54, Cook Street, Glasgow, G5 8JN	Vehicle Hire and Rental	Hire Services
43	269	SE	Electricity Sub Station	G5	Electrical Features	Infrastructure and Facilities
F44	273	SW	Warehouse	G5	Container and Storage	Transport, Storage and Delivery
45	277	NE	Glasgow Central Station Bridge Ferry Landing	G1	Ferries and Ferry Terminals	Water
46	284	S	UK Recon Services	3-5, Salkeld Street, Glasgow, G5 8HE	Vehicle Repair, Testing and Servicing	Repair and Servicing
G47	286	E	Electricity Sub Station	G5	Electrical Features	Infrastructure and Facilities
48	290	N	Electricity Sub Station	G1	Electrical Features	Infrastructure and Facilities
G49	294	E	Carlton Recording Studios	54, Carlton Place, Glasgow, G5 9TW	Recording Studios and Record Companies	IT, Advertising, Marketing and Media Services
50	313	E	Sell Your Car Scotland	71, Oxford Street, Glasgow, G5 9EP	Secondhand Vehicles	Motoring
51	320	NW	Broomielaw Quay Ferry Terminal	G1	Ferries and Ferry Terminals	Water
52	325	SW	Glasgow Metals	7, Cook Street, Glasgow, G5 8JN	Scrap Metal Merchants	Recycling Services

ID	Distance	Direction	Company	Address	Description	Category
53	325	SW	West Street Service Station	156, West Street, Glasgow, G5 8LG	Petrol and Fuel Stations	Road and Rail
54	327	N	Designer Cupcake Studio	Oswald Chambers 5, Oswald Street, Glasgow, G1 4QR	Baking and Confectionery	Foodstuffs
55	333	N	Electricity Sub Station	G1	Electrical Features	Infrastructure and Facilities
56	336	W	Warehouse	G5	Container and Storage	Transport, Storage and Delivery
H59	357	N	Peel Ports Clydeport	16, Robertson Street, Glasgow, G2 8DS	Moorings and Unloading Facilities	Water
H60	357	N	Gardner Morrison Tear Ltd	16, Robertson Street, Glasgow, G2 8DU	Distribution and Haulage	Transport, Storage and Delivery
61	362	N	Mott MacDonald Group Ltd	1 Atlantic Quay 45, Robertson Street, Glasgow, G2 8JB	Civil Engineers	Engineering Services
62	376	N	A X A	3 Atlantic Quay 20, York Street, Glasgow, G2 8JH	Medical Equipment, Supplies and Pharmaceuticals	Industrial Products
63	378	NW	Windmillcroft Quay	G5	Moorings and Unloading Facilities	Water
64	381	W	Electricity Sub Station	G5	Electrical Features	Infrastructure and Facilities
65	392	NW	Broomielaw Quay	G1	Moorings and Unloading Facilities	Water
66	398	W	Electricity Sub Station	G5	Electrical Features	Infrastructure and Facilities
67	401	W	Electricity Sub Station	G5	Electrical Features	Infrastructure and Facilities
68	408	N	Enterprise Rent-A-Car	40, Oswald Street, Glasgow, G1 4PL	Vehicle Hire and Rental	Hire Services
K73	443	NE	Gold & Diamond Exchange	3/3 60, St. Enoch Square, Glasgow, G1 4AG	Jewellery, Gems, Clocks and Watches	Consumer Products
K72	443	NE	Agnew Document Solutions Ltd	3/1 60, St. Enoch Square, Glasgow, G1 4AG	Office and Shop Equipment	Industrial Products
K71	443	NE	Kodel Europe Ltd	60, St. Enoch Square, Glasgow, G1 4AW	Electronic Equipment	Industrial Products

ID	Distance	Direction	Company	Address	Description	Category
K69	443	NE	Foam Centre	29, Howard Street, Glasgow, G1 4BA	Rubber, Silicones and Plastics	Industrial Products
K70	443	NE	Rub a Dub	35, Howard Street, Glasgow, G1 4BA	Electronic Equipment	Industrial Products
K74	443	NE	R S Sound & Light	64, St. Enoch Square, Glasgow, G1 4AG	Electronic Equipment	Industrial Products
76	453	N	Electricity Sub Station	G1	Electrical Features	Infrastructure and Facilities
75	453	S	Electricity Sub Station	G5	Electrical Features	Infrastructure and Facilities
K77	458	NE	Smiths Jewellers	52, St. Enoch Square, Glasgow, G1 4AA	Jewellery, Gems, Clocks and Watches	Consumer Products
78	458	NE	Chemtro Ltd	1/1 101, Maxwell Street, Glasgow, G1 4EP	Special Purpose Machinery and Equipment	Industrial Products
79	468	NE	Flourish Publications Scotland Ltd	196, Clyde Street, Glasgow, G1 4JY	Published Goods	Industrial Products
80	471	E	Upper Harbour	G5	Moorings and Unloading Facilities	Water
81	472	NW	Electricity Sub Station	G1	Electrical Features	Infrastructure and Facilities
82	474	N	I Care Repairs	62, Oswald Street, Glasgow, G1 4PL	Electrical Equipment Repair and Servicing	Repair and Servicing
K83	475	NE	Robert Horn Ltd	40, St. Enoch Square, Glasgow, G1 4DH	Jewellery, Gems, Clocks and Watches	Consumer Products
I84	478	SW	West Street Underground Station	G5	Underground Network Stations	Public Transport, Stations and Infrastructure
I85	480	SW	West Street SPT Subway Station (Glasgow)	G5	Tram, Metro and Light Railway Stations and Stops	Public Transport, Stations and Infrastructure
K86	483	NE	Duotool Direct Ltd	2/1 Station House 34, St. Enoch Square, Glasgow, G1 4DF	General Construction Supplies	Industrial Products
J87	484	NW	Clydetec Systems Ltd	34, Brown Street, Glasgow, G2 8PD	Electronic Equipment	Industrial Products
J88	484	NW	All the Anime	34, Brown Street, Glasgow, G2 8PD	Distribution and Haulage	Transport, Storage and Delivery

ID	Distance	Direction	Company	Address	Description	Category
K89	492	NE	Dtech Publishing Ltd	33 Station House, 34 St Enoch Square, Glasgow, G1 4DF	Published Goods	Industrial Products
90	495	NE	St Enoch SPT Subway Station (Glasgow)	G1	Tram, Metro and Light Railway Stations and Stops	Public Transport, Stations and Infrastructure

3.2 Petrol and Fuel Sites

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

2

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
41	261	S	258480 664270	Obsolete	Eglinton Street, Laurigston, Glasgow, Lanarkshire, G42	Not Applicable	Obsolete
57	346	SW	258246 664311	Esso	West Street Service Station, 156, West Street, Glasgow, Lanarkshire, G5 8LG	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

2

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

ID	Distance [m]	Direction	Address	Operator	Processes Undertaken	License Reference
17	132	W		Sybraide Dry Cleaners 132 Nelson Street Glasgow	Dry Cleaners	PPC/B/1021663

ID	Distance [m]	Direction	Address	Operator	Processes Undertaken	License Reference
58	347	SW	156 West Street, Glasgow,	Esso Petroleum Company Ltd Esso House Ermyrn Way Leatherhead Surrey KT22 8UX	Unloading Of Petrol At A Service Station	PPC/B/1014224

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	0
---	---

Database searched and no data found.

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.

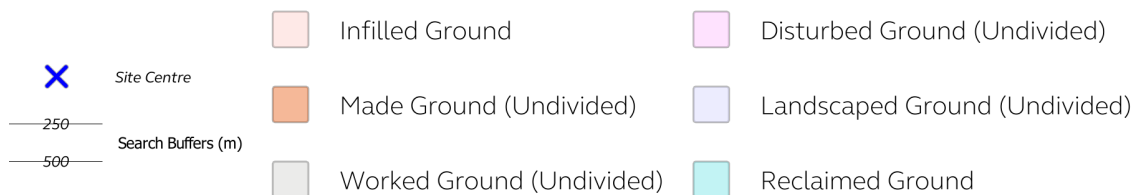
3.7 Sites Determined as Contaminated Land under Part 2A EPA 1990

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
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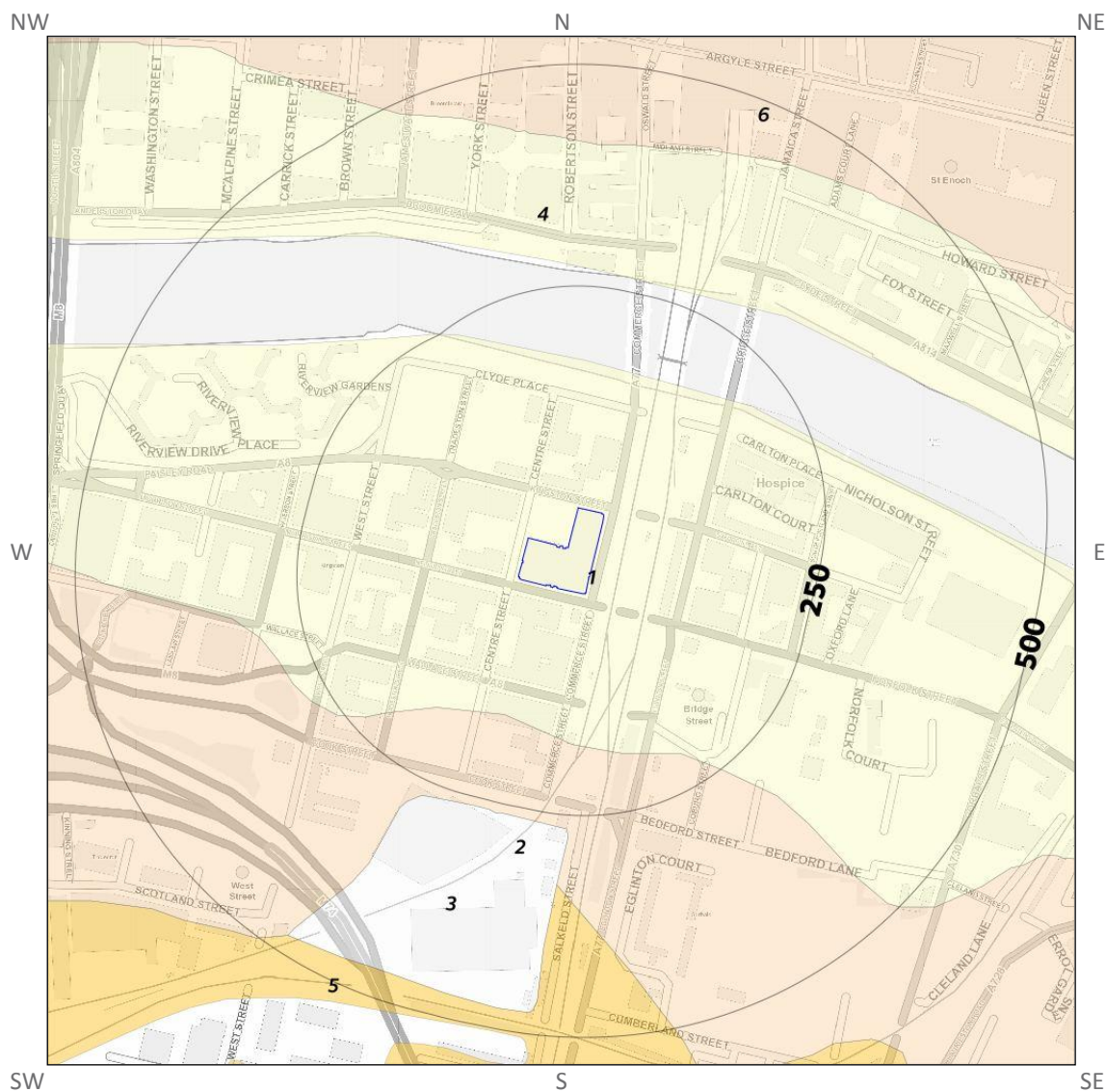
Database searched and no data found.

4 Geology and Hydrogeology

Artificial Ground Map



Superficial Deposits Map



Superficial Deposits Map

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Bedrock and Faults Map



Bedrock and Faults Map

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X Site Centre
-250 Search Buffers (m)
-500

CALMY LIMESTONE
PASSAGE FORMATION
UPPER LIMESTONE FORMATION

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	95	N	MADE GROUND (UNDIVIDED)	ARTIFICIAL DEPOSIT	MGR-ARTDP
2	219	NW	MADE GROUND (UNDIVIDED)	ARTIFICIAL DEPOSIT	MGR-ARTDP
3	260	S	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
95	N	Mixed	Very High	Low
219	W	Mixed	Very High	Low
260	S	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
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/bgsrscs/rcs_details.cfm?code=XCZSV	None specified
2	152	S	RIVER TERRACE DEPOSITS (UNDIFFERENTIATED)	GRAVEL, SAND AND SILT [UNLITHIFIED DEPOSITS CODING SCHEME]	RTDU	http://www.bgs.ac.uk/Lexicon/lexicon.cfm?pub=RTDU	http://www.bgs.ac.uk/bgsrscs/rcs_details.cfm?code=XVSZ	None specified

ID	Distance (m)	Direction	Unit name	Rock Type	BGS Code	BGS Unit Classification Link	BGS Rock Classification Link	Previous Name
3	260	S	SUPERFICIAL DEPOSITS	SEDIMENT	SUPD	http://www.bgs.ac.uk/Lexicon/lexicon.cfm?pub=supd	http://www.bgs.ac.uk/bgsrsrcs/rcs_details.cfm?code=SED	SUPERFICIAL DEPOSITS (UNDIFFERENTIATED)
4	265	N	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/bgsrsrcs/rcs_details.cfm?code=XCZSV	None specified
5	329	S	RAISED TIDAL FLAT DEPOSITS, LATE DEVENSIAN	GRAVEL, SAND AND SILT [UNLITHIFIED DEPOSITS CODING SCHEME]	RTFDD	http://www.bgs.ac.uk/Lexicon/lexicon.cfm?pub=rtfdd	http://www.bgs.ac.uk/bgsrsrcs/rcs_details.cfm?code=XVSZ	RAISED MARINE/BEACH/ESTUARINE DEPOSITS OF LATE-GLACIAL AGE
6	410	N	RIVER TERRACE DEPOSITS (UNDIFFERENTIATED)	GRAVEL, SAND AND SILT [UNLITHIFIED DEPOSITS CODING SCHEME]	RTDU	http://www.bgs.ac.uk/Lexicon/lexicon.cfm?pub=rtdu	http://www.bgs.ac.uk/bgsrsrcs/rcs_details.cfm?code=XVSZ	None specified

4.4 Permeability of Superficial Ground

Records relating to permeability of superficial ground within 500m of the study site boundary	Yes
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Distance (m)	Direction	Flow Type	Maximum Permeability	Minimum Permeability
0	on site	Intergranular	High	Very Low
152	W	Intergranular	Very High	Moderate
260	S	Mixed	Very High	Very Low
265	NE	Intergranular	High	Very Low
329	SW	Intergranular	Very High	Moderate
389	NW	Intergranular	High	Very Low
410	N	Intergranular	Very High	Moderate
445	E	Intergranular	Very High	Moderate

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
1	0	on site	UPPER LIMESTONE FORMATION	SEDIMENTARY ROCK CYCLES, CLACKMANNAN GROUP TYPE	ULGS-CYCC	http://www.bgs.ac.uk/Lexicon/lexicon.cfm?pub=ULGS	http://www.bgs.ac.uk/bgsrsrcs/rcs_details.cfm?code=CYCC	UPPER LIMESTONE GROUP
2	9	NW	CALMY LIMESTONE	LIMESTONE	CAL-LMST	http://www.bgs.ac.uk/Lexicon/lexicon.cfm?pub=CAL	http://www.bgs.ac.uk/bgsrsrcs/rcs_details.cfm?code=LMST	HIRST LIMESTONE ROBROYSTON LIMESTONE DYKENEUK LIMESTONE GARNKIRK LIMESTONE JANET PEAT LIMESTONE ARDEN LIMESTONE GAIR LIMESTONE
3	54	NW	UPPER LIMESTONE FORMATION	SEDIMENTARY ROCK CYCLES, CLACKMANNAN GROUP TYPE	ULGS-CYCC	http://www.bgs.ac.uk/Lexicon/lexicon.cfm?pub=ULGS	http://www.bgs.ac.uk/bgsrsrcs/rcs_details.cfm?code=CYCC	UPPER LIMESTONE GROUP
4	264	SE	PASSAGE FORMATION	SEDIMENTARY ROCK CYCLES, CLACKMANNAN GROUP TYPE	PGP-CYCC	http://www.bgs.ac.uk/Lexicon/lexicon.cfm?pub=PGP	http://www.bgs.ac.uk/bgsrsrcs/rcs_details.cfm?code=CYCC	PASSAGE GROUP
5	265	N	UPPER LIMESTONE FORMATION	SEDIMENTARY ROCK CYCLES, CLACKMANNAN GROUP TYPE	ULGS-CYCC	http://www.bgs.ac.uk/Lexicon/lexicon.cfm?pub=ULGS	http://www.bgs.ac.uk/bgsrsrcs/rcs_details.cfm?code=CYCC	UPPER LIMESTONE GROUP

ID	Distance (m)	Direction	Unit name	Rock Type	BGS Code	BGS Unit Classification Link	BGS Rock Classification Link	Previous Name
6	298	NE	CALMY LIMESTONE	LIMESTONE	CAL-LMST	http://www.bgs.ac.uk/Lexicon/lexicon.cfm?pub=CAL	http://www.bgs.ac.uk/bgsrsrcs/rcs_details.cfm?code=LMST	HIRST LIMESTONE ROBROYSTON LIMESTONE DYKENEUK LIMESTONE GARNKIRK LIMESTONE JANET PEAT LIMESTONE ARDEN LIMESTONE GAIR LIMESTONE
7	317	NE	UPPER LIMESTONE FORMATION	SEDIMENTARY ROCK CYCLES, CLACKMANNAN GROUP TYPE	ULGS-CYCC	http://www.bgs.ac.uk/Lexicon/lexicon.cfm?pub=ULGS	http://www.bgs.ac.uk/bgsrsrcs/rcs_details.cfm?code=CYCC	UPPER LIMESTONE GROUP

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	High	Low
9	W	Fracture	High	High
264	S	Mixed	High	Low
265	N	Fracture	High	Low
298	NE	Fracture	High	High
317	NE	Fracture	High	Low
389	N	Fracture	High	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	No
---	----

Database searched and no data found.

The geology map for the site and surrounding area are extracted from the BGS Digital Geological Map of Great Britain at 1:50,000 scale. This Geology shows the main components as discrete layers, these are: Bedrock/ Solid Geology and linear features such as Faults. These are all displayed with the BGS Lexicon code for the rock unit and BGS sheet number. Not all of the main geological components have nationwide coverage.

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

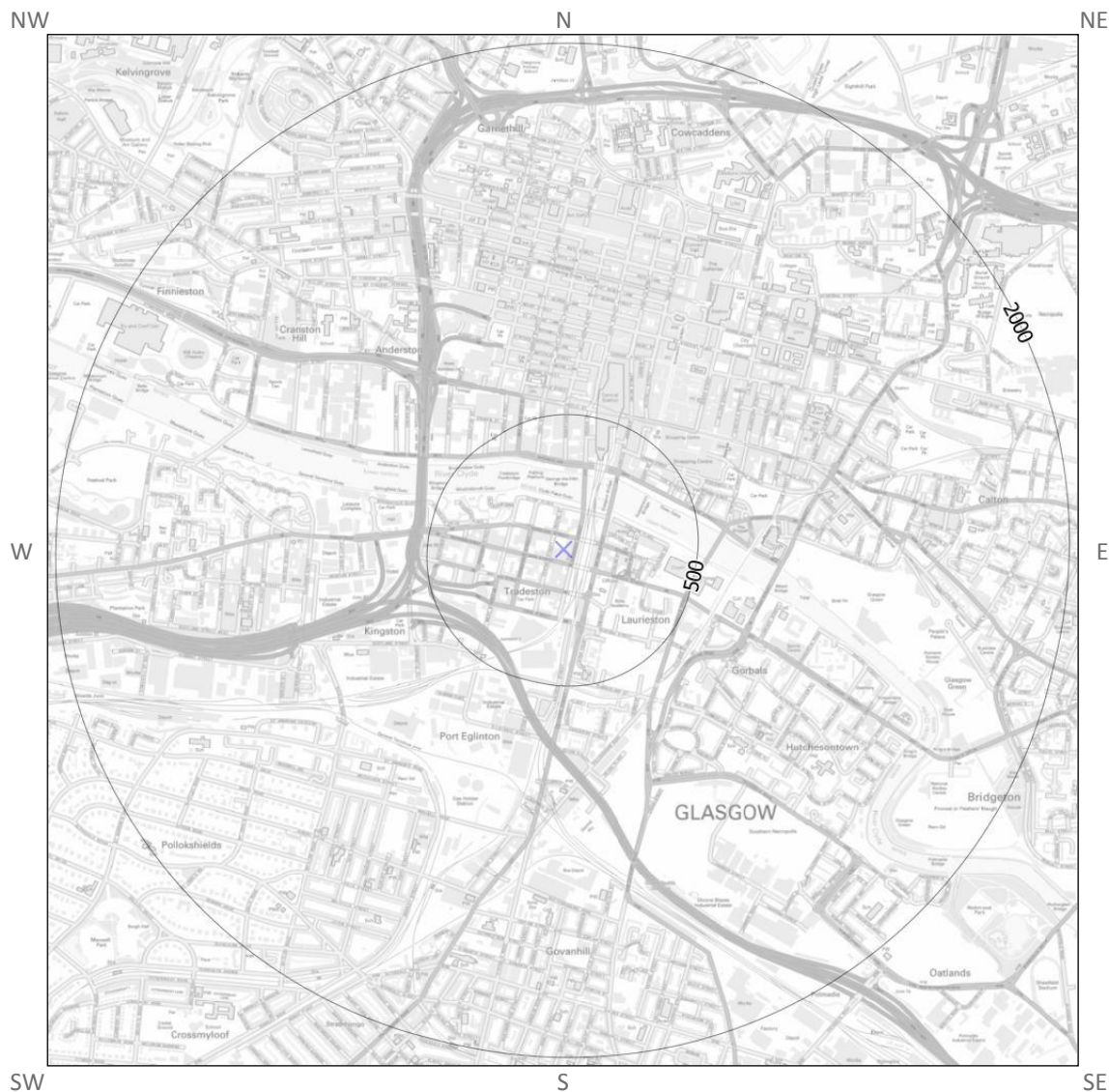
Distance (m)	Direction	Description	Type	Layer	Rock Description
0	on site	Concealed aquifers, aquifers of limited potential, regions without significant groundwater	Concealed aquifers; aquifers with limited or local potential	DRIFT	Quaternary Coastal and Fluvatile Alluvium

Bedrock Geology

Distance (m)	Direction	Description	Type	Layer	Rock Description
0	on site	Aquifers in which flow is dominantly in fissures and other discontinuities	Highly productive aquifers (not extensive)	SOLID	Carboniferous: Dinantian and Namurian

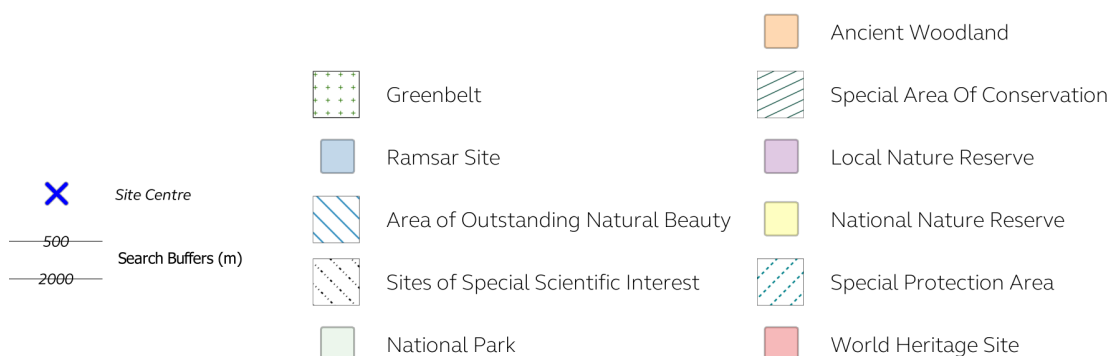
5 Designated Environmentally Sensitive Sites

Designated Environmentally Sensitive Sites Map



Designated Environmentally Sensitive Sites Map

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Designated Environmentally Sensitive Sites

Presence of Designated Environmentally Sensitive Sites within 2000m of the study site?	No
--	----

5.1 Sites of Special Scientific Interest (SSSI)

Records of Sites of Special Scientific Interest (SSSI) within 2000m of the study site:	0
--	---

Database searched and no data found.

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

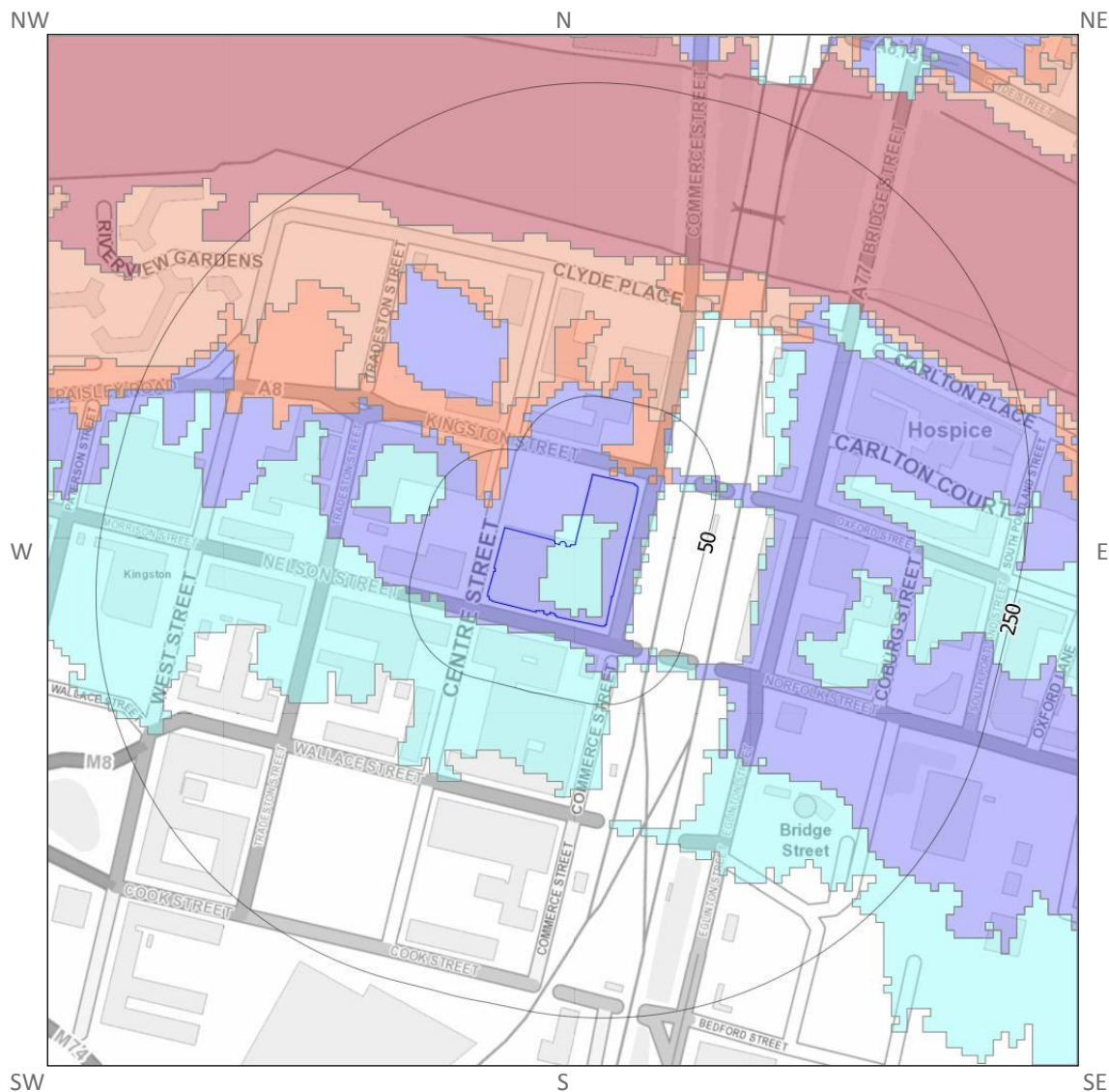
Records of Ancient Woodland within 2000m of the study site:

0

Database searched and no data found.

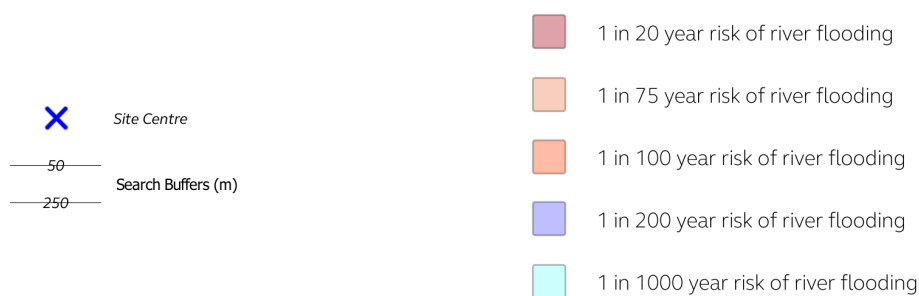
6 Flooding

River Flooding Map

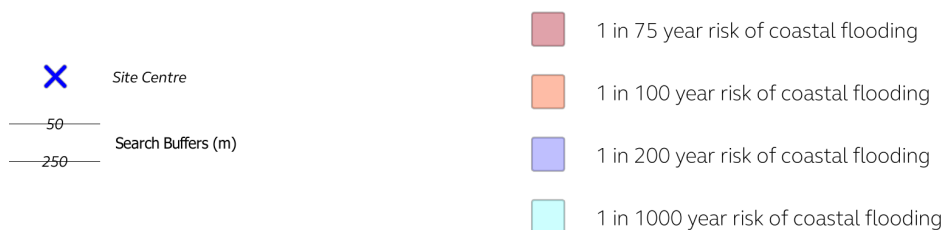


River Flooding Map

Flood data provided by JBA Risk Management, Copyright JBA Risk Management Limited. 2008 - 2016



Coastal Flooding Map

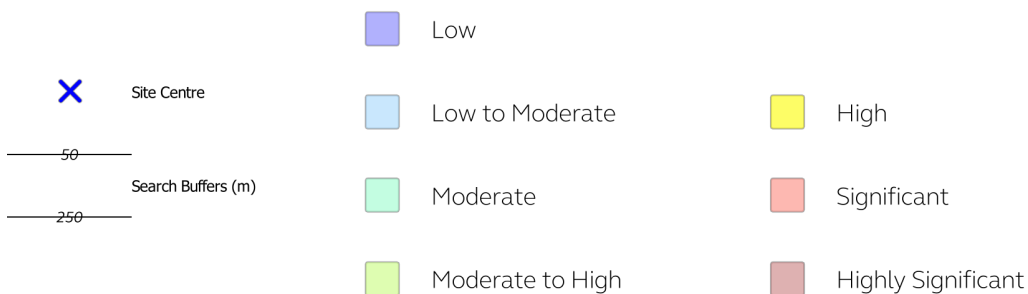


Surface Water (pluvial) Flooding



Surface Water (pluvial) Flooding

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6.1 River Flooding

Highest risk of river flooding.

1 in 200 year

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.

Distance	Direction	Risk
0	on site	1 in 1000 year risk of river flooding
0	on site	1 in 200 year risk of river flooding
1	N	1 in 100 year risk of river flooding
4	N	1 in 100 year risk of river flooding
7	E	1 in 100 year risk of river flooding
15	NW	1 in 100 year risk of river flooding
41	N	1 in 75 year risk of river flooding

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?

Low to Moderate

Guidance: The site has been assessed to be at a Low to Moderate 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 200 year rainfall event to a depth of between 0.1m and 0.3m.

This data is provided by JBA Risk Management, © Jeremy Benn Associates Limited 2008-2016

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	Low
0	on site	Low
0	on site	Low
0	on site	Low
0	on site	Low

Distance	Direction	Risk
0	on site	Low to Moderate
6	E	High
7	E	Low to Moderate
7	E	High
8	W	Low
9	W	High
11	E	Low
12	E	Low
13	W	Low
15	NW	Low
17	E	High
20	NW	Low
21	NE	Low
26	SE	Low
27	N	Low
37	E	Low to Moderate

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?	Clearwater & Superficial Deposits Flooding

6.5 Groundwater Flooding Confidence Areas

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

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
--	-----

Distance (m)	Direction	Description
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.
152	W	Lower flood potential from rivers: areas affected by secondary flooding in extreme cases as a result of a prolonged flood event.
214	SE	Lower flood potential from rivers: areas affected by secondary flooding in extreme cases as a result of a prolonged flood event.

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.

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 England and Wales, 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 2008-2016

7 Mining

Mining, Extraction & Natural Cavities



Mining, Extraction & Natural Cavities

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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

The following coal mining information provided by the Coal Authority is not represented on Mapping.

Distance	Direction	Details
0	on site	The study site is located within the specified search distance of an identified mining area. Further details concerning this can be obtained from the Coal Authority Helpline on 0845 762 6848.

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

ID	Distance (m)	Direction	Name	Rating	Commodity	Assessment of likelihood
2	265	N	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
3	389	N	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?
--

Very Low

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

Hazards

Slope instability problems are unlikely to be present. No special actions required to avoid problems due to landslides. No special ground investigation required, and increased construction costs or increased financial risks are unlikely due to potential problems with landslides.

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?	Negligible
--	------------

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

Hazards

No indicators for collapsible deposits identified. No actions required to avoid problems due to collapsible deposits. No special ground investigation required, or increased construction costs or increased financial risk due to potential problems with collapsible deposits.

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

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X Site Centre

— 100 —
Search Buffers (m)

— 250 —

● 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	83
---	----

ID	Distance (m)	Direction	NGR	BGS Reference	Drilled Length (m)	Borehole Name	Borehole Link
1	0	on site	258602 664594	NS56SE8516/1	-1	KINGSTON STREET 1	N/A
3	0	on site	258566 664562	NS56SE8516/2	-1	KINGSTON STREET 2	N/A
4	0	on site	258522 664534	NS56SE8516/3	-1	KINGSTON STREET 3	N/A
A5	0	on site	258588 664518	NS56SE8516/4	-1	KINGSTON STREET 4	N/A
A6	0	on site	258580 664530	NS56SE363/18	12	TRADESTON,SHIEL DS RD	scans.bgs.ac.uk/so bi_scans/borehole s/1068622
A2	0	on site	258580 664520	NS56SE3734/18	-1	TRADESTON + SHIELDS ROAD	N/A
7	18	W	258500 664560	NS56SE3734/16	-1	TRADESTON + SHIELDS ROAD	N/A
8	23	W	258500 664580	NS56SE363/16	29	TRADESTON,SHIEL DS RD	scans.bgs.ac.uk/so bi_scans/borehole s/1068620
9	26	W	258487 664542	NS56SE4017/5	20	TRADESTON TELE EXCH 5	scans.bgs.ac.uk/so bi_scans/borehole s/1071194
10	42	W	258479 664577	NS56SE4017/4	15	TRADESTON TELE EXCH 4	scans.bgs.ac.uk/so bi_scans/borehole s/1071193
11	59	S	258510 664470	NS56SE2330	-1	CENTRE STREET GLASGOW 1	N/A
12	60	S	258550 664460	NS56SE2332	-1	CENTRE STREET GLASGOW 3	N/A
13	60	W	258459 664571	NS56SE4017/3	29	TRADESTON TELE EXCH 3	scans.bgs.ac.uk/so bi_scans/borehole s/1071192
14	74	S	258530 664450	NS56SE2331	-1	CENTRE STREET GLASGOW 2	N/A

15	78	S	258560 664440	NS56SE2333	-1	CENTRE STREET GLASGOW 4	N/A
16	90	W	258424 664556	NS56SE4017/1	29	TRADESTON TELE EXCH 1	scans.bgs.ac.uk/so bi_scans/borehole s/1071190
17	92	W	258428 664579	NS56SE4017/2	20	TRADESTON TELE EXCH 2	scans.bgs.ac.uk/so bi_scans/borehole s/1071191
18	96	NW	258525 664690	NS56SE8736/3	18	KINGSTON STREET 3	scans.bgs.ac.uk/so bi_scans/borehole s/1071841
19	109	NW	258470 664672	NS56SE8736/4	18	KINGSTON STREET 4	scans.bgs.ac.uk/so bi_scans/borehole s/1071842
20	122	NW	258493 664697	NS56SE8736/2	18	KINGSTON STREET 2	scans.bgs.ac.uk/so bi_scans/borehole s/1071840
21	128	SE	258703 664458	NS56SE4894/S7	10	BRIDGE STREET 7	scans.bgs.ac.uk/so bi_scans/borehole s/1071513
22	129	N	258580 664740	NS56SE2190	-1	GLASGOW BRIDGE .COM C6	N/A
23	133	N	258650 664730	NS56SE137	30	OSWALD ST BRIDGE 4	scans.bgs.ac.uk/so bi_scans/borehole s/1068005
B24	133	SE	258697 664439	NS56SE4894/1	12	BRIDGE STREET S1	scans.bgs.ac.uk/so bi_scans/borehole s/1071507
25	134	S	258580 664380	NS56SE46	9	COMMERCE STREET	scans.bgs.ac.uk/so bi_scans/borehole s/1067914
B26	135	SE	258700 664440	NS56SE3975/S1	12	BRIDGE STREET	scans.bgs.ac.uk/so bi_scans/borehole s/1071119
27	142	NW	258464 664706	NS56SE8736/1	18	KINGSTON STREET 1	scans.bgs.ac.uk/so bi_scans/borehole s/1071839
28	147	N	258530 664750	NS56SE2185	-1	GLASGOW BRIDGE .COM 8	N/A

C29	149	SE	258687 664404	NS56SE4894/4	12	BRIDGE STREET S4	scans.bgs.ac.uk/so bi_scans/borehole s/1071510
C30	154	SE	258690 664400	NS56SE3975/S4	12	BRIDGE STREET	scans.bgs.ac.uk/so bi_scans/borehole s/1071122
D31	158	SE	258717 664423	NS56SE4894/3	12	BRIDGE STREET S3	scans.bgs.ac.uk/so bi_scans/borehole s/1071509
D32	163	SE	258720 664420	NS56SE3975/S3	12	BRIDGE STREET	scans.bgs.ac.uk/so bi_scans/borehole s/1071121
33	164	E	258765 664550	NS56SE8834/P3	1	CARLTON PLACE, GLASGOW P3	scans.bgs.ac.uk/so bi_scans/borehole s/1071900
34	168	E	258776 664612	NS56SE8834/P2	1	CARLTON PLACE, GLASGOW P2	scans.bgs.ac.uk/so bi_scans/borehole s/1071899
E35	169	SE	258740 664440	NS56SE3908/10	-1	LAURIESTON-GORB ALS	N/A
E36	169	SE	258740 664440	NS56SE3975/S2	12	BRIDGE STREET	scans.bgs.ac.uk/so bi_scans/borehole s/1071120
E37	171	SE	258744 664445	NS56SE4894/2	12	BRIDGE STREET S2	scans.bgs.ac.uk/so bi_scans/borehole s/1071508
40	175	SE	258700 664380	NS56SE2009/14	23	BRIDGE STREET SUB	scans.bgs.ac.uk/so bi_scans/borehole s/1069520
D38	175	SE	258719 664399	NS56SE4894/5	12	BRIDGE STREET S5	scans.bgs.ac.uk/so bi_scans/borehole s/1071511
D39	175	SE	258720 664400	NS56SE3975/S5	12	BRIDGE STREET	scans.bgs.ac.uk/so bi_scans/borehole s/1071123
E41	179	SE	258750 664440	NS56SE160/10	14	LAURIESTON REDEV	scans.bgs.ac.uk/so bi_scans/borehole s/1068068
42	181	E	258783 664554	NS56SE8834/BH1	5	CARLTON PLACE, GLASGOW 1	scans.bgs.ac.uk/so bi_scans/borehole s/1071902

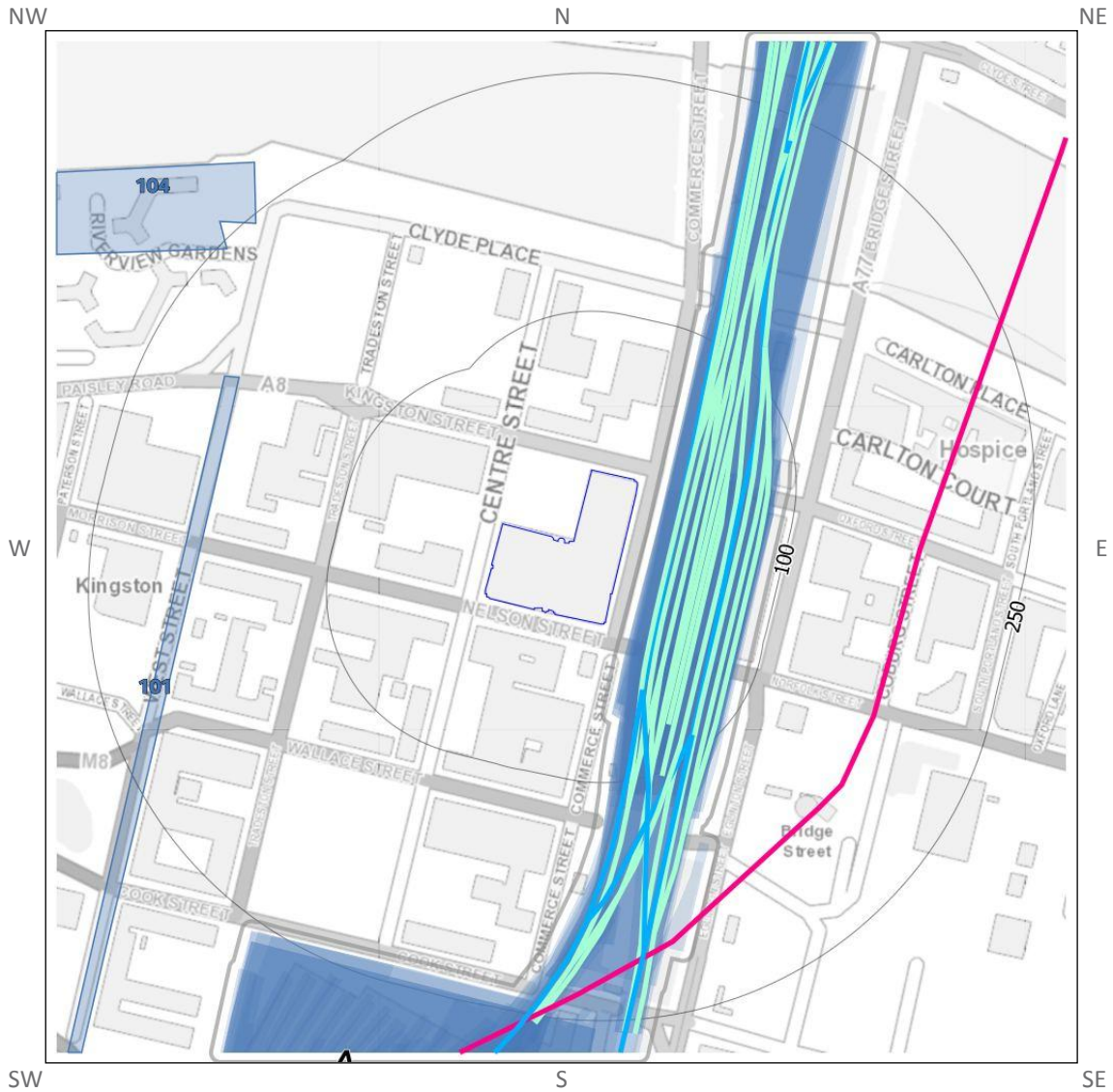
43	185	SE	258690 664360	NS56SE2009/12	23	BRIDGE STREET SUB	scans.bgs.ac.uk/so bi_scans/borehole s/1069518
44	186	NE	258760 664710	NS56SE2283	-1	RIVER CLYDE (GLASGOW) PROJECTS RCFMS JWS26	N/A
45	187	SW	258390 664390	NS56SE363/17	12	TRADESTON,SHIEL DS RD	scans.bgs.ac.uk/so bi_scans/borehole s/1068621
46	190	N	258650 664790	NS56SE138	24	OSWALD ST BRIDGE 5	scans.bgs.ac.uk/so bi_scans/borehole s/1068006
47	191	S	258640 664330	NS56SE53	5	EGLINTON STREET	scans.bgs.ac.uk/so bi_scans/borehole s/1067921
48	193	NW	258470 664770	NS56SE2184	-1	GLASGOW BRIDGE .COM 7	N/A
G49	195	E	258780 664480	NS56SE3097/PA	2	S.PORTLAND ST.OCC.TRAINING CNTR	scans.bgs.ac.uk/so bi_scans/borehole s/1069993
G50	200	E	258790 664500	NS56SE3097/PB	2	S.PORTLAND ST.OCC.TRAINING CNTR	scans.bgs.ac.uk/so bi_scans/borehole s/1069994
51	202	SE	258774 664437	NS56SE4894/S6	9	BRIDGE STREET 6	scans.bgs.ac.uk/so bi_scans/borehole s/1071512
52	203	SW	258390 664370	NS56SE3734/17	-1	TRADESTON + SHIELDS ROAD	N/A
53	205	SE	258710 664350	NS56SE2009/13	23	BRIDGE STREET SUB	scans.bgs.ac.uk/so bi_scans/borehole s/1069519
54	205	E	258800 664520	NS56SE3097/PD	1	S.PORTLAND ST.OCC.TRAINING CNTR	scans.bgs.ac.uk/so bi_scans/borehole s/1069996
55	206	NE	258770 664730	NS56SE65	31	JAMAICA STREET 1	scans.bgs.ac.uk/so bi_scans/borehole s/1067933
56	206	SE	258680 664330	NS56SE52	6	EGLINTON STREET	scans.bgs.ac.uk/so bi_scans/borehole s/1067920

G57	207	E	258790 664470	NS56SE3211/P3	2	SOUTH PORTLAND ST./NORFOLK ST.	scans.bgs.ac.uk/so bi_scans/borehole s/1070096
G58	209	E	258790 664460	NS56SE3211/P1	2	SOUTH PORTLAND ST./NORFOLK ST.	scans.bgs.ac.uk/so bi_scans/borehole s/1070094
60	210	E	258810 664540	NS56SE3097/1	5	S.PORTLAND ST.OCC.TRAINING CNTR	scans.bgs.ac.uk/so bi_scans/borehole s/1069991
G59	210	E	258800 664500	NS56SE3097/PC	1	S.PORTLAND ST.OCC.TRAINING CNTR	scans.bgs.ac.uk/so bi_scans/borehole s/1069995
61	212	NE	258750 664760	NS56SE66	15	JAMAICA STREET 2	scans.bgs.ac.uk/so bi_scans/borehole s/1067934
F62	213	E	258820 664580	NS56SE160/4	19	LAURIESTON REDEV	scans.bgs.ac.uk/so bi_scans/borehole s/1068062
F63	214	E	258820 664570	NS56SE3908/4	-1	LAURIESTON-GORB ALS	N/A
G65	215	E	258800 664480	NS56SE3097/2	6	S.PORTLAND ST.OCC.TRAINING CNTR	scans.bgs.ac.uk/so bi_scans/borehole s/1069992
G64	215	E	258800 664480	NS56SE3211/P5	2	SOUTH PORTLAND ST./NORFOLK ST.	scans.bgs.ac.uk/so bi_scans/borehole s/1070098
66	216	E	258810 664680	NS56SE2282	-1	RIVER CLYDE (GLASGOW) PROJECTS RCFMS JWS25	N/A
G68	219	E	258800 664460	NS56SE3211/P2	2	SOUTH PORTLAND ST./NORFOLK ST.	scans.bgs.ac.uk/so bi_scans/borehole s/1070095
67	219	NW	258440 664780	NS56SE2189	-1	GLASGOW BRIDGE .COM C5	N/A
G69	224	E	258810 664480	NS56SE3211/P4	2	SOUTH PORTLAND ST./NORFOLK ST.	scans.bgs.ac.uk/so bi_scans/borehole s/1070097
70	226	E	258821 664517	NS56SE8834/P4	0	CARLTON PLACE, GLASGOW P4	scans.bgs.ac.uk/so bi_scans/borehole s/1071901

72	227	E	258830 664650	NS56SE54	15	CARLTON PLACE	scans.bgs.ac.uk/so bi_scans/borehole s/1067922
71	227	NE	258750 664780	NS56SE37	-1	JAMAICA BRIDGE	N/A
H73	228	SE	258790 664410	NS56SE3060/PA	2	ST.JOHN'S PRIMARY SCHOOL	scans.bgs.ac.uk/so bi_scans/borehole s/1069948
G74	229	E	258810 664460	NS56SE3097/PE	3	S.PORTLAND ST.OCC.TRAINING CNTR	scans.bgs.ac.uk/so bi_scans/borehole s/1069997
75	231	N	258660 664830	NS56SE135	20	OSWALD ST BRIDGE 2	scans.bgs.ac.uk/so bi_scans/borehole s/1068003
76	233	NE	258780 664760	NS56SE67	15	JAMAICA STREET 3	scans.bgs.ac.uk/so bi_scans/borehole s/1067935
78	235	SE	258780 664380	NS56SE3060/PD	2	ST.JOHN'S PRIMARY SCHOOL	scans.bgs.ac.uk/so bi_scans/borehole s/1069951
77	235	NW	258440 664800	NS56SE60	31	WEST STREET	scans.bgs.ac.uk/so bi_scans/borehole s/1067928
H79	237	SE	258800 664410	NS56SE3060/27	31	ST.JOHN'S PRIMARY SCHOOL	scans.bgs.ac.uk/so bi_scans/borehole s/1069945
80	242	E	258849 664629	NS56SE8834/P1	1	CARLTON PLACE, GLASGOW P1	scans.bgs.ac.uk/so bi_scans/borehole s/1071898
I81	243	W	258280 664610	NS56SE3734/13	-1	TRADESTON + SHIELDS ROAD	N/A
I82	246	W	258280 664620	NS56SE363/13	12	TRADESTON,SHIEL DS RD	scans.bgs.ac.uk/so bi_scans/borehole s/1068617
83	246	NW	258400 664790	NS56SE2183	-1	GLASGOW BRIDGE .COM 6	N/A

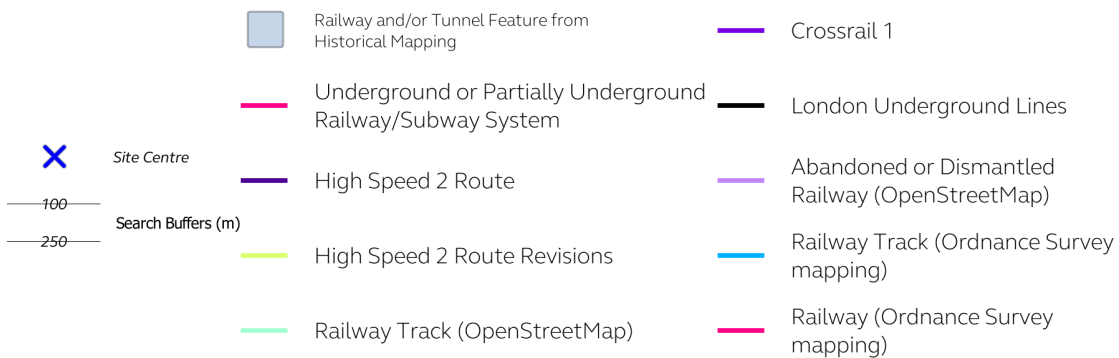
10 Railways and Tunnels

Railways and Tunnels Map



Railways and Tunnels Map

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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?	Yes

Distance (m)	Direction	Line
177	SE	Glasgow Subway

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
17	SE	258016 663675	Railway Sidings	1967
17	SE	258667 664657	Railway Sidings	1938
17	SE	258667 664657	Railway Sidings	1910
18	SE	258686 664697	Railway Sidings	1988
19	SE	258640 664478	Railway Sidings	1948
19	SE	258668 664688	Railway Sidings	1956
20	SE	258018 663675	Railway Sidings	1977
43	SE	258655 664492	Railway Sidings	1920

Distance	Direction	NGR	Details	Date
149	S	258592 664339	Railway Sidings	1864
170	S	258132 663787	Railway Sidings	1920
173	SW	256100 663757	Railway Sidings	1948
181	NW	258234 664160	Railway Sidings	1864
240	SW	257549 664339	Railway Sidings	1956
245	NW	256873 664975	Railway Sidings	1897
246	SW	258125 663886	Railway Sidings	1897
246	SW	258125 663886	Railway Sidings	1910
246	SW	258125 663886	Railway Sidings	1938

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

Distance	Direction	NGR	Details	Date
20	SE	258687 664733	Railway Sidings	1934
20	SE	258687 664733	Railway Sidings	1913
23	SE	258593 664356	Railway Sidings	1989
25	SE	258612 664457	Railway Sidings	1896
34	SE	258636 664510	Railway Sidings	1863
37	SE	258646 664550	Railway Sidings	1862
37	SE	258646 664550	Railway Sidings	1862
49	SE	258631 664461	Railway Sidings	1977

Distance	Direction	NGR	Details	Date
49	SE	258631 664461	Railway Sidings	1952
76	SE	258680 664566	Railway Sidings	1952
80	E	258693 664661	Railway Sidings	1967
127	N	258681 664771	Railway Sidings	1967
156	N	258686 664790	Railway Sidings	1952
180	S	258533 664254	Railway Sidings	1952
180	S	258552 664277	Railway Sidings	1977
247	SW	258390 664156	Railway Sidings	1913
247	SW	258390 664156	Railway Sidings	1896

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

Ordnance Survey Records

Distance	Direction	Name	Type
29	SE	Not given	Multi Track
48	SE	Not given	Multi Track

Distance	Direction	Name	Type
48	SE	Not given	Multi Track
66	SE	Not given	Multi Track
89	SE	Not given	Multi Track
89	SE	Not given	Multi Track
127	S	Not given	Multi Track
127	S	Not given	Multi Track
188	SW	Not given	Multi Track
209	S	Not given	Multi Track
227	N	Not given	Multi Track
227	N	Not given	Multi Track

OpenStreetMap Records

Distance	Direction	Name	Type
29	SE	Not given	Rail
35	SE	Not given	Rail
41	SE	Not given	Rail
44	NE	Not given	Rail
46	SE	Not given	Rail
46	SE	Not given	Rail
50	SE	Not given	Rail
53	SE	Not given	Rail
55	SE	Not given	Rail
63	SE	Not given	Rail
70	SE	Not given	Rail
77	SE	Not given	Rail
82	SE	Not given	Rail
89	SE	Not given	Rail
117	NE	Not given	Rail
119	NE	Not given	Rail
119	NE	Not given	Rail
178	N	Not given	Rail
208	N	Not given	Rail
235	N	Not given	Rail
246	N	Not given	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:	1
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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	<1.8 mg/kg	90 - 120 mg/kg	15 - 30 mg/kg	300 - 600 mg/kg	240 - 360 mg/kg
9	NE	Sediment	<15 mg/kg	<1.8 mg/kg	60 - 90 mg/kg	15 - 30 mg/kg	300 - 600 mg/kg	240 - 360 mg/kg
12	W	Sediment	<15 mg/kg	<1.8 mg/kg	90 - 120 mg/kg	15 - 30 mg/kg	300 - 600 mg/kg	240 - 360 mg/kg
14	SE	Sediment	<15 mg/kg	<1.8 mg/kg	90 - 120 mg/kg	15 - 30 mg/kg	300 - 600 mg/kg	240 - 360 mg/kg
22	W	Sediment	<15 mg/kg	<1.8 mg/kg	60 - 90 mg/kg	15 - 30 mg/kg	300 - 600 mg/kg	240 - 360 mg/kg
34	SW	Sediment	<15 mg/kg	<1.8 mg/kg	90 - 120 mg/kg	15 - 30 mg/kg	300 - 600 mg/kg	240 - 360 mg/kg

11.2 Estimated Urban Soil Chemistry

Records of urban estimated soil chemistry potentially within the study site boundary.	4
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The BGS Estimated Urban Soil Chemistry dataset has been developed at a 1:10,000 scale, and hence any records found within 10m of the site are displayed within this table as potentially being present on site. This dataset is an assessment of both natural geological sources and the influence of anthropogenic sources.

Distance (m)	Direction	Arsenic (mg/kg)	Bioaccessible Arsenic (mg/kg)	Lead (mg/kg)	Bioaccessible Lead (mg/kg)	Chromium (mg/kg)	Cadmium (mg/kg)	Copper (mg/kg)	Nickel (mg/kg)	Tin (mg/kg)	Zinc (mg/kg)
0	on site	9	1.6	73	50	99	0.3	30	38	5	89
0	on site	9	1.6	68	47	101	0.3	25	39	4	77
0	on site	10	1.8	77	53	103	0.3	43	40	7	117
0	on site	10	1.8	85	58	105	0.3	41	41	7	115

11.3 Measured Urban Soil Chemistry

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

5

This data is taken from the BGS Measured Urban Soil Chemistry dataset, which comprises the locations and concentrations (mg kg⁻¹) of total As, Cd, Cr, Cu, Ni, Pb, Sn and Zn in urban topsoil samples from 23 urban centres across the UK. The dataset can be used to identify the concentrations of these elements in urban topsoil samples that are located in and adjacent to a search area, but only in those urban centres where soil samples have been collected by the BGS.

Distance (m)	Direction	Sample Type	Arsenic (mg/kg)	Cadmium (mg/kg)	Chromium (mg/kg)	Copper (mg/kg)	Nickel (mg/kg)	Lead (mg/kg)	Tin (mg/kg)	Zinc (mg/kg)
118	NE	Topsoil	10.1	0.3	106.6	318.7	43.0	125.3	32.1	213.7
291	SW	Topsoil	9.6	0.3	88.3	68.7	36.9	161.1	13.4	152.7
309	SE	Topsoil	9.6	0.3	85.3	40.7	31.4	78.7	4.2	103.6
331	NW	Topsoil	5.9	0.3	100.5	24.9	30.7	44.0	3.0	73.1
482	E	Topsoil	5.1	0.3	78.2	21.9	16.7	52.9	2.9	81.7

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