



Contaminated Land Phase One Desk Study for Proposed Residential Dwelling at, Land adjacent 58 Common Edge Road, Blackpool, FY4 5AU.

Prepared for

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Summary

This report consists of a phase one contaminated land desk study produced in support of planning application for a residential property on land at 58 Common Edge Road, Blackpool, FY4 5AU.

Following the site walkover and review of the available information it has been concluded that no contamination exists which poses a significant risk of significant harm to the identified receptors either on site or in the immediate vicinity and the site is considered safe and suitable for the intended use.

The report further recommends that a watching brief is maintained throughout the construction of the new dwellings and any signs of potential contamination found are fully investigated, with appropriate remedial action taken as necessary.



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Introduction

Martin Environmental Solutions has been commissioned, to carry out a phase one contaminated land desk study report in relation to a proposed residential development on land at 58 Common Edge Road, Blackpool, FY4 5AU.

Aims and Objectives of the report

The aims and objectives of this report are as follows:

- Assess the likelihood of contamination affecting the site,
- Identify any likely receptors to be affected by the potential contamination,
- Identify the pathways by which the receptors will be exposed to any potential contamination,
- Identify any areas where further investigation will be required.

Scope of works

This report has been written in line with the 'BS 10175: 2011+A2: 2017 Investigation of potentially contaminated sites – Code of Practice' and 'The Model Procedures for the Management of Land Contamination, CLR11'.

The scope of this report covers the phase one desk study only. It will look at relevant information on: -

- the history of the site and surrounding area,
- the current use of the site and surrounding area,
- the geology and hydrogeology of the area,

A site walk-over survey has been undertaken in addition to consultations with the existing site owner, to identify any potential contamination issues.

Evaluation of the above information will be used to construct an initial conceptual model as appropriate, with the identification of any additional investigations that may be required.



The Site:

Site Address: 58 Common Edge Road, Blackpool, FY4 5AU.

Grid reference: 332648; 432830

An aerial photograph of the site is included in Figure 1.

Current Site use:

The site currently consists of the property 58 Common Edge Road to the north of the larger site, with a garage and outbuildings to the rear. The remainder of the site which is to be developed is currently overgrown, approx. square and covers an area of approx. 0.17ha.

Common Edge Road runs to the west of the site and residential properties surround the site to the north, east and south.

Research

Details of Research

This report has been based on information gathered from a number of reputable sources, covering details:

- on the historic and current use of the site,
- any known waste disposal activities in the area,
- any regulated industrial activities within the vicinity of the site including recorded industrial accidents,
- on the geology, hydrogeology, hydrology of the area,
- identification of any environmentally sensitive sites,
- any natural hazards.

Principle sources of this information have been:

- environmental data from Groundsure Limited
- the Local Planning Authority,
- historic maps (Groundsure Ltd),
- site walk-over survey and discussion with the current owners.



Site History

Information on the historic uses of the site has been obtained from historic mapping information (Appendix 2), and environmental data from Groundsure Limited.

Mapping Year	Changes on Site	Changes off Site
1848	The site forms part of a larger field. Common Edge Road is shown to the immediate west of the site.	The area is predominantly agricultural. A couple of properties are shown to the west and south.
1891	No Change	A couple of residential properties are shown along Bennetts lane to the south, and along Common Edge Road to the west.
1910-11	No Change	No significant changes, more properties have been built in the area and a number of glasshouses.
1931-32	A large glasshouse has been built on site.	The Railway line has been built to the north (now Yeadon Way). More properties have been built in the surrounding area. Blackpool Race centre & Stables are shown to the west +280m away, with the Greyhound track beyond 500-750m. A confectionary works is identified 80m to the northwest, more glasshouses are shown in the surrounding area.
1938	No Change	More residential development in the area. The Racecourse is no longer shown with a school having been built to the north and housing on the track. There are more glasshouses in the area. A printing works is shown behind the confectionary works to the west ~120m away. The Highfield pub and bowling green area shown to the north.
1951	No Change	No significant changes – more residential development in the wider area.
1963-64	Another smaller glasshouse has been built to the north of the	The industrial estate to the south of Squires Gate Ln has been built.



	site and two smaller buildings are shown to the northern section	
1971	It is difficult to say from the mapping due to the scale but the glasshouse on site may have been expanded slightly.	No significant changes the are is heavily developed with significant housing to the west.
1981	No Change	No Significant Change, the Greyhound race course is now housing.
1985-87	The existing residential property has been built to the north of the site, along with the domestic garage behind. The glasshouse has been reduced in site and occupies the eastern section of the site.	No Significant Changes A filling station is shown to the south ~70m away and appears to have been present since 1963.
1992-93	A small building to the rear of the garage is shown	No Significant Changes
2002	No Change	No Significant Changes The filling station is shown as a house.
2010- prestrn	The glass house is no longer shown. Aerial photography shows that the glasshouse was not present in 2000.	No significant changes



Regulatory Information

Relevant information obtained from the Groundsure report (Appendix 1) is summarised below.

There are no permitted activities identified within 500m of the site as defined in the Environmental Permitting (England and Wales) Regulations 2010 or previous legislation.

No pollution incidents have been identified in the surrounding area.

One discharge consent is reported 208m east at Strawberry Villa, Bennetts Lane consisting of treated sewage.

The above identified site is unlikely to impact on the development site.

A total of 11 Landfill site record have been found in the area, the nearest of these is located 556m southeast of the site at Squires Gate Link Road consisting of inert waste, as are the next nearest sites located 615m north and 895m east.

909m southeast at School Road is the next nearest site accepting household waste.

18 additional landfill records have been identified covering 10 sites. The nearest 717m east at Fisher Lane is a landfill operated by Cumbrian industries Ltd. The next closest site 1028m east is a waste transfer station.

Given the distances and nature of the sites it is unlikely that the above sites will pose any risk to the development.

15 current potentially contaminative sites have been identified within 250m of the site. These consist of;

- Vehicle Repair and testing centres located 58m & 97m northwest
- A work 63m northwest
- Allpower electrical wholesale 66m northwest
- Warehouse 71m northwest and 111m west
- Braithwaites hardware shop 123m northwest
- Electricity Substations 129m northeast 199m northwest
- A curtains and blinds shop, cake shop and IT support business.

These are unlikely to impact on the site.



Historical potentially contaminative land uses have been identified within 250m of the site from the purchased information; most of these have been identified from the historical mapping and include:

On site nurseries

Other nurseries located 32m north, 166m east, 201m southeast, 281m northeast,

The substations to the north and northwest, 130m & 200m respectfully,

The filling station to the south, which has been a residential property since before 2000 according to aerial photographs.

Geology and Hydrogeology

Information from the British Geology Survey 1:50,000 mapping identifies the bedrock in the area as Singleton Mudstone Member and Mythop Halite Member overlaid with Blown Sand deposits. Nearby borehole records available from the British Geological Society confirm this.

The information obtained on the hydrogeology of the area identifies the site as having a Secondary A aquifer in the bedrock capable of supporting water supplies at a local rather than strategic scale, and in some cases forming an important source of base flow to rivers, with a Secondary B aquifer in the superficial layer.

No abstraction licenses have been identified in the area, and the site is not located within a Source Protection Zone.

The Groundwater vulnerability is described as HU due to the urbanisation of the area and therefore soils are assumed to be highly permeable.

Hydrology

There are a number of watercourses surrounding the site, generally flowing western towards the coast. The nearest is located 97m to the south.

The site is not within a floodplain, and the risk of flooding is classified as low.

Environmental Sensitivity

The only Environmental Sensitivity site identified is Blackpool Greenbelt located 1055m south of the site.



The property is in an area identified as having less than 1% of properties above the action level of 200 Becquerel's per cubic metre, based on specific property search. Radon protection measures are not required in line with BR211.

No additional natural hazards have been identified & the site has very low/negligible risk of shrink swell, running sand, and compressible ground.

There are no mining activities identified in the area.



Site Walkover

A site walkover was undertaken on the 7th July 2019 and confirmed much of what had already be identified from the information obtained. The photographs in Appendix 3 provide some indication of the current layout and condition of the site.

The site is accessed from Common Edge Road, and sits at a lower level than the road. It continues to drop towards the rear of the site and the properties behind.

The existing house is located along the northern boundary of the site with a domestic garage and garden sheds to the rear all in a dilapidated state.

The remainder of the site was overgrown with no signs of any other deposits, contamination dead or distressed vegetation identified.



Conclusions

Potential Contaminants

Following a review of the information gathered on the history of the site and the surrounding area and following the site walk-over survey, there are no contaminants identified on or off site that are likely to present a significant harm to any identified receptors.

The historic nursery on site has not been present for over 20years and is not considered to represent any risk to the future users of the site.

Receptors and Pathways

Potential receptors which may be affected by any unknown contamination on site will include:

- Construction workers who are likely to be affected by any potential contamination as they will initially be working in the ground and are likely to be the ones who unearth any potential contaminants.
- Future users of the site, including residents, staff and visitors to the site. For the purpose of evaluating any effects from any contamination found during any intrusive investigation future users/visitors to the site should be regarded as the 0-6-year-old female child.
- Any building on site e.g. foundations which may be attacked by any contaminants in the ground or services.
- The underlying groundwater which may be contaminated by migrating pollutants present on the site. There is also the potential for further pollution of the groundwater or the watercourse from disturbing any potential contaminants on site.

The pathways by which these receptors may be exposed to any unforeseen potential contamination will include:

Construction workers

- Inhalation, of gases or vapours released during ground work or fine particles.
- Ingestion of the contaminants, principally from cross contamination with contaminated soil and inadequate hand washing before smoking and eating.



- Absorption through the skin following contact with contaminated soil.

Future users and visitors

- Inhalations of gas/vapours or fibres, particularly if these are allowed to enter the new structures through the ground and build up in an enclosed area.
- Ingestion of contaminants, through the ingestion of contaminated soil from the garden area via direct contact, e.g. playing in the garden.
- Absorption of contaminants from dermal contact with contaminated soil.

Buildings

Contaminants on site have the potential to affect the foundations to the new building or the services supplying it.

Watercourses

As discussed above, if they exist on site, there is a potential for any contaminants to migrate through the ground into the groundwater and aquifer or via run-off into the watercourse.



Conceptual Model

The table represents a basic conceptual model. It highlights the potential sources of pollutants identified from the gathered information, and potential pathways in which any contaminants could reach the identified receptors.

Pathway	Description	Identified sources	Receptor at risk	Likelihood
1	Run off and seepage into groundwater from any spillages	-	Watercourse/ Environment	V. Low
2	Migration of gases into the building.	-	Future users	V. Low
3	Inhalation of gases/ vapours outside	-	Construction workers/future users	V. Low
4	Inhalation of fine particles	-	Construction workers	V. Low
5	Direct ingestion of contaminated soil	-	Construction workers	V. Low
6	In-direct ingestion of contaminants in soil	-	Future users via mains water	V. Low
7	Absorption via direct dermal contact with contaminated soil	-	Construction workers/future users	V. Low



Recommendations

As a result of the investigation into the historical use of the site and surrounding area, no contamination has been identified on or off site which likely to present a significant harm to any identified receptors.

The site is therefore considered suitable for the intended use with no significant possibility of significant harm identified.

It is further recommended that a watching brief is maintained throughout the development works and any signs of potential contamination found are fully investigated, with appropriate remedial action taken as necessary and the local planning authority informed of the findings.



Figure 1 - Aerial Photograph





Appendix 1 – Groundsure Data



Appendix 2 – Historical Mapping

Appendix 3 – Walkover photographs

The western Boundary



The

northern boundary



The southern boundary





The eastern boundary



The out buildings behind the house



A photograph demonstrating the height difference between the road and the site.





Appendix 4 Report limitations and exclusions

Basis of Risk Assessment

The methods used follow a risk- based approach with the potential risk assessed using the 'Source – pathway – receptor pollution linkage concept.

Limitations and Exceptions of this Report

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The findings and opinions provided in this document are made in good faith and are based on data provided by third parties (Groundsure, Environment Agency, The Coal Authority, and Regulatory Bodies) and the report should be read in conjunction with the limitations on the document control form. The accuracy of map extracts cannot be guaranteed and it should be recognised that different conditions on /adjacent to the site may have existed between and subsequent to the various map surveys.

This report is prepared and written in the context of the purposes stated above and should not be used in a different context. Furthermore, new information, improved practices and legislation may necessitate an alteration to this report in whole or in part after its submission.

The conclusions and recommendations of this report are based on the development described, for any other development the report may require revision.

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The report should be read in its entirety, including all associated drawings and appendices.

Martin Environmental Solutions cannot be held responsible for any misinterpretations arising from the use of extracts that are taken out of context.

This report does not comprise a geotechnical assessment of the strata underlying the site.

Any borehole data from the British Geological Survey sources is included on the following basis: 'The British Geological Survey accept no responsibility for omissions or misinterpretations of the data from their Data Bank as this may be old or obtained from non-BGS sources and may not represent current interpretation'.

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Any risks identified in a Phase I Desk Study Report are perceived risks. Actual risks can only be assessed following a physical investigation of the site.

The findings of this report are based on finite information obtained from research and consultations. Martin Environmental Solutions cannot guarantee the reliability of all such information and the searches should not be considered exhaustive. The findings of the report may need to be reviewed as any future exploratory investigations progress and in the event that additional archive information becomes available.

Notwithstanding the findings of this study (and any subsequent investigations), if any indication of contaminated soil (visual or olfactory) is encountered at any stage of the development further investigation may be required.



Arboricultural Survey and advice on arboricultural issues are considered to be outside the scope of this report except for their effect on the foundations to the proposed buildings.

Where identification of any species is made, especially invasive plants such as Japanese Knotweed, Himalayan Balsam or Giant Hogweed, this should only be considered as a preliminary assessment and subject to confirmation by a professional Arboriculturist. Martin Environmental Solutions takes no responsibility for failing to identify, or the incorrect identification of, any tree or plant species on site.

Our investigations exclude surveys to identify the presence or indeed absence of asbestos in buildings/infrastructure on site. If asbestos is suspected to be present, we recommend specialists in the identification and control / disposal of asbestos are appointed prior to commencement of any works on site or, if appropriate, purchase of the site. The presence of asbestos on site may have considerable effects on the cost / timescale in developing the site. There is good guidance in relation to Asbestos available on the Health and Safety Executive (HSE) web site.

Whilst a site walkover has been undertaken as part of this report, the survey does not constitute either an asbestos or structural survey and all areas of the site may not have been visited / inspected.