



CCG-C-16-9029

**PHASE 1 DESK STUDY FOR LAND AT
4 PAUL STREET, LIVERPOOL**

AUGUST 2016



Prepared for:

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1.0 INTRODUCTION

CC GEOTECHNICAL LTD (CCG) is providing consultancy services to **Vauxhall Developments Ltd** in connection with the proposed development of a parcel of disused land located at No. 4 Paul Street, near its junction with Vauxhall Road, in Vauxhall, Liverpool.

Plans for the development comprise two 3-storey residential blocks containing 10nr townhouses each with associated secure car parking, bin stores and cycle stores. The proposed site layout, elevations, floor plans and sections are presented on the **Constructive Thinking** drawings in Appendix A.

The proposed development falls within the administrative jurisdiction of Liverpool City Council and is the subject of planning application reference no. 16F/1088.

A Phase I Desk Study Report was commissioned to support the planning application, and, to aid in the sign-off of planning conditions anticipated to be imposed upon the development in the event of permission being granted.

The report was devised to generally comply with the relevant principles and requirements of a wide range of guidance including BS5930:1999 as amended 2007: "Code of Practice for Site Investigations", BS10175: 2011 "Investigation of Potentially Contaminated Sites - Code of Practice", and the DEFRA/Environment Agency Report CLR11 "Model Procedures for the Management of Land Contamination".

This report should be read in conjunction with the Notes on Limitations, given in Appendix E.

2.0 PURPOSE & AIMS OF THE STUDY

The primary aim of the Phase I Desk Study was to assess whether the site is likely to be affected by contamination, to an extent that it may pose a risk to human health and/or the built environment and/or the wider natural environment, or, is affected by any other natural or man-made features which may impact on the proposed redevelopment.

Specific tasks undertaken to achieve these objectives were as follows:

- Undertaking of a review of available historical mapping, environmental databases and Environment Agency data
- Undertaking of a site walkover inspection
- Development of Preliminary Conceptual Model
- Development of a Phase II Intrusive Investigation strategy

3.0 SITE DATA

3.1 Site Location

The site is located on Paul Street near its junction with Vauxhall Road on the northern fringe of Liverpool City Centre, as shown on Drawing No. 16/9029/1 presented in Appendix A.

A small section of land between the main site and Oriel Street is to be used as a secure car park.

August 2016

The Ordnance Survey national grid reference for the approximate site centre is 3344450E, 391403N.

The site postcode is L3 6DX.

3.2 Site Description & Walkover Observations

A site visit was made in August 2016 to carry out a walkover survey upon completion of a review of all relevant historical and environmental mapping data (provided in Appendix C). Photographs taken during the walkover survey are presented in Appendix B.

It was observed that the site is situated within a largely commercial environment with some light industrial facilities and residential buildings interspersed in the vicinity. The main development area, upon which the two terraced blocks will be built to front Paul Street, comprises a rectangular shaped parcel of land with its long axis being on an east – west alignment. An additional square parcel of land projecting from the back of the proposed blocks to Oriel Street will serve as a secure car park area and access road.

The site is currently occupied by vacant single storey warehouse buildings to the north and south and hard standing yard areas. It is understood the buildings will be demolished and slabs grubbed out in the near future.

The site is bound to the north by Paul Street and delineated by palisade metal fencing either side of the render elevations of a warehouse building. Oriel Street bounds the proposed car park / access area to the south and it is lined by brick elevations of the other vacant warehouse. To the east, a vacant piece of hard standing formerly used as a car park lies adjacent to the site and runs to the junction with St. Bartholomew Road. The former car park is surrounded by brick walls and metal fencing. To the west, single storey buildings that until recently served as the AA Fork Truck & Engineering premises, lies adjacent to the site and run up to the junction with Vauxhall Road.

Other buildings adjacent to the site include the four storey Young Village townhouses & apartment block and several two storey commercial / light industrial units across Paul Street to the north. A three storey property with ground floor newsagent business and a vacant single storey garage front Vauxhall Road to the west. Various two to three storey former office and warehouse buildings line Naylor Street to the south, some of which are vacant while others have been converted to gym and café use. Two electricity sub-stations are present to each side of Naylor Street.

The site is generally level, the surface comprising of building floor slabs, concrete yards and granular made ground.

No mature trees or bushes are present on site. Flora was limited to sporadic areas of common weeds growing through the ground slab. Fauna species were not observed on site during the walkover survey.

The information obtained from the visit is summarised in Table 1 hereunder:

Table 1: Summary of Walkover Observations

FEATURE	OBSERVATION
August 2016	

Current Use of Land		Disused – vacant warehouse building and yard area
Context		Predominantly commercial / light industrial context with some residential uses
Surfaces		Hard standing
Topography		Generally level
Access		None at present – site fenced off. Vehicular access planned for Oriel Street. Pedestrian access planned for Paul Street.
Buildings Adjacent To the Site		Commercial / light industrial units to north, west and south. Residential buildings to north.
Services		Given the location, it is assumed that a full range of services are available to the site. Various grids and drain covers observed in the surrounding roads/pavements.
Boundary	North	Vacant building elevation and palisade fencing
	West	Adjacent commercial / light industrial unit building elevation
	South	Palisade fencing beyond which lies Naylor Street
	East	Palisade fencing beyond which lies vacant hard standing
Material storage		None observed
Waste disposal		None observed
Other potential contamination		None observed
Ecology*		Flora comprised sporadic common weeds. Fauna not observed.

*These comments on the ecology are for initial preliminary assessment only and are based on observations undertaken by a person who is a trained ecologist but who has not undertaken a comprehensive Phase I Habitat Survey or similar.

4.0 SITE HISTORY

The history of the site and its immediate surrounds was investigated by consultation with a range of archive resources. Geographical information, historical mapping and environmental data were based on a GroundSure Environmental Report No. CMAPS-AAG-549269-4165-290716, dated July 2016, which is presented in Appendix C.

A summary of the historical mapping data is given hereunder:

Table 2: Historical Map Review

YEAR	SCALE	ON SITE	ADJACENT TO SITE	<250M
1850 1851 1864 1890	1:1,056 1:10,560 1:1,056 1:10,560	Alkali Works to west, housing to east and south	Soapery and housing/commercial units across Paul Street to north Housing to east and across Oriel Street to south Commercial units and yard to west Brewery to south west Foundry to south east Timber Yard to north west	Glass bottle manufacturer approx. 100m north Tannery 90m north east Starch manufacturer 90m north Foundry 80m south east Flour Mill 90m south east
1893	1:2,500	No longer labelled as Alkali Works	Soapery expanded to north Engineering Works built to north Public house and commercial unit built to west City Engineer's Depot across Oriel Street to south	Tannery to NE expanded Rice and flour mills 100m north Saw and Oil Mills 200 & 250m NE Sugar Refinery and Saccharine Works 90m & 150m north east Colour Works 110m NW Soap Works 110m SE Disused Vauxhall Foundry 220m south & Disused Iron Foundry 150m SE Corporation Stables West 50m SW Vauxhall Chemical Works 70m west & Chemical Works 180m west Tar Distillery 130m NW
1906-1907 1908 1909	1:10,560 1:2,500 1:10,560	Partial demolition of industrial building to west of site, demolition and replacement of housing to east	Demolition and replacement of housing to east Timber Yard to north west no longer labelled as such Ink Works to south/SE City Engineer's Depot now Corporation Yard	Pumpfields Power Station at former Tar Distillery now 130m west Galvanising works 110m NW Soap works at former Chemical Works 180m west Cake Works at former Sugar Refinery 90m NE Oil Mills 200m east & 180m SE Bone Stores at former Disused Iron Foundry 150m SW Iron Works, Bag Works & Oil Cake Works at former Disused Vauxhall Foundry 220m south

1925-1927 1927 1928 1938	1:10,560 1:2,500 1:10,560 1:10,560	No significant change	Soap Works to north has expanded, encompassing former Engineering Works Ink Works now labelled as Paint & Colour Works to SE	Vauxhall Chemical Works 70m west now demolished
1953 1957 1959	1:2,500 1:10,560 1:2,500	Disinfectant factory on site	Soap works cleared – area to north and east of site now occupied by Blackstock Gardens tenements Saw Mills to south Scrap Metal Yard to SW Additional Corporation Yard replacing Paint Works to SE	Numerous new industrial activities within 200m radius of site inc: Disinfectant Factory Transport Depots Warehouses Sack Factory Paint Factory Oil Refineries Tripe Dressing Works Scrap Metal Yards Builder's Stores
1965 1967-1968 1970	1:2,000 1:10,560 1:2,500	No significant change	Saw Mill to south now a Builder's Yard	No significant change
1973-1977 1977-1982	1:10,000 1:10,000	Factory demolished and new industrial buildings erected	Blackstock Gardens tenements now cleared to north	Electricity Board Depot 100m west Telephone Engineering Centre 50m west Polythene Factory 100m NE
1983 1983-1987	1:2,000 1:2,000	No significant change	Commercial / light industrial units built on former Blackstock Gardens site to north	No significant change
1987-1989 1988-1993 1989-1990 1993-1995	1:2,000 1:2,000 1:10,000 1:2,500	No significant change	Garage to SW replacing Works at former Scrap Metal yard Training Centre at former Builder's Yard	Many factories / industrial premises cleared to all directions, some replaced by commercial properties or warehouses New housing 200m south
2002 2010 2014	1:10,000 1:10,000 1:10,000	No significant change	No significant change	No significant change

5.0 ENVIRONMENTAL SETTING

5.1 Geology

The geology of the site was researched by reference to the 1:50000 scale British Geological Survey (BGS) Sheet 096 LIVERPOOL (Solid and Drift Editions). The map indicates the site's drift soils to comprise boulder clay of Glacial Origins underlain by sandstone bedrock of the Wilmslow Sandstone Formation.

As with many developed sites, made ground of an unknown extent and thickness will be present at the surface.

Geological Information obtained from the GroundSure report is presented in Appendix C, and summarised hereunder:

Table 3: Summary of Geological Data from GroundSure Report

GEOLOGY		
Data	Distance	Comments
Artificial Ground	On Site	No records
Superficial Deposits / Drift Geology	On Site	Till, Devensian – sandy gravelly cobbly CLAY
Permeability of Superficial Deposits	Maximum Permeability	High
	Minimum Permeability	Low
Bedrock and Solid Geology	On Site	Wilmslow Sandstone Formation - SANDSTONE
Permeability of Wilmslow Sandstone	Minimum Permeability	High

Formation	Maximum Permeability	High
Faults	On Site	None
	<250m	194m W. Normal fault, inferred
Radon Affected Area	On Site	The property not is in a Radon Affected Area
Radon Protection	On Site	No radon protective measures are necessary
Landslip	<500m	No records

HISTORIC AND CURRENT GROUNDWORKINGS		
Data	Distance	Comments
Historical Surface Ground Workings	On site	No records
	<50m	No records
	<250m	129m NW. Canal (1890) 133m N. Canal (1906) 134m S. Canal (1909 – 1938)
Historical Underground Workings	<500m	81-84m SW. Tunnel (1909 – 1973) 90m SW. Tunnel (1906) 142m N. Tunnel (1973 – 1990) 152-162m N. Air Shafts (1982 – 1990) 170m NW. Air Shafts (1982 – 1990) 184m NW. Air Shafts (1982 – 1990) 202m NW. Air Shafts (1982 – 1990) 326m W. Tunnel (1973) 447-454m SE. Tunnel (1909 – 1973)
Current BGS Ground Workings	<500m	No records
Historical Mining	<500m	152-162m N. Air Shafts (1982 – 1990) 170-202m NW. Air Shafts (1982 – 1990)
Coal Mining Areas	<1000m	No records
Non-Coal Mining Activities	<1000m	No records
Non-Coal Mining Cavities	<1000m	No records
Natural Cavities	N/A	No records
Brine Extraction Activities	N/A	No records
Gypsum Extraction	N/A	No records
Tin Mining	N/A	No records
Clay Mining	N/A	No records

HAZARDS		
Data	Distance	Comments
Maximum Shrink-Swell hazard rating	On site	Very Low
Maximum Landslide hazard rating	On site	Very Low
Maximum Soluble Rocks hazard rating	On site	Negligible
Maximum Compressible Deposits hazard rating	On site	Negligible
Maximum Collapsible Deposits hazard rating	On site	Very Low
Maximum Running Sand hazard rating	On site	Very Low

5.2 Mining

Geological mapping and the Coal Authority Gazetteer confirm the site is not in an area which may be affected by historical coal mining activity and, therefore, a Coal and Brine Report was not procured from the Coal Authority.

5.3 Hydrology and Hydrogeology

Information on hydrology and hydrogeology obtained from the GroundSure report is presented in Appendix C, and summarised hereunder:

Table 4: Summary of Hydrology and Hydrogeological Data from GroundSure Report

HYDROGEOLOGY AND HYDROLOGY		
Aquifer within underlying drift deposits	On site	<u>Devensian Till: Secondary (Undifferentiated)</u> : Assigned where it is not possible to attribute either Category A or B to a rock type. In general these layers have previously been designated as both minor and non-aquifer in different locations due to the variable characteristics of the rock type
Aquifer within underlying solid geology	On site	<u>Wilmslow Sandstone Formation: Principal Aquifer</u> : High intergranular and/or fracture permeability, usually providing a high level of water storage and may support water supply/river base flow on a strategic scale. Generally principal aquifers were previously major aquifers

Groundwater Abstraction licenses	<1000m	61m N. Borehole at Downland Bedding, Blackstock Street. Details: General washing/process washing Licence No: 2569030057 188m E. Borehole at WF Doyle, Blackstock Street. Details: General use, dust suppression, general washing/process washing Licence No: 2569030032 482-495m SW. Borehole at ECF, St. Paul's Square Details: Non-evaporative cooling Licence No: 2569030066 773m SW. Georges Dock Pumping Station, Mann Island Details: Non-evaporative cooling, heat pump Licence No: 2569030065
Surface Water Abstraction licenses	<1000m	No records
Potable Water Abstraction Licences	<1000m	No records
Surface Water Features	<250m	No records
Source Protection Zones	<250m	No records
Detailed River Networks	<500m	No records

FLOODING		
Environment Agency indicative Zone 2 floodplains	<250m	No
Environment Agency indicative Zone 3 floodplains	<250m	No
Areas benefiting from Flood Defences	<250m	No
Areas used for Flood Storage	<250m	No
Are there any BGS groundwater flooding susceptibility areas within 50m?	Yes – Clearwater Flooding	
Risk of Flooding from RoFRaS	Very Low	
Highest Susceptibility to Groundwater Flooding	Limited Potential	
What is the BGS confidence rating?	Low	

For simplified interpretation, the geological succession underlying the site may be regarded as a series of discrete units in terms of their Hydrogeological significance, as illustrated hereunder:

Table 5: Hydrogeological Interpretation

UNIT	PROPERTIES	HYDROGEOLOGICAL DESIGNATION
Made Ground	If present, likely to be generally granular and permeable and will permit vertical and lateral transmission of groundwater. Such deposits are highly susceptible to groundwater contamination.	Unproductive
Till, Devensian	These are drift deposits with low permeability that have negligible significance for water supply or river base flow	Unproductive
Wilmslow Sandstone Formation	Geology of high intergranular and/or fracture permeability, usually providing a high level of water storage and may support water supply/river base flow on a strategic scale. Generally principal aquifers were previously major aquifers	Principal Aquifer

6.0 FURTHER ENVIRONMENTAL DATA

Environmental data was researched using several sources including Environment Agency Maps and GroundSure Envirosight Report presented in Appendix D, and is summarised hereunder in Table 6. This environmental data has been used to carry out a Preliminary qualitative Risk Assessment (Tier 1) and formulate the preliminary conceptual model as discussed in Section 8.0 of this report.

Table 6: Summary of Environmental Data

AUTHORISATIONS, INCIDENTS AND REGISTERS		
Data	Distance	Comments
Records of historic IPC Authorisations within 500m of the study site	<500m	No records
Records of Part A(1) and IPCC Authorisations within 500m of the study site	<500m	No records

Records of Red List Discharge Consents within 500m of the study site	<500m	No records
Records of Dangerous Substance Inventory Sites (List 1 or List 2) within 500m of the study site	<500m	No records
Records of Water Industry Referrals within 500m of the study site	<500m	145m NW. All Metal Electroplating, Carruthers Street (received 2015)
Records of Licence Discharge Consents within 500m of study site	<500m	374m N. Tate & Lyle, Love Lane boiler blowdown effluent. Permit No. 016990296 (revoked 1991)
Records of category 3-4 Radioactive Substance Licences within 500m of study site	<500m	No records
Records of Planning Hazardous Substance Consents and Enforcements within 500m of study site	<500m	No records
Records of National Incidents Recording System (List 1 or List 2) within 250m of study site	<500m	252m E. List 1 Industrial waste incident [1999]. Land and Air impact: Major. Water impact: None. 493m NW. List 2 Asbestos incident [2001]. Land impact: Cat. 3 (Minor). Water and Air impact: Cat. 4 (None).
Records of COMAH & NIHHS sites within 500m of study site	<500m	411 N. British Gas, Athol Street. Type: NIHSS (historical)
Records of Sites Determined as Contaminated Land under PartIIA EPA 1990 within 500m of the study site	<500m	No records
Records of Part A(2) & Part B Activities & Enforcements within 500m of study site	<500m	89m N. Scott Feather Co animal matter treatment. Permit Type: B (historical) 122m S. Station Garage WOB process. Permit Type: B (historical) 161m NW. John Tierney Casings (L'pool) Ltd sausage casing manufacturer. Permit Type: B (historical) 189m NE. WF Doyle & Co Demolition, Lightbody Street other mineral process. Permit Type: B (surrendered) 229m SW. Elf, Leeds Street petrol filling station. Permit Type: B (historical) 267m S. Save, Vauxhall Road petrol filling station. Permit Type: B (historical) 287m NW. Williams Liverpool vehicle refinisher. Permit Type: B (current)

LANDFILL & OTHER WASTE SITES		
Data	Distance	Comments
Records of Environment Agency Historical Landfill Sites	<500m	No records
Records of Environment Agency Landfill Data	<500m	No records
Record of Local Authority & Historical Mapping Landfill Sites	<500m	No records
Records of Environmental Agency Licenced Waste Sites	<500m	39m S. Naylor Street, vehicle depollution facility. Licence no. 402340 159m N. Caird, Blackstock Street, physico-chemical treatment facility. Licence No: 53752 211m NE. WF Doyle, Blackstock Street, household/commercial/industrial waste transfer facility. Licence No: 53938
Records of BGS/DoE Non-Operational Landfill sites	<500m	No records
Records of Other Waste Treatment, Transfer or Disposal Sites	<500m	On Site – Scrap Metal Yard [1953 – 1959] 38m S. Scrap Metal Yard [1953 – 1959] 117-118m S. Scrap Metal Yard [1953 – 1959] 142-143m NW. Scrap Metal Yard [1953 – 1959] 162m W. Scrap Yard [1964 – 1975] 165m SW. Scrap Yard [1970] 168m NW. Scrap Metal Yard [1953] 171m SW. Scrap Metal Yard [1953 – 1970] 171m NW. Refuse Destructor [1908] 188m NW. Refuse Destructor [1908 – 1927] 203-206m NW. Scrap Metal Yard [1953] 207m S. Scrap Metal Yard [1975]
CURRENT LAND USE		
Data	Distance	Comments

Current Industrial Sites Data	<100m	On Site – EVC UK Ltd, Vehicle Electrical / Electronic Engineers On Site – AA Fork Truck & Engineering, Lifting Equipment Supplier 20m S. Millwrights, Metal Workers & Blacksmiths 20m S. Electricity Substation 30m N. MIA, Construction Supplies 31m N. Safe & Warm, Construction Services 38m SW. Croft Autos, Vehicle Repair Garage 39m N. Buckley MOT's, Vehicle Repair Garage 40m N. Lewis Howes, Sign Writers 40m S. Electricity Substation 46m S. Warehouse 48m N. M&S Metals, Fabricators 62m S. DOFAS, Office Products 63m S. Custom Print, Published Goods 66m S. JG McVey & Co, Demolition 74m S. Warehouse 75m S. Depot 75m S. Green Spot, Telecoms Equipment 77m S. Works 78m S. Warehouse 81m S. Electricity Substation 84m N. City Automobile Repairs, Garage 85m N. Warehouse 85m N. Factory 88m N. Acropolis Marble, Fireplaces 90m N. Warehouse 91m N. Downland Bedding, Soft Furnishings 97m NW. Hertz, Car Hire 99m S. Depot
Petrol & Fuel Sites	<500m	231m SW. Total, Leeds Street Status: Obsolete 262m S. Save, Vauxhall Road Status: Obsolete
Underground High Voltage Electricity Cables	<500m	No records
Underground High Pressure Oil and Gas Pipelines	<500m	No records
ECOLOGICAL DESIGNATED SITES		
Data	Distance	Comments
Records of Sites of Special Scientific Interest (SSSI)	<1000m	No records
Records of National Nature Reserves (NNR)	<1000m	No records
Records of Local Nature Reserves (LNR)	<1000m	No records
Records of Special Areas of Conservation (SAC)	<1000m	No records
Records of Special Protection Areas (SPA)	<1000m	No records
Records of Ramsar sites	<1000m	No records
Records of World Heritage Sites	<1000m	178m S. Liverpool – Maritime Mercantile City Buffer Zone 479m S. Liverpool – Maritime Mercantile City
Records of Environmentally Sensitive Areas	<1000m	No records
Records of Areas of Outstanding Natural Beauty (AONB)	<1000m	No records
Records of National Parks (NP)	<1000m	No records
Records of Nitrate Sensitive Areas	<1000m	No records
Records of Nitrate Vulnerable Zones	<1000m	No records
Records of Ancient Woodlands	<1000m	No records
Records of Green Belt Land	<1000m	No records
RAILWAYS, TUNNELS & OTHER NOTABLE FEATURES		
Data	Distance	Comments
Underground Railway Lines or Tunnels	On Site	No records
	<250m	No records
Railway Tunnels on OS Maps	On Site	No records
	<250m	No records
Historical Railway Features	On Site	No records
	<250m	81-94m SW. Tunnel (1909 – 1989)
		86-89m SW. Disused Tunnel (1987 – 1995)
		137-167m N. Tunnel (1973 – 1997)
		202m S. Tunnel (1953 – 1973)
		202-203m S. Disused Tunnel (1988 – 1998)
		208m NW. Tunnel 1995
Historic Railways	On Site	No records
	<250m	93m SW. Abandoned
Active Railways	<250m	No records
Historical Tanks	<100m	25m N. Unspecified Tank [1893]
		30m N. Tanks [1927]
		36m E. Unspecified Tank [1927 – 1995]
		44m N. Unspecified Tank [1927]

		50-51m S. Unspecified Tank [1970 – 1987] 52m S. Oil Tank [1965 – 1976] 52-55m SE. Unspecified Tank / Oil Tank [1959 – 1995] 58-61m SE. Unspecified Tank / Oil Tank [1959 – 1987] 60m NE. Tanks [1908] 82m NE. Tanks [1995] 84-85m E. Unspecified Tank [1959 – 1988] 86m NW. Unspecified Tank [1995] 87m NE. Unspecified Tank [1973 – 1988] 93m N. Unspecified Tank [1908] 94-98m E. Tanks [1953 – 1988]
Historical Petrol & Fuel Site	<250m	197m SW. Filling Station [1995]
Potentially Infilled Land	<250m	81-93m SW. Tunnel [1851 – 1973] 125m S. Canal [1928] 129m NW. Canal [1890] 133-135m N. Canal [1906 – 1927] 134-143m S. Canal [1851 – 1938] 152-162m N. Air Shafts [1982 – 1990] 170-202m NW. Air Shafts [1982 – 1990]
Historical Garage & Motor Vehicle Repair Sites	<250m	On Site – Garage [1965 – 1995] 20-21m N. Garage [1989 – 1995] 36-40m N. Garage [1989 – 1995] 38-40m S. Garage [1989 – 1995] 45-46m SW. Transport Repair Depot [1965 – 1970] 74m S. Garage [1953 – 1965] 86m SW. Garage [1953 – 1970] 96-104m N. Garage [1953 – 1995] 97-99m S. [1989 – 1995] 103-104m N. Garage [1953 – 1995] 118m S. Garage [1989] 184-185m S. Garage [1953 – 1970] 194m N. Garage [1965] 198m NW. Transport Repair Depot [1965] 202-203m N. Garage [1953 – 1959]
Historical Energy Features	<250m	22m S. Electricity Substation [1989 – 1995] 28m NW. Electricity Board Depot [1976] 37-40m S. Electricity Substation [1976 – 1995] 42m NW. Electricity Substation [1989] 47m NW. Power Station [1908] 75-76m N. Electricity Substation [1953 – 1995] 171-173m SE. Electricity Substation [1953 – 1998] 209m N. Electricity Generating Station [1908]

7.0 PREVIOUS SITE INVESTIGATIONS / REPORTS

Searches did not establish whether previous site investigations have been undertaken on the subject site.

However, CCG issued the following reports for a recently completed residential development at No. 1 Paul Street, directly opposite the subject site:

- ‘Phase I Desk Study for Land at 1 Paul Street’ under ref. no. CCG-C-13-7100 in July 2013
- ‘Phase II Geoenvironmental Report for Land at 1 Paul Street’ under ref. no. CCG-C-14-7645 in September 2014

The ground conditions observed in the Phase II investigation may be summarised as varying loose to medium dense granular MADE GROUND soils extending from Ground Level to depths ranging between 1.75 – 3.0mbgl, overlying firm becoming stiff slightly sandy slightly gravelly silty CLAY to depths proven up to 10.0mbgl. It was assumed from local

knowledge and mapping records that the clay stratum is underlain by SANDSTONE bedrock but this was not proven by boring.

The made ground soils were chemically analysed for a broad range of contaminants. A quantitative risk assessment found that localised concentrations of Lead, Mercury, Arsenic, Benzo(a)anthracene, Benzo(a)pyrene, and Napthalene exceeded their respective human health guideline criteria and posed a potential risk to end users. Contaminants associated with the former on-site Timber Yard & Soap Works (Phenol, Acetone, Cd, Cu, Pb, Zn, Se) were not found to be present at concentrations exceeding their respective human health guideline criteria and, therefore, no risk was posed to end users.

8.0 PRELIMINARY QUALITATIVE RISK ASSESSMENT (TIER 1)

8.1 Introduction

The risk assessment methodologies adopted by **CCG** are based on current available guidance from a number of sources as detailed in Appendix D.

The Tier 1 Risk Assessment and Preliminary Conceptual Model (PCM) were formulated using the information discussed above and based on the following assumptions:

- The site is to be redeveloped for residential land use by the construction of 2nr blocks of terraced townhouses
- Drinking water will be from a mains supply

8.2 Credible Potential Sources of Contamination

A low risk of a legacy of contamination was identified in the desk study, site inspections, and reviews of historical mapping and published environmental data. The land uses to which the site has been put are unlikely to have been potentially contaminative.

However, given the sensitive end use of the site, some further assessment of the potential sources summarised hereunder, may be warranted:

- Made ground and imported made ground associated with development of the site and surrounding area
- Former uses of the site and adjacent land
- The Electricity Substation adjacent to the site
- Ground gas associated with made ground deposits

The contaminants of concern associated with these potential sources were researched by reference to published industry profiles and CLR 8 guidance, as summarised hereunder:

Table 7: Summary of Contaminants of Concern

SOURCE	METALS	NON-METALS	ORGANICS	GASES	OTHERS
Made ground associated with the development / redevelopment of the site and surrounding area	Be, Cd, Cr (total and VI), Ni, Cu, Pb, Hg, Se, Zn	As, B, Sulphates	Hydrocarbons (TPHCWG + BTEX), PAH's	-	Asbestos
Contaminants associated with various former industrial uses on and adjacent to site (inc. former garage)	Be, Cd, Cr (total and VI), Ni, Cu, Pb, Hg, Se, Zn	As, B, Sulphates	VOC's, SVOC's, Hydrocarbons (TPHCWG + BTEX), PAH's	-	Asbestos
Contaminants associated with two nearby Electricity Substations	-	-	PCB's	-	-
Migrating gases associated with made ground and possible infilled cellars from former public houses	-	-	-	CH ₄ , CO ₂ , H ₂ S	-
Summary Suite	Be, Cd, Cr (total and VI), Ni, Cu, Pb, Hg, Se, Zn	As, B, Sulphates	VOC's, SVOC's, Hydrocarbons (TPHCWG + BTEX), PAH's	CH ₄ , CO ₂ , H ₂ S	pH, Asbestos

8.3 Potential Receptors

Credible potential receptors of contamination on this site may be evaluated as hereunder:

Table 8: Potential Receptors

RECEPTOR	IS RECEPTOR PRESENT?
Human beings (construction workers)	Yes – Construction workers will be exposed during the construction phase of the development
Human beings (future occupants/workers)	Yes - The site is to be redeveloped for residential land use. Future occupants to include both male & female adults.
Designated ecological systems	No – No sensitive systems on or adjoining the site
Property in the form of buildings (on site)	Yes – Two residential blocks will be built on site
Property in the form of buildings (adjacent)	No – The site is adjacent to commercial units and residential blocks
Property in the form of crops/livestock (on site)	No - There are no crops or livestock present on site
Property in the form of crops/livestock (adjacent)	No - There are no crops or livestock adjacent to the site
Potable water mains (on site)	Yes – Development will be served by water mains
Potable water mains (off site)	No – Services for adjacent properties should not run through the site
Perched soil water (underlying site)	Yes – Perched water may be present in the superficial made ground / drift soils
Groundwater (underlying aquifer)	Yes – Underlying bedrock is a Principal Aquifer
Groundwater abstractions	No - There are no licensed groundwater abstractions on site or within 500m of the site.
Surface water bodies	No – None in close proximity, Leeds Liverpool Canal around 250m away from site
Local flora and fauna during and post construction	No- No important ecological features on or adjoining the site.

8.4 Pollutant Linkages / Preliminary Conceptual Model

Pollutant linkages potentially exist between each identified contamination source and each identified receptor as illustrated in the Preliminary Conceptual Model summarised in Table 9 hereunder:

Table 9: Summary of Potential Pollutant Linkages / Preliminary Conceptual Model

SOURCE	RECEPTOR	PATHWAY
Soil contamination as listed in Table 7	Construction workers	Dermal contact
		Ingestion of soil/soil dust (outdoors)
		Inhalation of soil/soil dust (outdoors)
		Inhalation of vapours from soil (outdoors)
	Future occupants (residents and workers)	Dermal contact

		Ingestion of soil/soil dust (indoors & outdoors)
		Inhalation of soil/soil dust (indoors & outdoors)
		Inhalation of vapours from soil (indoors & outdoors)
	Building fabric	Direct contact with aggressive soils
	Potable water supply for human consumption.	Direct contact with contaminated soils and/or groundwater
	Perched soil water	Dissolution of contaminants from made ground
Gas arising from made ground &/or underlying peat deposits	Future occupants	Inhalation of asphyxiant gases Accumulation of explosive gas / air mixtures
Contaminated perched groundwater water	Underlying controlled waters in superficial deposits linked to the wider aquatic environment	Vertical and lateral migration of impacted groundwater

8.5 Summary of Risks

Based on the foregoing analysis, there is a low potential for pollution linkages to exist. However, if present, the linkages could adversely impact on human and / or environmental receptors. Since no previous intrusive investigation works have been undertaken at the subject site, a Phase II investigation is recommended to determine whether the postulated pollutant linkages are actually present on site.

9.0 AIMS AND PROPOSED SCOPE OF PHASE II INTRUSIVE INVESTIGATION

Based on the findings of this Phase I Desk Study, and taking into account the proposed form of development, an intrusive investigation is proposed. The Phase II investigation should include for exploratory holes to be sunk through made ground into the underlying natural strata.

The primary objectives of the Phase II investigation are to obtain enough data to reliably ascertain ground conditions on site with respect to geotechnical engineering properties, and, to allow for confirmation of the presence or absence of potential pollution linkages identified within the PCM above. Sufficient soil and groundwater / soil leachate chemical analyses data should be obtained to reliably characterise the surficial soils, allowing the PCM to be tested and refined by the performance of a quantitative risk assessment.

Using the guidance contained in BS10175: 2011, for a relatively small site, it is proposed that 5nr exploratory boreholes be sunk (2nr by cable percussion methods and 3nr by light dynamic sampling methods) to allow for the recording of stratigraphy, subsampling of soils for chemical analyses, and, to assess the engineering properties of the subsoils in relation to the design of suitable foundation options.

Gas monitoring standpipes should be installed within the drift deposits at 3nr boreholes to allow for the implementation of a gas / groundwater monitoring programme. Taking into account the “high” sensitivity ground floor residential usage and “very low” generation potential sources, CIRIA C665 recommends a monitoring programme of 6nr visits over a period of 3 months for gas composition and flow rate data. The results of the monitoring should be assessed against published guidance contained in CIRIA Publication C665 ‘Assessing Risks Posed by Hazardous Ground Gases to Buildings’.

The proposed scope of works is summarised in Table 10 hereunder:

Table 10: Proposed Scope of Works

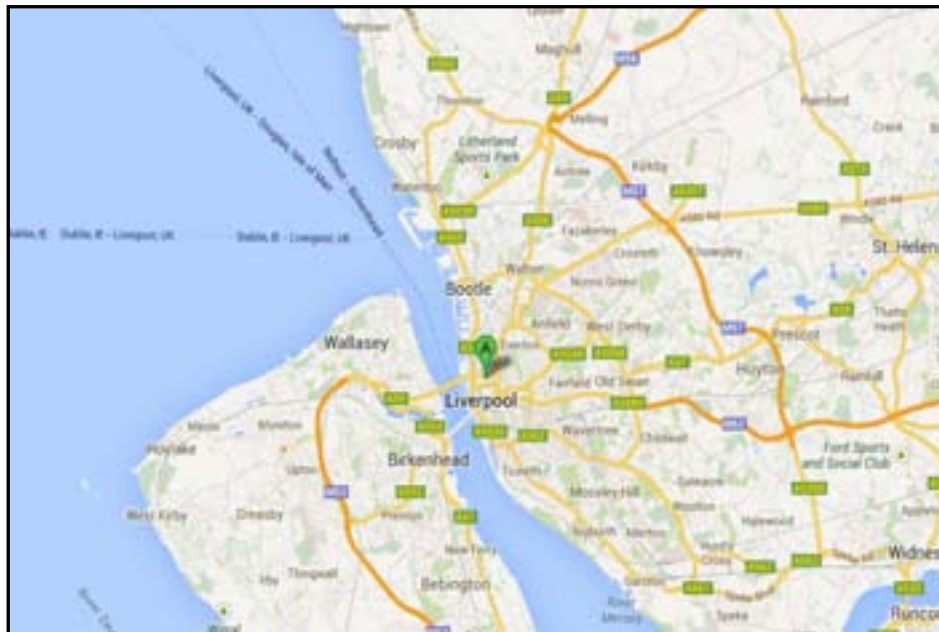
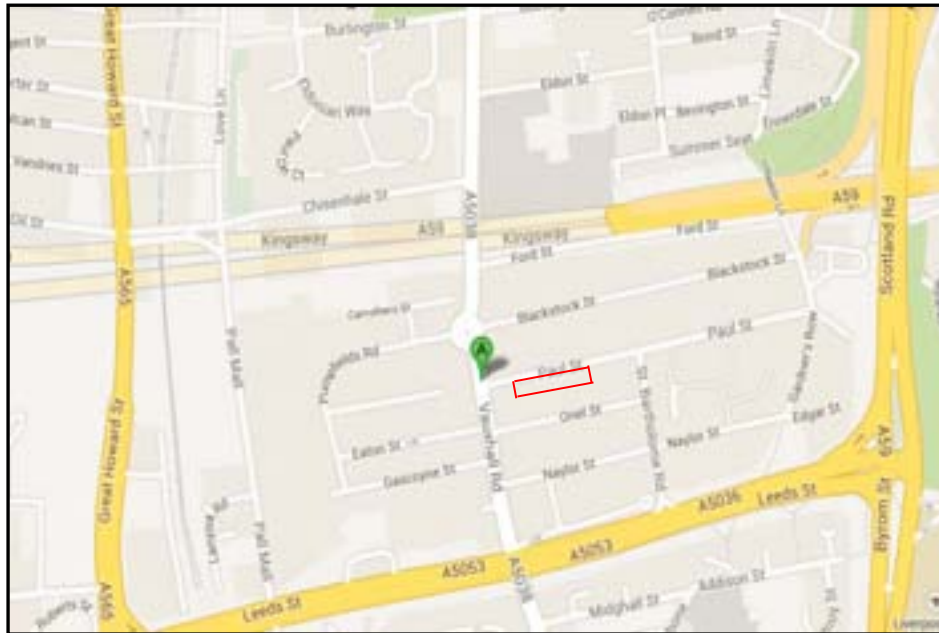
RISK	METHOD OF ASSESSMENT
Is the superficial ground impacted by contamination to the extent it may present a risk to human health?	<p>3nr trial pits are to be excavated after breaking out the existing hard standing surface. The stratigraphy of the trial pits will be carefully logged and sampled at regular intervals and changes of strata. Environmental sub-samples will be taken as appropriate.</p> <p>4nr light dynamic sampling boreholes are to be advanced to nominal depths of 5mbgl by a Dando Terrier rig. The stratigraphy of the boreholes will be carefully sampled by undisturbed tubes for the full depth of each borehole and environmentally sub-sampled as appropriate.</p> <p>Broad spectrum contamination analyses will be performed on 3nr sub-samples of recovered made ground from selected trial pit / borehole locations.</p> <p>PCB analyses will be carried out due to the proximity of the development area to existing substations.</p> <p>Contamination data will be assessed against SGV's/GAC's based on 'Residential without plant uptake' land use.</p> <p>GAC's based on this conceptual model will be provided in the Phase II Report.</p> <p>Proposed locations of boreholes and standpipe installations are shown on Drawing No. 16/9029/2.</p>
What are the geotechnical properties of the ground?	<p>Standard Penetration Test's (SPT's) to be carried out at 1m increments, or, Dynamic Probe tests will be sunk full depth, at each borehole location. Undisturbed samples are to be recovered and Cu values obtained from Hand Shear Vane tests in cohesive soils.</p> <p>A programme of soil laboratory testing for engineering classification purposes will be carried out.</p>
Is the site affected by migrating gas from made ground underlying the site, nearby historical ponds & adjoining brook?	<p>3nr boreholes will be utilised for the installation of gas / groundwater monitoring standpipes.</p> <p>For a "high" sensitivity residential development and "very low" generation potential sources, CIRIA C665 recommends monitoring on 6nr occasions over a period of 3 months.</p> <p>Locations of proposed gas monitoring standpipes are as shown on Drawing No. 16/9029/2.</p>
Does the site pose a risk to the underlying aquifer?	<p>Water samples will be recovered from the standpipes and analysed to a suite of broad range contaminants.</p> <p>In the event that water does not accumulate in the standpipes, soil leachate analyses will be undertaken instead.</p> <p>The results will be assessed against Drinking Water Standards and / or Environmental Quality Standards as appropriate to the individual contaminant.</p>



APPENDIX A

DRAWINGS

N ↑



Drawing Number:	16/9029/1
Site Location:	4 Paul Street, Liverpool
Map Information:	Site Location

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Licence No AL 52467A0001*

*Units 1 & 2, Deltic Place, Deltic Way, Knowsley Industrial Estate. L33 7BA
TEL: 0151 545 2750 FAX: 0151 548 7892*

LEGEND:


 Light Dynamic Sampling Borehole

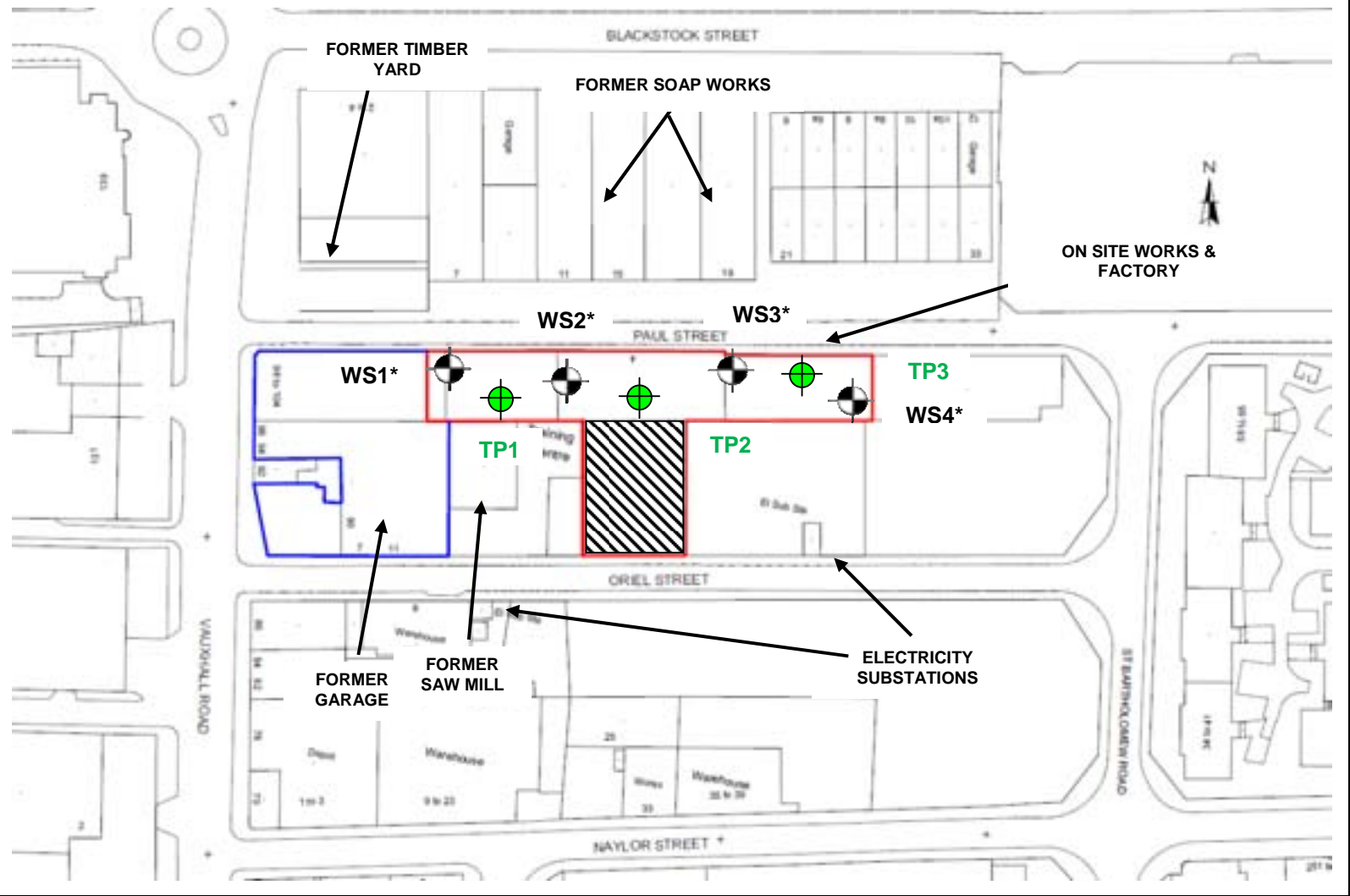
 Trial Pit

* denotes Standpipe Installation

Red line denotes extent of GI site

Blue line denotes future phase of development

 Hatched area inaccessible due to existing buildings not being demolished



Consulting Geotechnical and Geoenvironmental Engineers



Units 1 & 2 Deltic Way
Knowsley Industrial Estate
Liverpool
Merseyside
L33 7BA

e: enquiries@ccgeotechnical.co.uk w: www.ccgeotechnical.co.uk

Drawing Number:	16/9029/2
Site Location:	4 Paul Street, Liverpool
Map Information:	G.I. Layout Plan on Existing Site Layout
Scale:	NTS



APPENDIX B

SITE PHOTOGRAPHS



1. View east to junction of Paul Street and Vauxhall Road. Development site to RHS occupied by light industrial buildings. New residential development opposite to LHS.
2. View west from Paul Street with development site to LHS occupied by light industrial buildings and yard





3. View south from Paul Street showing yard at approximate centre of development site
4. View east from Paul Street towards junction with St Bartholomew's Road, proposed future phases of development site to RHS





5. View south east from Vauxhall Road towards Oriel Street junction. Newsagents to LHS not part of development site. Vacant land behind billboards in centre ground are part of future development phase. Commercial / residential building opposite site to RHS.
6. View east from Oriel Street. Gates to LHS are entrance to land behind the billboards. Other buildings lining the LHS are a mixture of vacant and occupied commercial / light industrial / warehouse units.





7. View north east from Oriel Street showing electricity sub-station that backs onto development site. Student residential blocks on St. Bartholomew's Road visible in background.
8. View west from junction of Paul Street and St Bartholomew's Road back towards development site on LHS. Light industrial / office units to RHS





APPENDIX C

COMMERCIAL ENVIRONMENTAL DATA



CENTREMAPS

Open Space, Upper Interfields,
Worcester, WR14 1UT

Groundsure Reference: CMAPS-AAG-549269-4165-290716EDR

Your Reference: 4165

Report Date 29 Jul 2016

Report Delivery Method: Email - pdf

Groundsure Enviro Insight

Address: 4 Paul Street, Liverpool, L3 6DX

Dear Sir/ Madam,

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

If you need further assistance, please do not hesitate to contact our helpline on 01886 832972 quoting the above CENTREMAPS reference number.

Yours faithfully,

CENTREMAPS

Enc.
Groundsure Enviroinsight

Groundsure Enviro Insight

Address: 4 Paul Street, Liverpool, L3 6DX
Date: 29 Jul 2016
Reference: CMAPS-AAG-549269-4165-290716EDR
Client: CENTREMAPS

NW

N

NE

W

E



SW

S

SE

Aerial Photograph Capture date: 02-May-2007
Grid Reference: 334389,391329
Site Size: 0.19ha

Report Reference: CMAPS-AAG-549269-4165-290716EDR
Client Reference: 4165

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Overview of Findings

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

Section 1: Historical Industrial Sites	On-site	0-50	51-250	251-500
1.1 Potentially Contaminative Uses identified from 1:10,000 scale mapping	2	8	65	190
1.2 Additional Information – Historical Tank Database	0	11	136	59
1.3 Additional Information – Historical Energy Features Database	0	12	18	135
1.4 Additional Information – Historical Petrol and Fuel Site Database	0	0	2	0
1.5 Additional Information – Historical Garage and Motor Vehicle Repair Database	4	14	38	17
1.6 Potentially Infilled Land	0	0	32	18
Section 2: Environmental Permits, Incidents and Registers	On-site	0-50m	51-250	251-500
2.1 Industrial Sites Holding Environmental Permits and/or Authorisations				
2.1.1 Records of historic IPC Authorisations	0	0	0	0
2.1.2 Records of Part A(1) and IPPC Authorised Activities	0	0	0	0
2.1.3 Records of Red List Discharge Consents	0	0	0	0
2.1.4 Records of List 1 Dangerous Substances Inventory sites	0	0	0	0
2.1.5 Records of List 2 Dangerous Substances Inventory sites	0	0	0	0
2.1.6 Records of Part A(2) and Part B Activities and Enforcements	0	0	5	2
2.1.7 Records of Category 3 or 4 Radioactive Substances Authorisations	0	0	0	0
2.1.8 Records of Licensed Discharge Consents	0	0	0	1
2.1.9 Records of Water Industry Referrals	0	0	1	0
2.1.10 Records of Planning Hazardous Substance Consents and Enforcements within 500m of the study site	0	0	0	0
2.2 Records of COMAH and NIHHS sites	0	0	0	1
2.3 Environment Agency Recorded Pollution Incidents				
2.3.1 National Incidents Recording System, List 2	0	0	0	2
2.3.2 National Incidents Recording System, List 1	0	0	0	1
2.4 Sites Determined as Contaminated Land under Part 2A EPA 1990	0	0	0	0

Section 3: Landfill and Other Waste Sites	On-site	0-50m	51-250	251-500	501-1000	1000-1500
3.1 Landfill Sites						
3.1.1 Environment Agency Registered Landfill Sites	0	0	0	0	0	Not searched
3.1.2 Environment Agency Historic Landfill Sites	0	0	0	0	3	0
3.1.3 BGS/DoE Landfill Site Survey	0	0	0	0	0	0
3.1.4 Records of Landfills in Local Authority and Historical Mapping Records	0	0	0	0	0	0
3.2 Landfill and Other Waste Sites Findings						
3.2.1 Operational and Non-Operational Waste Treatment, Transfer and Disposal Sites	5	5	32	8	Not searched	Not searched
3.2.2 Environment Agency Licensed Waste Sites	0	1	2	0	8	3

Section 4: Current Land Use	On-site	0-50m	51-250	251-500
4.1 Current Industrial Sites Data	2	10	54	Not searched
4.2 Records of Petrol and Fuel Sites	0	0	1	1
4.3 National Grid Underground Electricity Cables	0	0	0	0
4.4 National Grid Gas Transmission Pipelines	0	0	0	0

Section 5: Geology	
5.1 Are there any records of Artificial Ground and Made Ground present beneath the study site?	No
5.2 Are there any records of Superficial Ground and Drift Geology present beneath the study site?	Yes
5.3 For records of Bedrock and Solid Geology beneath the study site see the detailed findings section.	

Section 6: Hydrogeology and Hydrology	0-500m					
6.1 Are there any records of Strata Classification in the Superficial Geology within 500m of the study site?	Yes					
6.2 Are there any records of Strata Classification in the Bedrock Geology within 500m of the study site?	Yes					
	On-site	0-50m	51-250	251-500	501-1000	1000-2000
6.3 Groundwater Abstraction Licences (within 2000m of the study site)	0	0	7	4	4	1
6.4 Surface Water Abstraction Licences (within 2000m of the study site)	0	0	0	0	0	0
6.5 Potable Water Abstraction Licences (within 2000m of the study site)	0	0	0	0	0	0
6.6 Source Protection Zones (within 500m of the study site)	0	0	0	0	Not searched	Not searched
6.7 Source Protection Zones within Confined Aquifer	0	0	0	0	Not searched	Not searched
6.8 Groundwater Vulnerability and Soil Leaching Potential (within 500m of the study site)	1	0	0	0	Not searched	Not searched
	On-site	0-50m	51-250	251-500	501-1000	1000-1500

Section 6: Hydrogeology and Hydrology

0-500m

6.9 Is there any Environment Agency information on river quality within 1500m of the study site?	No	No	No	No	Yes	No
6.10 Detailed River Network entries within 500m of the site	0	0	0	0	Not searched	Not searched
6.11 Surface water features within 250m of the study site	No	No	No	Not searched	Not searched	Not searched

Section 7: Flooding

7.1 Are there any Environment Agency Zone 2 floodplains within 250m of the study site?	No
7.2 Are there any Environment Agency Zone 3 floodplains within 250m of the study site	No
7.3 What is the Risk of flooding from Rivers and the Sea (RoFRaS) rating for the study site?	Very Low
7.4 Are there any Flood Defences within 250m of the study site?	No
7.5 Are there any areas benefiting from Flood Defences within 250m of the study site?	No
7.6 Are there any areas used for Flood Storage within 250m of the study site?	No
7.7 What is the maximum BGS Groundwater Flooding susceptibility within 50m of the study site?	Limited potential
7.8 What is the BGS confidence rating for the Groundwater Flooding susceptibility areas?	Low

Section 8: Designated Environmentally Sensitive Sites

On-site 0-50m 51-250 251-500 501-1000 1000-2000

8.1 Records of Sites of Special Scientific Interest (SSSI)	0	0	0	0	0	2
8.2 Records of National Nature Reserves (NNR)	0	0	0	0	0	0
8.3 Records of Special Areas of Conservation (SAC)	0	0	0	0	0	0
8.4 Records of Special Protection Areas (SPA)	0	0	0	0	0	1
8.5 Records of Ramsar sites	0	0	0	0	0	1
8.6 Records of Ancient Woodlands	0	0	0	0	0	0
8.7 Records of Local Nature Reserves (LNR)	0	0	0	0	0	0
8.8 Records of World Heritage Sites	0	0	1	1	0	0
8.9 Records of Environmentally Sensitive Areas	0	0	0	0	0	0
8.10 Records of Areas of Outstanding Natural Beauty (AONB)	0	0	0	0	0	0

Section 8: Designated Environmentally Sensitive Sites	On-site	0-50m	51-250	251-500	501-1000	1000-2000
8.11 Records of National Parks	0	0	0	0	0	0
8.12 Records of Nitrate Sensitive Areas	0	0	0	0	0	0
8.13 Records of Nitrate Vulnerable Zones	0	0	0	0	0	1
8.14 Records of Green Belt land	0	0	0	0	0	0

Section 9: Natural Hazards	
9.1 What is the maximum risk of natural ground subsidence?	Very Low
9.1.1 What is the maximum Shrink-Swell hazard rating identified on the study site?	Very Low
9.1.2 What is the maximum Landslides hazard rating identified on the study site?	Very Low
9.1.3 What is the maximum Soluble Rocks hazard rating identified on the study site?	Negligible
9.1.4 What is the maximum Compressible Ground hazard rating identified on the study site?	Negligible
9.1.5 What is the maximum Collapsible Rocks hazard rating identified on the study site?	Very Low
9.1.6 What is the maximum Running Sand hazard rating identified on the study site?	Very Low
9.2 Radon	
9.2.1 Is the property in a Radon Affected Area as defined by the Health Protection Agency (HPA) and if so what percentage of homes are above the Action Level?	The property is not in a Radon Affected Area, as less than 1% of properties are above the Action Level.
9.2.2 Is the property in an area where Radon Protection are required for new properties or extensions to existing ones as described in publication BR211 by the Building Research Establishment?	No radon protective measures are necessary.

Section 10: Mining	
10.1 Are there any coal mining areas within 75m of the study site?	No
10.2 Are there any Non-Coal Mining areas within 50m of the study site boundary?	No
10.3 Are there any brine affected areas within 75m of the study site?	No

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. Environmental Permits, Incidents and Registers

Provides information on Regulated Industrial Activities and Pollution Incidents as recorded by Regulatory Authorities, and sites determined as Contaminated Land. This search is conducted using radii up to 500m.

3. Landfills and Other Waste Sites

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.

4. Current Land Uses

Provides information on current land uses that may pose a risk to the study site in terms of potential contamination from activities or processes. These searches are conducted using radii of up to 500m. This includes information on potentially contaminative industrial sites, petrol stations and fuel sites as well as high pressure gas pipelines and underground electricity transmission lines.

5. Geology

Provides information on artificial and superficial deposits and bedrock beneath the study site.

6. Hydrogeology and Hydrology

Provides information on productive strata within the bedrock and superficial geological layers, abstraction licenses, Source Protection Zones (SPZs) and river quality. These searches are conducted using radii of up to 2000m.

7. Flooding

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

8. 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, Nitrate Sensitive Areas, Nitrate Vulnerable Zones and World Heritage Sites and Scheduled Ancient Woodland. These searches are conducted using radii of up to 2000m.

9. Natural Hazards

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

10. Mining

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

11. 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.

Note: Maps

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 Land Use



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1. Historical Industrial Sites

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: 265

ID	Distance [m]	Direction	Use	Date
1A	0	On Site	Unspecified Commercial/Industrial	1982
2A	0	On Site	Unspecified Commercial/Industrial	1990
3B	23	NE	Unspecified Commercial/Industrial	1982
4J	25	W	Unspecified Commercial/Industrial	1890
5BX	28	NE	Unspecified Commercial/Industrial	1990
6I	30	W	Unspecified Works	1851
7B	31	NE	Unspecified Commercial/Industrial	1973
8BS	32	NE	Unspecified Works	1967
9	41	S	Unspecified Works	1967
10M	48	NW	Power Station	1906
11C	75	N	Unspecified Commercial/Industrial	1982
12C	75	N	Unspecified Commercial/Industrial	1973
13C	75	N	Unspecified Depot	1967
14D	81	SW	Tunnel	1938
15D	81	SW	Tunnel	1909
16E	82	SW	Tunnel	1938
17DH	84	SW	Tunnel	1928
18D	84	SW	Tunnel	1967
19D	84	SW	Tunnel	1973
20D	86	SW	Tunnel	1927
21E	90	SW	Tunnel	1906
22	90	N	Corporation Yard	1967
23D	93	SW	Tunnel	1851
24	98	S	Unspecified Depot	1990
25F	100	E	Unspecified Tank	1982
26F	100	E	Unspecified Tank	1990
27G	101	S	Unspecified Works	1990
28G	101	S	Unspecified Factory	1982
29F	102	E	Unspecified Tank	1982

30F	102	E	Unspecified Tank	1990
31H	103	S	Unspecified Factory	1967
32H	103	S	Unspecified Factory	1973
33I	109	W	Unspecified Tank	1890
34K	114	N	Coal Yards	1851
35R	115	E	Unspecified Factory	1967
36J	115	W	Unspecified Tank	1851
37K	136	NW	Basin	1851
38L	142	N	Tunnel	1990
39L	142	N	Tunnel	1982
40L	142	N	Tunnel	1973
41M	142	W	Power Station	1909
42M	142	W	Unspecified Commercial/Industrial	1938
43N	152	N	Air Shafts	1982
44N	152	N	Air Shafts	1990
45N	152	N	Air Shafts	1982
46N	152	N	Air Shafts	1990
47O	154	N	Air Shafts	1982
48O	154	N	Air Shafts	1990
49P	159	NE	Unspecified Tank	1982
50P	159	NE	Unspecified Tank	1973
51P	159	NE	Unspecified Tank	1990
52Q	162	SW	Unspecified Depots	1967
53Q	162	SW	Unspecified Depots	1973
54DQ	162	N	Air Shafts	1982
55R	165	NE	Unspecified Tank	1973
56	167	NE	Unspecified Tanks	1851
57P	168	NE	Unspecified Tank	1990
58P	168	NE	Unspecified Tank	1982
59S	170	NW	Air Shafts	1990
60S	170	NW	Air Shafts	1982
61R	179	E	Unspecified Tank	1990
62R	179	E	Unspecified Tank	1982
63T	184	NW	Air Shafts	1982
64T	184	NW	Air Shafts	1990
65	187	S	Unspecified Commercial/Industrial	1890
66U	202	NW	Air Shafts	1990
67U	202	NW	Air Shafts	1982
68	228	SW	Unspecified Store	1967
69V	232	N	Sugar Refinery	1973
70V	232	N	Sugar Refinery	1982
71CF	232	N	Sugar Refinery	1967
72	246	E	Unspecified Works	1967
73W	250	SW	Unspecified Warehouses	1938

74W	250	SW	Unspecified Warehouses	1909
75W	250	SW	Unspecified Warehouses	1938
76X	252	SW	Unspecified Warehouses	1927
77X	254	SW	Unspecified Warehouse	1982
78X	255	SW	Unspecified Warehouse	1990
79Y	256	SW	Unspecified Warehouse	1967
80W	256	SW	Unspecified Warehouses	1906
81Y	257	SW	Unspecified Warehouses	1973
82	281	SW	Unspecified Warehouses	1928
83	299	W	Basin	1851
84Z	299	N	Unspecified Commercial/Industrial	1890
85AA	300	W	Railway Sidings	1890
86Z	304	N	Unspecified Commercial/Industrial	1938
87Z	304	N	Gas Works	1851
88Z	304	N	Unspecified Commercial/Industrial	1938
89Z	304	N	Unspecified Commercial/Industrial	1906
90AD	306	N	Gasometers	1851
91Z	306	N	Unspecified Commercial/Industrial	1927
92	307	W	Railway Sidings	1973
93AA	308	W	Railway Sidings	1967
94AB	310	W	Railway Sidings	1909
95AB	310	W	Unspecified Commercial/Industrial	1909
96AA	310	W	Railway Sidings	1938
97AC	310	W	Unspecified Commercial/Industrial	1938
98AC	311	W	Railway Sidings	1927
99AE	311	N	Unspecified Commercial/Industrial	1909
100AD	312	N	Unspecified Tank	1890
101AC	314	W	Railway Sidings	1938
102AC	314	W	Railway Sidings	1906
103AD	316	N	Unspecified Tank	1967
104AD	318	N	Unspecified Tank	1938
105AD	318	N	Unspecified Tank	1906
106AJ	319	W	Goods Station	1851
107AE	320	N	Unspecified Tank	1927
108AF	322	W	Unspecified Pit	1982
109AF	322	W	Unspecified Pit	1990
110AF	326	W	Tunnel	1973
111AD	326	N	Unspecified Tank	1938
112AD	326	N	Unspecified Tank	1909
113AL	328	W	Railway Building	1890

114	335	E	Corporation Yard	1967
115	335	NE	Unspecified Tank	1927
116AI	336	W	Railway Building	1938
117AG	337	NW	Unspecified Tank	1973
118AG	337	NW	Unspecified Tank	1967
119AK	337	N	Unspecified Commercial/Industrial	1928
120AH	339	NW	Unspecified Commercial/Industrial	1909
121AH	339	NW	Unspecified Commercial/Industrial	1938
122AA	339	W	Railway Building	1938
123AI	345	W	Railway Building	1906
124	347	W	Railway Sidings	1851
125AA	348	W	Railway Building	1906
126AJ	350	W	Railway Sidings	1928
127AK	352	N	Unspecified Tank	1928
128AL	355	W	Railway Building	1906
129AM	358	W	Railway Buildings	1927
130	358	W	Railway Building	1890
131	359	W	Basin	1851
132AN	359	W	Railway Building	1906
133AA	360	W	Railway Sidings	1990
134AA	361	W	Railway Building	1890
135AF	363	W	Railway Building	1890
136AM	364	W	Railway Building	1938
137AM	364	W	Railway Building	1906
138AO	366	SW	Unspecified Commercial/Industrial	1906
139	367	NW	Foundry	1851
140AN	367	W	Railway Building	1890
141AO	372	SW	Railway Buildings	1938
142	385	NW	Unspecified Commercial/Industrial	1928
143AP	385	SW	Exchange Station	1938
144AP	386	SW	Exchange Station	1938
145AP	386	SW	Exchange Station	1909
146AU	390	W	Goods Station	1967
147AP	392	SW	Railway Station	1927
148AS	392	W	Railway Building	1938
149	393	SE	Railway Sidings	1906
150AQ	393	SW	Exchange Station	1973
151AQ	393	SW	Exchange Station	1967
152AR	395	SW	Railway Building	1938
153AR	395	SW	Railway Building	1938
154AR	395	SW	Railway Building	1909
155AS	395	W	Railway Building	1927

156AP	396	SW	Exchange Station	1906
157AT	397	NW	Unspecified Commercial/Industrial	1909
158AT	397	NW	Unspecified Commercial/Industrial	1938
159AR	398	SW	Railway Building	1927
160AS	399	W	Railway Building	1906
161BF	399	W	Tunnel	1851
162AU	400	W	Goods Station	1909
163AU	400	W	Goods Station	1938
164	401	SW	Exchange Station	1928
165AS	401	W	Railway Building	1890
166	401	W	Hospital	1851
167AU	402	W	Goods Station	1927
168AS	402	W	Unspecified Ground Workings	1990
169AQ	403	SW	Railway Buildings	1890
170	403	NW	Unspecified Mill	1967
171AV	403	SW	Railway Building	1909
172AV	403	SW	Railway Building	1938
173AV	404	SW	Railway Building	1938
174AR	404	SW	Railway Building	1906
175AU	405	W	Goods Station	1938
176AU	405	W	Goods Station	1906
177DT	405	SE	Tunnel	1928
178AU	406	W	Railway Sidings	1851
179AV	406	SW	Railway Building	1927
180	408	W	Railway Building	1890
181AX	408	SW	Unspecified Commercial/Industrial	1906
182AW	408	NW	Railway Buildings	1938
183AW	408	NW	Railway Buildings	1909
184DU	410	N	Unspecified Pit	1967
185AR	411	SW	Railway Building	1890
186	411	N	Sugar Refinery	1973
187AY	411	N	Sugar Refinery	1967
188AV	412	SW	Railway Building	1906
189	418	N	Distillery	1938
190AX	419	SW	Railway Building	1928
191AY	419	N	Unspecified Commercial/Industrial	1909
192BD	420	SW	Railway Building	1928
193BB	421	SW	Railway Buildings	1938
194AZ	423	W	Railway Building	1938
195AZ	423	W	Railway Building	1906
196BA	423	W	Hospital	1909
197BA	423	W	Hospital	1938

198BB	425	SW	Railway Buildings	1927
199BC	425	SW	Railway Building	1890
200	426	W	Railway Building	1906
201BA	426	W	Hospital	1927
202BA	427	SW	Hospital	1973
203BA	427	SW	Hospital	1967
204AZ	428	W	Railway Building	1890
205BK	430	SW	Unspecified Tank	1851
206	430	N	Unspecified Depot	1990
207DW	430	W	Docks	1967
208BA	431	SW	Hospital	1938
209BA	431	SW	Hospital	1906
210DS	432	W	Railway Building	1890
211BC	433	SW	Unspecified Tank	1927
212BC	433	SW	Railway Building	1890
213BD	437	SW	Railway Building	1851
214BE	438	N	Unspecified Commercial/Industrial	1909
215BE	438	N	Unspecified Commercial/Industrial	1938
216BF	440	W	Railway Buildings	1890
217	442	W	Railway Building	1928
218	442	NE	Unspecified Commercial/Industrial	1990
219BD	442	SW	Railway Building	1938
220BG	443	SW	Railway Building	1909
221	443	NW	Unspecified Commercial/Industrial	1928
222BG	443	SW	Railway Building	1938
223BG	444	SW	Railway Building	1927
224	444	N	Unspecified Commercial/Industrial	1928
225	445	W	Railway Building	1890
226	445	W	Goods Station	1928
227BH	447	SE	Tunnel	1938
228BH	447	SE	Tunnel	1909
229DX	450	SE	Tunnel	1851
230BH	450	SE	Tunnel	1927
231	451	SW	Railway Station	1851
232BG	452	SW	Railway Building	1906
233BA	453	SW	Railway Building	1928
234	454	N	Distillery	1938
235BH	454	SE	Tunnel	1973
236BH	454	SE	Tunnel	1967
237BI	455	W	Goods Station	1967
238BA	458	SW	Unspecified Commercial/Industrial	1890
239BI	459	W	Goods Station	1909

240	459	W	Railway Sidings	1938
241BI	459	W	Goods Station	1938
242BI	460	W	Goods Station	1927
243	460	W	Hospital	1928
244BJ	460	W	Unspecified Commercial/Industrial	1982
245BJ	460	W	Unspecified Mills	1973
246BI	463	W	Goods Station	1938
247BI	463	W	Goods Station	1906
248BA	463	SW	Railway Building	1928
249BL	463	W	Unspecified Mills	1967
250BK	464	SW	Railway Building	1928
251	464	W	Railway Sidings	1890
252BI	464	W	Unspecified Commercial/Industrial	1890
253BL	465	W	Oil and Cake Mills	1909
254BL	465	W	Oil and Cake Mills	1938
255	469	NW	Unspecified Warehouses	1928
256	469	W	Goods Station	1851
257BL	469	W	Oil Cake Mills	1906
258	470	W	Railway Building	1928
259BO	475	NW	Unspecified Mill	1967
260BM	488	W	Unspecified Commercial/Industrial	1982
261BM	488	W	Unspecified Warehouses	1973
262BN	491	E	Police Station	1967
263BN	491	E	Police Station	1973
264BO	496	NW	Railway Sidings	1890
265	496	S	Railway Building	1928

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:

206

ID	Distance (m)	Direction	Use	Date
266BP	25	N	Unspecified Tank	1893
267BP	30	N	Tanks	1927
268A	36	E	Unspecified Tank	1989
269A	36	E	Unspecified Tank	1976
270A	36	E	Unspecified Tank	1983
271A	36	E	Unspecified Tank	1987
272A	36	E	Unspecified Tank	1995

273A	36	E	Unspecified Tank	1995
274BP	44	N	Unspecified Tank	1927
275BQ	50	S	Unspecified Tank	1983
276BQ	50	S	Unspecified Tank	1987
277BQ	51	S	Unspecified Tank	1970
278BQ	52	S	Oil Tank	1965
279BQ	52	S	Oil Tank	1976
280BR	52	SE	Unspecified Tank	1983
281BR	52	SE	Unspecified Tank	1987
282BQ	53	SE	Unspecified Tank	1976
283BQ	53	SE	Unspecified Tank	1989
284BQ	53	SE	Unspecified Tank	1995
285BQ	53	SE	Unspecified Tank	1995
286DE	54	NE	Unspecified Tank	1893
287BR	55	SE	Unspecified Tank	1959
288BR	55	SE	Unspecified Tank	1970
289BQ	55	SE	Oil Tank	1965
290BR	55	SE	Unspecified Tank	1960
291BQ	58	S	Tanks	1983
292BQ	58	S	Tanks	1987
293BQ	59	S	Unspecified Tank	1987
294BQ	59	S	Unspecified Tank	1983
295BQ	59	S	Tanks	1959
296BQ	59	S	Tanks	1959
297BQ	60	S	Tanks	1970
298BQ	60	S	Unspecified Tank	1970
299BS	60	NE	Tanks	1908
300BQ	60	S	Tanks	1976
301BQ	60	S	Oil Tanks	1965
302BQ	61	S	Unspecified Tank	1976
303BQ	61	S	Oil Tank	1965
304	69	E	Unspecified Tank	1995
305BS	82	NE	Tanks	1995
306F	84	E	Unspecified Tank	1959
307F	84	E	Unspecified Tank	1970
308F	85	E	Unspecified Tank	1983
309F	85	E	Unspecified Tank	1987
310F	85	E	Unspecified Tank	1960
311F	85	E	Unspecified Tank	1988
312F	85	E	Unspecified Tank	1973
313BT	85	NE	Unspecified Tank	1995
314	86	NW	Unspecified Tank	1893
315BT	87	NE	Unspecified Tank	1983
316BT	87	NE	Unspecified Tank	1987
317BT	87	NE	Unspecified Tank	1973
318BT	87	NE	Unspecified Tank	1988

319BV	93	N	Unspecified Tank	1908
320BU	94	E	Tanks	1953
321BU	94	E	Tanks	1953
322BU	95	E	Tanks	1959
323BU	95	E	Tanks	1959
324BU	95	E	Tanks	1960
325BU	95	E	Tanks	1953
326BV	96	N	Unspecified Tank	1893
327F	98	E	Tanks	1959
328F	98	E	Tanks	1959
329F	98	E	Tanks	1970
330F	98	E	Tanks	1960
331F	98	E	Tanks	1973
332F	98	E	Tanks	1988
333F	98	E	Tanks	1983
334F	98	E	Tanks	1987
335F	98	E	Tanks	1953
336BT	100	NE	Unspecified Tank	1893
337BU	101	E	Unspecified Tank	1959
338BU	101	E	Unspecified Tank	1959
339BU	101	E	Tanks	1988
340BU	101	E	Tanks	1973
341BU	101	E	Tanks	1970
342BU	101	E	Tanks	1983
343BU	101	E	Tanks	1987
344BU	102	E	Unspecified Tank	1960
345BU	102	E	Unspecified Tank	1959
346BU	102	E	Unspecified Tank	1959
347BU	103	E	Tanks	1960
348BU	103	E	Tanks	1953
349BU	103	E	Tanks	1953
350BU	104	E	Unspecified Tank	1959
351BT	104	NE	Unspecified Tank	1908
352BU	107	E	Tanks	1959
353BU	107	E	Tanks	1959
354BU	107	E	Tanks	1953
355BU	107	E	Tanks	1959
356BU	107	E	Tanks	1960
357BU	107	E	Tanks	1953
358BU	108	E	Tanks	1960
359I	112	W	Unspecified Tank	1893
360B	119	NE	Unspecified Tank	1908
361B	124	NE	Unspecified Tank	1970
362BW	128	NE	Tanks	1988
363BW	128	NE	Tanks	1973
364BW	128	NE	Tanks	1983

365BW	128	NE	Tanks	1987
366	135	NW	Unspecified Tank	1976
367	138	S	Unspecified Tank	1908
368BY	158	E	Unspecified Tank	1893
369P	159	NE	Tanks	1983
370P	159	NE	Tanks	1987
371P	159	NE	Tanks	1973
372P	159	NE	Tanks	1988
373P	159	NE	Tanks	1970
374BX	166	E	Tanks	1983
375BX	166	E	Tanks	1987
376BX	166	NE	Tanks	1973
377BX	166	NE	Tanks	1988
378BX	166	NE	Tanks	1970
379BY	167	E	Unspecified Tank	1908
380H	167	SW	Tanks	1953
381H	167	SW	Tanks	1953
382H	167	SW	Tanks	1953
383H	168	SW	Unspecified Tank	1927
384	173	NW	Unspecified Tank	1893
385R	175	E	Tanks	1983
386R	175	E	Tanks	1987
387R	175	E	Tanks	1988
388R	175	E	Tanks	1973
389P	177	NE	Tanks	1983
390P	177	NE	Tanks	1987
391P	178	NE	Tanks	1973
392P	178	NE	Tanks	1988
393R	186	E	Tanks	1988
394R	186	E	Tanks	1973
395BZ	193	E	Tanks	1893
396BZ	201	E	Tanks	1908
397CA	211	NW	Unspecified Tank	1995
398CA	211	NW	Unspecified Tank	1994
399CA	211	NW	Unspecified Tank	1993
400CA	211	NW	Unspecified Tank	1997
401CA	211	NW	Unspecified Tank	1997
402CA	211	NW	Unspecified Tank	1993
403CA	211	NW	Unspecified Tank	1990
404CA	212	NW	Unspecified Tank	1989
405CA	212	NW	Unspecified Tank	1989
406CB	216	S	Tanks	1970
407CB	216	S	Tanks	1953
408CB	216	S	Tanks	1953
409CB	216	S	Tanks	1953
410CB	216	S	Tanks	1976

411CB	216	S	Tanks	1965
412	220	W	Unspecified Tank	1908
413AD	301	N	Gas Works	1908
414Z	303	N	Gas Works	1893
415AD	316	N	Unspecified Tank	1959
416AD	316	N	Unspecified Tank	1953
417AD	316	N	Unspecified Tank	1970
418AD	316	N	Unspecified Tank	1953
419AD	316	N	Unspecified Tank	1927
420AD	316	N	Gasometer	1908
421AD	316	N	Unspecified Tank	1953
422AD	316	N	Unspecified Tank	1965
423AD	316	N	Unspecified Tank	1953
424	318	NW	Unspecified Tank	1976
425AD	318	N	Gasometer	1893
426V	335	NW	Cooling Tanks	1953
427V	335	NW	Cooling Tanks	1953
428V	335	NW	Cooling Tank	1953
429V	335	NW	Cooling Tank	1953
430AG	337	NW	Unspecified Tank	1976
431AG	338	NW	Unspecified Tank	1965
432AG	338	NW	Unspecified Tank	1970
433CC	347	NW	Tanks	1965
434AG	348	NW	Unspecified Tank	1908
435CC	348	NW	Tanks	1970
436	350	NE	Unspecified Tank	1893
437CD	359	N	Tanks	1927
438CD	359	N	Tanks	1908
439AH	362	NW	Unspecified Tank	1893
440AK	362	N	Gasometers	1893
441CE	379	NW	Unspecified Tank	1953
442CE	379	NW	Unspecified Tank	1953
443CE	380	NW	Unspecified Tank	1953
444CE	380	NW	Unspecified Tank	1953
445	386	NE	Unspecified Tank	1908
446CF	390	NW	Tanks	1953
447CF	390	NW	Tanks	1953
448CF	391	NW	Tanks	1959
449CF	393	NW	Tanks	1953
450CF	393	NW	Tanks	1953
451AH	393	NW	Unspecified Tank	1927
452AH	393	NW	Unspecified Tank	1908
453AH	401	NW	Unspecified Tank	1893
454CG	403	NW	Unspecified Tank	1996
455CG	403	NW	Unspecified Tank	1996
456CG	403	NW	Unspecified Tank	1984

457CG	403	NW	Unspecified Tank	1984
458AX	439	SW	Unspecified Tank	1962
459AX	439	SW	Unspecified Tank	1953
460AX	439	SW	Unspecified Tank	1969
461AX	439	SW	Unspecified Tank	1953
462BK	443	SW	Unspecified Tank	1927
463BD	450	SW	Unspecified Tank	1953
464BD	450	SW	Unspecified Tank	1963
465BD	450	SW	Unspecified Tank	1953
466BG	453	SW	Unspecified Tank	1908
467BG	454	SW	Unspecified Tank	1927
468BG	460	SW	Unspecified Tank	1893
469CH	463	E	Unspecified Tank	1893
470CH	470	E	Unspecified Tank	1908
471	471	S	Unspecified Tank	1974

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:

165

ID	Distance (m)	Direction	Use	Date
472CI	22	S	Electricity Substation	1995
473CI	22	S	Electricity Substation	1995
474CI	22	S	Electricity Substation	1989
475	28	NW	Electricity Board Depot	1976
476CJ	37	S	Electricity Substation	1983
477CJ	37	S	Electricity Substation	1987
478CJ	38	S	Electricity Substation	1989
479CJ	38	S	Electricity Substation	1976
480CJ	40	S	Electricity Substation	1995
481CJ	40	S	Electricity Substation	1995
482	42	NW	Electricity Substation	1989
483M	47	NW	Power Station	1908
484BV	75	N	Electricity Substation	1995
485BV	75	N	Electricity Substation	1995
486BV	75	N	Electricity Substation	1989
487CK	75	N	Electricity Substation	1953
488CK	76	N	Electricity Substation	1953
489CK	76	N	Electricity Substation	1953
490BV	76	N	Electricity Substation	1983
491BV	76	N	Electricity Substation	1987

492CL	171	SE	Electricity Substation	1987
493CL	171	SE	Electricity Substation	1983
494CL	171	SE	Electricity Substation	1953
495CL	171	SE	Electricity Substation	1953
496CL	171	SE	Electricity Substation	1953
497CL	171	SE	Electricity Substation	1973
498CL	171	SE	Electricity Substation	1988
499CL	173	SE	Electricity Substation	1995
500CL	173	SE	Electricity Substation	1998
501	209	NW	Electricity Generating Station	1908
502CM	275	E	Electricity Substation	1987
503CM	275	E	Electricity Substation	1983
504CM	275	E	Electricity Substation	1988
505CM	275	E	Electricity Substation	1973
506CM	280	E	Electricity Substation	1995
507CM	280	E	Electricity Substation	1998
508Z	301	N	Gas Works	1908
509Z	303	N	Gas Works	1893
510CN	306	SE	Electricity Substation	1987
511CN	306	SE	Electricity Substation	1983
512CN	306	S	Electricity Substation	1988
513CN	306	S	Electricity Substation	1973
514CO	307	NW	Electricity Substation	1976
515CO	307	NW	Electricity Substation	1990
516CO	307	NW	Electricity Substation	1997
517CO	307	NW	Electricity Substation	1994
518CO	307	NW	Electricity Substation	1993
519CO	307	NW	Electricity Substation	1997
520CO	307	NW	Electricity Substation	1995
521CO	307	NW	Electricity Substation	1993
522CO	307	NW	Electricity Substation	1984
523CO	307	NW	Electricity Substation	1989
524CO	307	NW	Electricity Substation	1989
525CN	308	S	Electricity Substation	1995
526CN	308	S	Electricity Substation	1998
527CP	315	SW	Electricity Substation	1995
528CP	315	SW	Electricity Substation	1995
529AD	316	N	Gasometer	1908
530AD	318	N	Gasometer	1893
531CQ	337	SW	Electricity Substation	1989
532CQ	337	SW	Electricity Substation	1995
533CQ	337	SW	Electricity Substation	1995
534CQ	337	SW	Electricity Substation	1987
535CQ	337	SW	Electricity Substation	1983
536AI	343	W	Electricity Substation	1953

537AI	343	W	Electricity Substation	1969
538AI	343	W	Electricity Substation	1975
539AI	343	W	Electricity Substation	1953
540AI	343	W	Electricity Substation	1996
541AI	343	W	Electricity Substation	1993
542AI	356	W	Electricity Substation	1983
543AI	356	W	Electricity Substation	1982
544AE	357	N	Electricity Substation	1976
545AE	357	N	Electricity Substation	1988
546AE	357	N	Electricity Substation	1989
547AE	357	N	Electricity Substation	1989
548AE	357	N	Electricity Substation	1984
549AE	358	N	Electricity Substation	1990
550AE	358	N	Electricity Substation	1997
551AE	358	N	Electricity Substation	1997
552AE	358	N	Electricity Substation	1995
553AE	358	N	Electricity Substation	1993
554AE	358	N	Electricity Substation	1994
555AE	358	N	Electricity Substation	1993
556CD	362	N	Gasometers	1893
557AA	366	W	Electricity Substation	1996
558AA	366	W	Electricity Substation	1993
559AA	367	W	Electricity Substation	1982
560AA	367	W	Electricity Substation	1982
561AA	367	W	Electricity Substation	1983
562CR	370	SW	Electricity Substation	1979
563CR	370	SW	Electricity Substation	1986
564CR	370	SW	Electricity Substation	1995
565CR	370	SW	Electricity Substation	1995
566CR	371	SW	Electricity Substation	1953
567CR	371	SW	Electricity Substation	1989
568CR	371	SW	Electricity Substation	1953
569CS	377	SE	Electricity Substation	1987
570CS	377	SE	Electricity Substation	1983
571CS	377	SE	Electricity Substation	1988
572CS	378	SE	Electricity Substation	1995
573CS	378	SE	Electricity Substation	1998
574CT	395	NE	Electricity Substation	1993
575CT	395	NE	Electricity Substation	1993
576CT	396	NE	Electricity Substation	1976
577CT	396	NE	Electricity Substation	1990
578CT	396	NE	Electricity Substation	1985
579CU	423	S	Electricity Substation	1989
580CU	423	S	Electricity Substation	1986
581CU	425	S	Electricity Substation	1995
582CU	425	S	Electricity Substation	1995

583CW	439	S	Electric Supply Department	1908
584CV	442	S	Electricity Substation	1988
585CV	443	S	Electricity Substation	1974
586CV	443	S	Electricity Substation	1994
587CV	443	S	Electricity Substation	1999
588CV	443	S	Electricity Substation	1993
589CV	443	S	Electricity Substation	1994
590CW	448	S	Electricity Substation	1953
591BG	456	SW	Electricity Substation	1995
592BG	456	SW	Electricity Substation	1995
593CX	459	SW	Electricity Substation	1986
594CX	459	SW	Electricity Substation	1989
595CX	460	SW	Electricity Substation	1984
596CY	462	N	Electricity Substation	1990
597CY	463	N	Electricity Substation	1989
598CY	463	N	Electricity Substation	1989
599CY	464	N	Electricity Substation	1995
600CY	464	N	Electricity Substation	1997
601CY	464	N	Electricity Substation	1994
602CY	464	N	Electricity Substation	1997
603CY	464	N	Electricity Substation	1993
604CY	464	N	Electricity Substation	1993
605CZ	465	S	Electricity Substation	1989
606CZ	466	S	Electricity Substation	1986
607CX	466	SW	Electricity Substation	1984
608CZ	466	S	Electricity Substation	1995
609CZ	466	S	Electricity Substation	1995
610DA	471	N	Electricity Substation	1989
611DA	471	N	Electricity Substation	1988
612DA	471	N	Electricity Substation	1989
613CW	471	S	Electricity Substation	1953
614DA	471	N	Electricity Substation	1990
615DA	471	N	Electricity Substation	1995
616DA	471	N	Electricity Substation	1993
617DA	471	N	Electricity Substation	1997
618DA	471	N	Electricity Substation	1997
619DA	471	N	Electricity Substation	1994
620DA	471	N	Electricity Substation	1993
621	475	W	Electricity Substation	1969
622DB	477	NW	Electricity Substation	1989
623DB	477	NW	Electricity Substation	1988
624DB	477	NW	Electricity Substation	1989
625DB	478	NW	Electricity Substation	1995
626DB	478	NW	Electricity Substation	1994
627DB	478	NW	Electricity Substation	1993

628DB	478	NW	Electricity Substation	1997
629DB	478	NW	Electricity Substation	1997
630DB	478	NW	Electricity Substation	1993
631DB	478	NW	Electricity Substation	1990
632CW	480	S	Electricity Substation	1989
633CW	480	S	Electricity Substation	1979
634CW	480	S	Electricity Substation	1986
635CW	481	S	Electricity Substation	1995
636CW	481	S	Electricity Substation	1995

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:

2

ID	Distance (m)	Direction	Use	Date
637Q	197	SW	Filling Station	1995
638Q	197	SW	Filling Station	1995

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:

73

ID	Distance (m)	Direction	Use	Date
639DC	0	On Site	Garage	1995
640DC	0	On Site	Garage	1995
641DC	0	On Site	Garage	1965
642DC	0	On Site	Garage	1989
643DD	20	N	Garage	1989
644DD	21	N	Garage	1995
645DD	21	N	Garage	1995
646BP	36	N	Garage	1989
647BP	36	N	Garage	1995
648BP	36	N	Garage	1995
649DF	38	S	Garage	1989
650DE	40	N	Garage	1995
651DD	40	N	Garage	1995
652DF	40	S	Garage	1995

653DF	40	S	Garage	1995
654DE	40	N	Garage	1989
655DG	45	SW	Transport Repair Depot	1970
656DG	46	SW	Transport Repair Depot	1965
657DH	74	S	Garage	1953
658DH	74	S	Garage	1965
659DH	86	SW	Garage	1953
660DH	86	SW	Garage	1970
661DH	86	SW	Garage	1959
662DH	86	SW	Garage	1959
663DH	86	SW	Garage	1953
664DI	96	N	Garage	1995
665DI	96	N	Garage	1995
666DI	97	N	Garage	1989
667D	97	S	Garage	1989
668DI	98	N	Garage	1989
669DI	98	N	Garage	1953
670D	99	S	Garage	1995
671D	99	S	Garage	1995
672DI	103	N	Garage	1995
673DI	103	N	Garage	1995
674DI	104	N	Garage	1959
675DI	104	N	Garage	1959
676DI	104	N	Garage	1953
677	118	S	Garage	1989
678DJ	184	S	Garage	1970
679DJ	184	S	Garage	1953
680DJ	184	S	Garage	1959
681DJ	184	S	Garage	1959
682DJ	184	S	Garage	1953
683DJ	184	S	Garage	1953
684DJ	184	S	Garage	1965
685DK	184	S	Garage	1970
686DK	185	S	Garage	1965
687DL	194	N	Garage	1965
688CA	198	NW	Transport Repair Depot	1965
689DL	202	N	Garage	1953
690DL	202	N	Garage	1959
691DL	202	N	Garage	1959
692DL	202	N	Garage	1953
693DL	203	N	Garage	1953
694DL	203	N	Garage	1953
695DM	257	S	Garage	1983
696DM	257	S	Garage	1987
697DM	257	S	Garage	1970
698DM	258	S	Garage	1976

699DM	258	S	Garage	1989
700DM	258	S	Garage	1965
701DN	272	E	Garage	1960
702DN	272	E	Garage	1973
703DN	272	E	Garage	1953
704DN	274	E	Garage	1953
705DN	274	E	Garage	1959
706DN	274	E	Garage	1970
707DN	274	E	Garage	1959
708DN	274	E	Garage	1953
709	439	S	Carriage Sheds	1927
710DO	495	NE	Garage	1953
711DO	495	NE	Garage	1962

1.6 Potentially Infilled Land

Records of Potentially Infilled Features from 1:10,000 scale mapping within 500m of the study site: 50

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

ID	Distance(m)	Direction	Use	Date
712D	81	SW	Tunnel	1938
713D	81	SW	Tunnel	1909
714E	82	SW	Tunnel	1938
715DH	84	SW	Tunnel	1928
716D	84	SW	Tunnel	1967
717D	84	SW	Tunnel	1973
718D	86	SW	Tunnel	1927
719E	90	SW	Tunnel	1906
720D	93	SW	Tunnel	1851
721V	125	S	Canal	1928
722	129	NW	Canal	1890
723	133	N	Canal	1906
724DP	134	S	Canal	1938
725DP	134	S	Canal	1909
726DP	135	N	Canal	1927
727L	142	N	Tunnel	1982
728L	142	N	Tunnel	1973
729L	142	N	Tunnel	1990
730	143	S	Canal	1851
731N	152	N	Air Shafts	1990
732N	152	N	Air Shafts	1982
733N	152	N	Air Shafts	1990
734N	152	N	Air Shafts	1982
735O	154	N	Air Shafts	1990
736O	154	N	Air Shafts	1982

737DQ	162	N	Air Shafts	1982
738S	170	NW	Air Shafts	1990
739S	170	NW	Air Shafts	1982
740T	184	NW	Air Shafts	1982
741T	184	NW	Air Shafts	1990
742U	202	NW	Air Shafts	1982
743U	202	NW	Air Shafts	1990
744DR	315	NW	Canal	1967
745DR	315	NW	Canal	1973
746AF	322	W	Unspecified Pit	1990
747AF	322	W	Unspecified Pit	1982
748AF	326	W	Tunnel	1973
749BF	399	W	Tunnel	1851
750DS	402	W	Unspecified Ground Workings	1990
751DT	405	SE	Tunnel	1928
752DU	410	N	Unspecified Pit	1967
753DV	422	N	Canal	1982
754DV	422	N	Canal	1990
755DW	430	W	Docks	1967
756BH	447	SE	Tunnel	1938
757BH	447	SE	Tunnel	1909
758DX	450	SE	Tunnel	1851
759BH	450	SE	Tunnel	1927
760BH	454	SE	Tunnel	1973
761BH	454	SE	Tunnel	1967

	Site Outline		Recorded Pollution Incident		RAS 3 & 4 Authorisations
	Search Buffers (m)		Dangerous Substances (List 1)		Part A(1) Authorised Processes and Historic IPC Authorisations
			Dangerous Substances (List 2)		Part A(2) and Part B Authorised Processes
			Water Industry Referrals		COMAH / NIHS Sites
			Licenced Discharge Consents		Sites Determined as Contaminated Land
			Red List Discharge Consents		Hazardous Substance Consents and Enforcements

2. Environmental Permits, Incidents and Registers

2.1 Industrial Sites Holding Licences and/or Authorisations

Searches of information provided by the Environment Agency and Local Authorities reveal the following information:

2.1.1 Records of historic IPC Authorisations within 500m of the study site:

0

Database searched and no data found.

2.1.2 Records of Part A(1) and IPPC Authorised Activities within 500m of the study site:

0

Database searched and no data found.

2.1.3 Records of Red List Discharge Consents (potentially harmful discharges to controlled waters) within 500m of the study site:

0

Database searched and no data found.

2.1.4 Records of List 1 Dangerous Substances Inventory Sites within 500m of the study site:

0

Database searched and no data found.

2.1.5 Records of List 2 Dangerous Substance Inventory Sites within 500m of the study site:

0

Database searched and no data found.

2.1.6 Records of Part A(2) and Part B Activities and Enforcements within 500m of the study site:

7

The following Part A(2) and Part B Activities are represented as points on the Environmental Permits, Incidents and Registers Map:

ID	Distance (m)	Direction	NGR	Details
5	89	N	334437 391436	Address: Scott Feather Company Process: Treatment of Animal Matter Status: Historical Permit Permit Type: Part B Enforcement: No Enforcement Notified Date of Enforcement: No Enforcement Notified Comment: No Enforcement Notified
6	122	S	334498 391220	Address: Station Garage Process: Waste Oil Burner Status: Historical Permit Permit Type: Part B Enforcement: No Enforcement Notified Date of Enforcement: No Enforcement Notified Comment: No Enforcement Notified
7	161	NW	334175 391387	Address: John Tierney Casings (Liverpool) Ltd Process: Sausage Casings Status: Historical Permit Permit Type: Part B Enforcement: No Enforcement Notified Date of Enforcement: No Enforcement Notified Comment: No Enforcement Notified
8	189	NE	334606 391459	Address: WF Doyle & Co Ltd, 41-43 Blackstock Street, L3 Process: 3.5 Other Mineral Status: Surrendered Permit Type: Part B Enforcement: No Enforcement Notified Date of Enforcement: No Enforcement Notified Comment: No Enforcement Notified
9	229	SW	334176 391136	Address: Elf Service Station (Leeds Street) Process: Unloading of Petrol into Storage at Service Stations Status: Historical Permit Permit Type: Part B Enforcement: No Enforcement Notified Date of Enforcement: No Enforcement Notified Comment: No Enforcement Notified
10	267	S	334411 391054	Address: Save Service Station (Vauxhall Rd) Process: Unloading of Petrol into Storage at Service Stations Status: Historical Permit Permit Type: Part B Enforcement: No Enforcement Notified Date of Enforcement: No Enforcement Notified Comment: No Enforcement Notified
11	287	NW	334090 391492	Address: Williams Liverpool Process: Vehicle Refinisher Status: Current Permit Permit Type: Part B Enforcement: No Enforcement Notified Date of Enforcement: No Enforcement Notified Comment: No Enforcement Notified

2.1.7 Records of Category 3 or 4 Radioactive Substances Authorisations:

0

Database searched and no data found.

2.1.8 Records of Licensed Discharge Consents within 500m of the study site:

1

The following Licensed Discharge Consents records are represented as points on the Environmental Permits, Incidents and Registers Map:

ID	Distance (m)	Direction	NGR	Details
4	374	N	334300 391700	<p>Address: TATE & LYLE LTD, 18 LOVE LANE, LIVERPOOL, MERSEYSIDE</p> <p>Effluent Type: TRADE DISCHARGES - BOILER BLOWDOWN EFFLUENT</p> <p>Permit Number: 016990296</p> <p>Permit Version: 1</p> <p>Receiving Water: Status: REVOKED - UNSPECIFIED Issue date: - Effective Date: 01-Apr-1981 Revocation Date: 26/04/1991</p>

2.1.9 Records of Water Industry Referrals (potentially harmful discharges to the public sewer) within 500m of the study site:

1

The following Water Industry Referral records are represented as points on the Environmental Permits, Incidents and Registers Map:

ID	Distance (m)	Direction	Address	Permission reference	Local Authority	First Date Received	Last Date Received	Status
14B	145	NW	ALL METAL ELECTROPLATING, 16-18 CARRUTHERS STREET, 16/18 CARRUTHERS STREET, LIVERPOOL, LIVERPOOL, L3 6BY	AW8432	LIVERPOOL CITY COUNCIL	01-Jan-2015	01-Jan-2015	RECEIVED

2.1.10 Records of Planning Hazardous Substance Consents and Enforcements within 500m of the study site:

0

Database searched and no data found.

2.2 Dangerous or Hazardous Sites

Records of COMAH & NIHHS sites within 500m of the study site:

1

The following COMAH & NIHHS Authorisation records provided by the Health and Safety Executive are represented as polygons or buffered points on the Environmental Permits, Incidents and Registers Map:

ID	Distance (m)	Direction	Company	Address	Operational Status	Tier
12	411	N	British Gas	British Gas, Athol Street, Kirkdale/liverpool, L5 9TU	Historical NIHHS Site	-

2.3 Environment Agency Recorded Pollution Incidents

2.3.1 Records of National Incidents Recording System, List 2 within 500m of the study site:

2

The following NIRS List 2 records are represented as points on the Environmental Permits, Incidents and Registers Map:

ID	Distance (m)	Direction	NGR	Details
1A	493	NW	333963 391661	Incident Date: 01-May-2001 Incident Identification: 4032 Pollutant: Specific Waste Materials Pollutant Description: Asbestos Water Impact: Category 4 (No Impact) Land Impact: Category 3 (Minor) Air Impact: Category 4 (No Impact)
2A	493	NW	333963 391661	Incident Date: 01-May-2001 Incident Identification: 4032 Pollutant: Specific Waste Materials Pollutant Description: Asbestos Water Impact: Category 4 (No Impact) Land Impact: Category 3 (Minor) Air Impact: Category 4 (No Impact)

2.3.2 Records of National Incidents Recording System, List 1 within 500m of the study site:

1

The following NIRS List 1 records are represented as points on the Environmental Permits, Incidents and Registers Map:

ID	Distance(m)	Direction	NGR	Details
3	252	E	Incident Date: 25-Jul-1999 Incident Identification: 30694.0 Catchments Name: RIVER MERSEY (ETHEROW) Water Description: ESTUARY Water Course: COASTLINE TRIB FOR 68/69 Incident Substantiated: Yes	Priority Description: Immediate (2 Hours) Waste Description: Industrial Water Impact: No Impact Land Impact: Major (Persistent, Extensive) Impact Air Impact: Major (Persistent, Extensive) Impact Action Taken: Other

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

How many records of sites determined as contaminated land under Section 78R of the Environmental Protection Act 1990 are there within 500m of the study site?

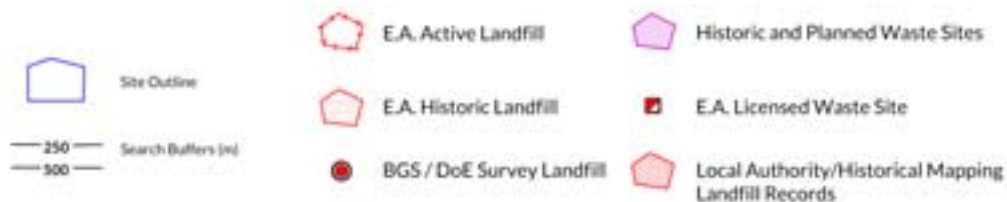
0

Database searched and no data found.

3. Landfill and Other Waste Sites Map



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3. Landfill and Other Waste Sites

3.1 Landfill Sites

3.1.1 Records from Environment Agency landfill data within 1000m of the study site:

0

Database searched and no data found.

3.1.2 Records of Environment Agency historic landfill sites within 1500m of the study site:

3

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

ID	Distance (m)	Direction	NGR	Details
Not shown	707	W	333500 391400	Site Address: Victoria Branch Dock, Merseyside Waste Licence: - Site Reference: GDO M177 Waste Type: - Environmental Permitting Regulations (Waste) Reference: - Licence Issue: Licence Surrendered: Licence Holder Address: - Operator: - Licence Holder: - First Recorded: 01-Jan-1970 Last Recorded: 31-Dec-1971
Not shown	743	W	333500 391500	Site Address: Trafalgar Branch Dock, Liverpool, Merseyside Waste Licence: - Site Reference: GDO M176 Waste Type: - Environmental Permitting Regulations (Waste) Reference: - Licence Issue: Licence Surrendered: Licence Holder Address: - Operator: - Licence Holder: - First Recorded: 01-Jan-1970 Last Recorded: 31-Dec-1971
Not shown	884	W	333400 391200	Site Address: Waterloo Dock River Entrance, Merseyside, Liverpool Waste Licence: - Site Reference: GDO M178 Waste Type: - Environmental Permitting Regulations (Waste) Reference: - Licence Issue: Licence Surrendered: Licence Holder Address: - Operator: - Licence Holder: - First Recorded: 31-Dec-1985 Last Recorded: 31-Dec-1985

3.1.3 Records of BGS/DoE non-operational landfill sites within 1500m of the study site:

0

Database searched and no data found.

3.1.4 Records of Landfills from Local Authority and Historical Mapping Records within 1500m of the study site:

0

Database searched and no data found.

3.2 Other Waste Sites

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

50

The following waste treatment, transfer or disposal sites records are represented as points on the Landfill and Other Waste Sites map:

ID	Distance (m)	Direction	NGR	Details		
1A	0	S	334361 391301	Type of Site: Scrap Metal Yard Site Address: N/A	Planning Application Reference: N/A Date: 1953	Further Details: N/A Data Source: Historic Mapping Data Type: Polygon
2A	0	S	334361 391301	Type of Site: Scrap Metal Yard Site Address: N/A	Planning Application Reference: N/A Date: 1959	Further Details: N/A Data Source: Historic Mapping Data Type: Polygon
3A	0	S	334361 391301	Type of Site: Scrap Metal Yard Site Address: N/A	Planning Application Reference: N/A Date: 1953	Further Details: N/A Data Source: Historic Mapping Data Type: Polygon
4A	0	S	334361 391301	Type of Site: Scrap Metal Yard Site Address: N/A	Planning Application Reference: N/A Date: 1959	Further Details: N/A Data Source: Historic Mapping Data Type: Polygon
5A	0	S	334361 391301	Type of Site: Scrap Metal Yard Site Address: N/A	Planning Application Reference: N/A Date: 1953	Further Details: N/A Data Source: Historic Mapping Data Type: Polygon
6B	38	S	334389 391272	Type of Site: Scrap Metal Yard Site Address: N/A	Planning Application Reference: N/A Date: 1959	Further Details: N/A Data Source: Historic Mapping Data Type: Polygon
7B	38	S	334389 391272	Type of Site: Scrap Metal Yard Site Address: N/A	Planning Application Reference: N/A Date: 1959	Further Details: N/A Data Source: Historic Mapping Data Type: Polygon
8B	38	S	334389 391272	Type of Site: Scrap Metal Yard Site Address: N/A	Planning Application Reference: N/A Date: 1953	Further Details: N/A Data Source: Historic Mapping Data Type: Polygon
9B	38	S	334389 391272	Type of Site: Scrap Metal Yard Site Address: N/A	Planning Application Reference: N/A Date: 1953	Further Details: N/A Data Source: Historic Mapping Data Type: Polygon
10B	38	S	334389 391272	Type of Site: Scrap Metal Yard Site Address: N/A	Planning Application Reference: N/A Date: 1953	Further Details: N/A Data Source: Historic Mapping Data Type: Polygon

ID	Distance (m)	Direction	NGR	Details		
11C	117	S	334474 391204	Type of Site: Scrap Metal Yard Site Address: N/A	Planning Application Reference: N/A Date: 1953	Further Details: N/A Data Source: Historic Mapping Data Type: Polygon
12C	117	S	334474 391204	Type of Site: Scrap Metal Yard Site Address: N/A	Planning Application Reference: N/A Date: 1953	Further Details: N/A Data Source: Historic Mapping Data Type: Polygon
13C	117	S	334456 391200	Type of Site: Scrap Metal Works Site Address: N/A	Planning Application Reference: N/A Date: 1959	Further Details: N/A Data Source: Historic Mapping Data Type: Polygon
14C	117	S	334456 391200	Type of Site: Scrap Metal Works Site Address: N/A	Planning Application Reference: N/A Date: 1959	Further Details: N/A Data Source: Historic Mapping Data Type: Polygon
15C	118	S	334457 391200	Type of Site: Scrap Metal Yard Site Address: N/A	Planning Application Reference: N/A Date: 1953	Further Details: N/A Data Source: Historic Mapping Data Type: Polygon
16D	118	S	334435 391196	Type of Site: Scrap Metal Yard Site Address: N/A	Planning Application Reference: N/A Date: 1953	Further Details: N/A Data Source: Historic Mapping Data Type: Polygon
17D	118	S	334434 391196	Type of Site: Scrap Metal Yard Site Address: N/A	Planning Application Reference: N/A Date: 1959	Further Details: N/A Data Source: Historic Mapping Data Type: Polygon
18D	118	S	334434 391196	Type of Site: Scrap Metal Yard Site Address: N/A	Planning Application Reference: N/A Date: 1953	Further Details: N/A Data Source: Historic Mapping Data Type: Polygon
19D	118	S	334434 391196	Type of Site: Scrap Metal Yard Site Address: N/A	Planning Application Reference: N/A Date: 1953	Further Details: N/A Data Source: Historic Mapping Data Type: Polygon
20D	118	S	334434 391196	Type of Site: Scrap Metal Yard Site Address: N/A	Planning Application Reference: N/A Date: 1959	Further Details: N/A Data Source: Historic Mapping Data Type: Polygon
21E	142	NW	334188 391428	Type of Site: Scrap Metal Yard Site Address: N/A	Planning Application Reference: N/A Date: 1953	Further Details: N/A Data Source: Historic Mapping Data Type: Polygon
22E	142	NW	334188 391428	Type of Site: Scrap Metal Yard Site Address: N/A	Planning Application Reference: N/A Date: 1953	Further Details: N/A Data Source: Historic Mapping Data Type: Polygon
23G	143	SW	334181 391206	Type of Site: Scrap Metal Yard Site Address: N/A	Planning Application Reference: N/A Date: 1975	Further Details: N/A Data Source: Historic Mapping Data Type: Polygon
24E	143	NW	334188 391428	Type of Site: Scrap Metal Yard Site Address: N/A	Planning Application Reference: N/A Date: 1959	Further Details: N/A Data Source: Historic Mapping Data Type: Polygon
25E	143	NW	334188 391428	Type of Site: Scrap Metal Yard Site Address: N/A	Planning Application Reference: N/A Date: 1959	Further Details: N/A Data Source: Historic Mapping Data Type: Polygon

ID	Distance (m)	Direction	NGR	Details		
26F	162	W	334163 391239	Type of Site: Scrap Yard Site Address: N/A	Planning Application Reference: N/A Date: 1964	Further Details: N/A Data Source: Historic Mapping Data Type: Polygon
27F	162	W	334163 391239	Type of Site: Scrap Yard Site Address: N/A	Planning Application Reference: N/A Date: 1975	Further Details: N/A Data Source: Historic Mapping Data Type: Polygon
28F	165	SW	334165 391233	Type of Site: Scrap Yard Site Address: N/A	Planning Application Reference: N/A Date: 1970	Further Details: N/A Data Source: Historic Mapping Data Type: Polygon
29	168	NW	334168 391425	Type of Site: Scrap Metal Yard Site Address: N/A	Planning Application Reference: N/A Date: 1953	Further Details: N/A Data Source: Historic Mapping Data Type: Polygon
30G	171	SW	334166 391204	Type of Site: Scrap Metal Site Address: N/A	Planning Application Reference: N/A Date: 1953	Further Details: N/A Data Source: Historic Mapping Data Type: Polygon
31G	171	SW	334166 391204	Type of Site: Scrap Metal Site Address: N/A	Planning Application Reference: N/A Date: 1953	Further Details: N/A Data Source: Historic Mapping Data Type: Polygon
32	171	SW	334166 391204	Type of Site: Scrap Metal Yard Site Address: N/A	Planning Application Reference: N/A Date: 1970	Further Details: N/A Data Source: Historic Mapping Data Type: Polygon
33H	171	NW	334183 391466	Type of Site: Refuse Destructor Site Address: N/A	Planning Application Reference: N/A Date: 1908	Further Details: N/A Data Source: Historic Mapping Data Type: Polygon
34G	171	SW	334166 391204	Type of Site: Scrap Metal Yard Site Address: N/A	Planning Application Reference: N/A Date: 1953	Further Details: N/A Data Source: Historic Mapping Data Type: Polygon
35G	171	SW	334166 391204	Type of Site: Scrap Metal Yard Site Address: N/A	Planning Application Reference: N/A Date: 1964	Further Details: N/A Data Source: Historic Mapping Data Type: Polygon
36H	188	NW	334171 391464	Type of Site: Refuse Destructor Site Address: N/A	Planning Application Reference: N/A Date: 1927	Further Details: N/A Data Source: Historic Mapping Data Type: Polygon
37H	188	NW	334171 391464	Type of Site: Refuse Destructor Site Address: N/A	Planning Application Reference: N/A Date: 1908	Further Details: N/A Data Source: Historic Mapping Data Type: Polygon
38I	203	NW	334204 391510	Type of Site: Scrap Metal Yard Site Address: N/A	Planning Application Reference: N/A Date: 1953	Further Details: N/A Data Source: Historic Mapping Data Type: Polygon
39I	203	NW	334204 391510	Type of Site: Scrap Metal Yard Site Address: N/A	Planning Application Reference: N/A Date: 1953	Further Details: N/A Data Source: Historic Mapping Data Type: Polygon
40I	206	NW	334208 391516	Type of Site: Scrap Metal Yard Site Address: N/A	Planning Application Reference: N/A Date: 1953	Further Details: N/A Data Source: Historic Mapping Data Type: Polygon

ID	Distance (m)	Direction	NGR	Details		
41I	206	NW	334208 391516	Type of Site: Scrap Metal Yard Site Address: N/A	Planning Application Reference: N/A Date: 1953	Further Details: N/A Data Source: Historic Mapping Data Type: Polygon
42	207	S	334412 391090	Type of Site: Scrap Metal Yard Site Address: N/A	Planning Application Reference: N/A Date: 1975	Further Details: N/A Data Source: Historic Mapping Data Type: Polygon
43J	259	S	334513 391070	Type of Site: Scrap Metal Works Site Address: N/A	Planning Application Reference: N/A Date: 1953	Further Details: N/A Data Source: Historic Mapping Data Type: Polygon
44J	259	S	334510 391069	Type of Site: Scrap Metal Site Address: N/A	Planning Application Reference: N/A Date: 1953	Further Details: N/A Data Source: Historic Mapping Data Type: Polygon
45J	259	S	334510 391069	Type of Site: Scrap Metal Site Address: N/A	Planning Application Reference: N/A Date: 1953	Further Details: N/A Data Source: Historic Mapping Data Type: Polygon
46K	321	NE	334700 391598	Type of Site: Scrap Metal Yard Site Address: N/A	Planning Application Reference: N/A Date: 1953	Further Details: N/A Data Source: Historic Mapping Data Type: Polygon
47K	321	NE	334700 391598	Type of Site: Scrap Metal Yard Site Address: N/A	Planning Application Reference: N/A Date: 1953	Further Details: N/A Data Source: Historic Mapping Data Type: Polygon
48K	341	NE	334714 391598	Type of Site: Scrap Metal Yard Site Address: N/A	Planning Application Reference: N/A Date: 1953	Further Details: N/A Data Source: Historic Mapping Data Type: Polygon
49K	343	NE	334693 391606	Type of Site: Scrap Metal Yard Site Address: N/A	Planning Application Reference: N/A Date: 1959	Further Details: N/A Data Source: Historic Mapping Data Type: Polygon
50K	343	NE	334693 391606	Type of Site: Scrap Metal Yard Site Address: N/A	Planning Application Reference: N/A Date: 1959	Further Details: N/A Data Source: Historic Mapping Data Type: Polygon

3.2.2 Records of Environment Agency licensed waste sites within 1500m of the study site:

14

The following waste treatment, transfer or disposal sites records are represented as points on the Landfill and Other Waste Sites map:

ID	Distance (m)	Direction	NGR	Details
54B	39	S	334377 391280	<p>Site Address: 11, Naylor Street, Liverpool, Merseyside, L3 6DR Type: Vehicle Depollution Facility <5000 tps Size: < 25000 tonnes Environmental Permitting Regulations (Waste) Licence Number: MOO064 EPR reference: EA/EPR/CB3806SB/A001 Operator: Moore Anthony Waste Management licence No: 402340 Annual Tonnage: 5000.0</p> <p>Issue Date: 29/04/2015 Effective Date: - Modified: - Surrendered Date: 0 Expiry Date: - Cancelled Date: - Status: Issued Site Name: Kall Autos Correspondence Address: -</p>
55	159	N	334500 391500	<p>Site Address: Blackstock Street, Liverpool, Merseyside, L3 6ET Type: Physico-Chemical Treatment Facility Size: >= 25000 tonnes < 75000 tonnes Environmental Permitting Regulations (Waste) Licence Number: CEL001 EPR reference: EA/EPR/HP3396CW/S002 Operator: Caird Enviromental Ltd Waste Management licence No: 53752 Annual Tonnage: 50000.0</p> <p>Issue Date: 12/06/1989 Effective Date: - Modified: - Surrendered Date: 23/09/2003 Expiry Date: - Cancelled Date: - Status: Surrendered Site Name: Caird Environmental Ltd Correspondence Address: -</p>
56	211	NE	334600 391500	<p>Site Address: 41, Blackstock Street, Liverpool, Merseyside, L3 6EP Type: Household, Commercial & Industrial Waste T Stn Size: < 25000 tonnes Environmental Permitting Regulations (Waste) Licence Number: WFD001 EPR reference: EA/EPR/SP3291CV/A001 Operator: W F Doyle & Co Ltd Waste Management licence No: 53938 Annual Tonnage: 25000.0</p> <p>Issue Date: 18/04/1990 Effective Date: - Modified: - Surrendered Date: 0 Expiry Date: 31/10/1994 Cancelled Date: - Status: Issued Site Name: W F Doyle & Co Ltd Correspondence Address: -</p>
57	505	NW	333900 391600	<p>Site Address: 76-82, Sprainger Street, Liverpool Exchange, Liverpool, Merseyside, L3 7HX Type: ELV Facility Size: < 25000 tonnes Environmental Permitting Regulations (Waste) Licence Number: MWI001 EPR reference: EA/EPR/NP3494CY/A001 Operator: Mwita Abdul Waste Management licence No: 50386 Annual Tonnage: 2500.0</p> <p>Issue Date: 27/05/2005 Effective Date: - Modified: - Surrendered Date: 0 Expiry Date: - Cancelled Date: - Status: Issued Site Name: V W Audi Seconds Correspondence Address: -</p>
58L	640	NW	333950 391844	<p>Site Address: 13-17, Upper William Street, Liverpool, Merseyside, L3 7EE Type: 75kte HCI Waste Transfer Station Size: < 25000 tonnes Environmental Permitting Regulations (Waste) Licence Number: ALA048 EPR reference: EA/EPR/KP3398VR/A001 Operator: Alan Pearson Waste Management licence No: 101810 Annual Tonnage: 74999.0</p> <p>Issue Date: 26/07/2010 Effective Date: - Modified: - Surrendered Date: - Expiry Date: - Cancelled Date: - Status: Issued Site Name: Waste Away Correspondence Address: -</p>

ID	Distance (m)	Direction	NGR	Details
59L	640	NW	333950 391844	<p>Site Address: 13-17, Upper William Street, Liverpool, Merseyside, L3 7EE Type: 75kte HCI Waste Transfer Station Size: < 25000 tonnes Environmental Permitting Regulations (Waste) Licence Number: RJA006 EPR reference: EA/EPR/NB3938RD/T001 Operator: R Jackson Services (N W) Ltd Waste Management licence No: 101810 Annual Tonnage: 74999.0</p> <p>Issue Date: 26/07/2010 Effective Date: 21/02/2013 Modified: - Surrendered Date: 0 Expiry Date: - Cancelled Date: - Status: Expired Site Name: Waste Away Skip Hire Correspondence Address: -</p>
60	647	W	333700 391500	<p>Site Address: 25, Vandries Street, Liverpool, Merseyside, L3 7BJ Type: Metal Recycling Site (Vehicle Dismantler) Size: < 25000 tonnes Environmental Permitting Regulations (Waste) Licence Number: TLG001 EPR reference: EA/EPR/BP3796CR/A001 Operator: Gorrry T L Waste Management licence No: 53667 Annual Tonnage: 416.66</p> <p>Issue Date: 24/03/1995 Effective Date: - Modified: - Surrendered Date: 0 Expiry Date: - Cancelled Date: - Status: Revoked Site Name: Miranda Motors Correspondence Address: -</p>
Not shown	809	NW	333656 391781	<p>Site Address: Unit 1, 8, Regent Road, Liverspool, L13 7BX Type: 75kte Vehicle Depollution Facility Size: < 25000 tonnes Environmental Permitting Regulations (Waste) Licence Number: USE016 EPR reference: EA/EPR/BB3401MP/A001 Operator: Used Parts Express Ltd Waste Management licence No: 401259 Annual Tonnage: 0.0</p> <p>Issue Date: 26/03/2014 Effective Date: - Modified: - Surrendered Date: 0 Expiry Date: - Cancelled Date: - Status: Revoked Site Name: Used Parts Express Ltd Correspondence Address: -</p>
Not shown	826	NE	335200 391700	<p>Site Address: 2-12, Prince Edwin Street, Liverpool, Merseyside, L5 3LJ Type: Metal Recycling Site (mixed MRS's) Size: < 25000 tonnes Environmental Permitting Regulations (Waste) Licence Number: SMW001 EPR reference: EA/EPR/MP3191CK/A001 Operator: Williams Bros Scrap Metals Ltd Waste Management licence No: 53960 Annual Tonnage: 416.66</p> <p>Issue Date: 08/11/1988 Effective Date: - Modified: - Surrendered Date: 0 Expiry Date: - Cancelled Date: - Status: Issued Site Name: Williams Brothers Ltd Correspondence Address: -</p>
Not shown	846	E	335300 391300	<p>Site Address: 97-101, Soho Street, Islington, Liverpool, Merseyside, L3 8AS Type: Household, Commercial & Industrial Waste T Stn Size: < 25000 tonnes Environmental Permitting Regulations (Waste) Licence Number: CSL001 EPR reference: EA/EPR/MP3898EN/A001 Operator: Mr John Short And Mr John Lee Timmings Waste Management licence No: 100280 Annual Tonnage: 24999.0</p> <p>Issue Date: 22/09/2008 Effective Date: - Modified: - Surrendered Date: 0 Expiry Date: - Cancelled Date: - Status: Revoked Site Name: City Skips Liverpool Correspondence Address: -</p>
Not shown	846	E	335300 391300	<p>Site Address: 97-101, Soho Street, Islington, Liverpool, Merseyside, L3 8AS Type: Household, Commercial & Industrial Waste T Stn Size: < 25000 tonnes Environmental Permitting Regulations (Waste) Licence Number: CSL001 EPR reference: - Operator: City Skips (Liverpool) Ltd Waste Management licence No: 100280 Annual Tonnage: 24999.0</p> <p>Issue Date: 9/22/2008 Effective Date: - Modified: - Surrendered Date: - Expiry Date: - Cancelled Date: - Status: Issued Site Name: City Skips Correspondence Address: 97-101, Soho Street, Islington, Liverpool, Merseyside, L3 8AS</p>

ID	Distance (m)	Direction	NGR	Details	
Not shown	1331	NW	333700 392500	Site Address: 11, Blackstone Street, Liverpool, Merseyside, L5 9TY Type: Household, Commercial & Industrial Waste T Stn Size: >= 25000 tonnes < 75000 tonnes Environmental Permitting Regulations (Waste) Licence Number: SWS001 EPR reference: EA/EPR/PP3196CY/S002 Operator: Shanks Northern Ltd Waste Management licence No: 53654 Annual Tonnage: 531408.98	Issue Date: 05/06/1995 Effective Date: - Modified: - Surrendered Date: 13/07/2000 Expiry Date: - Cancelled Date: - Status: Surrendered Site Name: Shanks Correspondence Address: -
Not shown	1361	NW	333769 392567	Site Address: Land/premises At, Blackstone Street, Liverpool North, Liverpool, Merseyside, L5 9TY Type: Household, Commercial & Industrial Waste T Stn Size: >= 25000 tonnes < 75000 tonnes Environmental Permitting Regulations (Waste) Licence Number: CIR001 EPR reference: EA/EPR/WP3694CH/A001 Operator: Circle Liverpool Ltd Waste Management licence No: 50422 Annual Tonnage: 40000.0	Issue Date: 13/01/2006 Effective Date: - Modified: - Surrendered Date: 0 Expiry Date: - Cancelled Date: - Status: Issued Site Name: Blackstone Street Transfer Station Correspondence Address: -
Not shown	1443	N	334000 392730	Site Address: Luton Street, Liverpool, Merseyside, L5 Type: Household, Commercial & Industrial Waste T Stn Size: >= 25000 tonnes < 75000 tonnes Environmental Permitting Regulations (Waste) Licence Number: BPL011 EPR reference: EA/EPR/LP3792CY/S002 Operator: Brock Plc. Waste Management licence No: 53426 Annual Tonnage: 25000.0	Issue Date: 07/10/1992 Effective Date: - Modified: - Surrendered Date: 18/05/2004 Expiry Date: - Cancelled Date: - Status: Progress Site Name: Luton Street Transfer Station Correspondence Address: -

4. Current Land Use Map



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Site Outline

★ Current Industrial Sites

— Electricity Transmission Cables

— 250 —
— 500 — Search Buffers (m)

● Petrol & Fuel Sites

— Gas Transmission Pipelines

4. Current Land Uses

4.1 Current Industrial Data

Records of potentially contaminative industrial sites within 250m of the study site:

66

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

ID	Distance (m)	Direction	Company	NGR	Address	Activity	Category
1A	0	On Site	Electric Vehicle Controls UK Ltd	334355 391324	98-100, Vauxhall Road, Liverpool, L3 6EZ	Electrical and Electronic Engineers	Engineering Services
2A	0	On Site	A A Fork Truck & Engineering Ltd	334355 391324	98-100, Vauxhall Road, Liverpool, L3 6EZ	Lifting and Handling Equipment	Industrial Products
3	20	S	Millwrights Liverpool Ltd	334407 391304	Unit 1 13-15, Oriol Street, Liverpool, L3 6DU	Metalworkers Including Blacksmiths	Construction Services
4	25	S	Electricity Sub Station	334447 391307	L3	Electrical Features	Infrastructure and Facilities
5B	30	N	M I A Rubber & Gaskets	334442 391376	25, Paul Street, Liverpool, L3 6DX	General Construction Supplies	Industrial Products
6	31	N	Safe & Warm	334360 391362	Unit 1 7 Paul Street, Liverpool, L3 6DX	Construction Completion Services	Construction Services
7	38	SW	Croft Autos	334294 391287	Vauxhall Business Centre 131, Vauxhall Road, Liverpool, L3 6BN	Vehicle Repair, Testing and Servicing	Repair and Servicing
8B	39	N	Buckley M O T Centre	334441 391385	8, Blackstock Street, Liverpool, L3 6ET	Vehicle Repair, Testing and Servicing	Repair and Servicing
9	40	N	Lewis Howes	334412 391380	19, Paul Street, Liverpool, L3 6DX	Signs	Industrial Products
10C	40	S	Electricity Sub Station	334381 391280	L3	Electrical Features	Infrastructure and Facilities
11C	46	S	Warehouse	334371 391272	L3	Container and Storage	Transport, Storage and Delivery
12	48	N	M & S Metals	334433 391393	6a Blackstock Street, Liverpool, L3 6ET	Metals Manufacturers, Fabricators and Stockholders	Industrial Products
13D	62	S	D O F A S	334358 391252	74, Vauxhall Road, Liverpool, L3 6DL	Office and Shop Equipment	Industrial Products
14	63	S	Custom Print	334381 391256	13-23, Naylor Street, Liverpool, L3 6DR	Published Goods	Industrial Products
15E	66	S	J G McVey & Co Ltd	334421 391260	25-27, Naylor Street, Liverpool, L3 6DR	Demolition Services	Construction Services
16D	74	S	Warehouse	334380 391245	L3	Container and Storage	Transport, Storage and Delivery
17D	75	S	Depot	334352 391239	L3	Container and Storage	Transport, Storage and Delivery

ID	Distance (m)	Direction	Company	NGR	Address	Activity	Category
18E	75	S	Green Spot Com Ltd	334439 391254	37-39, Naylor Street, Liverpool, L3 6DR	Radar and Telecommunications Equipment	Industrial Products
19E	77	S	Works	334422 391250	L3	Unspecified Works Or Factories	Industrial Features
20	78	S	Warehouse	334439 391252	L3	Container and Storage	Transport, Storage and Delivery
21G	81	N	Electricity Sub Station	334434 391427	L3	Electrical Features	Infrastructure and Facilities
22F	84	N	City Automobile Repairs	334350 391414	Unit 7 Blackstock Street, Liverpool, L3 6ET	Vehicle Repair, Testing and Servicing	Repair and Servicing
23F	85	N	Warehouse	334348 391415	L3	Container and Storage	Transport, Storage and Delivery
24G	85	N	Factory	334448 391433	L3	Unspecified Works Or Factories	Industrial Features
25	85	N	Warehouse	334368 391419	L3	Container and Storage	Transport, Storage and Delivery
26F	88	N	Acropolis Marble	334348 391418	7-9, Blackstock Street, Liverpool, L3 6EP	Fireplaces and Mantelpieces	Consumer Products
27	90	N	Warehouse	334322 391415	L3	Container and Storage	Transport, Storage and Delivery
28G	91	N	Downland Bedding Company Ltd	334441 391438	23, Blackstock Street, Liverpool, L3 6ER	Carpets, Flooring, Rugs and Soft Furnishings	Consumer Products
29	97	NW	Hertz Car Hire	334273 391406	141, Vauxhall Road, Liverpool, L3 6BN	Vehicle Hire and Rental	Hire Services
30	99	S	Depot	334291 391217	L3	Container and Storage	Transport, Storage and Delivery
31	103	N	Depot	334482 391447	L3	Container and Storage	Transport, Storage and Delivery
32H	104	N	Aleo Plating Ltd	334338 391432	132-138, Vauxhall Road, Liverpool, L3 6EY	Industrial Coatings and Finishings	Industrial Products
33	105	S	Depot	334424 391222	L3	Container and Storage	Transport, Storage and Delivery
34	105	W	Vauxhall Business Centre	334221 391296	L3	Business Parks and Industrial Estates	Industrial Features
35	105	S	Kerrigans North West Ltd	334354 391208	4, Naylor Street, Liverpool, L3 6DR	Vehicle Repair, Testing and Servicing	Repair and Servicing
36	107	S	Depot	334381 391212	L3	Container and Storage	Transport, Storage and Delivery
37H	109	N	Sheel Commercial Repairs	334347 391439	2A, Ford Street, Liverpool, L3 6EX	Vehicle Repair, Testing and Servicing	Repair and Servicing
38	115	SW	Works	334259 391216	L3	Unspecified Works Or Factories	Industrial Features
39I	118	S	Depot	334454 391214	L3	Container and Storage	Transport, Storage and Delivery
40	119	N	Depot	334385 391456	L3	Container and Storage	Transport, Storage and Delivery
41	119	N	Warehouse	334430 391465	L3	Container and Storage	Transport, Storage and Delivery

ID	Distance (m)	Direction	Company	NGR	Address	Activity	Category
42I	120	S	K & P Autos Ltd	334469 391214	29-31, Freemasons Row, Liverpool, L3 2DJ	Vehicle Repair, Testing and Servicing	Repair and Servicing
43	127	NW	Warehouse	334265 391437	L3	Container and Storage	Transport, Storage and Delivery
44J	131	S	Xact T/A Lawtons Ltd	334373 391185	60, Vauxhall Road, Liverpool, L3 6DL	Packaging	Industrial Products
45J	131	S	Profile Education	334373 391185	60, Vauxhall Road, Liverpool, L3 6DL	Educational Equipment and Supplies	Industrial Products
46	133	N	Wks	334497 391473	L3	Unspecified Works Or Factories	Industrial Features
47K	135	SW	Warehouse	334230 391214	L3	Container and Storage	Transport, Storage and Delivery
48	137	S	Warehouse	334476 391199	L3	Container and Storage	Transport, Storage and Delivery
49K	141	SW	Electricity Sub Station	334213 391224	L3	Electrical Features	Infrastructure and Facilities
50	141	S	Works	334277 391177	L3	Unspecified Works Or Factories	Industrial Features
51	142	NE	Works	334537 391463	L3	Unspecified Works Or Factories	Industrial Features
52	144	S	John Sutch Cranes	334452 391187	9-27, Freemasons Row, Liverpool, L3 2DJ	Construction and Tool Hire	Hire Services
53	148	NW	Works	334194 391397	L3	Unspecified Works Or Factories	Industrial Features
54	153	SW	Works	334186 391246	L3	Unspecified Works Or Factories	Industrial Features
55	178	NE	Works	334581 391471	L3	Unspecified Works Or Factories	Industrial Features
56	200	NE	Works	334606 391477	L3	Unspecified Works Or Factories	Industrial Features
57	208	NW	Tank	334225 391508	L3	Tanks (Generic)	Industrial Features
58	211	NE	Gantry	334578 391518	L3	Travelling Cranes and Gentries	Industrial Features
59	211	E	Electricity Sub Station	334659 391279	L3	Electrical Features	Infrastructure and Facilities
60L	216	SW	Liverpool Plastic Bonding Ltd	334143 391192	63-65, Gascoyne Street, Liverpool, L3 6BS	Office and Shop Equipment	Industrial Products
61L	218	SW	Works	334139 391197	L3	Unspecified Works Or Factories	Industrial Features
62	225	W	Sky Scaffold	334112 391236	Pumpfields Road, Liverpool, L3 6BA	Construction and Tool Hire	Hire Services
63	229	W	McKennas Marine Ltd	334098 391276	Pumpfields Road, Liverpool, L3 6BA	Marine Engineers and Services	Engineering Services
64	235	NE	Discount PC Repairs	334545 391564	20, Summer Seat, Liverpool, L3 6HB	Electrical Equipment Repair and Servicing	Repair and Servicing
65M	247	W	Works	334093 391414	L3	Unspecified Works Or Factories	Industrial Features
66M	249	NW	Works	334095 391425	L3	Unspecified Works Or Factories	Industrial Features

4.2 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 (m)	Direction	NGR	Company	Address	LPG	Status
67	231	SW	334191 391122	Total	Leeds Street Service Station, Leeds Street, Leeds Street, Liverpool, Merseyside, L3 6AT	Not Applicable	Obsolete
68	262	S	334393 391056	Save	Vauxhall Service Station, 38, Vauxhall Road, Vauxhall Road, Midghall Street & Marlborough Street, Liverpool, Merseyside, L3 6DJ	Not Applicable	Obsolete

4.3 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.

4.4 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.

5. Geology

5.1 Artificial Ground and Made Ground

Database searched and no data found.

The database has been searched on site, including a 50m buffer.

5.2 Superficial Ground and Drift Geology

The database has been searched on site, including a 50m buffer.

Lex Code	Description	Rock Type
TILLD	TILL, DEVENSIAN	CLAY, SANDY, GRAVELLY, COBBLY [UNLITHIFIED DEPOSITS CODING SCHEME]

5.3 Bedrock and Solid Geology

The database has been searched on site, including a 50m buffer.

Lex Code	Description	Rock Type
WLSF-SDST	WILMSLOW SANDSTONE FORMATION	SANDSTONE

(Derived from the BGS 1:50,000 Digital Geological Map of Great Britain)

6 Hydrogeology and Hydrology

6a. Aquifer Within Superficial Geology



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6b. Aquifer Within Bedrock Geology and Abstraction Licenses



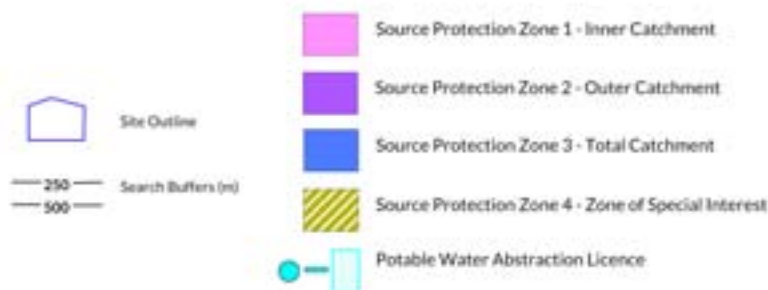
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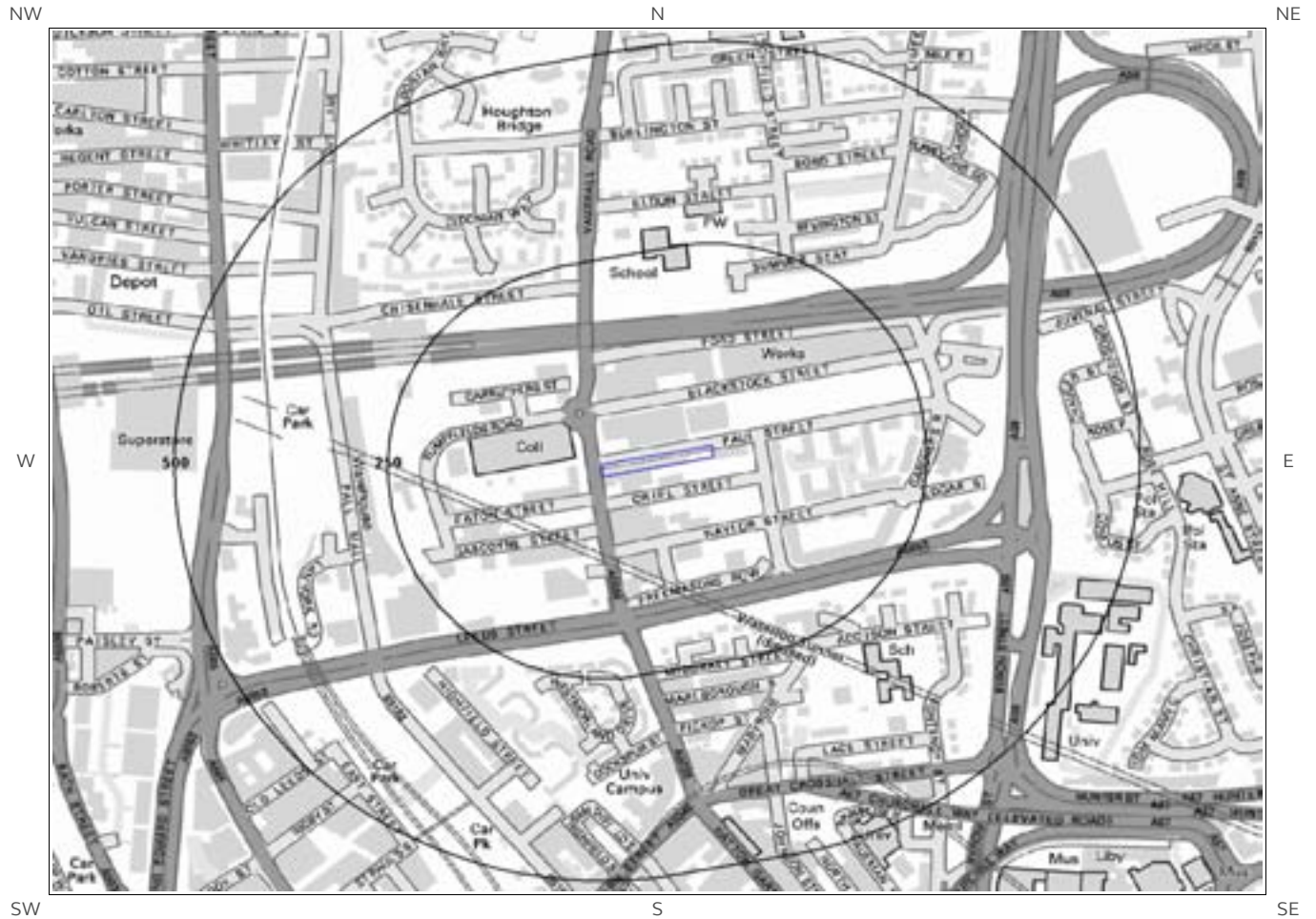
6c. Hydrogeology – Source Protection Zones and Potable Water Abstraction Licenses



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6d. Hydrogeology – Source Protection Zones within confined aquifer



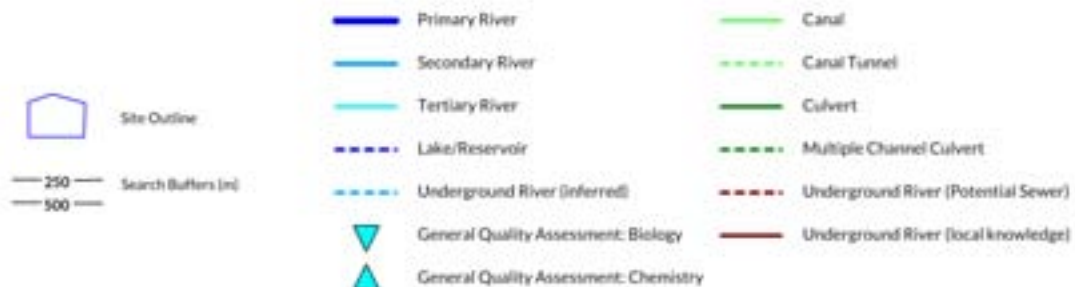
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6e. Hydrology – Detailed River Network and River Quality



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6. Hydrogeology and Hydrology

6.1 Aquifer within Superficial Deposits

Are there records of strata classification within the superficial geology at or in proximity to the property? Yes

From 1 April 2010, the Environment Agency's Groundwater Protection Policy has been using aquifer designations consistent with the Water Framework Directive. For further details on the designation and interpretation of this information, please refer to the Groundsure Enviro Insight User Guide.

The following aquifer records are shown on the Aquifer within Superficial Geology Map (6a):

ID	Distance (m)	Direction	Designation	Description
1	0	On Site	Secondary (undifferentiated)	Assigned where it is not possible to attribute either category A or B to a rock type. In general these layers have previously been designated as both minor and non-aquifer in different locations due to the variable characteristics of the rock type

6.2 Aquifer within Bedrock Deposits

Are there records of strata classification within the bedrock geology at or in proximity to the property? Yes

From 1 April 2010, the Environment Agency's Groundwater Protection Policy has been using aquifer designations consistent with the Water Framework Directive. For further details on the designation and interpretation of this information, please refer to the Groundsure Enviro Insight User Guide.

The following aquifer records are shown on the Aquifer within Bedrock Geology Map (6b):

ID	Distance (m)	Direction	Designation	Description
1	0	On Site	Principal	Geology of high intergranular and/or fracture permeability, usually providing a high level of water storage and may support water supply/river base flow on a strategic scale. Generally principal aquifers were previously major aquifers

6.3 Groundwater Abstraction Licences

Are there any Groundwater Abstraction Licences within 2000m of the study site?

Yes

The following Abstraction Licences records are represented as points, lines and regions on the Aquifer within Bedrock Geology Map (6b):

ID	Distance (m)	Direction	NGR	Details
3	61	N	334400 391400	<p>Status: Historical Licence No: 2569030057 Details: General Washing/Process Washing Direct Source: Ground Water - North West Region Point: Borehole At 23 Blackstock Street, Liverpool Data Type: Point Name: DOWNLAND BEDDING COMPANY LTD</p> <p>Annual Volume (m³): - Max Daily Volume (m³): - Original Application No: 2844 Original Start Date: 17/1/1992 Expiry Date: - Issue No: 100 Version Start Date: 11/4/1994 Version End Date:</p>
4A	188	E	334630 391410	<p>Status: Historical Licence No: 2569030032 Details: General use relating to Secondary Category (Medium Loss) Direct Source: Ground Water - North West Region Point: "borehole At Blackstock Street, Liverpool" Data Type: Point Name: W F DOYLE & CO LTD</p> <p>Annual Volume (m³): - Max Daily Volume (m³): - Original Application No: 1039 Original Start Date: 3/2/1966 Expiry Date: - Issue No: 100 Version Start Date: 22/12/1995 Version End Date:</p>
5A	188	E	334630 391410	<p>Status: Historical Licence No: 2569030032 Details: Dust Suppression Direct Source: Ground Water - North West Region Point: Borehole At Blackstock Street, Liverpool Data Type: Point Name: W F DOYLE & CO LTD</p> <p>Annual Volume (m³): 299905 Max Daily Volume (m³): 2182 Original Application No: 1039 Original Start Date: 3/2/1966 Expiry Date: - Issue No: 100 Version Start Date: 22/12/1995 Version End Date:</p>
6A	188	E	334630 391410	<p>Status: Historical Licence No: 2569030032 Details: General Washing/Process Washing Direct Source: Ground Water - North West Region Point: "borehole At Blackstock Street, Liverpool" Data Type: Point Name: W F DOYLE & CO LTD</p> <p>Annual Volume (m³): - Max Daily Volume (m³): - Original Application No: 1039 Original Start Date: 3/2/1966 Expiry Date: - Issue No: 100 Version Start Date: 22/12/1995 Version End Date:</p>
7A	188	E	334630 391410	<p>Status: Historical Licence No: 2569030032 Details: General Washing/Process Washing Direct Source: Ground Water - North West Region Point: Borehole At Blackstock Street, Liverpool Data Type: Point Name: W F DOYLE & CO LTD</p> <p>Annual Volume (m³): 299905 Max Daily Volume (m³): 2182 Original Application No: 1039 Original Start Date: 3/2/1966 Expiry Date: - Issue No: 100 Version Start Date: 22/12/1995 Version End Date:</p>
8A	188	E	334630 391410	<p>Status: Historical Licence No: 2569030032 Details: General Use Relating To Secondary Category (Medium Loss) Direct Source: Ground Water - North West Region Point: Borehole At Blackstock Street, Liverpool Data Type: Point Name: W F DOYLE & CO LTD</p> <p>Annual Volume (m³): 299905 Max Daily Volume (m³): 2182 Original Application No: 1039 Original Start Date: 3/2/1966 Expiry Date: - Issue No: 100 Version Start Date: 22/12/1995 Version End Date:</p>

ID	Distance (m)	Direction	NGR	Details	
9A	188	E	334630 391410	Status: Historical Licence No: 2569030032 Details: Dust suppression Direct Source: Ground Water - North West Region Point: "borehole At Blackstock Street, Liverpool" Data Type: Point Name: W F DOYLE & CO LTD	Annual Volume (m³): - Max Daily Volume (m³): - Original Application No: 1039 Original Start Date: 3/2/1966 Expiry Date: - Issue No: 100 Version Start Date: 22/12/1995 Version End Date:
10B	482	SW	334011 390944	Status: Historical Licence No: 2569030066/R01 Details: Heat Pump Direct Source: Ground Water - North West Region Point: Bh(c) At St Paul's Square Off Old Hall St Liverpool L3 9sy Data Type: Point Name: ECF (GENERAL PARTNER) LTD	Annual Volume (m³): 340000 Max Daily Volume (m³): 1700 Original Application No: NPS/WR/017597 Original Start Date: 1/4/2015 Expiry Date: 31/3/2028 Issue No: 1 Version Start Date: 1/4/2015 Version End Date:
11B	486	SW	334010 390940	Status: Historical Licence No: 2569030066 Details: Non-Evaporative Cooling Direct Source: Ground Water - North West Region Point: Bh(c) At St Paul's Square Off Old Hall St Liverpool L3 9sy Data Type: Point Name: ECF (GENERAL PARTNER) LTD	Annual Volume (m³): 340000 Max Daily Volume (m³): 1700 Original Application No: 7563 Original Start Date: 10/8/2006 Expiry Date: 31/3/2015 Issue No: 1 Version Start Date: 10/8/2006 Version End Date:
12B	492	SW	334000 390940	Status: Historical Licence No: 2569030066 Details: Non-Evaporative Cooling Direct Source: Ground Water - North West Region Point: Bh(b) At St Paul's Square Off Old Hall St Liverpool L3 9sy Data Type: Point Name: ECF (GENERAL PARTNER) LTD	Annual Volume (m³): 340000 Max Daily Volume (m³): 1700 Original Application No: 7563 Original Start Date: 10/8/2006 Expiry Date: 31/3/2015 Issue No: 1 Version Start Date: 10/8/2006 Version End Date:
13B	495	SW	334002 390935	Status: Historical Licence No: 2569030066/R01 Details: Heat Pump Direct Source: Ground Water - North West Region Point: Bh(b) At St Paul's Square Off Old Hall St Liverpool L3 9sy Data Type: Point Name: ECF (GENERAL PARTNER) LTD	Annual Volume (m³): 340000 Max Daily Volume (m³): 1700 Original Application No: NPS/WR/017597 Original Start Date: 1/4/2015 Expiry Date: 31/3/2028 Issue No: 1 Version Start Date: 1/4/2015 Version End Date:
Not shown	773	SW	333848 390702	Status: Historical Licence No: 2569030065R01 Details: Heat Pump Direct Source: Ground Water - North West Region Point: Pipeline At Georges Dock Pumping Station, Mann Island Lpool Data Type: Point Name: TRINITY MIRROR PLC	Annual Volume (m³): 2300000 Max Daily Volume (m³): 6301 Original Application No: NPS/WR/018830 Original Start Date: 14/4/2015 Expiry Date: 31/3/2028 Issue No: 1 Version Start Date: 14/4/2015 Version End Date:
Not shown	773	SW	333848 390702	Status: Historical Licence No: 2569030065R01 Details: Non-Evaporative Cooling Direct Source: Ground Water - North West Region Point: Pipeline At Georges Dock Pumping Station, Mann Island Lpool Data Type: Point Name: TRINITY MIRROR PLC	Annual Volume (m³): 2300000 Max Daily Volume (m³): 6301 Original Application No: NPS/WR/018830 Original Start Date: 14/4/2015 Expiry Date: 31/3/2028 Issue No: 1 Version Start Date: 14/4/2015 Version End Date:

ID	Distance (m)	Direction	NGR	Details	
Not shown	779	SW	333840 390700	Status: Historical Licence No: 2569030065 Details: Heat Pump Direct Source: Ground Water - North West Region Point: Pipeline At Georges Dock Pumping Station, Mann Island Lpool Data Type: Point Name: TRINITY MIRROR PLC	Annual Volume (m³): 2300000 Max Daily Volume (m³): 6301.5 Original Application No: 7538 Original Start Date: 28/4/2004 Expiry Date: - Issue No: 1 Version Start Date: 28/4/2004 Version End Date:
Not shown	779	SW	333840 390700	Status: Historical Licence No: 2569030065 Details: Non-Evaporative Cooling Direct Source: Ground Water - North West Region Point: Pipeline At Georges Dock Pumping Station, Mann Island Lpool Data Type: Point Name: TRINITY MIRROR PLC	Annual Volume (m³): 2300000 Max Daily Volume (m³): 6301.5 Original Application No: 7538 Original Start Date: 28/4/2004 Expiry Date: - Issue No: 1 Version Start Date: 28/4/2004 Version End Date:
Not shown	1768	E	336145 390813	Status: Historical Licence No: NW/069/0030/009 Details: Heat Pump Direct Source: Ground Water - North West Region Point: Borehole A - Prescott Street Data Type: Point Name: McGreavy	Annual Volume (m³): 543120 Max Daily Volume (m³): 1488 Original Application No: NPS/WR/010468 Original Start Date: 6/8/2012 Expiry Date: 31/3/2028 Issue No: 1 Version Start Date: 6/8/2012 Version End Date:

6.4 Surface Water Abstraction Licences

Are there any Surface Water Abstraction Licences within 2000m of the study site?

No

Database searched and no data found.

6.5 Potable Water Abstraction Licences

Are there any Potable Water Abstraction Licences within 2000m of the study site?

No

Database searched and no data found.

6.6 Source Protection Zones

Are there any Source Protection Zones within 500m of the study site?

No

Database searched and no data found.

6.7 Source Protection Zones within Confined Aquifer

Are there any Source Protection Zones within the Confined Aquifer within 500m of the study site? No

Historically, Source Protection Zone maps have been focused on regulation of activities which occur at or near the ground surface, such as prevention of point source pollution and bacterial contamination of water supplies. Sources in confined aquifers were often considered to be protected from these surface pressures due to the presence of a low permeability confining layer (e.g. glacial till, clay). The increased interest in subsurface activities such as onshore oil and gas exploration, ground source heating and cooling requires protection zones for confined sources to be marked on SPZ maps where this has not already been done.

Database searched and no data found.

6.8 Groundwater Vulnerability and Soil Leaching Potential

Is there any Environment Agency information on groundwater vulnerability and soil leaching potential within 500m of the study site? Yes

Distance (m)	Direction	Classification	Soil Vulnerability Category	Description
0	On Site	Major Aquifer/High Leaching Potential	HU	Soil information for urban areas and restored mineral workings. These soils are therefore assumed to be highly permeable in the absence of site-specific information.

6.9 River Quality

Is there any Environment Agency information on river quality within 1500m of the study site? Yes

6.9.1 Biological Quality:

Database searched and no data found.

Chemical quality data is based on the General Quality Assessment Headline Indicators scheme (GQAHl). In England, each chemical sample is measured for ammonia and dissolved oxygen. In Wales, the samples are measured for biological oxygen demand (BOD), ammonia and dissolved oxygen. The results are graded from A ('Very Good') to F ('Bad').

The following Chemical Quality records are shown on the Hydrology Map (6e):

ID	Distance (m)	Direction	NGR	River Quality Grade	Chemical Quality Grade				
					2005	2006	2007	2008	2009
Not shown	884	NW	333900 392100	River Name: Leeds/Liverpool Canal Reach: Liverpool Docks To Warehouse Halsall End/Start of Stretch: Start of Stretch NGR	B	C	B	C	C

6.10 Detailed River Network

Are there any Detailed River Network entries within 500m of the study site?

No

Database searched and no data found.

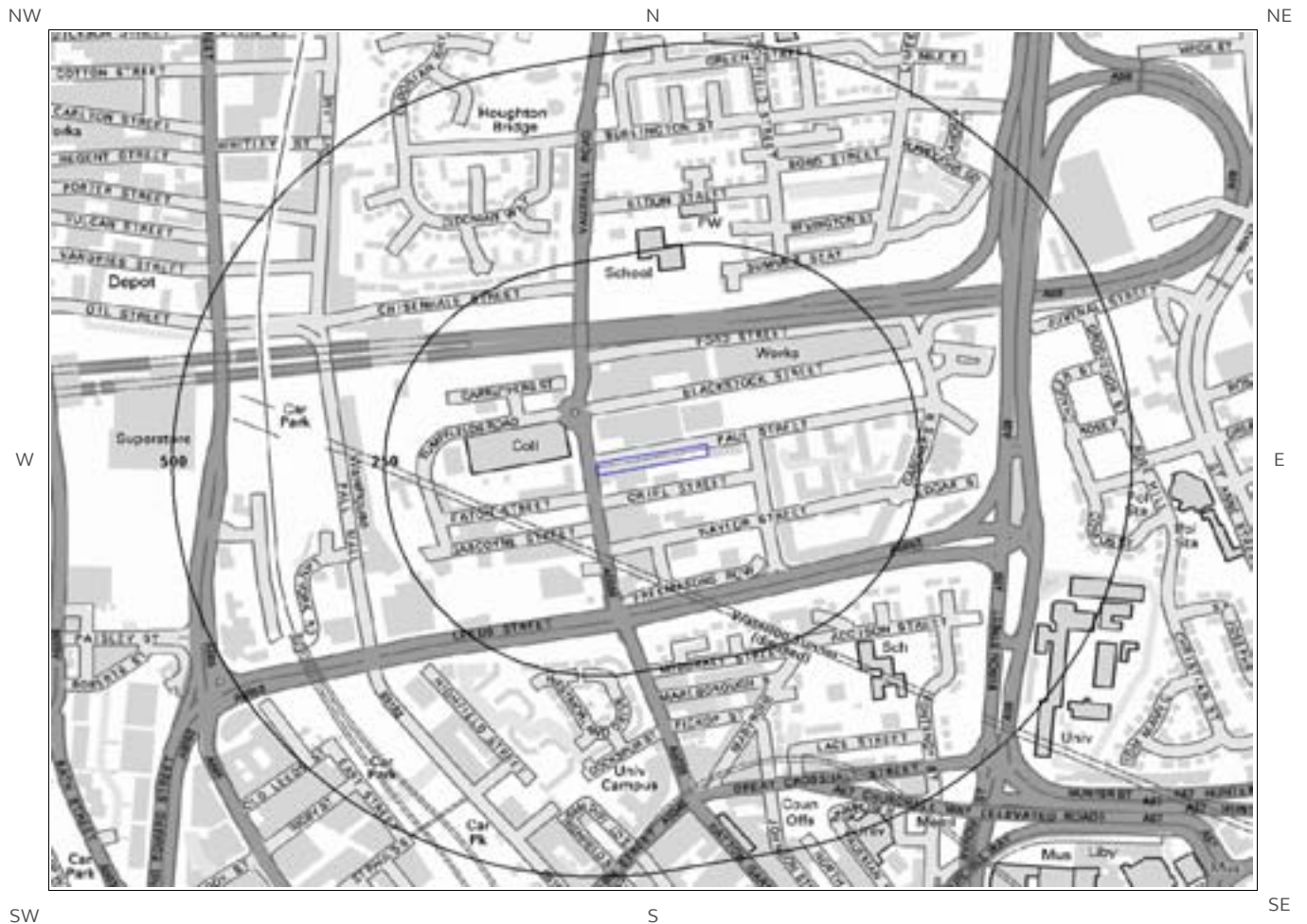
6.11 Surface Water Features

Are there any surface water features within 250m of the study site?

No

Database searched and no data found.

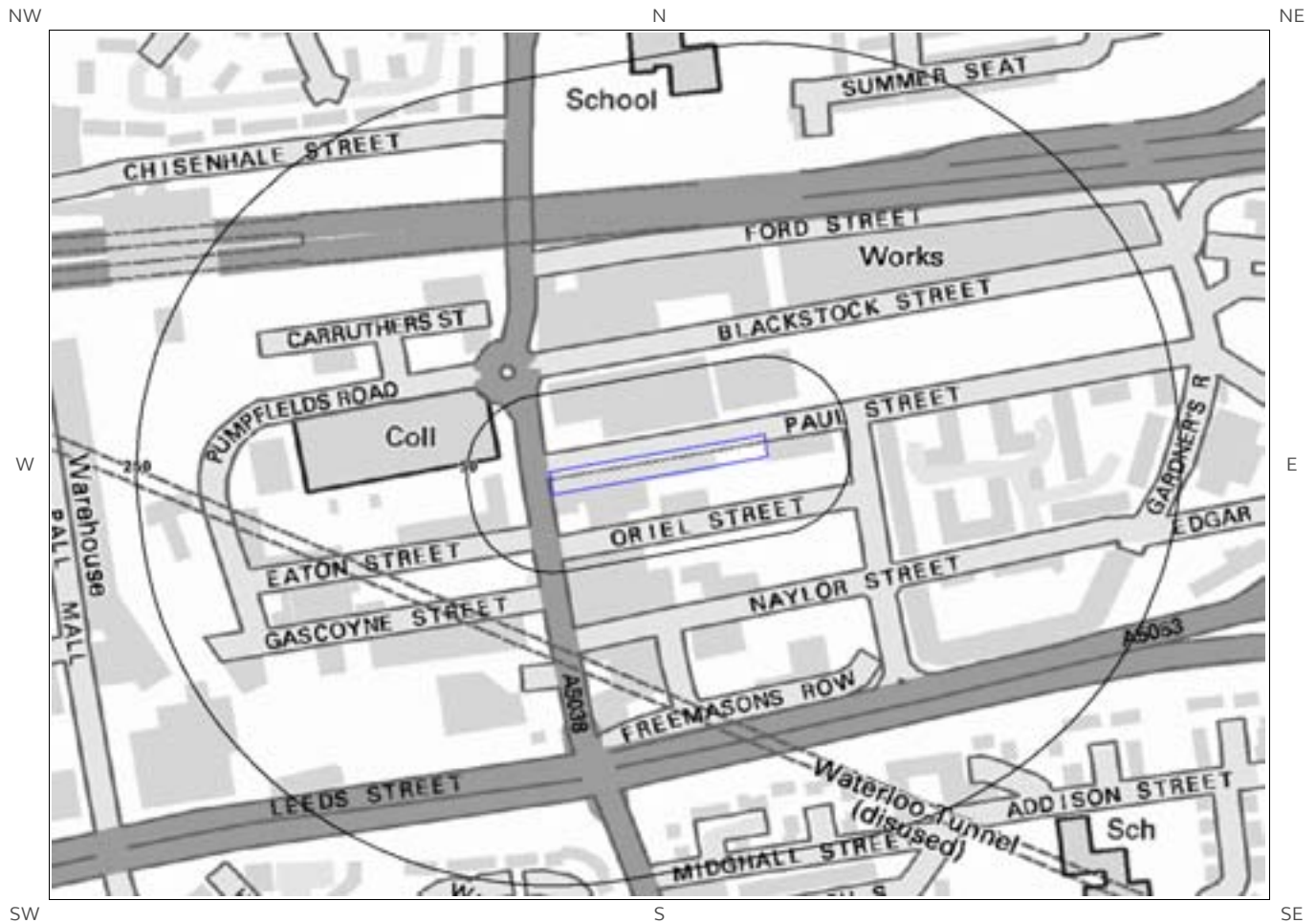
7a. Environment Agency Flood Map for Planning (from rivers and the sea)



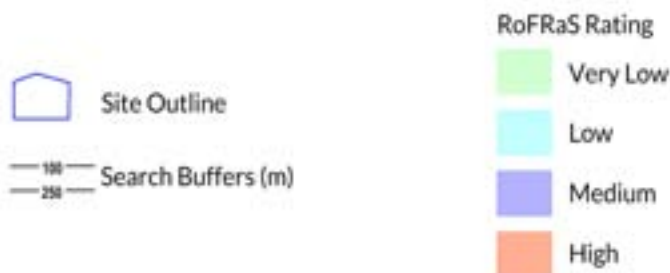
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7b. Environment Agency Risk of Flooding from Rivers and the Sea (RoFRaS) Map



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7 Flooding

7.1 River and Coastal Zone 2 Flooding

Is the site within 250m of an Environment Agency Zone 2 floodplain? No

Environment Agency Zone 2 floodplains estimate the annual probability of flooding as between 1 in 1000 (0.1%) and 1 in 100 (1%) from rivers and between 1 in 1000 (0.1%) and 1 in 200 (0.5%) from the sea. Any relevant data is represented on Map 7a – Flood Map for Planning:

Database searched and no data found.

7.2 River and Coastal Zone 3 Flooding

Is the site within 250m of an Environment Agency Zone 3 floodplain? No

Zone 3 shows the extent of a river flood with a 1 in 100 (1%) or greater chance of occurring in any year or a sea flood with a 1 in 200 (0.5%) or greater chance of occurring in any year. Any relevant data is represented on Map 7a – Flood Map for Planning.

Database searched and no data found.

7.3 Risk of Flooding from Rivers and the Sea (RoFRaS) Flood Rating

What is the highest risk of flooding onsite? Very Low

The Environment Agency RoFRaS database provides an indication of river and coastal flood risk at a national level on a 50m grid with the flood rating at the centre of the grid calculated and given above. The data considers the probability that the flood defences will overtop or breach by considering their location, type, condition and standard of protection.

RoFRaS data for the study site indicates the property is in an area with a Very Low (less than 1 in 1000) chance of flooding in any given year.

7.4 Flood Defences

Are there any Flood Defences within 250m of the study site? No
Database searched and no data found.

7.5 Areas benefiting from Flood Defences

Are there any areas benefiting from Flood Defences within 250m of the study site? No

7.6 Areas benefiting from Flood Storage

Are there any areas used for Flood Storage within 250m of the study site?

No

7.7 Groundwater Flooding Susceptibility Areas

7.7.1 Are there any British Geological Survey groundwater flooding susceptibility areas within 50m of the boundary of the study site? Yes

Does this relate to Clearwater Flooding or Superficial Deposits Flooding?

Clearwater Flooding

Notes: Groundwater flooding may either be associated with shallow unconsolidated sedimentary aquifers which overlie unproductive aquifers (Superficial Deposits Flooding), or with unconfined aquifers (Clearwater Flooding).

7.7.2 What is the highest susceptibility to groundwater flooding in the search area based on the underlying geological conditions?

Limited potential

Where limited potential for groundwater flooding to occur is indicated, this means that although given the geological conditions there may be a groundwater flooding hazard, unless other relevant information, e.g. records of previous flooding, suggests groundwater flooding has occurred before in this area, you need take no further action in relation to groundwater flooding hazard.

7.8 Groundwater Flooding Confidence Areas

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

Low

Notes: 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.

8. Designated Environmentally Sensitive Sites Map



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8. Designated Environmentally Sensitive Sites

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

Yes

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

2

The following Site of Special Scientific Interest (SSSI) records provided by Natural England/Natural Resources Wales are represented as polygons on the Designated Environmentally Sensitive Sites Map:

ID	Distance (m)	Direction	SSSI Name	Data Source
Not shown	1743	W	Mersey Narrows	Natural England
Not shown	1790	W	Mersey Narrows	Natural England

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

0

Database searched and no data found.

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

0

Database searched and no data found.

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

1

The following Special Protection Area (SPA) records provided by Natural England/Natural Resources Wales are represented as polygons on the Designated Environmentally Sensitive Sites Map:

ID	Distance (m)	Direction	SPA Name	Data Source
Not shown	1743	W	Mersey Narrows & North Wirral Foreshore	Natural England

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

1

The following Ramsar records provided by Natural England/Natural Resources Wales are represented as polygons on the Designated Environmentally Sensitive Sites Map:

ID	Distance (m)	Direction	Ramsar Site Name	Ramsar Site Status	Data Source
Not shown	1743	W	Mersey Narrows & North Wirral Foreshore	Listed	Natural England

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

0

Database searched and no data found.

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

0

Database searched and no data found.

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

2

The following World Heritage Site records provided by English Heritage and Cadw are represented as polygons on the Designated Environmentally Sensitive Sites Map:

ID	Distance (m)	Direction	World Heritage Site Name	Data Source
5	178	S	Liverpool - Maritime Mercantile City Buffer Zone	English Heritage
6	479	S	Liverpool - Maritime Mercantile City	English Heritage

8.9 Records of Environmentally Sensitive Areas within 2000m of the study site:

0

Database searched and no data found.

8.10 Records of Areas of Outstanding Natural Beauty (AONB) within 2000m of the study site:

0

Database searched and no data found.

8.11 Records of National Parks (NP) within 2000m of the study site:

0

Database searched and no data found.

8.12 Records of Nitrate Sensitive Areas within 2000m of the study site:

0

Database searched and no data found.

8.13 Records of Nitrate Vulnerable Zones within 2000m of the study site:

1

The following Nitrate Vulnerable Zone records produced by DEFRA are represented as polygons on the Designated Environmentally Sensitive Sites Map:

ID	Distance (m)	Direction	NVZ Name	Data Source
7	1600	NE	Existing	DEFRA

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

0

Database searched and no data found.

9. Natural Hazards Findings

9.1 Detailed BGS GeoSure Data

BGS GeoSure Data has been searched to 50m. The data is included in tabular format. If you require further information on geology and ground stability, please obtain a **Groundsure Geo Insight**, available from our **website**. The following information has been found:

9.1.1 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:

Hazard
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.

9.1.2 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:

Hazard
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.

9.1.3 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:

Hazard
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.

* This indicates an automatically generated 50m buffer and site.

9.1.4 Compressible Ground

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

Negligible

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

Hazard
No indicators for compressible deposits identified. No special actions required to avoid problems due to compressible deposits. No special ground investigation required, and increased construction costs or increased financial risks are unlikely due to potential problems with compressible deposits.

9.1.5 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:

Hazard
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.

9.1.6 Running Sand

What is the maximum Running Sand** 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:

Hazard
Very low potential for running sand problems if water table rises or if sandy strata are exposed to water. No special actions required, to avoid problems due to running sand. No special ground investigation required, and increased construction costs or increased financial risks are unlikely due to potential problems with running sand.

9.2 Radon

9.2.1 Radon Affected Areas

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

* This indicates an automatically generated 50m buffer and site.

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

10. Mining

10.1 Coal Mining

Are there any coal mining areas within 75m of the study site? No

Database searched and no data found.

10.2 Non-Coal Mining

Are there any Non-Coal Mining areas within 50m of the study site boundary? No

Database searched and no data found.

10.3 Brine Affected Areas

Are there any brine affected areas within 75m of the study site? No

Guidance: No Guidance Required.

Contact Details

CENTREMAPS

Telephone: #CustomerHelpLine#
Groundsure@centremaps.co.uk



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Web: www.bgs.ac.uk

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DX 716176 Mansfield 5
www.coal.gov.uk



The Coal
Authority

Ordnance Survey

Adanac Drive, Southampton
SO16 0AS
Tel: 08456 050505



Local Authority

Authority: Liverpool City Council
Phone: 0151 233 3000
Web: <http://www.liverpool.gov.uk/>
Address: Municipal Buildings, Dale Street, Liverpool, L2 2DH

Gemapping PLC

Virginia Villas, High Street, Hartley Witney,
Hampshire RG27 8NW
Tel: 01252 845444



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